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THE ECONOMY OF MODERN MALTA

From the Nineteenth to
the Twenty-First Century

Paul Caruana Galizia



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The Economy of Modern Malta

From the Nineteenth to the Twenty-First Century

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Paul Caruana Galizia, Bidnija, July 2016

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Introduction: Development in the Long Run

ECONOMICS AND MALTESE HISTORY

Malta, the European Union's smallest member state, enjoyed one of the fastest income and employment growth rates in the euro area since the 2007–2008 Global Financial Crisis.¹ Whether measured by per capita income or the broader United Nations Human Development Index, Maltese living standards compare well with those in the world's richest economies.² These facts alone suggest that Malta's economic development merits attention and, indeed, its performance put it at the centre of debates on the future of the euro area during the eurozone crisis.³ Yet the country's economic success is all the more interesting because it was so unlikely.

With a less central position, or without a natural harbour, Malta's modern history might have been as uneventful as that of Pantelleria, which is centrally located but lacks a harbour, or Milos, which has a harbour but was too far from important trade routes to be useful. England required a base for its fleet in the Mediterranean, and the Maltese, reeling from the Napoleonic interlude of 1798 to 1800, supplied it. As a colony, Malta expanded its only major industry until the mid-twentieth century—the dockyards—and became a member of an international trading network that moved goods throughout the Mediterranean and, with the Suez Canal, all over the world.

British colonialism brought Malta into continuous and intimate contact with what was at the time the world's most developed economy. Like

many marginal nations, through this contact, Malta leaped from being an agrarian economy, bypassing heavy industrialization, to one of service industries.

In leaping ahead, however, the economic, political, and social movements, which in other countries arrived in gradual stages and small increments of growth, are, in Malta today, in continuous ferment. The transition to a true liberal democracy based on secular ethics, nationalism, the attempt to create a unitary state and its struggle against domestic particularism and foreign ambitions, and the emergence of a large urban working class—all these, and more—has been crowded into the time of little more than a generation.

Writing on Malta's history reflects this leap. The colonial period is squeezed out by a celebration of the ancient period, for which we already have an economic history book⁴ of the pre-modern period, particularly the romantic period of the Knights Order of Saint John,⁵ who when offered Malta thought it 'not worth the parchment ... employ'd in writing the deed of gift',⁶ and of the transition to independence, where Maltese politicians are made to jockey for first place in the 'struggle' for the political independence that brought economic salvation.⁷ Writing on the century and a half of colonial rule itself describes, by Left-leaning authors, poverty and underdevelopment and, by conservative authors, poverty and the inability of colonial administrators to recognize Malta's potential.⁸ The verdict is generally unfavourable, yet historically problematic.

When Malta became a British protectorate in 1800, the country was still poor, still agrarian, and had just emerged from centuries of *ancien régime* rule. Maltese labourers migrated in droves to North Africa in search of better living standards.⁹ The journey to England, where wages were three times higher for agricultural labourers and six times higher for building labourers, was unaffordable.¹⁰ Few of those labourers would have believed that Malta would emerge as one of the Mediterranean's most important commercial and naval ports, with living standards comparable to those across Europe, and, years later, become a fast-growing member of the world's largest economic bloc.¹¹ Many of the changes that brought Malta to this point occurred throughout the colonial period and were expanded by post-colonial governments.

This process of growth and change was not straightforward. There were stumbles and falls, and booms as well as busts. The literature it has generated is both compelling and controversial, but it has not yet acquired the conceptual and empirical rigour seen in recent national eco-

conomic histories.¹² The practice of reading Maltese history ideologically and using it to support political arguments—particularly for the colonial period¹³—has not yet given way to more empirical approaches. Further, the literature has long been dominated by socio-political questions, like those on Maltese national identity.¹⁴ As a result, the received wisdom on a range of economic topics needs to be revisited with new data, more precise hypotheses, and more empirical testing.

The purpose of this book is to provide an updated, wide-ranging survey of Malta's modern economic development at the undergraduate level, and to challenge long-standing claims in the literature and provide answers to open questions, using a newly assembled data set of archival information. There is as yet no rigorous survey of Malta's modern economic development, with students and researchers relying on either highly specialized articles and reports¹⁵ or general-audience histories.¹⁶ In 2002, Edward J. Spiteri self-published his version of Malta's economic history from 1800 to 2000 but, despite its stated period, it is in his own words 'essentially about the structure and change which took place in the Maltese economy *after the Second World War* [added emphasis]'.¹⁷ The foundational years from 1800 to 1945 are glided over in 25 pages and the post-World War II period, covering 240 pages, is focused purely on economic policymaking, as befits the author's long and distinguished career in the Malta Civil Service.¹⁸

This book is an attempt not just at filling in this gap, but also at reinterpreting Malta's economic development. In condensing a large volume of primary and secondary material, it might meet with disapproval from specialists who see their own turf trampled on, given little room, or even neglected. The overarching aim here is not comprehensiveness. It is to demonstrate that understanding complex issues like institutional and economic development requires engagement with a mix of ideas and evidence from different sources. This book sees the work of specialists, whether historians, economists, or economic historians, as complements rather than substitutes.

DEVELOPMENT UNDER COLONIALISM

Some indicators of Malta's economic performance over the past two centuries are summarized in Tables 1.1 and 1.2. These indicate that the rates of population growth were steady and above zero for all but three periods, during which there was mass emigration, taking the total population

Table 1.1 Summary of demographic statistics, 1823–2010

	<i>Population</i>	<i>Population density</i> (<i>persons per km²</i>)	<i>Population growth rate</i> (<i>% annual average</i>)	<i>Birth rate</i> (<i>per '000</i>)	<i>Marriage rate</i> (<i>per '000</i>)	<i>Death rate</i> (<i>per '000</i>)	<i>Urban population</i> (<i>%</i>)
1823	115,402	365.2	–	36.4	7	22.8	–
1830	119,969	379.6	0.6	33.6	6.3	34.5	–
1840	126,265	399.6	0.5	34.1	7.3	22.6	65.1
1850	131,776	417	0.4	37.1	7.5	40.9	65.3
1860	147,683	467.4	1.1	31.8	5.5	20.5	65.4
1870	151,240	478.6	0.2	34	5.7	25.2	65.2
1880	161,851	512.2	0.7	32.3	6.6	28	66.4
1890	165,662	524.2	0.2	37.6	6.7	26.7	66.1
1900	183,679	581.3	1	38.9	6.4	27.5	66.3
1910	213,486	675.6	1.5	36.1	5	21.4	66.1
1920	215,437	681.8	0.1	35.7	6.1	22.4	67.3
1930	234,454	741.9	0.8	34.2	6.6	23.9	67.8
1940	270,335	855.5	1.4	34.9	13.4	14	–
1950	312,000	987.3	1.4	29.3	11.6	9.4	65.2
1960	313,000	990.5	0	21.4	–	8.6	65.5
1970	304,000	962	–0.3	16.7	8	8.3	89.7
1980	361,908	1145	1.8	17.1	–	7.6	89.8
1990	356,000	1126	–0.2	14.9	–	7.3	90.4
2000	391,415	1238	1	11.4	6.5	7.6	92.4
2010	417,617	1321	0.7	9.6	6.2	7.2	94.5

Notes: Population data from 1823 to 1930 from blue books; estimates for 1890 to 1930 are ‘current year’ rather than census year estimates; 1920 is from the 1921 book, as the 1920 book is missing. Figure for 1940 is from Central Office of Statistics, Malta, Statistical Abstract of the Maltese Islands—Year 1949, Valletta, 1950. Figures from 1950 to 1970 are from the United Nations Population Information Network (POPIN). Figures from 1980 to 2010 are from the National Statistics Office, Malta, Demographic Review 2010. Population density divides the population column by 316 km². Population growth rate is the compound annual growth rate in percentage terms of the values in the population column. Birth rate per thousand population from 1823 to 1930 is from the blue books. Figure for 1940 is from Central Office of Statistics, Malta, Statistical Abstract of the Maltese Islands—Year 1949, Valletta, 1950. Figures from 1950 to 1990 are from the United Nations Population Information Network (POPIN) and refer to the start of the decade plus five years. Figures for 2000 and 2010 are from National Statistics Office, Malta, Demographic Review 2010. The same sources for the same years were used for the death rate column. Marriage rate figures from 1823 to 1930 are from the blue books. Figures for 1940 and 1950 (1949) are from Central Office of Statistics, Malta, Statistical Abstract of the Maltese Islands—Year 1949, Valletta, 1950. Figure for 1970 is from the Organisation for Economic Cooperation and Development (OECD) Family Database. Figures for 2000 and 2010 are from National Statistics Office, Malta, Demographic Review 2010. Urban population figures from 1840 to 1960 refer to urban and suburban residents in total population and are from Charlton, W.A.. Trends in the economic geography of Malta since 1800, Unpublished PhD Dissertation, Durham University, 1960. Figures from 1970 to 2010 are from the World Health Organization (WHO) European Health for All Database.

Table 1.2 Aggregate growth in Malta and Britain, 1921–2008

	<i>Malta</i>		<i>United Kingdom</i>		
	GDP (million 1990 G-K \$)	GDP per capita (1990 G-K \$)	GDP (million 1990 G-K \$)	GDP per capita (1990 G-K \$)	Malta GDP pc/UK GDP pc (%)
1921	197	928	195,642	4439	21
1931	273	1130	236,747	5138	22
1941	–	–	360,737	7482	–
1951	290	929	358,234	7123	13
1961	419	1338	467,694	8857	15
1971	687	2261	611,705	10,941	21
1981	2134	5897	718,733	12,747	46
1991	3105	8722	931,716	16,157	54
2001	4527	11,567	1,229,700	20,590	56
2008	5508	13,190	1,446,959	23,742	56
	Growth rate (% annual average)		Growth rate (% annual average)		
1931	3.32	1.99	1.93	1.47	0.5
1941	–	–	4.3	3.83	–
1951	–	–	–0.07	–0.49	–
1961	3.75	3.72	2.7	2.2	1.5
1971	5.08	5.39	2.72	2.14	3.2
1981	12	10.06	1.63	1.54	8.5
1991	3.82	3.99	2.63	2.4	1.6
2001	3.84	2.86	2.81	2.45	0.4
2008	2.84	1.89	2.35	2.06	–0.2

Notes: GDP data are in 1990 Geary-Khamis United States purchasing power parity (PPP) dollars. Malta population and GDP data from Apostolides, A., *Economic growth or continuing stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938*, Unpublished PhD thesis, The London School of Economics and Political Science (LSE), 2010, London, UK. Data for Britain are from Maddison, A., *The World Economy: Historical Statistics*, Paris: OECD, 2003

from over 115,402 in 1823 to over 417,000 by 2010. The population growth rate is explained by a rapidly declining death rate and a declining, but stickier, birth rate. The death rate fell from an average of 30 per thousand between 1823 and 1850 to an average of 8 per thousand for the post-World War II period. The corresponding birth rate numbers are 35 per thousand and 17 per thousand. Malta's birth rate remains above the European average while its death rate is below the European average.¹⁹ Levels of urbanization were already high in the early colonial period, but grew dramatically after independence. Some 95 per cent of the country's population was classified as urban in 2010, substantially higher than

74 per cent in the rest of the European Union,²⁰ and substantially above its own level of 65 per cent in 1840. In many other countries, this kind of demographic change accompanies a declining marriage rate. In contrast, Malta's marriage rate has demonstrated remarkable persistence—hovering around the six per thousand level since 1823. Contemporaries considered the country's population density to be 'too high' in the early nineteenth century, when it was less than a third of the 2010 level. Malta now has the eighth highest population density in the world.²¹

We are able to assess economic performance in terms of gross domestic product (GDP) from 1921 onwards, thanks to Alexander Apostolides' pioneering work.²² Table 1.2 compares Apostolides' GDP and GDP per capita estimates for Malta with estimates for the UK provided in the literature.²³ All figures are in real terms (adjusted for inflation) and in purchasing power parity (PPP; adjusted for the possibility that incomes may be higher because of higher prices). The data show that Malta's economy has grown rapidly in terms of total GDP—an average annual rate of 4.9 per cent—as well as in GDP per capita—an average annual rate of 4.3 per cent. The size of the economy in 2008 was 28 times greater than what it was in 1921. This growth was fast in relative terms, as can be seen in the convergence of Malta's GDP per capita on the UK's GDP per capita. In 1921, Maltese GDP per capita stood at just 21 per cent of the UK's, dropping to 13 per cent in 1951, but rising thereafter to 56 per cent by 2001.

Measuring PPP differentials, however, is not straightforward, and different weights and sources can lead to different results. The International Monetary Fund's estimates of GDP per capita in PPP, for example, put Malta at 70 per cent of the UK's level by 1980, reaching 77 per cent by 2008.²⁴ Whichever set of estimates we consult, the point remains that growth in Malta over the twentieth century was fast enough to allow it to converge on advanced economies.

The GDP growth rates for Malta show how much its economy suffered during World War II, and that largest jumps in growth occurred with the transition to export-led manufacturing in the late-1960s and throughout the 1970s, with slower but more stable growth with the transition to services in the 1990s.

The aggregate evidence suggests that there was a clear process of economic development over the modern period as a whole, despite fast population growth, high birth rates, and the impact of the World War II. Most of the growth in GDP and GDP per capita happened in the post-colonial period, but most of the demographic and social change in which

this growth is rooted happened before independence. More importantly, this broad overview of the economy's structure and characteristics, based on general aggregate indicators, should not lead us to the conclusion that development was inevitable or a straightforward process. Even within a country as small as Malta, the growth of GDP, improvements in productivity, and emergence of manufacturing and services cannot be understood without a geographical, social, and political context that pays due attention to specific events and individuals as well as to broader trends and groups.

Beneath the aggregate growth numbers, at certain periods and in particular sectors, there was a weak growth in productivity. A specialization in the *entrepôt* trade was hugely profitable for Maltese merchants during Mediterranean and global trade booms, when it also created port-related employment, but as global trade slowed down in the interwar period, so too did the Maltese economy. Mechanized industry came late to Malta. A high labour-to-land ratio disincentivized the adoption of labour-saving technology. In an open environment, this led to the decline of the economy's cotton industry, which was unable to compete with mechanized cotton manufacturing in Britain. A high duty on wheat imports was the government's only substantial source of revenue for most of the colonial period, but it created social and political tension, and protected an agricultural sector that had no comparative advantage, further stalling the transition to manufacturing. It was not until the 'big push' type policies of the late 1960s, helped by grants and concessionary loans from Westminster, that a transition to large-scale, concentrated manufacturing occurred.

Historians have seized upon these periods of stagnation and decline to construct narratives of 'underdevelopment' under colonial rule.²⁵ Yet textbook definitions of development emphasize a qualitative distinction between development—characterized by intensive and sustained growth that raises income levels across an economy—and the more limited process of output growth.²⁶ In the densely populated environment of Malta, development can only occur if, over time, there are sustained increases in labour productivity and employment, and a distribution of the gains from growth that is equal enough to provide returns above subsistence for all.

For economic historians of Malta, the challenge is to explain not only why productivity-enhancing technical change was delayed, but also the persistence of policies like the wheat duty, the move towards trade openness and then its dramatic reversal, and the ability of the Maltese economy to provide comparatively high living standards despite the absence of 'modern' industry. An earlier generation of economic historians explained

‘backwardness’ in terms of the absence of dynamic features seen in other economies or in the same economy at a future date.²⁷ Later, economic historians moved towards a conceptualization of development as a series of stages of growth.²⁸ These concepts offer us little help in understanding Malta’s development, which has failed to pass through the evolutionary path set out for it.²⁹ As with the more recent economic history literature, the focus in this book is on the role of Malta’s relative endowments of land and labour and their interactions with global factor markets, colonial and post-colonial institutions, and the country’s geography.³⁰

CRITIQUE OF COLONIAL RULE

Accounts of low economic development in Malta written during the colonial period itself were part of a broader nationalist critique of British rule and the imperial response to that critique. The critique, which has survived into the modern literature, is both political and economic in origin. It centres on the colonial administration’s *laissez-faire* economic policy, whether Malta was better off under the Knights of the Order of St John, and on the administration’s reluctance to allow representative government.

The critique’s economic argument, which is our focus here, holds that living standards of most Maltese people were especially low throughout the nineteenth century, that the effects of British military expenditure on Malta’s economy were distortive, and that the government failed to nurture industrialization. This argument was developed by, among others, Samuel Plimsoll, an English Liberal Member of Parliament in the House of Commons, whose 1879 *Condition of Malta* claimed that ‘the poor are worse off now than under Knights’ and that their living conditions were worse than the ‘poorest places in Britain, Ireland, and Sicily’.³¹ Plimsoll went on,

*[t]he case of Malta is not that of a sick man requiring careful nursing and time for recovery, still less is it that of a moribund; it is that of a strong man bound. For I know no community so miserably misgoverned, so I know none, so rich in potential and immediately available sources of prosperity.*³²

Maltese politicians also argued this point. Giorgio Mitrovich, who led early demands for constitutional reform and representative government, published in 1835 in London his *Claims of the Maltese* that argued,

[t]he islands has been loaded with insupportable burdens; high duties have been established. ... Restrictions on the trade, high quarantine dues and charges, have been established, and no trace of a free port is any longer left ... Sir Thomas Maitland was the governor ... [and] ... by a single stroke of his pen, numbers of individuals were reduced to misery and starvation. Even the brown barley bread, the only food of the poor, was highly taxed, to upwards of 100 per cent.³³

Almost a century later, the critique shifted more clearly to one of economic liberalism. The problem, the argument went, was not one of fees and duties, but a lack of government support for economic development. In his presentation to the 1931 Royal Commission, Henry Casolani, at the time Superintendent of Emigration, argued that Malta's economic 'danger lies in laissez faire'.³⁴ Modern historians picked up on this. In his survey of Malta's nineteenth-century economy, Clare wrote that the colonial administration's 'faithful accord with the economic tenets of "laissez-faire"' combined with the absence of 'rich resources in terms of both men and materials ... retarded economic growth'.³⁵

Another, seemingly contradictory theme of the critique is the way in which large expenditures by the British military, particularly the Admiralty, drew resources away from potentially productive sectors and into military establishments. For most of the colonial period, Malta was an important strategic asset for Britain, providing a centrally located base for its powerful Mediterranean Fleet, and, being under British control, it was kept out of rivals' hands. Rear Admiral Lord Nelson, who laid siege to French Malta, wrote in 1799 to Earl Spencer, First Lord of the Admiralty, that 'To say the truth, the possession of Malta by England, would be a useless and enormous expense; yet any expense should be incurred, rather than suffer it to remain in the hands of the French'.³⁶ Over a century later, the soldier Charles Callwell wrote that 'Since the acquisition of Malta the position of the British Empire as a leading Mediterranean Power has never been questioned either in peace or war'.³⁷ In the intermediary years, Britain expanded its naval and port facilities around Valletta, building new dockyards, storage centres, workshops, and fortifications. The Naval dockyard became the country's single largest employer, employing 13,000 people, 20 per cent of total employment, by 1918.³⁸ In fact, Malta's strategic value began to wane even before this point, as British interests moved east of Malta and the possibilities of air power were becoming clear. In 1912, Winston Churchill wrote '[t]he Malta squadron can do great good at home, and no good where it is. It would be both wrong and futile to

leave the present battle squadron at Malta to keep up appearances'.³⁹ Still, a dependence on military expenditure had taken root long ago.

Salvino Busuttill is one of many historians who made the case that 'if there is one principal feature running through the economic denouement of Malta ... it is that of the island-fortress economy'.⁴⁰ The problem with this situation, the argument goes, is that large expenditures concentrated the economy's resources into a sector that was dependent on the vagaries of war. When conflicts including Britain arose, like the Crimean War, Malta became a staging post on the way to the theatre of war. Thousands of troops and wounded troops were stationed at Malta, and supplies were stored there. In times like this, the Maltese economy boomed, crashing with the arrival of peace. This led to calls for economic diversification; for a stable 'industrial base' to 'fortify the weaker parts' of Malta's economy, which needed British support.⁴¹

Meanwhile, imperial apologists like Vice Admiral Ballard, writing in 1920, made the counter-argument that without British military expenditure, thousands of Maltese would have been out of work. Ballard calculates that in 1920 the average dockyard workman had four dependents on him, so that some '50,000 Maltese men, women, and children received their daily bread from Admiralty money'.⁴² At the time, Malta's population totalled 215,785 persons.⁴³

Both sides of the argument pose problems in principle and detail. Malta possessed all the qualities for a port- and dockyard-based economy—a natural harbour, central location, plentiful supply of cheap labour, and a building and accommodation site close to deep water—and so it was predictable that the economy would specialize into this industry. Had Britain not taken control of Malta and developed these facilities, it is likely that another Great Power would have. Recall that the initial purpose of British control of Malta was keeping it out of French control.

The problem was not so much that a dockyard industry developed, but that it received *too much* government support, and that military expenditure acted as a form of protectionism that kept the dockyards overstaffed and their workers underemployed. Threats of reducing employment at the dockyards, for most of Malta's history, created political turmoil. Further, there *were* government-sponsored attempts at establishing alternative industrial enterprises. The government built a cotton factory in Gozo as early as 1828, for example, but it was unable to withstand foreign, more mechanized competition. Malta's abundance of cheap labour did not encourage initially costly investments in labour-saving mechanization.

Women cotton spinners worked for 17 hours a day on old-fashioned looms, earning less than a penny a day; weavers worked 13 hours a day, earning 10 pence a day; and children earned small fractions of one penny daily.⁴⁴ Malta's limited agricultural land, an important input cost in cotton growing, was a further burden on Maltese competitiveness in cotton, especially in relation to Egyptian and Indian suppliers, where both land and labour were cheap.

As in the historical literature on most other ex-colonies written in the high days of Marxism (1970s to 1980s),⁴⁵ the latest trend in the literature on Malta is to argue that colonialism produced a regressive form of capitalism, leading to dependency on Britain and underdevelopment in Malta. That is, colonialism *sustained* backwardness.⁴⁶ Dependence on British military expenditure, for example, is framed in terms of a colonizer bringing new industries to Malta, but ones that were functionally determined to serve the needs of the imperial economy and so establish a dependent form of underdevelopment. Colonial rule is argued to have broken down the autonomous economy of cotton handicraft workers through neglect, directing domestic resources to areas that served Britain more directly. The laws, institutions, and social relations of modern Malta were thus a result of Britain's requirement for a cooperative, well-controlled naval base for the benefit of the imperial system. The Maltese classes who exercised control over capital and public services throughout the colonial period are identified as the product of this colonial transformation. Through these means, Malta was exploited for the sake of imperial power, creating an economy that did not need to increase productivity or wages.

The 'underdevelopment' literature argues, like the earlier nationalist economic critique, that colonialism was, on balance, a problem for Maltese economic development since 1800. A quote from Busuttil can sum up the two views: 'Independence was a political aspiration, but an economic necessity'.⁴⁷ This view also runs through Spiteri's book, in which he concludes that 'from the moment the British government decided to decolonize the island [sic.], the economy started to perform much better under [national] planning regulations'.⁴⁸ As we have seen above, these arguments put a heavy interpretative weight on the impact of colonialism, and sometimes overestimate the extent to which this destroyed industries—like cotton—or distorted the economy's structure—as with the dockyards. Colonialism did fundamentally alter Malta's political economy, even after independence, and disrupted established practices, but the significance of this is hard to assess without an examination of the quantitative evidence

and without putting that evidence in an international comparative perspective. Further, some of the chief reasons for backwardness highlighted by critics of colonial rule were present long before the British arrived, remained in place for much of their rule—the grain import duty, for example—and stayed after it ended—the dominance of the dockyards, for example.

THE COLONIAL ECONOMY IN COMPARATIVE PERSPECTIVE

Malta, before 1964, was not the type of colonial economy in which resources were extracted and colonial institutions were founded in a way to hinder economic development, as with the Spanish colonies in Latin America or, some would argue, British India.⁴⁹ Rather, Malta's economic history is similar to that of Gibraltar and Cyprus, which were also part of the British Empire. While Cyprus turned out to be less militarily important than initially envisaged, all three were strategic colonies.⁵⁰ They were colonized in response to rivals' expansionist aims: France with Malta, Russia with Cyprus, and Spain and France with Gibraltar. Unlike other colonies, they were not selected for their economic potential, meaning that here the sample is not biased towards pro-development effects of colonization; that is, development in spite or because of colonization. Military expenditure had substantial effects on the business cycles of all three economies, but colonialism was not the only driving force behind slow and fast growth.

As the writing on Malta's constitutional history makes clear,⁵¹ Maltese interests were subordinated to British ones in important areas throughout colonialism. Yet modern Maltese economic history is not simply a story of a subservient, or what Marxist historians call a 'subaltern',⁵² economy. The subservience of constitutional and political affairs does not automatically mean that economic affairs were also subservient to British interests. There were separate levels of dominance and subservience in different areas and among different groups that we cannot ignore. There is a theme of inequality in the literature on colonial Malta, especially around the de-colonization debates and the demands for more grants and loans from Britain,⁵³ but economic relations were more unequal within Maltese society than they were between the colonizer and the colonized. This is where, as Tomlinson points out for India, ideas of subalternism cannot help us.⁵⁴

Maltese merchants, port workers, civil servants, and farm labourers, at various points in the colonial past, derived considerable benefits from

their positions within colonial society. Merchants benefitted greatly from an entrepôt trade centred on colonial and British produce; port workers did too, as they benefitted from increased naval activity; the elaborate colonial administration provided steady and comfortable opportunities for literate Maltese; and farmers saw their profits increase dramatically when troops were stationed in Malta. It is not easy to make the argument that these people missed out economic gain because of Malta's colonial status. Further, despite the laments that the colonial government neglected Malta's industrial potential, it was Maltese businessmen, who had substantial capital behind them, who were most reluctant to invest in industry rather than trade—simply because that is where returns were higher for them.⁵⁵

It is interesting that the writing from colonial times stresses tensions *within* Maltese society, while the writing from the post-colonial period stresses tensions *between* Maltese and British interests, with a touch of Maltese subservience to Britain. As an example of the tension within Maltese society, Nicholas Zammit, a philosophy professor, wrote in 1886 of Maltese capitalists and landowners that 'the aristocratic owners of large fortunes lord it over the enterprising and producing agents of the community ... the financial position of a few is a barrier to the industrial success of the many'.⁵⁶ Similarly, the *Malta Times* carried a piece in 1843 that asserted Maltese were happy to invest money with English traders, but never with each other, providing the argument that the Maltese were too suspicious of each other for mutually beneficial enterprises.⁵⁷ As an example of the tension between Malta and Britain, the historian Robert Holland writes that Governor Sir Thomas Maitland established the Order of St Michael and Saint George, the 'big Shewy Star' to 'dazzle aspiring Maltese and Ionians'.⁵⁸ Holland also quotes a letter between colonial officials that suspects Giorgio Mitrovich, the chief spokesman for constitutional reform in Malta, 'might be bought body and soul for two hundred pounds a year. The people, of course, think him a giant'.⁵⁹ Englishmen working in the civil service in senior roles were replaced by Maltese civil servants 'to prove practically, and to the conviction of the [Maltese] public, that the principal places under the Government of the island will be open in future to its meritorious subordinate officers'.⁶⁰

While subordination and subservience existed, there was no *entirely* subordinate economy within the British Empire—'every country's economy contained both dominant and subordinate groups'.⁶¹ The aim is to measure average progress and, when possible, progress among different

groups. To do this, we can turn to the copious evidence on prices and wages left to us by colonial administrators.

Prices and Wages

Economic historians of the British Empire are fortunate in that the Colonial Office kept ‘blue books’—annual statistical registers sent out in standardized form from London to each colony every year to be filled in by clerks in the colony, and then sent back to London.⁶² The blue books are reliable sources of information because the smooth running of the Empire depended on sound information and because colonial governors, who had no set revenue targets, had no incentive to misreport statistics. The British Empire’s geographical extent and the production and flows of commodities it controlled made information transmitted in the books an important commodity in itself. The books’ first chapter related to government finances, and successive chapters detailed the output, earnings, and taxability of each sector, the state of shipping, education, prisons, and infrastructure, and, crucially for this section, wages and prices.

The blue books for Malta contain enough retail price and wage data for us to create a time series of real wages—wages adjusted for inflation—from 1836 to 1938. We can track living standards of Maltese workers for over a century using this series, spanning the early to late years of colonial rule. While real wages do not capture total living standards, they are more accurate for this purpose than aggregate measures like GDP. Two other advantages of using these data are that they record wages paid to ‘native’ workers rather than those paid to colonial settlers, which are usually inflated, and that they allow us to draw comparisons with similar real wage series from around the world.⁶³

Malta’s blue books divide nominal wages, usually expressed as daily rates, into three categories: ‘praedial’ (agricultural labourers), ‘trades’ (craftsmen such as masons, carpenters, fitters, and wrights), and ‘domestic’ (household servants). Domestic workers do not interest us here as they received boarding and lodging, and were unaffected by the economic conditions in which we are interested here. We can convert the daily wage rates into annual ones by assuming there are 290 working days in a year: 365 days less 52 Sundays and 23 religious holidays.⁶⁴ The next order of business is constructing a consumer price index (CPI) with which we can deflate the annualized nominal wage series. This requires defining a representative basket of goods consumed by the average Maltese worker. One such basket is suggested by a 1938 Royal Commission ‘Appointed to

Inquire and Report on the Question of Nutrition in Malta and Gozo'.⁶⁵ The report provides a weekly budget for an assistant dockyard fitter, his wife, and four children, who lived in an urban dwelling. The blue books do not provide enough retail price data to cover every single item in the budget, but enough for us to get close to an accurate representation of a Maltese consumer's basket. It is represented in Table 1.3.

While heavy on bread like most Maltese workers' diets, the basket—with its extravagant consumption of wine, tobacco, and beef—was not the kind of diet that most Maltese workers could consume. It was simply too expensive for them. Most workers got their nutrients from cheaper sources, which we will explore soon. For the time being, think of the basket represented in Table 1.3 as one that can reflect broad price changes in the Maltese economy. To go from here to a CPI, we use the weights in the basket—the consumed quantities—to construct a Laspeyres price index, which keeps quantities fixed according to their 1938 measure and allows prices per quantity to vary from one year to the next.⁶⁶ The index thus shows us how the cost of the basket changes from one year to the next, relative to its cost in 1938. If the CPI is expressed in percentages, values above (below) 100

Table 1.3 Family consumption basket based on 1938 Royal Commission report

<i>Item</i>	<i>Annual quantity</i>	<i>Unit</i>	<i>Annual cost £</i>
Bread	284.4	Kilogram	9.14
Butter	1.7	Kilogram	0.22
Coffee	12.7	Kilogram	0.82
Beef	70.9	Kilogram	11.72
Milk	167.5	Litre	4.3
Rice	146.2	Kilogram	4.03
Sugar	32.5	Kilogram	0.6
Tea	23.3	Kilogram	6.15
Wine	407.1	Litre	7.06
Rents and repairs	1	Unit	5.34
Tobacco	28.4	Kilogram	9.39
		Total cost £	58.77
		Annual wage for tradesmen £	65.25

Notes: All retail price and wage data refer to 1938. Quantities suggested by 1938 Royal Commission Appointed to Inquire and Report on the Question of Nutrition in Malta and Gozo. They refer to an assistant dockyard fitter, his wife, and four children who live in an urban dwelling. Rents and repairs is 10 per cent of expenditure on all other items. Adaptation of basket based on Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), 2015, pp. 1250–1276

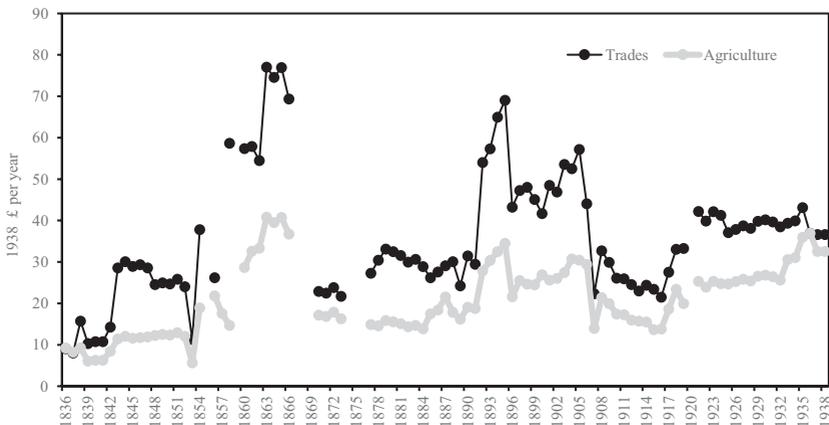


Fig. 1.1 A century of pay: real wages for workers in trades and agriculture, 1836–1938. Notes: All underlying data from blue books. Values here expressed in 1938 £ per year, assuming 290 working days per year. Deflated using consumer basket in Table 1.3

indicate inflation (deflation) relative to the 1938 price level. By deflating the nominal wage series with this CPI, we express wages in real terms, that is, in constant 1938 prices. The results of this exercise are in Fig. 1.1.

We will explore the movements in these series over the course of this book, but for now only the broader picture need concern us. The real wage series highlight historians' concerns about the influence of war and peace on Malta's economic activity. The first spike to both agricultural labourers' and tradesmen's real wages occurs during and immediately after the Crimean War (1853 to 1856); again around 1870 to 1890, during a shipping boom; and again from 1890 to 1905, during the construction of naval facilities around the Grand Harbour, and the stationing of 12,000 British troops (around 10 per cent of the population) *en route* to the Second Boer War.⁶⁷ Both the trade and agricultural real wage series stagnate thereafter, but grow dramatically during World War I, when the demand for naval services again increased. Cyclical forces were not everything, however. Ultimately, by 1938, real wages for agricultural labourers and tradesmen were 2.5 times and 3.1 times higher, respectively. Their respective compound annual growth rates were 1.2 per cent and 1.4 per cent, respectively. Getting caught up in cyclical explanations, like much of the previous literature, can lead us away from this simple fact: as measured by real wages, there was improvement in living standards over a century of colonial rule.

Did the real growth seen in Fig. 1.1 represent a *meaningful* improvement in living standards? To answer this question we need a comparative perspective, which we can take by expressing Maltese real wages as a percentage of real wages in other economies. Figure 1.2 expresses Maltese real wages as percentages of real wages paid to craftsmen and masons in London, the metropole, and Milan, located in the competing sphere of influence.⁶⁸ This limits us up to 1913, as real wage series extending past

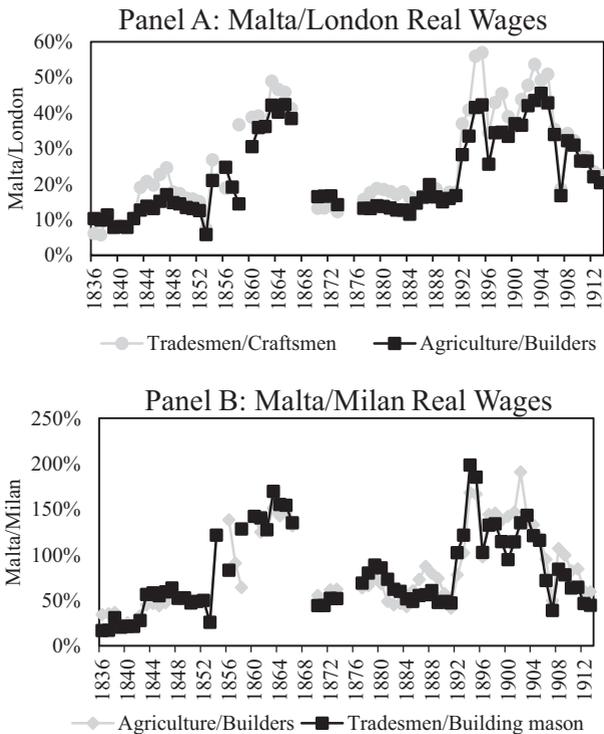


Fig. 1.2 Maltese real wages relative to London and Milanese real wages, 1836–1913. Notes: Malta real wage data from Fig. 1.1. London and Milanese real wage data from Allen, R.C., Data: Wage and Price History, 2012, Online: <http://www.nuffield.ox.ac.uk/People/sites/Allen/SitePages/Biography.aspx>. Accessed: 7 January 2016. All series rebased to 1913, using CPI from Table 1.3 for Malta, and using Allen’s own CPIs for London and Milan. Underlying data converted to grams Ag (silver) per day to make them comparable with Allen’s series. The silver conversion rates are also provided by Allen

World War I that make useful comparisons with Malta are unavailable. Panel A shows the London relative real wage. The average of 26 per cent is low, but masks periods of relative growth where the percentage reached 50 per cent (Crimea), and close to 60 per cent, around the turn of the century, when growth in London declined. The pattern is the same for both tradesmen/craftsmen and agricultural labourers/building labourers. The Malta/London relative real wage went from around 10 per cent in 1836 to around 20 per cent by the eve of World War I. London, however, sets the bar high: Allen described it as an exceptionally high-wage economy already in the pre-modern period.⁶⁹ A fairer comparison is with Milan, displayed in panel B. Here the relative real wage for both labourers and tradesmen starts out at around 40 per cent. During the Crimean War, and immediately after, it shoots up to 150 per cent, that is, Maltese real wages were 50 per cent higher than Milanese ones. Dropping back to the 50 per cent level from 1870 to 1890, the percentage rose from 100 per cent to 150 per cent level from 1891 to 1904 due to declining real wage growth in Milan. The percentage levelled off at the end of the period in the 50 per cent to 100 per cent range. Across the period, the average is around 80 per cent. Compared to Milan, then, Maltese real wages do not appear to have been especially low.

While this exercise showed us that Maltese real wages were, at the exchange rate, much lower than London's but not that much lower than Milan's, it still does not tell us whether the wages earned in Malta translated into a comparatively higher standard of living. Real wages in Milan, for example, might have been higher simply because prices were higher there. The answer to this problem depends on the actual prices of consumer goods. The difficulty is that consumption habits varied greatly across different countries, and even within countries. One way of approaching this problem is suggested by Adam Smith's writing on the different living standards between China and Europe in the eighteenth century: 'the difference between the price of subsistence in China and Europe is very great'.⁷⁰ The operational term here is 'price of subsistence': while consumption baskets were very different between the two areas, there is always and everywhere a cheapest possible way of surviving. Following this thinking and Robert Allen's pioneering work, we can define a basket of goods that provides its consumers the 'physiological minimum'.⁷¹ A family at a subsistence level of income spends virtually all of its resources on food. Their diet has to be nutritionally adequate in that it provides enough calories and protein for survival, but no more. This means, for example,

that protein comes from vegetables like beans rather than meat and that alcohol drops out of the basket altogether. This stands in contrast to the basket represented in Table 1.3, which provides a much more respectable lifestyle, but the aim here is to define a theoretical lowest possible consumption level, bounded by calorific and protein intakes, rather than actual consumption.

Table 1.4 defines a Maltese subsistence basket.⁷² There is no meat: protein comes from beans and barley. The latter, rather than wheat or

Table 1.4 Subsistence basket for Malta

<i>Item</i>	<i>Quantity, person/year</i>	<i>Unit</i>	<i>Calories, person/day</i>	<i>Protein gr., person/day</i>	<i>Annual family cost in £ in 1938</i>
Beans	36	Kilograms	87	8	20.89
Butter, salted	3	Kilograms	59	0.1	1.16
Sugar	2	Kilograms	21	0	0.11
Cotton	3	Metres	–	–	0.21
Barley	180	Kilograms	1746	59	5.08
Rent	–			–	1.37
		Total	1913	67	28.83
				Annual wage agriculture £	58
				Annual wage trades £	65.25

Notes: Following Allen (2009: 28–30), this subsistence basket assumes that male adults need around 1900 calories and 50 grams of protein per day to survive and work. Calories and protein conversions are based on data from the United States Department of Agriculture. Calories and grams of protein per 100 grams are as follows. Beans (fava): 88 calories and 8 grams of protein; Butter, salted: 717 calories and 0.9 grams of protein; Sugar: 387 calories and 0 grams of protein; Barley: 354 calories and 12 grams of protein. Rent is set at 5 per cent of family-level expenditure on all other items. Annual family cost is calculated by multiplying costs per annual quantity by a factor of three, following Allen (2009). Costs and wages are in 1938 £; annual wage assumes 290 working days per year as in Fig. 1.1. Underlying price data are as follows. For sugar and butter: retail prices from the blue books, 1836 to 1938. Beans, cotton, and barley: 1836–1838, average agricultural price from blue books; 1839–1920, minimum agricultural price from blue books (unavailable in other years); 1921–1938, estimated using the following equations as missing from blue books. Cotton prices 1836–1920 regressed on cotton quantity index from Chap. 2 and time trend and constant: R^2 of 0.45, N of 84, and t -stat on cotton quantity index of 4.1. Bean prices 1836–1920 regressed on butter price series, cotton quantity index, time trend, and constant: R^2 of 0.43, N of 84, t -stat on cotton quantity index of 2.5, and t -stat on butter prices of 4.4. Barley prices 1836–1920 regressed on sugar and butter prices, time trend, and constant: R^2 of 0.42, N of 84, t -stat on sugar prices of 0.15 and on butter prices of 4.6

wheaten bread, is the main source of calories. Wheat is more expensive, and ready-made bread includes the cost of commercial milling. Additional calories come from ‘salted butter’ and sugar, and clothing comes from home-produced cotton. Following Allen, we can multiply the price of this basket by 3.15 ($= 3 \times 1.05$) to account for an entire family—two adults and some children—and to account for rent, which is set at five per cent of the cost of the basket.⁷³ The average rent rate was probably closer to 10 per cent, but we are concerned the minimum here.⁷⁴ This subsistence basket matches, save for a few substitutions, descriptions of the labourer’s lifestyle right at the start of British rule:

[t]hese people [labourers and small farmers] subsisted on a meagre diet of barley bread, vegetables, and a little cheese, with olives, oil, pasta and, occasionally, the luxury of some fruit or fish. They dressed in cheap, home-produced cottons and went about barefoot. ... A family might live in one or two rooms, where they would sleep on straw ... (as in peasant houses in most other countries). Very poor and with little cash, they frequently paid rent in animal manure.⁷⁵

By contemporary standards, the above lifestyle does not sound appealing. The important part of the description, however, is the statement in parentheses that the lifestyle was similar, at least in terms of living arrangements, to that in other countries.

Dividing the nominal annual wage rates for Maltese labourers and tradesmen by the annual cost of the above basket gives us a ‘welfare ratio’: values above one indicate that workers had enough money to buy the subsistence lifestyle for themselves and their families with something to spare; values below one indicate that the lifestyle was beyond their reach on the maintained assumptions of what constitutes subsistence.⁷⁶ Table 1.5 averages Maltese welfare ratios by decade alongside comparable ratios from different countries provided by the literature. The difficulty here is in drawing appropriate comparisons: the welfare ratios for other cities are for ‘building labourers’. This category is probably closer to Maltese ‘tradesmen’ than ‘agricultural labourers’, as the former category includes a range of workers in trades including construction workers. Agricultural labourers were at the bottom of the wage hierarchy. Table 1.5 therefore includes both categories for Malta—the appropriate comparator is likely an average of the two. At the start of the period, Maltese tradesmen are comfortably above subsistence and above their Milanese counterparts. Agricultural labourers are just below subsistence, at exactly the same level

Table 1.5 Welfare ratios in Malta and around the world, 1850–1930

	<i>Malta (trades)</i>	<i>Malta (agri.)</i>	<i>London</i>	<i>Leipzig</i>	<i>Milan</i>	<i>Calcutta/ Bengal</i>	<i>Sierra Leone</i>
1850s	1.8	0.8	4.5	2.3	0.8	–	–
1860s	4.5	2.4	4.8	2.6	1	–	–
1870s	1.4	0.9	5.3	2.4	1.1	1.3	–
1880s	1.8	1	6.4	3.3	1.3	1.8	1.5
1890s	2.8	1.5	7.6	4.5	1.6	1.4	1.7
1900s	2.3	1.3	7.4	4.4	1.3	1.5	1.9
1910–1913	1.2	0.8	8.1	5.8	1.9	–	1.9
1920s	2	1.3	–	–	–	–	1.2
1930s	2.2	1.8	–	–	–	–	1.8

Notes: Welfare ratios are the annual nominal wage divided by the cost of the family subsistence basket. Values above (below) one indicate life above (below) subsistence. The values above represent decadal averages of annual observations. The Maltese data combine the data underlying Fig. 1.1 and Table 1.4. Welfare ratios for the remaining countries are from, for Europe, Allen, R. C., Bassino, J.-P., Ma, D., Moll-Murata, C., and van Zanden, J. L., ‘Wages, prices, and living standards in China, 1738–1925: in comparison with Europe, Japan, and India’, *Economic History Review*, 64, S1 (2011), pp. 8–38; for Sierra Leone, Frankema, E. and van Waijenburg, M., ‘Structural impediments to African growth? New evidence from real wages in British Africa, 1880–1965’, *Journal of Economic History*, 72 (2012), pp. 895–926; and for Calcutta/Bengal, Allen, R. C., ‘India in the Great Divergence’, in T. J. Hatton, K. H. O’Rourke, and A. M. Taylor, eds., *The new comparative economic history: essays in honor of Jeffery G. Williamson* (Cambridge, Mass., 2007), pp. 9–32

for Milan. Owing to the Crimean War boom, the 1860s see a spike in Maltese welfare ratios, taking those for tradesmen close to the London level and above all other ratios. Maltese agricultural labourers reach the same ratio as that in Leipzig. From 1870 to World War I, Maltese tradesmen average a ratio of 1.9 and agricultural labourers of 1.1. For tradesmen, this ranks them above the welfare ratios of Milan, Calcutta/Bengal, and Sierra Leone, but below those in northern Europe. For agricultural labourers, this puts them in the same region as Milan and Calcutta/Bengal. There was, however, considerable improvement over the 1920s and 1930s, for which we have little comparable data. The average of these two decades is, for tradesmen, 2.1 and, for agricultural labourers, 1.5. Both are at or above the corresponding average for Sierra Leone—the only country for which we have comparable data. What emerges from Table 1.5 is not so much how comfortably Maltese workers lived, but how poorly—relative to contemporary standards—all workers outside northern Europe lived.

Looking at Table 1.5, it is easy to see why Malthusian explanations for workers’ living standards were so popular during the nineteenth century.⁷⁷

Price provides countless examples,⁷⁸ which we shall explore in the following chapter, of how Malthus was invoked to promote emigration from Malta, to demand government support for matters of demography, and for newspaper editors to write, following cholera outbreaks, things like ‘plague only ploughs a track which, like that of the sea, is speedily filled up again’.⁷⁹ Malthus theorized that population grew until birth and death rates were equal.⁸⁰ The wage associated with this outcome was the ‘subsistence’ wage, as it was just enough to enable parents to raise children and for the population to reproduce itself. Population growth cancelled out gains in income *per head*, keeping living standards constant. In the original, positive check version of his theory, the birth rate was at its maximum, while death rates declined as wages rose. This implies that the subsistence wage had to be low enough to push death rates up to equal birth rates. In the subsequent, preventative check version of his theory, birth rates declined as income dropped, meaning births and deaths balanced at a higher subsistence wage. Wages, therefore, depended on whether the positive or preventive check dominated. According to Malthus, this was a question of marriage, customs, laws, and other cultural traits.

Tables 1.1 and 1.2 pose a problem here. The first table shows fast population growth, a stable marriage rate, and a stable ratio of birth rates to death rates (average of 1.7). Yet the second table shows us that, at least from 1921 to 2008, GDP per capita grew at an annual average rate of 4.3 per cent, and while real wage growth was limited, it did occur. In the following chapters, we will see how debates on overpopulation raged throughout the modern period, but that Malta was able to overcome Malthusian checks through foreign trade and emigration, and later through technical progress that made land and labour more productive.

A picture of income growth and comparatively normal living standards seems hard to square with some descriptions of Malta’s development levels under colonialism. The historian Giovanni Bonello, for example, emphatically writes that

*[t]he early years of the British domination had conferred on Malta one extraordinary distinction: visitors, without exception, considered the island to be the poorest country anyone had ever seen. Not poor, not one of the poorest, but the most damningly destitute in human experience.*⁸¹

For evidence of endemic and nationwide poverty, Bonello relies on the presence of street beggars (‘[t]he impressive multitudes of beggars’),⁸²

based on descriptions in diaries of well-heeled travellers. Left-leaning authors also do this for the later period. Mayo writes that one achievement of the 1970s socialist Prime Minister Dom Mintoff was a ‘substantial reduction of material poverty’: ‘I recall beggary being a feature of Maltese streets that was all but eliminated with Mintoff’s first electoral victory after the country’s 1964 independence from Britain’.⁸³ In fact, beggary existed throughout the colonial period and up until 1971, because shortly before, in 1966, the Criminal Code made it illegal to ‘beg alms’ in ‘any public place’.⁸⁴ It is likely that beggary would have returned had the law been lifted: beggary exists at present in the most affluent cities in the world’s most developed economies, where there is no law preventing it. While it might tell us something about inequality and public welfare in those cities, it does not tell us much about general poverty levels.

This is how a comparative perspective, and systematic data, can help us get a clearer picture of Malta’s economic history. As critical as contemporary observers’ accounts may be, they are in effect a single observation, and a normative one at that. Using straightforward, transparent quantitative methods, as with the real wages and welfare ratios, we can extract information out of hundreds and thousands of observations that are comparable over time and across places. In contrast, a traveller arriving in Malta from America in 1835 might have a very different impression of the country from that of a traveller from Bengal arriving a year later, or even that same year. This is not to say there are no faults with a more quantitative approach, but that such an approach should be used to check qualitative descriptions before we get carried away by their descriptions of a country that was, apparently, ‘the most damningly destitute in human experience’.⁸⁵

A comparative perspective helps us avoid making implicit or explicit fallacious comparisons of historical living standards with those we enjoy in the present. The poor state of ‘urban hygiene’ Bonello writes of was not an exclusive feature of life in *Malta* during the first half of the nineteenth century.⁸⁶ Indeed, it was not even a picture exclusively of the early nineteenth century. Here is George Orwell’s description of a representative miner’s family house in Wigan, an industrial town in northern England, the colonizer, almost a century later, in 1936:

[s]o there are eight or ten people sleeping in two small rooms, probably in at most four beds. ... Then there is the misery of leaking roofs and oozing walls, which in winter makes some rooms almost uninhabitable. Then there are bugs. Once

bugs get into a house they are in it till the crack of doom; there is no sure way of exterminating them. Then there are the windows that will not open ... in a tiny stuffy living-room where the fire, on which all the cooking is done, has to be kept burning more or less constantly. ... A fifty yards' [sometimes 200 yards] walk to the lavatory or dust-bin is not exactly an inducement to be clean ... the women get into the habit of throwing their refuse out of the front door.⁸⁷

There are countless other examples of this in Orwell's account—full chamber pots kept under breakfast tables, last years' dead bluebottles in shop windows, foul drainpipes, and stores of tripe swarming with black beetles.⁸⁸ But Orwell also backs up his qualitative descriptions with a number of household budgets. The rent for a house such as the one above costs around £18.85 a year.⁸⁹ Orwell provides a weekly subsistence budget for one man—'the minimum weekly sum on which a human being could keep alive'.⁹⁰ It is equivalent to £10.30 per year.⁹¹ Multiplying this by three to account for family expenses, and adding in the provided rent figure, brings the figure up to £49.75 ($=£10.30 \times 3 + £18.85$). A miner's annual gross income averaged £115.58.⁹² This gives a welfare ratio—for industrial workers in Wigan in 1936—of 2.3 ($=£115.58/£49.75$). As seen in Table 1.5, this matches the 1930s' welfare ratio for Maltese tradesmen, at 2.2, and is not much higher than that for Maltese agricultural labourers, at 1.8. Travellers need not have gone as far as Malta for a spot of 'poverty tourism'.

Turning back to hygiene, urban living was unhygienic during the early nineteenth century because medical knowledge was poor. It was only around 1850 that the physician John Snow showed cholera, a disease that plagued Malta, was not transmitted as a form of poisonous air (as popularly believed about malaria—*male aria*—and most other diseases up until this point), but through waterborne microorganisms in London's water pumps.⁹³ As implied by Orwell's description of Wigan, it was only much later, later than 1936 at least, that the living standards of workers in one of the world's most developed countries, by then still head of an empire, improved. It was when broad-based growth emerged in Europe after World War II and when a larger, more vocal franchise demand for social welfare.

What makes Malta interesting here is that it provides some evidence to counter Tomlinson's often-quoted summary from the *Oxford History of the British Empire*: 'the suggestion remains that British rule did not leave a substantial legacy of wealth, health, or happiness to the majority of the

subjects of the Commonwealth'.⁹⁴ Between 2000 and 2013, Malta's PPP per capita income was twice as high as the Commonwealth average, almost four times as high as the world's developing economy average, and 70 per cent of the world's developed economy average.⁹⁵ During the colonial period, Malta's economy grew and its living standards improved, sometimes above those in other British colonies (India, Sierra Leone); they sometimes grew more or less in line with those in independent countries (Italy); and sometimes fell below them (Germany, Britain). As we shall see in the coming chapters, the case of colonial Malta forces us to recognize the good along with the bad—that there were policy failures and successes, and that their effects can play out over decades. Broad categorizations of colonialism ('domination', in Bonello's phrase)⁹⁶ as economic exploitation or neglect or a blessing are misleading.⁹⁷

DEVELOPMENT IN POST-COLONIAL MALTA

Historians who write of poverty and backwardness during the colonial period, and explain it by placing a heavy interpretative load on colonial rule, argue by implication that an independent nation state would have been better at managing Malta's economy. We saw this type of thinking earlier in Salvino Busuttill's quote describing independence as 'a political aspiration, but an economic necessity'.⁹⁸ Maltese politicians campaigning around the time of Independence also fall into this camp. In 1951, Prime Minister Giorgio Borg Olivier told the Legislative Assembly in Malta that, in his negotiations with Britain, '[w]hat I and my party want is a radical reform. We aspire to Dominion Status, and I will continue to believe until I die that before Malta achieves certain responsibility she cannot make any progress'.⁹⁹ Dominion status was never achieved: Malta went from a period of direct rule, to self-government and then independence under Borg Olivier. When Borg Olivier's eventual successor, the initially pro-British, later anti-British Mintoff, was elected in 1971 he claimed he wanted Malta 'to be non-aligned and to be economically and politically independent'.¹⁰⁰ This thinking sees colonial rule as having bound Malta to a low-level equilibrium, characterized by low labour productivity, stagnant incomes, primitive production techniques in agriculture, and distorted by military expenditure. Only a positive programme of modernization that would use economic planning to industrialize and diversify the economy, it is implied, could overcome this equilibrium. This line of thought was in line with contemporaneous development theory, as exemplified by Gunnar

Myrdal's *Asian Drama*, which held that the only force powerful enough to overcome such an equilibrium was the nation state.¹⁰¹

Initially, it looked as though Malta was like the India of Myrdal's analysis; that a Maltese government was unequal to the task, unable to push through the reforms needed for economic and political change. For the years preceding and immediately succeeding independence, Maltese politicians earned their popularity through negotiating concessionary loans and grants from other states and multilateral organizations.¹⁰² It was economic and political independence after a fashion, but the foreign, mainly British, support provided a jump-start to the economy. There were development plans, written by expert advisors, loans and grants to support manufacturing, funds for emigration schemes, and much else. By the election of Mintoff's socialist government in 1971, the Maltese state was already able to exercise considerable control and involvement in the economy. State capacity increased, but the degree of checks and balances did not. A period of heavy state involvement followed, lasting until 1987.

Critics of the activities of the Maltese state between 1971 and 1987 have focused on the distortions caused by an inappropriate and counter-productive regime of price and import controls, particularly import substitution, public sector expansion, and a policy of isolationism.¹⁰³ In this period, state involvement in Malta is argued to have contributed to a 'rent-seeking society'.¹⁰⁴ For example, privileges such as import licences were rewards for their ownership rather a means to earn a return in a competitive market. The state's nationalization of the banking sector is seen as a means of channelling cheap credit into state-owned enterprises, which were used to secure the employment and political loyalty of dockyard workers after the Royal Navy's departure. Thus, economic growth was not increased by open market competition; it was the product of limiting the number of rent-holders in the economy, closing off opportunities for competition through monopoly grants, and diverting resources into state-owned enterprises. By the end of 1977, the Maltese government directly employed over one half of Malta's labour force.¹⁰⁵ Plans to create 40,000 new jobs in manufacturing by 1976 created 2500 jobs instead.¹⁰⁶ This strategy can only last so long—by the late 1970s, it was clear that 'Malta's economic development drive ... stalled miserably'.¹⁰⁷ Tensions grew with the 1981 global recession, which hit Malta's export market hard, causing unemployment and inflation to rise. A period of political and economic turmoil followed, leading to a change in government in 1987, which marked the gradual transition to economic liberalization.

Starting in 1987, the economic institutions that controlled the economy in the preceding 16 years—high import tariffs and quotas, dependence on foreign aid, and public sector expansion—were reversed by the Nationalist government. The new government’s focus was on privatization, foreign direct investment, and the liberalization of product markets and the financial sector. These reforms were in no small part an effort to prepare Malta for membership of the European Community, as it was then known. A membership application was filed in 1990, membership followed in 2004, and monetary union membership in 2008. Malta’s economic liberalization was associated with fast aggregate per capita income growth, but it also had drawbacks—rising household income inequality being one of them. As with all liberalization programmes, Malta’s programme created ‘losers’ (previously protected industrial workers, mainly) as well as ‘winners’ (high-skilled services workers), leading some, like former socialist Prime Minister Alfred Sant, to label it ‘careless liberalism’.¹⁰⁸

The process of creating economic institutions and markets was, throughout Malta’s history, pulled in different directions by different classes and different interest groups. The colonial regime had its own priorities for Malta—a cooperative naval base—which played an important role in shaping and directing the economy’s structure. The role of political power in economic relations within Malta and between Malta and other states is also central to our story. So too is the ideology of the post-colonial state. We need a historical context that shows us the pattern of continuity and change working through all of Malta’s economic parts. The following chapters provide this by examining the domestic and external forces that determined the performance of the agricultural economy and that of trade and industry, and that shaped colonial and post-colonial economic policy. The chapters show that Malta—not desperately poor, not fabulously rich—has an economic history worth telling.

NOTES

1. Malta’s real GDP growth averaged 2.3 per cent per year from 2007 to 2014, compared to 0.29 per cent per year for the euro area. Its growth during this period was below Luxembourg’s (2.5 per cent) and Slovakia’s (2.9 per cent). Source: IMF World Economic Outlook, October 2015, series: Gross domestic product, constant prices. From 2007 to 2014, Malta’s total employment increased by 16.9 per cent compared to—2.7 per cent for

the euro area. Its employment growth was second only to Luxembourg's at 21 per cent. Source: Eurostat, series: Employment (main characteristics and rates)—annual averages [lfsi_emp_a].

2. Malta's purchasing-power-parity (PPP) GDP per capita is 83 per cent of the UK's level, putting it in the top quartile of global per capita income Source: IMF World Economic Outlook, October 2015, series: Gross domestic product based on PPP per capita GDP. Its Human Development Index value, at 0.829 out of 1, puts it in the top quartile of the global Index ranking. Source: UN HDRO, 2014.
3. *Reuters US*: 'Analysis: Malta unlikely to follow Cyprus into crisis', 13 May 2013; *The New York Times*: 'Avoiding the Next Cyprus', 28 March 2013; *The Wall Street Journal*: 'Luxembourg, Malta Stress Distance Cyprus', 27 March 2013; *The Washington Post*: 'Cyprus, Luxembourg, Italy or Malta: Which country will unravel the euro zone?', 30 March 2013; *The Independent*, 'Cyprus doesn't mean island economies are doomed to fail', 28 March 2013.
4. Bruno, B., Roman and Byzantine Malta: Trade and Economy, Valetta: Midsea Books, 2009.
5. For example, Bonello, G., Nostalgias for the Order under British rule, *The Sunday Times of Malta*, 30 June 2013; and the 500-page volume, Mallia-Mialnes, V. (ed.), *Hospitaller Malta, 1530–1798: Studies on Early Modern Malta and the Order of St John of Jerusalem*, Malta: Mireva, 1992.
6. Vertot de Abbe (1728), *The History of the Knights of Malta*, v.2. G. Strahan, p. 39.
7. See, for a summary, *The Malta Independent*, 50th anniversary: the rocky road to independence, Monday, 15 September 2014. See also obituary of post-colonial leader Dominic Mintoff by leading Maltese historian Dominic Fenech: Fenech, D., Mintoff remembered—Firebrand who forced his way to power, *The Times of Malta*, Tuesday, 21 August 2012. For an account of how political independence brought economic salvation: Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: self-published, 2002. For a more detailed history: Frendo, H., *Party Politics in a Fortress Colony: The Maltese Experience*, Malta: MidSea Books, 2013.

8. Chircop, J., Maltese cotton manufacture under British colonial rule. A story of decline and extinction, Bank of Valletta Review 15, Spring 1997, pp. 47–60, and Frendo, H., The Legacy of Colonialism: The Experience of Malta and Cyprus, in Lockhart, D., Schmebri, P., and Smith, D. (eds.) *The Development Process in Small Island States*, London: Routledge, 2002, pp. 151–160; Bonello, G., Appalling poverty in Malta in the early 19th century, *The Sunday Times of Malta*, June 23, 2013; Bonello, G., Maltese Nostalgias for the Order Under British Rule, *The Sunday Times of Malta*, 30 June 2013.
9. Caruana Galizia, P. (2015), *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*. New York: Palgrave Macmillan.
10. Caruana Galizia, P. (Forthcoming) Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review*; Allen, R.C. (2001), The Great Divergence in European Wages and Prices: from the Middle Ages to the First World War, *Explorations in Economic History* 38, 411–447.
11. The European Union is the world’s largest economy. Source: *European Commission, Position in World Trade*: <http://ec.europa.eu/trade/policy/eu-position-in-world-trade/>.
12. For example, S. Fenoaltea’s *The Reinterpretation of Italian Economic History*, Cambridge University Press, 2014; B.R. Tomlinson’s *The Economy of Modern India* Cambridge University Press, 2013; or R.C. Allen’s *The British Industrial Revolution in Global Perspective*, Cambridge University Press, 2009.
13. See, for example, recent claims in the press made by academics that monuments to British figures are unjustly given prominence over Maltese figures: http://www.maltatoday.com.mt/news/national/44032/charles_xuereb_how_our_monuments_misrepresent_national_identity#.VQrbyo7F9Mc.
14. See, for example: Frendo, H. (1999) *The Origins of Maltese Statehood: A Case Study of Decolonization in the Mediterranean*, Valletta, and Baldacchino, G., A Nationless State? Malta, National Identity and the EU, *West European Politics* 25(4), 2002.
15. For example, Malta’s national examination board recommends that students and teachers rely on ‘reports published from time to

- time by the Government, the National Statistics Office, the Central Bank of Malta and the University'. From the National Economics advanced level syllabus of 2014, p. 3: http://www.um.edu.mt/__data/assets/pdf_file/0010/158824/AM08.pdf.
16. Spiteri, E.J., Malta, from Colonial Dependency to Economic Viability: 1800–2000, self-published, Malta, 2002.
 17. Spiteri, E.J., Malta, from Colonial Dependency to Economic Viability: 1800–2000, self-published, Malta, 2002, p. xxi.
 18. Edward J. Spiteri joined the Malta Civil Service after World War II, during which he served in the King's Own Malta Regiment. As a civil servant, Spiteri served in the Inland Revenue Department, the Treasury, the Central Office of Statistics, and the Economic Planning Division of the Office of the Prime Minister. He also taught economics at the University of Malta.
 19. Average birth rate for Europe between 2005 and 2010 was 10.8; death rate, 11.3. Data from United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, the 2015 Revision.
 20. Data from World Bank Data Bank, series: Urban population (% of total).
 21. In descending order, Monaco, Macao, Singapore, Hong Kong, Gibraltar, Holy See, Bahrain, and Malta. Data from United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, the 2015 Revision.
 22. Apostolides, A., 2010, Economic growth or continuing stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938, Unpublished PhD thesis, The London School of economics and Political Science (LSE), 2010, London, UK.
 23. Maddison, A., The World Economy: Historical Statistics, Paris: OECD, 2003. Data are online: http://www.ggd.net/maddison/Historical_Statistics/vertical-file_02-2010.xls. Accessed 12 December 2015.
 24. IMF World Economic Outlook, October 2015: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP.
 25. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) The British Colonial Experience: 1800–1964, Valletta: Minerva, 1988; Chircop, J., Maltese cotton manufacture under British colonial rule. A story of decline and extinction, Bank of Valletta Review 15, Spring 1997, pp. 47–60.

26. Among many others, Tomlinson makes this distinction for colonial India: Tomlinson, B.R., *The Economy of Modern India: from 1860 to the Twenty-First Century*, Cambridge: Cambridge University Press, 2013, p. 9.
27. Gerschenkron, A., *Economic Backwardness in Historical Perspective*, Cambridge, MA: Harvard University Press, 1962; Schumpeter, J., *The Theory of Economic Development*, Cambridge, MA: Harvard University Press, 1934.
28. Rostow, W., *The Five Stages of Growth*, Cambridge: Cambridge University Press, 1960; Kuznets, S., *Modern Economic Growth*, New Haven, CT: Yale University Press, 1966.
29. India is also one of these countries: Tomlinson makes this distinction for colonial India: Tomlinson, B.R., *The Economy of Modern India: from 1860 to the Twenty-First Century*, Cambridge: Cambridge University Press, 2013.
30. Examples of this approach include: Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009; Engerman, S. and Sokoloff, K., *Economic Development in the Americas since 1500: Endowments and Institutions*, Cambridge: Cambridge University Press, 2011; Tomlinson, B.R., *The Economy of Modern India: from 1860 to the Twenty-First Century*, Cambridge: Cambridge University Press, 2013.
31. Plimsoll, S., *Condition of Malta*, London: Kelly, 1879, p. 17 and p. 14.
32. Plimsoll, S., *Condition of Malta*, London: Kelly, 1879, p. 28.
33. Mitrovich, G., *The Claims of the Maltese; Founded Upon the Principles of Justice*, London: Effingham Wilson, 1835, pp. 4–5.
34. Quoted in Brincat, M., *Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan*, *Proceedings of History Week*, University of Malta, 2005, p. 64.
35. Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, pp. 235–236.
36. A letter from Lord Nelson to Earl Spencer, sent from Palermo on the 6 April 1799, quoted in Nelson, H. and Nicolas, N.H., *Dispatches and Letters of Vice Admiral Lord Viscount Nelson*, Cambridge: Cambridge University Press, 2011, p. CLXXVII.

37. Callwell, C., *Military Operations and Maritime Preponderance: Their Relations and Interdependence*, London: William Blackwood, 1905, p. 73.
38. Total employment figure is 65,470 and is from the “Population” chapter of the 1918 blue book. The dockyard employment figure of 13,000 is from Zammit, E.L., *A colonial inheritance: Maltese perceptions of work, power and class structure with reference to the labour movement*, Malta: Malta University Press, 1984, p. 42.
39. Holland, R., *Blue-Water Empire: A History of Britain in the Mediterranean from 1800*, London: Penguin, p. 142.
40. Busuttill, S., An Overview of Malta’s economic development, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 156.
41. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 153.
42. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 139.
43. Average of population figures for 1919 and 1921, as 1920 blue book is missing. From “Population” chapters.
44. Busuttill, S., Malta’s Economy in the Nineteenth Century, *Journal of the Faculty of Arts, University of Malta* 3(1), p. 52.
45. For example, Dos Santos, T., *The Structure of Dependence*, *American Economic Review* 40(2), 1970, pp. 231–236; Kay, G., *Development and Underdevelopment: A Marxist Analysis*, London: Macmillan, 1975; Warren, B., *Imperialism: Pioneer of Capitalism*, London: Verso, 1980. The writing on India is well developed in this regard. For a review, see: Roy, T., *Traditional Industry in the Economy of Colonial India*, Cambridge: Cambridge University Press, 1999.
46. Chircop, J., *Underdevelopment, the Maltese Experience, 1880–1914*, unpublished MA dissertation, Department of History, University of Malta, 1993; Chircop, J., *Living on Fishing, Caught in the Market: The Maltese fishing communities, 1860s–1920*, *Journal of Maltese History* 2(1), 2010, pp. 21–32; Vella, M., ‘That favourite dream of the colonies’: Industrialization, Dependence, and the Limits of Development Discourse in Malta,

- in R. Sultana and G. Baldacchino (eds.), *Maltese Society: A Sociological Inquiry*, Msida, Malta: Mireva, 1994, pp. 54–77; Fenech, D., *Responsibility and Power in Inter-war Malta: Book I*, San Gwann, Malta: Peg Publishing; Cauchi, B., *Decolonizing Development: A Historical Reading of a Colonial Present?*, *Journal of Maltese History* 4(1), 2014, pp. 26–38; Bland, Y., *The Economics of Imperialism and Health: Malta's Experience*, *International Journal of Health Services* 24(3), 1994, pp. 549–566; Fenech, D., *How Malta lost self-government, 1930–1933*, Malta Historical Society—Proceedings of History Week 2011, Malta: University of Malta, 2011, pp. 141–154.
47. Busuttill's writing does not normally fit into the traditional 'under-development' mode, but is highly critical of economic policies under colonialism: Busuttill, S., *An Overview of Malta's Economic Development*, in V. Mallia-Milanes (ed.) *The British Colonial Experience, 1800–1964*, Malta: Mireva, pp. 155–162.
 48. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: self-published, 2002, p. 232.
 49. Acemoglu, D., Johnson, S., and Robinson, J., *Reversal of Fortune: Geography, and Institutions in the Making of the Modern World Income Distribution*, *Quarterly Journal of Economics* 117(4), 2002, 1231–1294; Guha, R., *Dominance without Hegemony: History and Power in Colonial India*, Cambridge, MA: Harvard University Press, 1997.
 50. Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), pp. 1250–1276.
 51. Cremona, J.J., *The Maltese Constitution and Constitutional History since 1813*, Malta: Peg publishers, 1997.
 52. Prakash, Gyan. 'Subaltern Studies as Postcolonial Criticism', *The American Historical Review*, December 99(5), 1994, pp. 1475–1490.
 53. Cox, R., *The Plight of Malta*, *The World Today* 19(6), 1963, pp. 259–265.
 54. Tomlinson, B.R., *The Economy of Modern India: from 1860 to the Twenty-First Century*, Cambridge: Cambridge University Press, 2013, p. 18.
 55. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010.

56. Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886, p. 16.
57. Quoted in Price, C.A., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 24.
58. Holland, R., *Blue-Water Empire: A History of Britain in the Mediterranean from 1800*, London: Penguin, p. 38.
59. Royal Commissioner Lewis, quoted in Holland, R., *Blue-Water Empire: A History of Britain in the Mediterranean from 1800*, London: Penguin, p. 53.
60. Royal Commissioners Austin and Lewis writing in 1838, quoted in Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro State*, Malta: Mireva, p. 153.
61. Tomlinson, B.R., *The Economy of Modern India: from 1860 to the Twenty-First Century*, Cambridge: Cambridge University Press, 2013, p. 18.
62. Examples of recent work based on blue books data: Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), pp. 1250–1276; Frankema, E. and van Waijenburg, M., ‘Structural impediments to African growth? New evidence from real wages in British Africa, 1880–1965’, *Journal of Economic History* 72, 2012, pp. 895–926; Xu, G., *The Cost of Patronage in the Appointment of Chief Bureaucrats: Evidence from the British Empire*, London School of Economics, October 6, 2015; Dippel, C., Greif, A., and Trefler, D., *The Rents from Trade and Coercive Institutions: Removing the Sugar Coating*, National Bureau of Economic Research Working Paper No. 20958, Cambridge, MA: NBER, February 2015.
63. For an overview of the available real wage data, see: Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009.
64. Suggested by Surridge, B. J., *A Survey of Rural Life in Cyprus. Based on Reports of Investigators who Visited Villages throughout the Colony during 1927 and 1928, and Amplified by Statistical and Other Information from the Records of Government*, London, 1930.
65. Royal Commission, *Report of a Committee Appointed to Inquire and Report on the Question of Nutrition in Malta and Gozo*, London, 1938. Also used in Caruana Galizia, P., *Strategic*

- Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review* 68(4), pp. 1250–1276, and Apostolides, A., 2010, *Economic growth or continuing stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938*, Unpublished PhD thesis, The London School of Economics and Political Science (LSE), 2010, London, UK.
66. There are better ways of constructing price indices, but they require quantities to vary over time and we do not have data on changing consumption baskets over time for this period.
 67. Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), p. 1259.
 68. The data are from Robert Allen’s extensive work on real wages and are available at the Global Price and Income History Group’s website, hosted by the University of California at Davis: <http://gpih.ucdavis.edu/Datafilelist.htm>. The CPIs, including the Maltese one, were all rebased to a common year of 1913 to allow comparisons. Allen’s wage series for Milan and London were converted from grams of silver per day into pound sterling per year, using his conversion data, and recommendation of 250 working days per year. The comparisons are between Maltese agricultural labourers and building labourers in Milan and London, and Maltese tradesmen and building craftsmen in London and Masons/Carpenters in Milan.
 69. Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009, Ch. 2.
 70. Smith, A., *An inquiry into the Nature and Causes of the Wealth of Nations*, edited by E. Cannan, New York: The Modern Library, 1776[1937], p. 189.
 71. Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009, p. 28.
 72. This is a different subsistence basket to the one in: Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), pp. 1250–1276. It makes use of new agricultural price data on barley, a cheaper alternative to wheat, and on cotton, uses fewer estimations, sets rent at 5 % of total expenditure, and so paints a much more accurate picture of subsistence.

73. Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009, p. 38.
74. Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), p. 1273.
75. Gregory, D., *Malta, Britain, and the European Powers, 1793–1815*, Madison, NJ: Fairleigh Dickinson University Press, 1996, p. 29.
76. Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009, p. 38.
77. See the useful summary in Allen, R., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009, pp. 26–28.
78. Price, C.A. (1954), *Malta and the Maltese: A Study in Nineteenth Century Migration*, Georgian House.
79. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 105.
80. Malthus, T., *An Essay on the Principle of Population*, edited by P. James, Cambridge: Cambridge University Press, [1803], 1989.
81. Bonello, G., *Appalling Poverty in Malta in the Early 19th Century*, *The Sunday Times of Malta*, 23 June 2013.
82. Bonello, G., *Maltese Nostalgias for the Order under British Rule*, *The Sunday Times of Malta*, 30 June 2013.
83. Mayo, P., *Social Democracy in a Postcolonial Island State: Dom Mintoff's Impact*, *Socialism and Democracy* 27(2), 2013, pp. 131–132.
84. *Malta Criminal Code*, CAP. 9, Chapter 388(x): 'in any public place importunes any person to beg alms'; Added by XLIII. 1966.2.
85. Bonello, G., *Appalling Poverty in Malta in the Early 19th Century*, *The Sunday Times of Malta*, 23 June 2013.
86. Bonello, G., *Maltese Nostalgias for the Order under British Rule*, *The Sunday Times of Malta*, 30 June 2013.
87. Orwell, G., *The Road to Wigan Pier*, London: Penguin, [1937], 2014, p. 53. The 200 yards figure is from p. 51.
88. Orwell, G., *The Road to Wigan Pier*, London: Penguin, [1937], 2014, Part I, pp. 3–17.

89. Orwell, G., *The Road to Wigan Pier*, London: Penguin, [1937], 2014, p. 48. Annualised by multiplying by 52 weeks.
90. Orwell, G., *The Road to Wigan Pier*, London: Penguin, [1937], 2014, p. 87.
91. Orwell, G., *The Road to Wigan Pier*, London: Penguin, [1937], 2014, p. 87. Annualised by multiplying by 52 weeks.
92. Orwell, G., *The Road to Wigan Pier*, London: Penguin, [1937], 2014, p. 37. Annualised by multiplying by 52 weeks.
93. Snow, J., *On the Mode of Communication of Cholera*, London: John Churchill, 1849. Snow followed this up with a number of articles that refined his theory.
94. Tomlinson, B.R. (1999: 375), 'Imperialism and After: the Economy of the Empire on the Periphery', in Brown, J. and Roger Louis, W., eds., *Oxford History of the British Empire IV*, Oxford.
95. International Monetary Fund, *World Economic Outlook October 2015*, series: Gross domestic product based on purchasing-power-parity (PPP) per capita GDP.
96. Bonello, G., *Appalling Poverty in Malta in the Early 19th Century*, *The Sunday Times of Malta*, 23 June 2013.
97. See the Niall Ferguson versus Pankaj Mishra debate in the *London Review of Books*, for example: <http://www.lrb.co.uk/v33/n21/pankaj-mishra/watch-this-man>.
98. Busuttill's writing does not normally fit into the traditional 'under-development' mode, but is highly critical of economic policies under colonialism: Busuttill, S., *An Overview of Malta's Economic Development*, in V. Mallia-Milanes (ed.) *The British Colonial Experience, 1800–1964*, Malta: Mireva, pp. 155–162.
99. Pirota, J., *The Strategy of Unruffled Persistence: Borg Olivier's Negotiations with the British Government*, *Melita Historica* 9(2), 1985, p. 172.
100. Quoted in Dowdall, J., *Mintoff's Malta: problems of Independence*, *The World Today* 28(5), 1972, p. 189.
101. Myrdal, G., *Asian Drama: an inquiry into the poverty of nations*, London: Penguin, 1968.
102. This is covered in detail in Chap. 5.
103. See Chaps. 5 and 6 of this book; Editorial, *The Times of Malta*, Saturday, September 22, 2012; Micallef, J., *Mediterranean Maverick: Malta's Uncertain Future*, *The Round Table* 69(275),

- 1979; Rossi, E., *Malta on the brink: from western democracy to Libyan satellite*, London: Alliance, for Institute for European Defence & Strategic Studies, 1986; Briguglio, L., The Economy of a Small Island State, Malta, 1960–1993, *Mediterranean World* 14, 1995.
104. Term from Kreuger, A., The Political Economy of a Rent-Seeking Society, *American Economic Review* 64(3), 1974, pp. 291–303.
 105. Micallef, J., Mediterranean Maverick: Malta's Uncertain Future, *The Round Table* 69(275), 1979, p. 247.
 106. Micallef, J., Mediterranean Maverick: Malta's Uncertain Future, *The Round Table* 69(275), 1979, p. 247.
 107. Micallef, J., Mediterranean Maverick: Malta's Uncertain Future, *The Round Table* 69(275), 1979, p. 247.
 108. Sant, A., Malta's economic history, *The Malta Independent*, Thursday, August 13, 2015.

Agriculture, 1800–1964

GEOGRAPHICAL SETTING

Malta is a young archipelago, barely 35 million years old.¹ It was formed long after its neighbours, through the gradual accumulation of marine creatures' skeletal remains. This explains why the country has no mineral and metal deposits, the products of long-compressed plant and animal matter, and why its soils are thin and calcareous.

Between 1828 and 1852, an average of 73 per cent of the country's surface area was used for crop production, and six per cent for pasture.² As non-agricultural competition for land grew, *total* agricultural land hit 56 per cent of Malta's surface area by 1961, 47 per cent in the year of independence, dropping to 32 per cent in 2012.³ As Fig. 2.1 shows, Malta's limited agricultural surface can be categorized into three distinct areas. Along with the climate, these areas shape the volume and nature of Malta's agricultural output.

*Agricultural Areas*⁴

The wasteland or *xagħra* ('barren meadows'⁵) areas are of limited agricultural value. The 1957 Agricultural Census classified 15 per cent (5300 acres) of all land as 'waste'; another 6000 acres of 'unused' land can be added to this.⁶ These areas are defined by their absence of soil mantle—either because soil cover never developed or because it was eroded. The

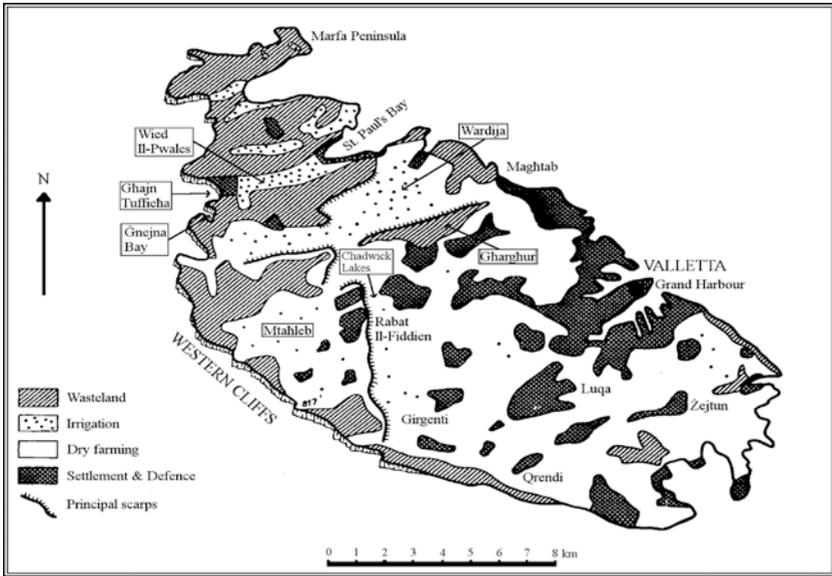


Fig. 2.1 Map of agricultural areas in Malta, 1957–1961. Notes: Adapted from Figure 1 in Young, B.S., ‘Agricultural Landscapes of the Maltese Islands’, *Journal of Geography* 63(1), 1964, 23–32

northern wastelands are mainly karst (dissolved limestone surfaces) in origin, and so the surface is ‘pitted and grooved and mostly bare rock’.⁷ Some soil can occasionally be found in cracks and depressions, where it tends to be decalcified, reddish-brown clay. These slivers of *terra* soil are too small for cultivation, but over time farmers have converted them into scattered fields by bringing in additional soil from other sources. Farmers collect soil in one place where an initial amount exists and then enclose it with rubble walls—an age-old practice. These fields are used to cultivate vegetables where well water is available, making them a stark contrast to their surrounding barren, windswept limestone ridges. In some of these coralline limestone ridges, farmers have dug pits into the hard rock to grow olive and fruit trees, but this type of cultivation is limited: precipitation in these ridges is no more than 22 inches per year and soil moisture is restricted.⁸ The *xaġħra* areas stretch from the Marfa peninsula, the northernmost part of Malta (island), part of which is called l-Aħrax (aħrax means ‘rough’), along the northern coast to Magħtab, the inaccessible hilly parts

of Bingemma, the plateau of Għajn Qajjet, and the hills of Għargħur. In Gozo, *xagħra* areas are found along the island's western coast.

In contrast to the wastelands, the irrigated areas, or the *rdum* ('cliffs') and *ġnien* ('gardens') areas,⁹ allow for the intensive cultivation of fruit, which yield high profits for farmers. These areas—amounting in 1957 to less than a twentieth of the remainder of the island of Malta's cultivated land (or 1800 acres)¹⁰—are normally supplied with water other than rain water. This precious irrigated land is concentrated in a few areas. In the west of Malta (the island), in a fertile valley called Wied il-Pwales (*wied* is 'valley'), farmers are able to grow fruit, green vegetables, tomatoes, and potatoes. Vines are, for example, grown in Wardija, which is the valley's eastern ridge, in areas of Wied il-Għasel, a valley to the east, and in the *ġnien* areas of Bingemma, a basin to the south. Moving west, we arrive at the *rdum* areas: the cliffy coastline of western Malta. Many rivulets and streams help intensive fruit cultivation in these areas, particularly around Ġnejna Bay, l-Imtaħleb, and Wied ir-Rum. Fruit and other agricultural produce, especially cotton in early times, is also suited to the Fiddien area, which is drained by Wied il-Qlejgħa, otherwise known as Chadwick Lakes after the civil engineer Osbert Chadwick who built a dam there in the 1890s to gather winter rainwater for farmers.¹¹ In Gozo, *ġnien* farming is found in Żebbuġ, in the north of the island, and around Għajnsielem in the south of the island.

Mostly a few feet above sea level, farmers in these areas historically tapped the sea-level water table (aquifer). American-type wind pumps, which used to dot Malta's western plateau, donkey-powered pumps, and later English diesel pumps were used to raise water from the aquifer that is fed by percolating rainwater. Normal levels of precipitation supply enough freshwater to the saturated levels to exceed the rate of deterioration of the water by contact with saline water at sea level. The water table becomes excessively saline, however, when farmers overextract. This was the case for a number of years, and private and government extraction from the water table is now highly regulated and weakly enforced.¹²

Not all irrigation comes from the sea-level water table. In the upland areas wells tap the upper water table (perched aquifer), which collects water through percolation from cracks, joints, and fissures in the limestone surface. The limestone is held in a coarse greensand layer and an underlying blue clay horizon. Young, writing in 1964, says more than 2300 privately owned wells were sunk into this perched aquifer.¹³ Irrigation can also be

found where the clay is exposed on hillsides, giving rise to springs. All around Malta's western plateau—on both the eastern scarp face and the western sea cliffs, and where stream erosion carved valleys and basins into the plateau—crops in terraced fields, bulrushes, reeds, and even trees can be found.

The western cliffs are where *rdum* type farming is found. The cliffs reach heights of 800 feet above sea level and stretch unbroken for 16 km.¹⁴ The cliffs are sustained by hard coralline limestone, with blue clay and softer limestone formations lying above, and weathered into slopes. The 'undercliff' zone has been laboriously terraced to cultivate spring-fed fruits and vines on the higher blue clay soils, and dry cereals and clover on the lighter, shallower limestone soils.

Finally, we have the drylands. Most of the country's arable land is in fact used for dry farming, which varies in crop quality depending on sun and wind exposure, slope, and water supply. These areas mainly lie to the east of the main escarpment where the land surface is made up of undulating plains, punctuated by areas of higher ground. Surface drainage is absent in these areas, but a number of river courses lie in valleys (*wied*), which tend to be deeply incised and slope seaward from higher ground to the west. These eastern and southern areas are where dry farming is practised. Drylands are cultivated with the aid of winter precipitation, and occasionally with rain water stored in cisterns cut into the rock or in tanks sunk into the ground. Consequently, the summer sees little in the way of field crops. The soil is 'bare, dry and dusty'.¹⁵ It is a product of the Globigerina limestone on which it lies, being generally 'youthful, shallow, chalky, often stony, a whitish-brown color and lacking organic matter'.¹⁶ Here wheat, barley, and clover were mainly grown. In the more favourable areas, for example around Qrendi, crops like potatoes, introduced by the British, are grown. In limited irrigated areas, where water is pumped from the aquifer, higher value-added crops are grown, like melons, artichokes, and tomatoes. Earlier, cotton was grown, especially around Żejtun. In the remaining areas, all sorts of vegetables, like marrows and onions, are grown. Before this, some dry farming land was used for growing cumin and sesame, both tolerant of arid environments. Livestock production occurred in these areas and mainly involved goats, as they require little grazing and provide both milk and cheese. While prized for their high milk yields, these goats carried in their milk a potentially fatal bacterium—brucellosis or undulant fever. That before pasteurization some ten per cent of the milk was infective highlights the precariousness of Malta's food supply.¹⁷

Commercial sea fishing offered little respite. The Mediterranean Sea's waters are 'crystal clear' because of a scarcity of microorganisms.¹⁸ The sea has a low nutrient salt content and thick nutrient-deficient surface layer, combining to produce an inhospitable environment for fish life.¹⁹ While the opening of the Suez Canal in 1869 allowed an inflow of Red Sea and Indian Ocean fish, increasing the variety of species in the Mediterranean, it was only the coastal zones bordering the Atlantic Ocean and the main straits (Gibraltar, Messina, and the Bosphorus) that gained access to these new species.²⁰ Somewhat more fortunately, Malta is situated on a ridge that once connected Europe and Africa above the sea surface, giving the country an advantage of shallower waters and accessible bottom fisheries. This fishing was, however, always limited: 1921 to 1932 is the earliest period for which we have estimates of the landed value of fish, and the mean estimate is equivalent to 1.3 per cent of GDP.²¹ By 1957, the ratio was 0.4 per cent of GDP,²² by when most fish produce was imported. Fish imports were at the time equivalent to 0.7 per cent of GDP and three per cent of retained food, drink, and tobacco imports.²³

Climatic Conditions

Malta has a subtropical-Mediterranean climate²⁴: mild winters, when most rain falls, and long, hot, dry summers. Monthly averages of daily mean temperatures range from a maximum of about 27°C at the start of August to a minimum of about 12°C in January and February.²⁵ The mean daily minimum of the coldest (warmest) month is about 9°C (31–38°C). The temperature never falls below freezing. The extent of its aridity can be seen clearly in its rainfall record, the single most important geographical constraint on its agricultural output.

Table 2.1 shows the winter–summer differences in rainfall clearly: in most years, June and July, as well as parts of May and August, are almost completely dry. There is a sharp increase in rainfall moving from August to September, and a gradual drying over April and May.

In the 119 years between 1841 and 1959, Busuttill writes that there were only four months—November, December, January, and March—that, at least once, did not have complete drought.²⁶ July experienced complete drought in 100 of those 119 years.²⁷ While seemingly predictable, Malta's rainfall is in fact volatile in terms of daily variation.

Table 2.1 Rainfall of Malta

<i>Month</i>	<i>J</i>	<i>F</i>	<i>M</i>	<i>A</i>	<i>M</i>	<i>J</i>	<i>J</i>	<i>A</i>	<i>S</i>	<i>O</i>	<i>N</i>	<i>D</i>
Inches, 1868–1913	3.4	2.2	1.5	0.8	0.4	0.1	0.1	0.1	1.4	3.4	3.5	4
Inches, 1922–2010	3.4	2.4	1.7	0.9	0.4	0.1	0	0.3	1.7	3.4	3.5	4

Notes: Top row shows averages for dates between 1868–1891 and 1901–1913 for a station in Luqa, Malta. Bottom row shows averages for the 1922 to 2010 period for a station in Luqa, Malta. Data from Lang, D.M. ‘Soils of Malta and Gozo’, Colonial Research Studies No. 29, London: Colonial Office, 1960, p. 3, and Galdies, C., *The Climate of Malta: statistics, trends and analysis 1951–2010*, National Statistics Office, Malta, 2011, p. 12

In any month most of the fall occurs on few occasions and in a short time, comparable to infrequent bursts of rain. In the 35-year period covered in Table 2.1’s top row, the annual total rainfall varied between eight and 39 inches.²⁸ Busuttill argues that this variation can explain ‘the Maltese farmer’s unusual and often misguided zeal to obtain the highest yield, with consequent soil depletion’.²⁹ Farmers, who do their ploughing and sowing in winter, cannot reliably predict how much rainfall the next season will bring in the face of such high annual variation, and so extract from the earth as much as they can, whenever they can.

Along with low and variable rainfall, and calcareous and shallow soil, the strong, often gale force, winds that blow from the northeast and northwest do not encourage tree growth. While literary evidence and single groves of evergreen oaks suggest that forest trees grew in greater quantities a thousand years ago, Malta has not had forestry since.³⁰ Not many indigenous trees grow wild. The carob and fig trees are the most common, but occur in clusters across the country, ruling out exploitative plantations, and are of no value as timber. The same is true for the olive tree and prickly pear.

These climatic constraints also applied to crop agriculture and to live-stock production. To raise crop yields, farmers need irrigation water in summer, deep soil, and shelter from the wind. Malta provides none of these characteristics. The consequent importation of essential foodstuffs, particularly grain, is a contentious thread running through the country’s history.³¹ Clare writes that throughout the nineteenth century, Malta’s domestic agricultural output was ‘never enough to feed the entire population for more than a few months’,³² but this also applies to the rest of the modern era and, according to some accounts, to the medieval period as well.³³

AGRICULTURAL OUTPUT AND PRODUCTIVITY

The 1530 arrival of the Order of Saint John in Malta, with its shipbuilding and repairing needs, is what started a shift of labour out of agriculture,³⁴ although some authors emphasize neglect of the agricultural sector in the colonial period.³⁵ This early structural shift gave Malta the unusual characteristic of a peripheral economy whose agricultural sector released labour to its tertiary sector before its secondary sector. There are other reasons why Malta never industrialized in the way that Continental Europe did, which the next chapter covers, but the early arrival of a major Mediterranean naval power is one of them.

Already by 1814, when Malta became a Crown Colony, most of the gainfully occupied population was active in secondary and tertiary production.³⁶ By 1851, employment in agriculture hit 26 per cent (13,569 persons) of total employment, averaging 24 per cent (16,270 persons) until 1931.³⁷ By way of comparison, as late as 1900, around 70 per cent of Cyprus' total employment was agricultural.³⁸ In 1901, Italy's agricultural employment share of total employment was 59.4 per cent, declining to the still-high level of 48 per cent by 1938.³⁹ While Malta's proportion of agricultural employment in total employment clearly decreased, the path of total output and productivity is more complex.

At the start of the modern era, two events acted as a stimulus for Maltese agricultural output. The arrival of British troops made for more mouths to feed, as did Napoleon's institution of the Continental Blockade (1806 to 1814), which made Malta one of Europe's main trans-shipment points, bringing thousands of merchants and sailors to the country. Clare writes that 'Maltese farmers were called upon to produce food not only for the local population but also for the thousands of foreigners—perhaps as many as 30,000, including the British contingent—who came to Malta at this time'.⁴⁰ Farm incomes increased substantially during this period, and wheat production was unusually high.⁴¹ With the end of the wars, and of the Blockade, the agricultural sector returned to its trend of decline throughout the 1820s and 1830s. Reports of farmers being unable to pay land rents abound during this period, as do reports of falling farm prices, the inability of cotton growing to compete on the international market, and the general undercapitalization of the sector.⁴² We have better data for later years, which paint a more nuanced picture.

Figure 2.2 shows a quantity index of agricultural output, covering the major crop categories, horses, mules, asses, sheep, goats, and pigs, from

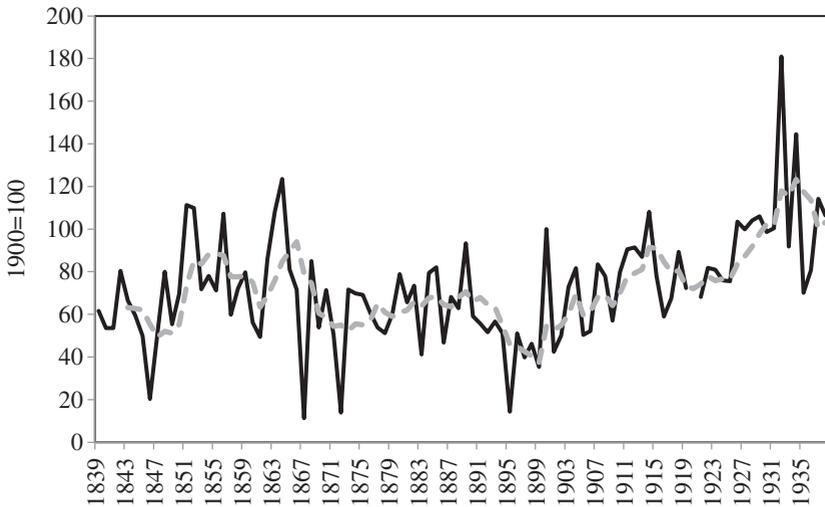


Fig. 2.2 Agricultural output quantity index, 1828–1938. Notes: This is a Laspeyres quantity index, where 1900 is set as the base year. The index compares given-year output relative to base-year output, in base-year prices. Items, as named in the blue books: Wheat, meschiato (one-third wheat and two-thirds barley), Barley, Beans, Cotton, Vegetables & Fruit, Forage, Sesame, Cumin, Potato, Onion, Orange and Lemon, Other Fruit, Horses, Mules, Asses, Sheep, Goats, and Pigs

1839 to 1938.⁴³ The index compares total agricultural output in a given year to output in the base year, 1900, in the prices of that base year. The index implies that agricultural output grew by an average of 0.45 per cent per year from 1839 to 1938.⁴⁴ Looking at the five-year moving average (the dashed line), we can make out three phases in this series: first, high levels of output between 1851 and 1865; second, stabilization and decline between 1866 and 1899; third, faster growth between 1890 and 1938.

Cyclical forces can explain the high output levels in the first phase. Britain's use of Malta as a central base during the Crimean War (1853 to 1856) took the number of British troops stationed in Malta from an average of 2400 between 1823 and 1852, to 9338 (plus 165 wives) in 1855 and 8779 (plus 617 wives) in 1856—equivalent to around seven per cent of the country's total population.⁴⁵ As between 1800 and 1814, this meant that there were more people with higher purchasing power to feed and that Maltese workers earned more and spent more, as 'the troops spent lavishly in Malta stimulating business'.⁴⁶ In short, there was a surge

in the demand for agricultural products. The second cyclical force came between 1861 and 1865, during the American Civil War, which disrupted the southern states' supply of cotton to the global market. Other cotton producers, including Malta, stepped in to meet the shortfall in supply. Malta's cotton industry was in decline long before the American Civil War,⁴⁷ and so when the war stimulus ended Malta's total agricultural output reverted to its pre-war level, taking us to the second phase of stabilization and decline.

During the 1866–1899 phase, the total output index declined by 36 per cent. The decline of cotton growing explains this. Between 1839 and 1865, every percentage point increase in a cotton output index—constructed as the total output index in Fig. 2.2, but for cotton only—was associated with a 0.062 percentage point increase in the total output index.⁴⁸ The relationship between the two series during the pre-1865 period is strong, with variation in the cotton output index explaining some 63 per cent of the variation in the total output index. If we apply the 0.062 coefficient to the 1866–1899 change in the cotton output index, which was a decline of 665 percentage points, we get an implied decline in the total output index of 41 percentage points ($=665 \times 0.062$). This implied decline is five percentage points higher than the observed decline of 36 percentage points, which is within the error margins of this relationship.⁴⁹ We will turn to the reasons for the decline of the cotton industry in the next chapter, but for now, we can say that the decline of cotton agricultural output can account for all the decline in the 1866–1899 period in the total agricultural output index.

The 1900–1938 phase marks a period of growth, which was ended by World War II, during and after which the agricultural sector changed substantially. According to the index in Fig. 2.2, agricultural output grew at an average annual rate of 1.21 per cent,⁵⁰ compared to 0.45 per cent for the entire 1839–1938 period. Around the turn of the century, both agricultural employment (24 per cent of employment) and total crop acreage (circa 41,000 acres) had stabilized, while pasture acreage went into decline. These facts imply that agricultural output growth was a function of productivity gains—improvements in yields per acre—or shifts to higher value-added agricultural goods or a combination of the two.

Figure 2.3 shows the yield per acre for some of Malta's main crops: wheat, vegetables and fruits,⁵¹ and barley. The first striking thing about these series is their annual volatility. One way of expressing this is by asking how much preceding yields explain current yields. If the yield series fol-

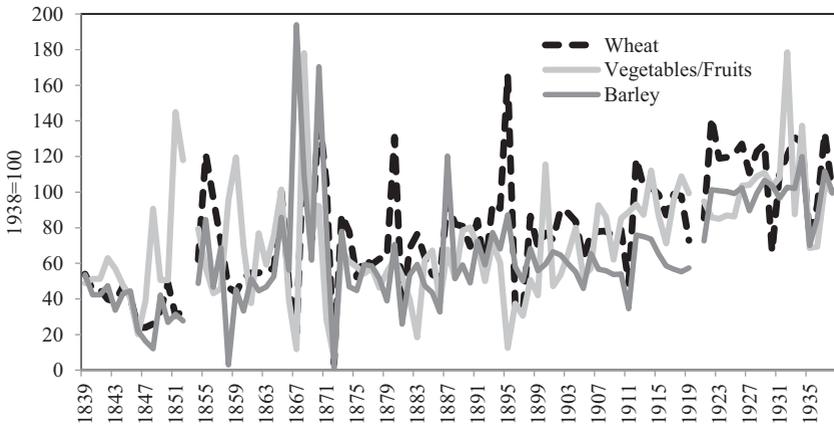


Fig. 2.3 Yields of wheat, vegetables/fruit, and barley, 1839–1938. Notes: Underlying data from blue books. Vegetables/Fruits include the categories as named in the blue books: Vegetables & Fruit, Potatoes, Onions, Orange and Lemon, and Other Fruit. Underlying wheat yield series expressed in imperial quarters per acre (mean = 2.51); Vegetables/Fruits in lbs per acre (mean = 4772); Barley in imperial quarters per acre (mean = 3.45)

lowed a clear and stable trend, then the yield in the first year will explain the yield in the following year. A weak correlation between years implies high volatility. For wheat, preceding yield levels explain 17 per cent of current yields, 12 per cent for vegetables and fruits, and 18 per cent for barley.⁵² The explanatory power of preceding yields is weak. These results fit the pattern of high annual variation in rainfall, and Busuttill's argument that farmers cannot predict the yields of future crops, and so overexploit their soil resources in the present.⁵³ That climatic conditions drive this annual volatility is supported by the strong intercorrelations among all three series.⁵⁴

The second striking thing about Fig. 2.3 is, despite the annual volatility, the persistence of generally low yields from 1839 to the mid-1890s and the slow but steady increase in yields thereafter. There are the same cyclical peaks early on—around the Crimean War and American Civil War—but those aside, yields reached their highest levels during this third phase. For wheat, the yield index was 34 percentage points higher after 1899 than before, and 31 percentage points for vegetables and fruits, and 22 percentage points for barley.⁵⁵ In other words, the yield per acre of

wheat increased by an average of 0.65 per cent per year and 0.43 per cent per year for the latter two crops. This might not be impressive by late-twentieth-century standards—Malta’s cereal yield increased by 1.48 per cent per year from 1961 to 2008⁵⁶—but it goes some way in explaining the growth in the total agricultural output index in Fig. 2.2.

What sustained high crop yields in the 1900–1938 phase? Apostolides, looking at wheat as a representative crop, argues that land scarcity is what put upward pressure on yields in Malta.⁵⁷ The country’s population grew by 48 per cent over this period, so there is some truth in the land scarcity explanation.⁵⁸ But as we shall see later in this chapter, per capita imports of grain were increasing over the nineteenth century. We will see in the following section why land scarcity and tenancy matter for yields, but there are two other explanations we must deal with first.

The pull of foreign markets is an important part of the rising yield trend. While Malta lost its cotton export market, it acquired export markets for other crops. The commercialization of the potato crop is instructive here. The British introduced the potato in the early nineteenth century to wean Malta off its dependency on wheat and wheat imports. The uptake of potato growing by Maltese farmers was initially slow, but by the turn of the century, farmers realized its high suitability to the country’s soils and climate. The warm climate enables the first potato crop to be planted in the September rains and lifted around the end of the year. The spring potato crop to be sowed in December or early January and lifted towards late March, giving it an average two-month lead over northern Europe. Potatoes can be stored long after harvesting, further enhancing its export potential. The potato’s export potential was encouraged by the colonial administration. The blue books often contain references to the potato crop’s importance, whether farmers are assigning more acreage to it, and whether it is ‘exportable’.⁵⁹ By the turn of the century, when total agricultural output began its growth trend as we saw in Fig. 2.2, potatoes became an export staple.

Table 2.2 shows that quantity of exported potatoes was low and stable from 1880 to 1900, but experienced a boom by 1910–1911: going from an export quantity of around 1,200,000 lbs to 23,500,000 lbs. At the same time, the share of potato exports in total *domestically produced* exports (that is, excluding re-exports) went from 3.5 per cent in 1880, to 7.8 per cent in 1910–1911, and 53.3 per cent by 1938. That is, by the eve of World War II potatoes made up more than half of Malta’s domestically produced exports. The acreage column shows that all this was happening while the total acreage assigned to potatoes was stable and, between 1910 and 1920, in decline. Rising export quantities were the result of more of

Table 2.2 Potato exports, 1880–1938

	<i>Export quantity (lbs.)</i>	<i>Export value (1938 £)</i>	<i>Export value/Domestic exports (%)</i>	<i>Acreage</i>	<i>Unit price (lbs/d nominal)</i>
1880	1,261,225	7553	3.5	–	0.7201
1890	1,096,375	2789	5.3	–	0.4345
1900	1,256,150	5338	5.5	4923	0.5143
1910–11	23,527,550	123,914	7.8	3676	0.6899
1920	18,618,784	57,209	27.7	2350	0.8559
1930	23,412,480	96,359	48.8	4198	0.9001
1938	26,678,400	116,860	53.3	4982	1.0513

Notes: Export quantities for 1880–1900 were originally in cantari, converted at the rate of 175 lbs. Quantities in rotoli for 1910–1911 to 1920, converted at the rate of 1.75 lbs. Quantities for 1930 to 1938 in cwts (112 lbs), converted at the rate of 112 lbs. Acreage for 1920 is actually for 1921. Potato acreage data begin in 1900. Export value deflated to 1938 prices using own CPI

Sources: Blue books, ‘Import and Exports’, and ‘Agriculture’ and ‘Production and Natural Resources’ chapters

the domestic crop being consigned to exports. In 1900, for example, 48.2 million lbs of potatoes were grown, and as Table 2.2 shows only 1.25 million lbs were exported—2.6 per cent.⁶⁰ In 1910, 35.1 million lbs of potatoes were grown and 67 per cent of which was exported.⁶¹ The increasing unit price (lbs of potatoes per penny in nominal terms; trend is the same in real terms) in the final column implies that an increasing market share for Maltese potato producers came with increasing pricing power.

High crop yields, partially driven by external demand, were an important part of total agricultural output growth, but were not everything. Between 1900 and 1938, the wheat yield grew by an average of 0.59 per cent per year, vegetables and fruits by 0.83 per cent, and total agricultural output grew by 1.24 per cent.⁶² The residual growth can be explained by the agricultural sector moving towards efficiency gains through the production of higher value-added agricultural goods, namely, livestock.

As Fig. 2.4 shows, the 1900–1938 period coincided with a sharp increase in livestock yields (the number of animals per acre of pasture). We have the longest series of data for sheep, goats, and ‘horses, mules, asses’.⁶³ The yield of sheep, used mainly to produce lamb and wool, grew at an average annual rate of 0.67 per cent from 1839 to 1899, and 1.91 per cent from 1900 to 1938. For goats, used mainly to produce milk and cheese, the respective growth rates were 0.19 per cent and 2.29 per cent.

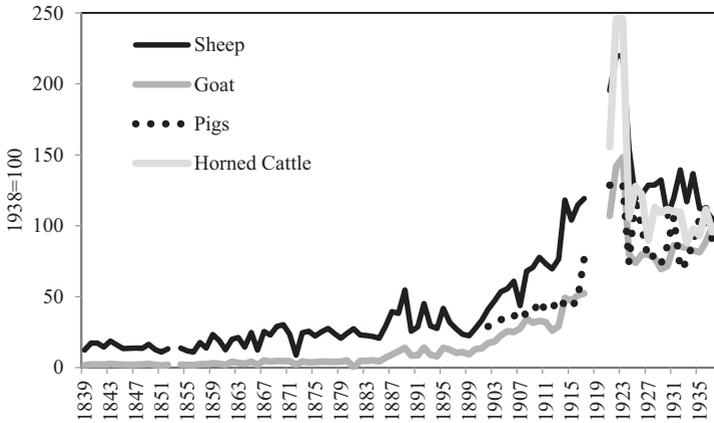


Fig. 2.4 Livestock yields, 1839–1938. Notes: Underlying data from blue books. Acreage refers to ‘pasture acreage’ and is the same for all animals. Underlying series expressed as number of animals over total pasture

The yield growth rates for ‘horses, mules, and asses’, mainly used for farm labour, transport, and as exports, are 0.26 per cent and 1.74 per cent, respectively. Starting in 1898, the blue books cover pig farming: from this point until 1938, the yield here grew at an average annual rate of 1.82 per cent. From 1921, the blue books cover ‘horned cattle’ (cows, bulls, steers), used for their meat, milk and for draught, but the trend here is less clear: the yield is initially quite high, stabilizing at a much lower level until 1938. Of all five livestock groups, the growth in goat yields was the most impressive: an increase from 1839 to 1938 by a factor of 58.

What drove the shift towards more efficient livestock production? The pull of foreign markets played a role, but a more minor one compared to crops. Between 1880 and 1930, exports of live animals—bullocks, horses, mules, goats, and sheep—never accounted for more than five per cent of domestically produced exports.⁶⁴ When the data are available, including livestock derivatives—hides, bones and hooves, cheese, wool, and fresh and prepared meat—the proportion raised to 8.4 per cent in 1920 and 12.9 per cent in 1930.⁶⁵

The main demand drivers of livestock production are rising incomes, urbanization, and changing cultural influences.⁶⁶ All three variables were on the move around this time in Malta. Labourers’ real wages benefited from two stimuli at the turn of the century: the 1890 construction of a

breakwater in the Grand Harbour and the arrival of 12,000 British troops (some 10 per cent of the population) en route to the Second Boer War.⁶⁷ Consequently, as we have seen in the previous chapter, real wages for workers in trades and agriculture grew by around 82 per cent from 1889 to 1906. After some years of stagnation, World War I defence spending set real wages, once again, on a growth path of an average of 2.9 per cent per year between 1915 and 1938.

Urbanization tends to be correlated with rising incomes,⁶⁸ and Malta was no exception here. By the late nineteenth century, most of the country's population lived in urban and suburban areas. The ratio of the rural to urban and suburban population went from 0.54 in 1842, 0.51 in 1881, and 0.47 in 1931.⁶⁹ People living in urban areas are more likely to diversify their diets away from cereals and grains, and into meat and milk.⁷⁰ Urban consumers tend to have wider food choices, and tend to be more exposed to diverse dietary and cultural influences than people in rural areas are.⁷¹ We have fragmentary evidence that Maltese diets were changing around this time, with some writers claiming that ordinary people began eating more meat and sugar, and less bread, after 1900.⁷² A 1938 Royal Commission appointed to 'Inquire and Report on the Question of Nutrition in Malta and Gozo' contains a household budget for an assistant dockyard fitter, his wife, and four children, summarized in Table 1.3 in Chap. 1, that implies an annual consumption of 71 kg of beef.⁷³ Other writers claimed that this was not such a broad-based change, and that increased meat consumption was restricted to 'well-off classes' who adopted 'an Italian diet, distinguished from that of the poor by the inclusion of macaroni, meat, and good wine'.⁷⁴ Indeed, it is unlikely that most Maltese labourers were able to afford 71 kg of beef a year.

It is more likely that much of the demand for meat and livestock derivatives came from the British troops stationed in Malta. A hint comes from a remark by John Davy, the Inspector-General of Army Hospitals, that in 1842 in Gozo 'only one bullock was killed weekly for the market, and that was sufficient for the whole population, including a detachment of British troops who used a considerable portion of it'.⁷⁵ The number of British troops stationed in Malta in 1842 was 2184 (plus 248 wives). By 1881, the number rose to 4699 (plus 431 wives).⁷⁶ British troops, whose presence more than doubled by the turn of the century, had higher purchasing power and were used to a more meat-rich diet than most of the Maltese population. As undulant fever was a problem among British troops in Malta, we also know that they were consuming goat milk.⁷⁷ It

was not until World War II that a broad-based change in the *Maltese* diet occurred.

AGRICULTURE DURING WORLD WAR II

At the start of World War II, Malta's agricultural sector could only feed one-third of its inhabitants.⁷⁸ The Axis forces viewed the colony's reliance on imported food, an 'essential good,' as a source of military weakness and tried cutting off its Allied supply lines. Between 1940 and 1942, there were 35 major supply operations to Malta: eight were blocked or suffered heavy losses from Axis attacks, and there were long stretches when no convoy runs were even attempted.⁷⁹ How did Malta's economy, so heavily dependent on imports and so far from self-sufficiency, feed its dense population during the war?

Some scope for substitution in the production and consumption of food allowed Malta to adjust to a fall in imports. This is not to say that food imports were rendered unnecessary, but that the intensity of food shortages was somewhat alleviated through a combination of adjustments. According to Olson, these adjustments generally take the following forms: shifting the output mix, using excess capacity in agriculture, reallocating resources from other areas, and improving farming practices.⁸⁰ While price signals will eventually stimulate the necessary adjustments an economy needs, these adjustments might not happen fast enough due to the uncertainty of price levels and trends caused by war. For this reason, the state usually intervenes heavily in wartime economies. As we shall see, the wartime administration implemented various policies that controlled prices and directly allocated products.

Shifting the Output Mix

One obvious candidate for substitution was livestock production—an activity that grew in importance in the decades leading up to the War. Far more people can be supported by consuming grain directly than by feeding that grain to livestock.⁸¹ Agriculture's output of nutrients for human consumption can be increased to a great degree by switching from livestock to crop production.⁸² On 3 August 1942, the same date the Operation Pedestal convoy left for Malta with vital supplies, reaching it 12 days later with 400 fewer crew and five of the 14 original merchant ships, the Malta Agricultural Department made the following announcement:

[i]t is now the intention of the Government to slaughter non-essential livestock and to bring in from overseas milk and egg powders instead of the more bulky fodder required for livestock feeding. The two exceptions from this slaughter are horses [used for transport] and rabbits. Rabbits can be largely maintained on homegrown vegetable waste and weeds and when the supply of local meat is exhausted it may well be that we shall have to rely a large extent on rabbit flesh.⁸³

Substituting livestock for crop production to save on grain and other feed thus also meant substituting fresh eggs for powdered egg, which was stirred into water to create something like a beaten egg. It also meant that fresh milk, which normally came from goats, was substituted for tinned milk. Tinned milk was restricted to young children and pregnant women.⁸⁴ Even as goat's milk was being phased out, it was restricted to hospitals and schoolchildren.⁸⁵ Goat breeding was not resumed until 1945.⁸⁶

To be sure, the supply of grain remained tight. Between 5 August and 15 August 1942, farmers and traders were expected to deliver any barley, maslin, or wheat in their possession to the Agricultural Department for rationing.⁸⁷ Later, people complained about the quality of their bread rations, made—in an example of *input* substitution—by mixing barley and maize with flour to extend the flour supply, as peasants did in the nineteenth century.⁸⁸ Some relief came from reallocating resources to agricultural activity.

Using Excess Capacity in Agriculture

Agriculture in peacetime tends to suffer from excess resources. In Malta, there was an oversupply of agricultural labour relative to land. While agricultural land was limited and domestic production could not meet domestic demand, centuries-old high import tariffs on grain, the single most important agricultural good, concealed the extent of 'surplus'—or uneconomic—agricultural production.⁸⁹ Unnecessary labour in agriculture during peacetime unwittingly provided a buffer against wartime food shortages.

The output volume of some agricultural produce, namely vegetables, vetches, and grapes, increased faster than total agricultural acreage. Vegetable output was higher in 1946/47 than it was in 1938/39, having peaked at 22,607 tons in 1944/45.⁹⁰ Higher yields were incentivized by higher prices: the shortage of vegetables, particularly since they could not

be substituted by preserved imports like tinned milk for domestic fresh milk, meant that farmers ‘thrived’ on wartime ‘produce scarcity’.⁹¹

The demand for vegetables was inelastic due to their un-substitutability. At the same time, the price elasticity of their supply was high due to limited agricultural land and no technological improvements to production. Under these conditions, higher price levels incentivized the more efficient use of existing agricultural labour supplies.

Improved Farming Practices

More evidence that higher yields were not a result of technological advance in agriculture is that fertilizers and machinery were unavailable, and certain market structure changes that would have boosted productivity failed. For example, removing market wholesalers (*pitkali*), middlemen between farmers and consumers, was an obvious way to incentivize higher productivity. These middlemen enjoyed profit margins on goods acquired from farmers and sold at market of 300 per cent or more.⁹² Attempts at reforming the system failed because, according to Busuttill, Maltese farmers were simply not interested in ‘refinements of marketing techniques’.⁹³ Another explanation is that the government’s attempts at price control sought to make use of the existing *pitkali* apparatus rather than working with farmers directly. The Director of Agriculture approved agreements between farmers and middlemen during the War,⁹⁴ controlling the amounts of items released to wholesalers,⁹⁵ rather than doing away with them altogether. Wartime Malta was not the ideal context in which to destabilize powerful interest groups: war heightened the government’s need to secure cooperation and contentment among the Maltese.

Reallocation of Resources

The reallocation of resources to food production did not happen in the conventional sense of labour shifting, say, from manufacturing and back into agriculture. It occurred in more limited ways, and along different lines. When bombs hit some of the surface water reservoirs, reducing water storage capacity, the population was asked to cut their daily water consumption. Those with gardens were asked to use wastewater to irrigate vegetables rather than pour it down the drain.⁹⁶ In 1940, when animal feed imports were running low, the military allowed the use of its parade grounds in Marsa to be used to grow fodder.⁹⁷ Meanwhile, the

Times of Malta published articles urging people ‘to turn every available patch of dirt into gardens’.⁹⁸ As limited as they were, these measures, guided by the wartime government, helped Malta’s population survive the War.

State Intervention in the Wartime Economy

As shipping goods to Malta became harder (at times impossible), and so imports more expensive, we would expect an incentive for import-saving changes in consumption patterns and production to arise freely. Why, then, did the wartime government need to intervene in the agricultural sector?

First, unequal incomes meant that the rich could and would pay any price for food. That is, food price inflation did not affect everyone in the same way. The working class spent a larger share of their income on food, especially on non-importable fresh vegetables, and so were worse affected.⁹⁹ Second, and relatedly, the free movement of prices would not ensure that the food supply was distributed in a way that made the maximum contribution to the country’s health and energy. This was important during the War as workers in war industries like the dockyards, whose work tends to demand more calories, complained about the high price of food and its unavailability.¹⁰⁰ For these reasons, the government implemented policies and set up organizations to ensure, with varying success, that food was produced in sufficient quantities and distributed evenly among the population.

The Rationing Office’s purpose was to ensure that food and commodities like soap or kerosene were distributed evenly. Rations varied according to supply levels. In the desperate summer of 1942, Maltese rations were down to 1690 calories a day for men and 1500 calories a day for women and children.¹⁰¹ In June of that summer, rations dropped to between 1500 and 1100 calories a day for most adults.¹⁰² The normal daily calorific requirements for men and women are 2500 and 2000 calories, respectively.¹⁰³ To supplement rations, the Communal Feeding Department established soup kitchens, which were named ‘Victory Kitchens’. These kitchens economized on cooking inputs like oil and coal by cooking large quantities of soup for the blitzed and the homeless. The kitchens were closed in 1943, but other policies proved to be more persistent.

The Director of Agriculture was given the power to control, through the *pitkali*, the collection, sale, and purchase of any agricultural product.¹⁰⁴ The Director could also requisition any produce at a price above the whole-

sale price by the government. Most of these controls were implemented after 1940, but already in 1939 an ordinance on the ‘Inflation of Prices’ was passed that enabled the Governor to fix the maximum wholesale *and* retail prices of ‘essential commodities and to limit the profits on the sale ... of essential commodities’.¹⁰⁵ For the purpose of checking abuses, a Price Control Board with inspectors was appointed. These controls were not entirely effective. Sybil Dobbie, wife of Governor William Dobbie, wrote that during war ‘eggs were 5s. a dozen when they could be got (before the war they had been 1s.)’.¹⁰⁶ After the War, price controls coupled with food shortages continued to support a large black market whose dealers illegally acquired goods and sold them at exorbitant prices.¹⁰⁷

Price controls persisted after the War. In 1947, an ordinance on ‘supplies’ (Act no. IV) was passed that empowered the Governor to ‘make regulations for maintaining supplies and services essential to the life of the community and for controlling the production, distribution, use or consumption of goods ...’.¹⁰⁸ The Act was set to continue until 1949, after which the government allowed free wholesale prices but controlled retail prices—a combination that through dis-incentivizing a supply-side expansion allowed inflation to persist into the post-War period.¹⁰⁹

When the market for agricultural goods was reopened in 1946 and 1947, a series of droughts struck.¹¹⁰ Constrained domestic supply coupled with inelastic demand created inflationary pressures and moved the economy towards a reliance on imports. The annual inflation rate averaged 5.9 per cent between 1946 and 1952.¹¹¹ Persistent post-War inflation along with high levels of domestic demand drew in imports and deterred exports. Between 1948 and 1952, Malta spent an average of \$10.63 on merchandise imports for every \$1 of merchandise it exported.¹¹²

The agricultural sector was already a small part of Malta’s economy before the War,¹¹³ and as a reliance on food imports and a diet based on imported food took root,¹¹⁴ it was smaller still after the War. Narratives of long-run stagnation and decline,¹¹⁵ however, obscure early periods of improving yields, a changing output mix, and various attempts at modernizing the sector since 1800.

ATTEMPTS AT AGRICULTURAL MODERNIZATION

Government intervention in the agricultural sector was not limited to the War. Colonial administrations attempted at various points, and in various forms, to modernize the sector. In many cases, the failure to modernize

was not due to governmental inaction, but more to farmers' conservatism. Some authors summarized the situation at the start of the nineteenth century as follows,

[a]gricultural practices were highly conservative: the Maltese preferred to adhere to the customary practices of their ancestors, rather than experiment with new farming methods. This suggests that, in their role as newcomers, the British had not persuaded the Maltese that they had any superior skill or knowledge to impart.¹¹⁶

For example, Sir Alexander John Ball, the man who brought Malta under British rule, observed in December 1800 that potatoes were already under cultivation in Malta, expecting that this crop 'will prove of great advantage to the inhabitants'.¹¹⁷ It took another 20 years or so for the potato to enter the Maltese diet and,¹¹⁸ as we saw in Table 2.2, it was not until the late nineteenth century that the potato became an export crop. Busuttill makes the same case for farmers' conservatism in the post-World War II period when faced with the choice of directly accessing consumers or going through the *pitkal*: '[the Maltese farmer] did not care very much for the refinements of marketing techniques. The same attitude applied to modern agricultural methods'.¹¹⁹

There was also inefficiency and reluctance on the government's part. While Ball 'had firm views upon agricultural improvements', including the creation of 'gardens' (for fruits and vegetables) in each village to supplement the food supply, the project failed due to poor monitoring and wasteful expenditure.¹²⁰ An 1836–1838 Royal Commission claimed that 'neither tenant farmer nor proprietor would benefit from much investment in agriculture "as the value of the land ... would not be increased in proportion"'.¹²¹ Yet despite this claim, administrations did invest in agriculture—at least in later years.

Figure 2.5 shows annual government expenditure under the 'Agriculture' heading in the blue books from 1920 to 1938, the earliest period for which systematic data are available.¹²² These figures cover all agricultural expenditure, from the purchase of seeds and plants, to the maintenance of agricultural land, and the salaries and expenses of the administrators responsible for agriculture. While too broad a measure to make a specific argument, it gives us an idea of the growing concern that the administration had for the agricultural sector. This series of 'agricultural expenditure' is expressed as a percentage of total government expenditure. Starting out at 1.4 per cent of total expenditure, the share rose to

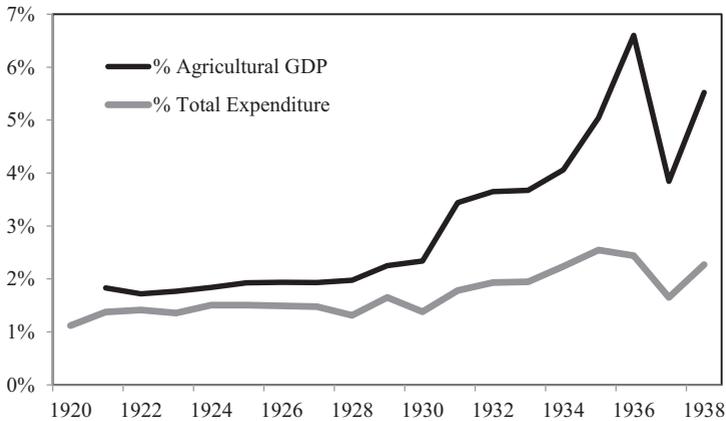


Fig. 2.5 Government expenditure on agriculture, 1920–1938. Notes: Agricultural GDP data from Apostolides, A., *Economic growth or continuing stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938*, Unpublished PhD thesis, The London School of Economics and Political Science (LSE), 2010, London, UK. All other data from blue books. In the periods 1920–1923 and 1928–1931, expenditure head referred to ‘Agriculture and Fisheries’ in 1924–1927, ‘Agriculture, Labour and Fisheries’ in 1932–1938, ‘Agriculture’. The gradual increase in expenditure levels indicates that these were changes in heading names not expenditure areas. All underlying data are in nominal £

1.7 per cent by 1929, increasing further to 2.3 per cent of total expenditure by 1938. By way of comparison, the Maltese government’s expenditure on agriculture between 2001 and 2008 averaged a comparable 2.01 per cent of total government expenditure.¹²³ Averaging across 69 to 94 different countries over the same period, the figure increased to 2.95 per cent of total government expenditure. Looking only at Serbia, a country whose agricultural sector between 2001 and 2008 employed a similar proportion of labour as Malta’s did in the early twentieth century (25 per cent),¹²⁴ the figure dropped to 2.45 per cent of total expenditure. In light of these figures, the colonial administration’s expenditure on agriculture in the early twentieth century is comparable to what governments, even those with similarly sized agricultural sectors, spent in the early twenty-first century when agriculture became more capital-intensive.

Expressed as a share of agricultural GDP, shown in the dashed line in Fig. 2.5, the colonial administration’s commitment to the agricultural sector appears stronger. The growth in this series is from 1.8 per cent in

1921, to 3.4 per cent in 1931, and 5.5 per cent by 1938.¹²⁵ That is, an overall growth of 202 per cent compared to 65 per cent for the share of total expenditure series.¹²⁶ Why, then, have some historians been so sceptical about the administration's commitment to reforming and modernizing agricultural sector?

One answer may be that while aggregate expenditure was high, there was a lot of wastage so that agricultural policies were inefficient or counter-productive. We have already seen that one of Balls' agricultural projects—'gardens' in every village—failed due to poor monitoring and wasteful expenditure.¹²⁷ To get a handle on this, we must look at colonial agricultural policies in more depth. As we shall see below, the successes and failures of agricultural modernization often depended on vested interests and path dependence, with current policy choices being determined by past ones.

Tariffs and the Grain Trade

The grain trade presents a case of feudal agricultural policy continuing into the modern era, despite the colonial administration's apparent commitment to agricultural reform. Under the Knights, Malta's population grew to a level that could not be sustained by its domestic agricultural sector alone, being heavily dependent on imported grain as can be seen in Fig. 2.6. In turn, the Knights raised most of their local revenues on taxing this imported grain—in spite of the country's comparative disadvantage in agriculture¹²⁸ and its dependence on foreign supplies. The British, who implemented their free trade doctrine across the Empire in the second half of the nineteenth century, dismantled most of Malta's import tariffs, but failed to liberalize its grain trade. Consequently, Malta 'remained a small island of high agricultural duties in a European sea of free trade in the second half of the nineteenth century'.¹²⁹ As the population, particularly the poor, mostly ate bread, historians often use this failure to dismantle grain import duties as evidence of careless and unfair colonial policy.¹³⁰ Tracing the origins of this peculiar policy helps us understand its persistence.

It was common in the early modern era for governments to regulate grain supplies.¹³¹ The Knights controlled the importation of wheat by a state monopoly, the *Università*. This institution was originally established in 1397 as a form of local government in Mdina, but under the Knights it moved to Valletta, where its almost exclusive focus was on

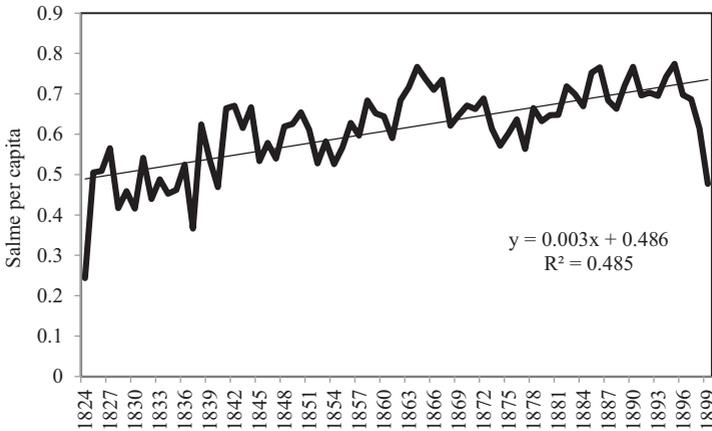


Fig. 2.6 *Salm* of imported wheat released for consumption per capita, 1824–1899. Note: A *salm* is a measure of grain equal to 98.5 per cent of an imperial quarter; from 1875, it was set to 100 per cent of a quarter. The wheat data are from Figure 1 of Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009. The underlying population estimates are from the blue books: census population estimates plus births less deaths. The trend line is linear and its equation is shown in the graph area

managing the grain trade and the *massa frumentaria*, the grain fund. The *Università* fixed the price of wheat, and administered a system of weights and measures and quality controls. Over time, it became a public bank, raising private capital to finance itself. Wheat was, in fact, exempt from direct duty, but the difference between the *Università*'s purchase and selling price amounted to an indirect tax on consumers, since some of its revenue paid for interest on loans raised from private sources.¹³²

By selling wheat at a set price to millers, the *Università* kept the price of bread stable. Its role was to shield the population from fluctuations in the wheat price, by internalizing losses itself, using gains in one period to offset losses in another. This institution was the product of 'unstable times', when Mediterranean piracy and conflict jeopardized Malta's already fragile food supply.¹³³ The *Università* did this successfully, but it necessarily inflated the price of wheat to fund its own operation, which included distributing wheat among the population.

Some writers have implied that the Knights' near complete control of the *Università* was motivated by two non-revenue-related reasons.¹³⁴ First, control of the grain supplies was a major source of political power for the Knights. Second, ensuring a stable food supply neutralized the Maltese nobility's attempts to provoke rebellion against the Knights. It is quite possible that these were the main reasons for the Knights' control of the *Università*, given they received substantial income from their properties across Europe and given they were aware of the costs associated with maintaining it. While control of the *Università* may have protected the Knights against rebellion at home, they were not so well protected overseas.

With the 1789 French Revolution, the Knights' continental properties were confiscated, and they lost their main source of income. They quickly capitulated to Napoleon when he invaded Malta in 1798, by which point the *Università* was already insolvent.¹³⁵ Soon after, the British laid siege to the French garrison in Valletta, who depleted the *massa frumentaria*.¹³⁶ An uprising by the Maltese in 1798 helped bring the country under British protection by 1800.

The British found enough grain to feed the country for eight days when they took control of Malta.¹³⁷ The British Treasury paid for large grain imports, as an emergency measure, ensuring a year's supply of grain by 1801. As the initial plan was to return Malta to the Knights, the British avoided more active involvement in the grain market, simply restoring the *Università* instead.¹³⁸ Another reason for restoring this institution was that the British, who maintained the infamous Corn Laws between 1815 and 1846, were not at this point opposed to regulating an economy's grain trade. William Eton, Superintendent-General of the Quarantine Department in Malta, who had commercial interests in the Black Sea grain trade, wrote in 1807 that maintaining the *Università* to manage grain prices was important as low grain prices allowed people to 'drink more wine', making them 'idle and dissipated'.¹³⁹ He went on making the case for high and stable grain prices:

*[w]hen the [grain] prices became stationary, they [the Maltese] could proportion their means of earning and their mode of living to their expenses, which they could exactly ascertain. And it was found, that moderately high prices encouraged industry by perpetuating a habit of assiduity, first called into action by necessity. Too low prices produced the opposite effect.*¹⁴⁰

As the British wanted to restore the *Università*, they had to assume its considerable debt. The British recapitalized this institution, and even built new granaries. By 1812, however, a Royal Commission reported that the *Università* was once again heavily in debt due to maladministration.¹⁴¹ The May 1813 to January 1814 plague cut Malta off from trade due to quarantine reasons, further increasing the *Università*'s debt. Yet the Royal Commissioners advised against dismantling the *Università*'s monopoly on grain importation. Some writers claim that this is because the British promised to keep the institution for the Maltese.¹⁴² Another reason might be that, as with all government-licensed monopolies, a number of vested interests accumulated around the *Università*.

By 1814, when Malta became a Crown Colony under the governorship of Sir Thomas Maitland, the government had already lost £60,000¹⁴³ with the *Università*—an amount equal to around 5000 times the annual earnings of a town labourer.¹⁴⁴ Maitland could now no longer avoid dealing with the *Università*, which he called ‘the most difficult and complicated point connected with the island’.¹⁴⁵ Maitland later referred to it as ‘the most troublesome dunghill of corruption I ever met with’.¹⁴⁶ It is quite likely that corruption was behind the *Università*'s large accumulation of debt, and the maladministration reported in 1812. One nineteenth-century historian wrote that

*[s]eventy thousand quarters of wheat were annually required for the maintenance of the island. It was the most considerable outgoing of the Maltese treasury, and made the government a great merchant. Needless to say, vast leakages occurred over every transaction.*¹⁴⁷

Maitland, who travelled far and wide, wrote that ‘I have seen a good deal of corruption in the West Indies and in the East, but nothing like what I find in Malta’.¹⁴⁸ According to Maitland, the root of the problem was that the Maltese had grown accustomed to being fed at public expense. Indeed, some contemporary authors have linked modern-day clientelism and patronage to institutions established under the Knights.¹⁴⁹ However, there was immediate corruption among the British appointees to the *Università*, and among Malta's grain-buying agents in the Levant.¹⁵⁰ In 1818, Maitland transferred the *Università*'s role to the new Commissioners of a Board of Supply. This failed; the *Università*'s monopoly was abolished in 1822, after which private commercial interests took over the importa-

tion of grain under a system of open competition, where the government retained a role.¹⁵¹

Under the new grain trade regime, the government had a two-pronged role. First, it had to ‘reserve a stock of wheat to guard against scarcity and high prices’.¹⁵² Second, it charged a duty of four *scudi* (£0.33) per *salm* (98.5 per cent of an imperial quarter; from 1875, it was set to 100 per cent of a quarter) for grain carried by British and Ionian ships and five *scudi* per *salm* for other ships, as well as a Custom House Duty of one per cent *ad valorem*.¹⁵³ The duties were used to cover storage costs for the reserve stock and to finance the government’s operations. To carry out these operations, the government established a Grain Department under a Superintendent, which was independent of the Collector of Sea Customs. The Grain Department was divided into the Government Grain Concern, responsible for overseas purchases and local sales, and the Revenue Branch, responsible for consumption duties and storage rent.

From June 1824, wheat was imported on bond and the Collector of Customs imposed a sliding scale of duties that varied monthly with prices. Britain adopted a similar system in 1828.¹⁵⁴ For example, when a British or Ionian ship imported Egyptian wheat, the duty was ten shillings when the average price was under 25 shillings per *salm* and five shillings when the average price was between 42 and 50 shillings.¹⁵⁵ For ships carrying different flags, the respective duties were 13 shillings, four pence, and eight shillings four pence.¹⁵⁶ On top of this, a protecting duty of one shilling eight pence was levied on importation under a foreign flag when the imports were released for consumption.¹⁵⁷

From December 1832, a new sliding scale was introduced. This new scale had ten intervals compared to previous seven. For comparison, the duty on wheat priced under 25 shillings per *salm* was 12 shillings, compared to the previous ten shillings, for British or Ionian ships.¹⁵⁸ The one per cent Custom House Duty was abolished. There was little other change. Leading up to these reforms, colonial officials knew that Malta was dependent on foreign food supplies for, in the words of the Auditor-General, ‘two-thirds of their food’ and that the ‘first care of the government must be to extend the intercourse with foreign countries’.¹⁵⁹ The policy space was tight in that the government needed revenues from grain imports, but knew that taxing an import on which the population was dependent might disrupt trade relations as well as increase domestic hardship. Officials also recognized that taxing luxury goods would not have worked: the con-

sumption of these goods was too small to yield any substantial amount of revenue and they are easy to smuggle.

In 1836, a Royal Commission—the Austin–Lewis Commission¹⁶⁰—was sent to Malta to report upon the question

*[h]ow the resolution to discontinue the Government interference with the corn trade of Malta can be carried into execution most effectually, and with the least temporary inconvenience or distress to the parties who will be more immediately affected by the measure.*¹⁶¹

As a result of the Commission's findings, major tariff reform was enacted in 1837, which abolished duties on most imports to Malta, except those on grains, pulses and seeds, alcohol, some animals, charcoal, and vinegar.¹⁶² This was a dramatic liberalization of Malta's trade policy that 'predated the repeal of the Corn Laws in 1846 and the movement to free trade in the UK and the rest of Europe by a decade'.¹⁶³ Yet the reform missed the single most important tariff: that on grains. Further, the reserve stock was stopped and the Grain Department was closed. The sliding scale was replaced by a fixed duty of ten shillings per *salm*, whatever the ship's flag.¹⁶⁴ This fixed rate matches the average per *salm* rate received between 1781 and 1836, across all import origins.¹⁶⁵

From 1837 to 1935, the fixed ten shillings per *salm* duty remained in force.¹⁶⁶ In 1935, the government reduced the duty, and in 1939 replaced it by a system that gave preferential rates to British ships. This was a period of global trade protectionism. The change also followed the 1932 British Empire Economic Conference that lowered import tariffs within the British Empire, but raised import tariffs with the rest of the world. It is impressive that through so many cycles of free trade and protectionism the duty on grain imports to Malta remained more or less fixed. The grain duty remained the government's main source of revenue until the 1948 introduction of income tax.¹⁶⁷ This persistence is more impressive still given the welfare consequences of this duty.

Figure 2.7 compares the wheat price demanded in Malta and England. For Malta, a series for price inclusive of the duty is also shown. For the two benchmark periods when Malta was under the Knights—1781 to 1790 and 1791 to 1798—the wheat duty raised the sale price of wheat by 18 and 30 per cent, respectively. Sharp relates this large difference to the financial difficulties of the Knights, and the *Università* in particu-

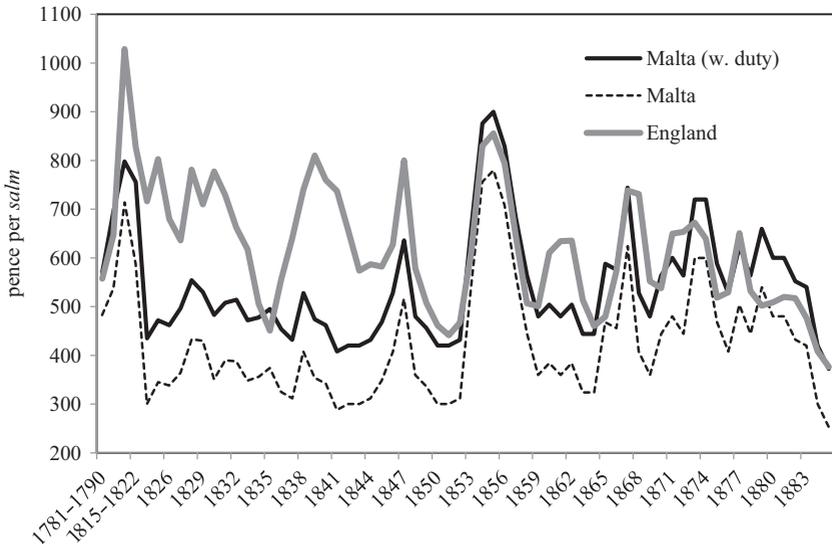


Fig. 2.7 Wheat prices in Malta and England, 1781–1885. Notes: A *salm* is a measure of wheat equal to 98.5 per cent of an imperial quarter; from 1875, it was set to 100 per cent of a quarter. The Malta data are from Price, C.A, *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 218. The English data are from Clark, G., *English prices and wages, 1209–1914*, Online: [http://gpih.ucdavis.edu/files/England_1209-1914_\(Clark\).xls](http://gpih.ucdavis.edu/files/England_1209-1914_(Clark).xls). Accessed: 8 January 2016

lar.¹⁶⁸ The price paid by Maltese consumers at this time was , respectively, 2.2 and 7.5 per cent higher than that paid by English consumers. Without the duty, Maltese prices would have been, respectively, 15 and 21 per cent lower. Starting around 1800, however, the Maltese price inclusive of the duty was on average much lower than the English price. This pattern held until around 1850, by when Britain liberalized the grain trade starting with the repeal of the Corn Laws in 1846. Starting in 1852, there is very little difference between the Maltese price inclusive of the duty and the English price. The prices move together, as this was a period of rapid global commodity market integration, spurred by advances in transport technology and lower tariffs.¹⁶⁹ Still, excluding the duty, the Maltese price was on average 20 per cent lower than the English price between 1852 and 1885.

In summary, Maltese consumers were buying wheat at lower prices than their English counterparts until the Corn Law repeal. As Sharp noted, this differential was greatest during the Napoleonic Wars, which protected British agriculture from foreign competition, and the subsequent Corn Law reforms.¹⁷⁰ Malta's and Britain's positions reversed in the second-half of the nineteenth century: while Britain liberalized the grain trade, Malta maintained its fixed rate duty on wheat imports inflating the price substantially above that paid in England.

As British officials noted in the late nineteenth century, the grain duty raised the price of bread in Malta relative to nearby countries.¹⁷¹ Further, as the working class consumed the largest proportion of bread in their diet, the duty acted as a regressive tax. The same officials calculated that the incidence of taxation was ten shillings ten pence per head per year for the 37,000 'Maltese upper and middle class', of which five shillings was for wheat alone, but 15 shillings seven pence per head per year for the 112,000 'Maltese working class', of which 10 shillings was for wheat alone.¹⁷² How could this be? In the officials' words, 'bread ... constitutes almost the sole food of the working class, who rarely eat meat'.¹⁷³ In contrast, the upper and middle classes consumed more meat and manufactures, which were not taxed. In other words, the wheat duty was equivalent to 3.4 per cent of an agricultural labourer's annual earnings, while the total tax burden was equivalent to 5.4 per cent.¹⁷⁴ These proportions matter when labourers' real wage levels are low to begin with, as they were between 1870 and 1880: an average of £16.13 per year. The duty also served to exacerbate the level effect of spikes in the wheat price. As we shall see at the end of this chapter, when one such spike occurred shortly after World War I, the *Sette Giugno* riots ensued, providing anti-colonial politicians with arguments for self-government.

The wheat duty would not have been an unfair burden on the working class had the government redistributed the revenue back to the poorest in the form of healthcare, education, or social support. However, 'in common with other countries at the time, the majority of revenue went on administration' and, secondarily, on public goods that were of benefit to both the rich and poor, like roads.¹⁷⁵ Given these welfare costs, why did the policy persist for so long?

The colonial administration was dependent on the duty for around a third of its total revenue.¹⁷⁶ Unlike the British debate, Malta's wheat duty was not about protecting its agricultural sector or landed interests—it was simply a revenue-raising tariff on which the government had grown

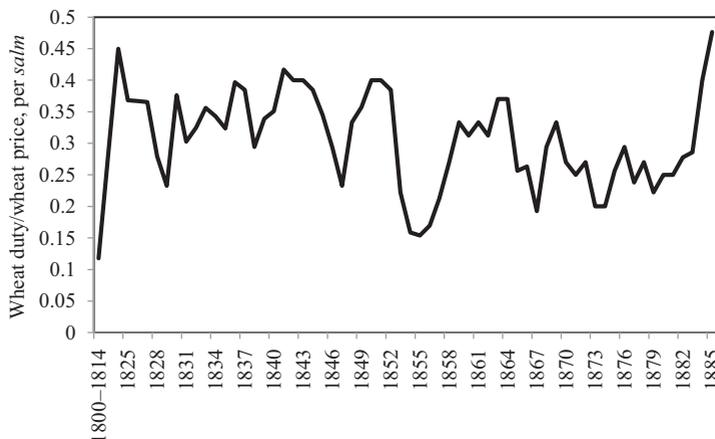


Fig. 2.8 Wheat duty as a proportion of wheat price per *salm*, 1800–1885. Note: Data from Fig. 2.7. Wheat price excludes duty. Both series originally in per *salm* units

dependent. Figure 2.8 shows that between 1800 and 1885, the government levied an average duty on wheat equivalent to 31 per cent the price of wheat (without the duty). By the end of the period, this hit 48 per cent, but the striking thing about this figure is what little change occurred over almost a century (the standard deviation of the series is 7.6 per cent). The government, shrewdly, but perhaps unfairly, raised revenue by taxing an inelastic demand for wheat from a population unable to feed itself.

It is difficult to say whether the government could have done things differently. We saw earlier that officials thought taxing luxury goods useless, as their share in total consumption was small and they could be smuggled into Malta easily. In 1878, however, officials commissioned to inquire about reforming the wheat duty advised that the administration in Malta abolish it completely, and replace it with duties on items mainly consumed by the middle class. The colonial administration in Malta resisted, acceding only to cutting the wheat duty by half and making up for the losses with taxes on beer, wine and spirits, tonnage dues, store rent on bonded goods, licences, and education fees.¹⁷⁷ These proposals brought 2000 protestors to Valletta, carrying placards that vilified the author of the proposals, committing vandalism, and disrupting the Council Chamber's proceedings.¹⁷⁸ While most of

the population ate bread, it was also dependent for an income on the importation, production, and sale of the goods proposed to be taxed. According to the census estimates in the 1878 blue books, 14 per cent of the labour force was directly employed in ‘commerce’ and many more depended on the sector indirectly.¹⁷⁹ In the next couple of years, *elected* members blocked all attempts to push these reforms through the Council.¹⁸⁰ One of the elected members was a representative from the Chamber of Commerce, which strongly opposed the reforms; another opposed the reforms as he claimed to represent the commercial class in his district.¹⁸¹ The non-elected colonial officials on the Council thought about using their majority to push the reforms through, but Sir Michael Hicks Beach, the Secretary of State for the Colonies, rejected the plan, arguing that taxation is a ‘local’ matter.¹⁸² It is likely that the interests of British exporters, and their politically influential distributors in Malta, played a role here, as most of the reform burden would have fallen on them.

An obvious area for reform would have been the colonial administration itself: reducing the need for revenue rather than shifting the source of revenue. One issue was that, as Giorgio Mitrovich’s early-nineteenth-century complaints showed, Maltese administrators were being replaced by British ones who were paid multiples more for the same work.¹⁸³ That aside, the administration’s wage bill grew increasingly heavy by the late nineteenth century. In 1878, the year of the proposed reforms, £5376 in salary and allowances was paid for the Governor, £2563 for the Chief Secretary, and £971 for the Auditor-General.¹⁸⁴ For the sake of comparison, expenditure on primary schools was £5411 or 0.7 per cent more than the Governor’s pay while expenditure on public works¹⁸⁵ was £3643 or 32 per cent less than the Governor’s pay. Wasteful public expenditure was a feature of later years. In 1921, Malta’s single-track 11-km railway between Mdina and Valletta was the beneficiary of £21,140 in public expenditure compared to the £21,006 spent on the Public Health Department meant to serve a population of 212,258.¹⁸⁶ As we shall see throughout this book, reforming the public sector was never easy.

Government as Regulator and Advisor

The government’s distribution of agricultural resources was not always as controversial as that in the grain trade. The regulation of Malta’s scarce soil resources is a good example of this. When a farmer wanted to reclaim

land for crops growing in the barren *xagħra* areas, they would first break up and furrow the land's rugged surface.¹⁸⁷ They would then insert pieces of rock into the furrows, and lay three feet of soil over the whole land surface, building a rubble wall around their plot. This skill in making fields where there was no soil required that farmers were able to move soil around the country. Indeed, Lang's 1960 report on the country's soils, the first of its kind, commissioned by the Colonial Office, notes that '[t]here is plenty of evidence in Malta at present of the movement of soil material from its place of origin to another location'.¹⁸⁸

Until 1935, movement of the country's precious soil was unregulated, and soil itself was often lost or wasted by the construction industry. In 1935, the government increased the scale of soil transfers while limiting soil waste through the provisions of the Ordinance for the Preservation of Fertile Soil. The Ordinance required that all soil must be removed from construction sites and taken where it may be used for agriculture. In 1938, for example, 78,795 cubic yards of soil was moved from construction sites across the country.¹⁸⁹ Of this amount, 29,425 cubic yards was used to reclaim 119 fields, and 11,658 cubic yards was used for the government's Experimental Farm at Għammieri.¹⁹⁰ The rest of the soil was used for back gardens. An average of 50,134 cubic yards was moved under this Ordinance between 1935 and 1950—63,097 cubic yards if we exclude the war years from 1943 to 1945.¹⁹¹ The next law on the preservation of soil was introduced almost 40 years later.¹⁹²

In other areas, the government created new agricultural industries through regulation. Its involvement in the dairy industry provides us example of this role. In 1908, medics established that the goat, the country's main source of milk and cheese, was the carrier of undulant fever—*Brucellosis melitensis*¹⁹³—to the population.¹⁹⁴ Unhygienic methods of husbandry made the disease endemic in Malta's goat population, to the point where the government found one in five goats were carriers.¹⁹⁵ Pasteurizing the milk was seen as one way of blocking transmission of the disease.

Somewhat slow to respond, a commission appointed in 1931 to report on the feasibility of setting up a milk pasteurizing plant concluded that the cost of setting up such a plant is small compared to the cost of treating cases of undulant fever.¹⁹⁶ As a result of this recommendation, construction of a milk pasteurizing plant was started in 1936 on government land in Qormi. The Milk Centre began buying farmers' milk, pasteurizing it, and selling it from this site in 1938. The goal was to pasteurize and dis-

tribute *all* milk, making the direct sale of milk from farmers to consumers illegal. Previously, street hawkers accompanied by their own goats sold goat milk directly to consumers.

There were other reasons for the Milk Centre, which may explain its delayed establishment. It was only in 1937 that a committee ‘appointed to inquire and report on the question of nutrition in Malta and Gozo’¹⁹⁷ recommended that the government introduce milk pasteurization to encourage more consumption of fresh milk, especially among children and expectant mothers. Perhaps more importantly, it was also argued that, as the consumption of tinned milk increased through the 1930s, consuming more fresh milk would lessen Malta’s dependency on agricultural imports. In 1930, tinned milk imports accounted for 3.5 per cent of total retained imports (i.e., not re-exported imports).¹⁹⁸ The share increased to 6.1 per cent by 1938.¹⁹⁹

The next important policy had to wait until after World War II—it was, in fact, a direct outcome of the War. Animal fodder could not be imported during the War and, as we saw earlier, most of the country’s milk-producing goats were slaughtered to supplement meagre food supplies. The Milk Department, renamed as the Milk Marketing Undertaking in 1943, changed its focus to rationing and distributing powdered and tinned milk. After the War, the government retained these abnormal war-time controls, ostensibly to carry out social welfare policies. This allowed it to control tinned milk imports in the post-War period. Tinned milk was rationed, and the profits from its sale were used to offset the losses of the milk pasteurizing centre.

At the same time, the government was replacing goats with cows for milk production, not just because goats carried undulant fever but also because cows are more efficient at converting feed to milk. In 1956, for example, the government had introduced a scheme whereby diseased goats were to be exchanged for healthy cows, at the rate of 12 goats per cow.²⁰⁰ While this goats-for-cows policy seemingly made sense, Malta, like most Mediterranean countries, developed a preference for goats because they are better suited to the climate and grazing grounds. The typical acclimatization range for European cattle is 18–21°C, and as we saw earlier in this chapter, temperature in Malta often goes far out of this range. On grazing, as some agricultural advisors pointed out to the government in 1950, ‘[s]ince land now grazed by sheep and goats is virtually unusable in any other way, they cannot simply be replaced by cattle. More cattle would mean less arable farming crops ...’²⁰¹ As there

is no grazing for cows, they can only rarely be exercised. As a result, cows developed physical deformities—swollen knees, splay hoofs, and lameness—and a short milking life of about six years,²⁰² compared to the more normal range of eight to nine.

Despite these limitations, the Milk Marketing Undertaking managed to get the population to produce and consume more fresh milk, but it was not so successful in its aim of reducing imports of tinned milk. Rather than substituting tinned milk imports, fresh milk appears to have become a differentiated good, as tinned milk imports rose with fresh milk consumption.²⁰³ Indeed, the Milk Marketing Undertaking made a profit in only four of the nine years between 1947 and 1956, and those profit years were due entirely to sales of imported tinned milk.²⁰⁴ In this same period, Charlton calculates that the effective subsidy from the Milk Marketing Undertaking on fresh milk ranged from 20 to 25 per cent of the sale price.²⁰⁵

Why was the dairy industry not profitable? Charlton provides a number of reasons, ranging from the lack of grazing land and the cost of fodder imports, farmers' ignorance of what to feed cows and how much to feed them, to their ignorance of cow breeding and dependence on cattle imports.²⁰⁶ These were important reasons, but perhaps most significant was that there was no information on the production costs of milk. When the Milk Marketing Undertaking bought milk from farmers, prices were set by negotiation with farmers or were based on prices paid by the public in previous years, when there was a strong consumer prejudice against cow's milk in favour of goat's milk.²⁰⁷ Setting prices was further complicated by variation in the milk price: low when there is a flush of production in spring, and high when production tailed off in summer.²⁰⁸

Still, by the late 1950s, there was a 'considerable amount of capital and labour engaged in the pasteurization and bottling plant, and in the milk collecting and distributing organisation'.²⁰⁹ As farmers preferred a regular income from milk, with a guaranteed government buyer, to an uncertain cash crop, they turned their energies to dairy farming. Charlton reports that many farmers would have emigrated had it not been for the Milk Marketing Undertaking.²¹⁰ Instead of emigrating, they became 'fully commercial milk producers, producing milk solely for the pasteurization centre', while much arable farming was used for growing fodder for the dairy animals.²¹¹ The Milk Marketing Undertaking thus became a form of protection for the dairy industry.

Initially, the Milk Marketing Undertaking was a policy tool with straightforward welfare aims: to eradicate undulant fever and to get the population to consume more milk for nutritional reasons. By enforcing pasteurization and so buying overpriced milk directly from farmers to meet these aims, the policy created a boom in milk production that was beyond what the economy could support. It is unlikely that the dairy industry would have developed to its 1950s' level without implicit government subsidies. The Milk Marketing Undertaking remained a government department until 1985. In 1986, it was partially privatized and renamed Benna, with the government retaining a 30 per cent stake through its government investment arm, which it holds to this day.²¹²

Credit for Agricultural Sector

Protection of the dairy industry was one way in which the government unwittingly blocked the reallocation of resources to more productive activities within the agricultural sector. Some writers argued that another constraint on agricultural development was credit scarcity, which hindered the sector's path to more intensive production.²¹³

As early as 1836, it was estimated that only five per cent of farmers—who rarely owned their fields, but had to buy their own implements²¹⁴—had sufficient implements to do their work, and that the average capital invested in implements amounted to just 16 shillings eight pence.²¹⁵ This amount is equivalent to nine per cent of an agricultural labourer's already meagre 1836 annual earnings.²¹⁶

One explanation for this lack of capitalizations was that, as Borg in 1915 claimed, Maltese fields are so small and terraced that 'steam ploughing and other modern appliances are not practible'.²¹⁷ This 'technological pessimist' explanation was the consensus view from the start of our period until years after Borg's writing. It was misguided for three reasons.

First, as Clare pointed out, even though farms were not 'mechanized', farmers still required capital to pay their labourers before gathering crops.²¹⁸ For this, credit was provided by landlords and *pitkali* at rates rising to ten per cent, meaning 'few farmers would have borrowed out of pure enterprise'.²¹⁹ Lenders relied on the confiscation of crops as a form a security.²²⁰ Second, the 'technological pessimist' explanation implicitly relies on economies of scale: that farmers will only invest in capital goods like tractors if their fields are big enough and so

their productive capacity large enough to warrant the cost of a tractor. This ignores the possibility of a rental market in tractors or, simply, ‘the fact that large plots can be subdivided into smaller plots and cultivated the same way small plots can’.²²¹ Finally, the benefit of hindsight shows that ‘modern appliances’ were indeed ‘practicable’ on Maltese fields. As Charlton wrote, many fields

*are capable of being worked by tractor driven ploughs, and, since the second World War, the increasing scarcity and high costs of agricultural labour resulting from the move away from the land, have compelled many farmers to hire the services of a tractor during the busy ploughing season of late summer.*²²²

By 1961, the time of Charlton’s writing, between 40 and 50 tractors were in operation in Malta alone.²²³ In other words, there were between 4.8 and six tractors per 1000 farmers or between 3.3 and 4.1 tractors per 1000 agricultural land holdings.²²⁴ This was a slow start, but it at least counters the idea of mechanization being simply not ‘practicable’, and so the demand for credit being non-existent. What held back mechanization was, as Charlton rightly implied, a plentiful supply of cheap agricultural labour that diminished, and so became more costly, as labourers moved into other sectors. The only pre-World War II major agricultural mechanization project was, as we saw above, the government-supported dairy industry. This argument can be stated in terms of the Rothbarth–Habakkuk thesis.²²⁵

The thesis was developed as way of explaining why real wages were higher and technological progress faster in the United States than in Britain in the mid-nineteenth century.²²⁶ More specifically, it claims that the United States was scarce in labour but rich in land. This high land–labour ratio elevated real wages, the price of labour, as there was more land to be worked than labour to work it. High labour costs incentivized the development of labour-saving technologies or methods, such as factory-line production or the use of tractors. Malta was in the opposite situation: a high labour–land ratio that depressed real wages, and so disincentivized technological progress. Figure 2.9 makes this argument clearer.²²⁷

The vertical axis measures quantities of capital and the horizontal axis measures quantities of labour. The points on the graph represent the amounts of capital and labour used to produce a single unit of output. Say

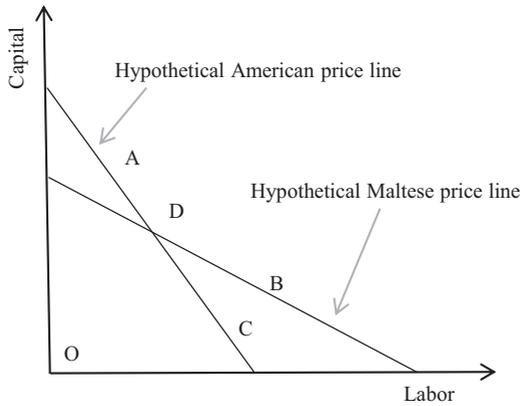


Fig. 2.9 The Rothbarth–Habakkuk thesis. Notes: Adapted from Figure 1 of Temin, P., *Labor Scarcity and the Problem of American Industrial Efficiency in the 1850s*, *Journal of Economic History* 26(3), pp. 277–298

that point *A* represents the combination of these two factors in the United States, and that point *B* represents the factor combinations used in Malta. The figure shows that the United States uses less labour to produce a unit of output than Malta does. Labour-saving technologies account for this difference. To understand this, consider the hypothetical price lines—lines showing the rates at which capital and labour can be exchanged—for each country. They cut through their respective points *A* and *B*, showing the factor use in each country. The United States price line is made up of points showing the amount of labour and capital that could be used in the United States to produce a single unit of output at the same cost as the factor combination represented by point *A*. Any point between the price line and the origin *O* would represent cheaper factor combinations than *A* while points on the either side of the line show more expensive factor combinations. The Malta price line is the locus of points representing factor combinations that would cost in Malta the same as the factors represented by point *B*. The United States line is steeper, as real wages were higher in the United States than in Malta.

Figure 2.9 makes it clear that neither country has an incentive to adopt each other's practice. If Malta were to use the United States factor combinations—with Maltese prices—it would be more expensive than its original factor combination. Only points within the triangle bounded by the

axes and the Maltese price line going through *B* represent combinations as cheap as or cheaper than *B* in Maltese prices. If the price lines for both countries, drawn through their respective points, cross as they do at *D*, then we can say that the levels of technology used are the same in Malta and the United States. It is only when the intersection of the price lines lies to one side of both points that we can say one country is using more advanced technology than the other. Figure 2.9 shows that Malta uses less advanced technology than the United States—because its relative endowment of labour to land paid it to do so.

This thesis assumes that credit for mechanization would have been forthcoming had the relative factor endowments been right, if, for example, in Malta's case, real wages rose enough to make investment in farm technology sensible. Indeed, some authors have argued that the real problem was with the *supply* of credit itself.

Paris' 1945 report on agricultural cooperatives concluded that farmers needed short-term loans to buy items like seeds and fertilizers.²²⁸ Without the provision of this working capital, Paris argued that the agricultural sector would not advance. By this point, the government had a history of making small grants for this purpose to farmers through the *Società Economica-Agraria Malta*, the Agricultural and Industrial Show, and the Horticultural Society. However, these grants were very small—£300 in 1922, for example.²²⁹ The agricultural bank Paris seems to have been advocating never came, and Busuttill argues this was for good reason.²³⁰

According to Busuttill, most farmers had little capital to put into such a bank.²³¹ Whatever capital farmers managed to accumulate was either stored at home or put into the government Savings' Bank. Busuttill went to argue that, echoing the 'technological pessimist' view, that farmers had only one use for fixed capital—to buy land. Land purchases were limited, however, for three reasons. First, private landowners were reluctant to sell their land to farmers, expecting urban developers would pay more during this period of urbanization. Second, Church-owned land could not easily come to market. Lastly, government or British services-owned land was unlikely to be sold—the former was more interested in acquiring land and the latter in keeping it. Busuttill concludes, '[s]uch a restricted sector could not have warranted the setting up of an Agricultural Bank'.²³² Busuttill is half right: it is true there was not enough land to buy, an issue we turn to in the following sub-section, but the credit scarcity argument is overdone.

The first question is why should capital for an agricultural bank come from farmers alone? It is understandable that farmers would not want to depend on farming for both their direct income *and* investment, preferring to keep their savings in the Savings' Bank. But the “principal” merchants, landowners and professional men, the few hundred better-off tradesmen, and the several hundred really skilled artisans' that Price refers to did have savings to spare.²³³ As we saw in the discussion of the wheat duty, there was no income tax and the greater tax burden fell on the working class. The two Maltese banks in 1837 held liabilities of over £100,000 (£76,218 in 1938 prices) while the Savings' Bank accumulated £300,000 (£175,889 in 1938 prices) worth of deposits by the mid-1840s—not to mention the sums hoarded in private deposits and homes.²³⁴ Between 1860 and 1920, the number of depositors at the Savings' Bank increased every year, from 1269 to 8113 depositors, and while the deposit amount varied from one year to the next, it went from £57,061 (£32,361 in 1938 prices) to £295,692 (£343,597 in 1938 prices) in the same period.²³⁵ For the sake of comparison, this last deposit figure is equivalent to 28 per cent of total government expenditure in 1920 or, in other words, is 25 times greater than the government's expenditure on agriculture in that year.²³⁶

The existence of these funds suggests that throughout the nineteenth and early twentieth century there was real and potential capital free and ready for investment. Given this, the problem is more likely to have been with the disincentives for investment in agriculture that came with a high labour-to-land ratio. We turn to these two factors—land and labour—next.

LAND AND LABOUR IN AGRICULTURE

Malta's labour–land ratio was already high by the late medieval period. Wettinger described the prevailing situation as one of ‘land hunger’.²³⁷ Competition for land grew more intense in the modern era, giving landlords—mainly the government, Church, and nobility—rather than farmers, bargaining power. This situation, coupled with the country's climatic volatility, which as we saw above made yields and output volatile, gave rise to Malta's fixed-rate land tenancy contracts. While some sharecropping persisted, by the fifteenth century most royal estates had been largely alienated or were leased out on a rental or census-paying basis.²³⁸

Why is the form of agricultural land tenancy contract of interest? There is a long tradition in economics that stresses the differences between

sharecropping—where landlords charge some share of the crop output as rent—and fixed-rate contracts—where landlords charge a fixed sum as rent.²³⁹ A simple way of understanding the difference between these two contracts is by expressing total rent R as

$$R = \alpha Y + F \quad (2.1)$$

where Y is total crop output and F is the rent amount of a fixed-rent contract.²⁴⁰ If farmers are on a fixed-rent contract, then $\alpha = 0$ and $F > 0$. If on a sharecropping contract, then $0 < \alpha < 1$ and $F = 0$. That is, the share given to the landlord is α , and the farmer's share is $1 - \alpha$. The implication here is that under a fixed-rate contract, the farmer retains 100 per cent of extra output as $\alpha = 0$. Under sharecropping, however, the farmer only gets $1 - \alpha$ of additional output. This incentivizes the farmer to undersupply their effort, as each additional unit of output, *which requires costly additional inputs of hired labour*, is taken by the landlord. Fixed-rate contracts thus incentivize higher productivity, but they also mean farmers assume all of the risk. That is, the rent they pay to their landlord is independent of the realized crop output or prices prevailing at harvest time. Sharecropping provides landlords with an incentive to invest in output-enhancing implements,²⁴¹ the costs of which were borne by Maltese farmers.²⁴² Sharecropping persists, despite its productivity disincentives, as a means of sharing output risk.

We saw in Figs. 2.2 and 2.3 just how volatile agricultural output and yields were over the nineteenth to early twentieth century. Sharecropping did not arise in the face of this volatility because Maltese landlords, aware of the shortage of land, had no reason to enter into sharecropping contracts: they were able to charge high rents without much concern for the eventual crop output, retaining the right to seize the land, or evict the farmer, or simply confiscate the crop.²⁴³ The benefit of this form of land tenancy were incentives for high productivity, as $\alpha = 0$ and there existed a credible threat of eviction. The drawbacks were severe hardship when harvests were poor, as F is independent of Y or the unit price of Y . Consistent with this, Maltese yields were high in international perspective, and hardship was severe when rents set in boom years carried over into drought years. Before examining these outcomes, we must first look at their modern legal source: the four agricultural landownership categories.²⁴⁴

Civil Government and War Department Ownership

The government and the War Department's agricultural land ownership did not undergo much change from the late nineteenth century to 1947. Ownership increased slightly between 1944 and 1947 when reconstruction and development projects required the government to buy freehold land, most of which was in uncultivated areas.

The government gave a large share of its agricultural land to farmers on emphyteutical lease, starting in earnest in 1850.²⁴⁵ These leases were usually given on a 99-year basis, limited to small plots of around 16 *tmieim* (around 18,000 m²), and gave the farmer tenure that could be renewed by their heirs, subject to improvement of the land and payment of rent and taxes. Between 1850 and 1900, the rent the government received from these properties accounted for, on average, 6.6 per cent of its total annual revenues.²⁴⁶ Busuttill quotes a rate of one shilling half pence per *tomna* (around 1124 m²) in the 1940s.²⁴⁷ Evidence shows that the government's ownership of agricultural land increased in the early twentieth century. From 1921 to 1938, the government's leases accounted for 31 per cent to 39 per cent of all cultivated acreage.²⁴⁸

In comparison, government land sales never amount to more than a few pounds per year. For example, in 1870, a total of 46 sales were made, totalling 12.5 acres, at the rate of £18 per acre—0.14 per cent of total revenue for that year.²⁴⁹ Long leases ensured that emphyteutical lease was an important part of the agricultural economy's land ownership structure up until the late twentieth century.

Roman Catholic Church Ownership

Between 1891 and 1901, the Roman Catholic Church's agricultural land ownership increased from 16.5 per cent to 17.1 per cent of all agricultural land.²⁵⁰ After 1901, the government imposed restrictions on the Church's ability to acquire land. Consequently, its share only increased by 1.4 per cent between 1901 and 1945.²⁵¹

As with government-owned land, the Church let its land to farmers with emphyteutical leases. According to Busuttill, some of these leases cover such long terms that some farmers do not know whether their land is freehold or emphyteutical, a matter not helped by poor Church estate records.²⁵²

Private Ownership

Much of Malta's agricultural land ownership was private during the nineteenth century,²⁵³ but moving into the twentieth century its share dropped for two reasons. First, as urbanization gathered pace agricultural land was converted to commercial and residential use. This became more of an issue in the post-World War II, as population pressures grew. Second, due to the 'exigencies of war' the government acquired agricultural land during World War II, buying most from private landowners.²⁵⁴

Tenancy contracts in this category tended to be a mix of emphyteutical leases, as with government- and Church-owned land, and shorter-term rents. This depended on the land's agricultural potential. Price writes that in the early nineteenth century, for example, the 'average tenant-farmer' held his land of 'rarely no more than 30 acres ... on a short lease of four to eight years; only waste and very poor land did he hold on long lease at low rent'.²⁵⁵

Farmer Ownership

There are no reliable estimates of freehold, farmer-owned agricultural land ownership land before 1945. Some writers argued that the area in this category increased after World War II, but this is open to dispute.²⁵⁶ Busuttill argues that freehold ownership decreased over the long run due to a growing share of long leases and declining share of agricultural to urban land.²⁵⁷

This view is supported for the pre-War period by the limited information available in the blue books. When land grant data are provided between 1870 and 1880, the books show that a total of 182 sales rid the government of less than 44 acres of land.²⁵⁸ We do not know what share of this 44-acre total is agricultural or urban, but even if it were all agricultural, and all sold to farmers, it would still not be enough to change their total ownership share substantially. For the early twentieth century, the books provide data showing that the number of acres 'cultivated and let on long or short leases' increased from 13,602 acres in 1921 (31 per cent of cultivated acreage) to 16,650 acres in 1938 (39 per cent of cultivated acreage); meanwhile the number of acres actually sold never rose above five in any one year.²⁵⁹

Ownership and Productivity

In short, most agricultural land in Malta was held by farmers on emphyteutical lease. In some areas, particularly where yields were high, leases were for shorter-term—usually under tenyears—but still rented at fixed rates. It is in this sense that Busuttill claimed ‘the question of land ownership was not of vital importance to Maltese agriculture’.²⁶⁰ The incentives for agricultural productivity faced by a farmer who owned their own land are the same as those faced by a farmer on a long lease: in both cases, farmers knew that additional output was their own rather than partly their landlord’s. Knowing this, farmers would only bring in additional labour inputs under fixed-rent tenancy. We can now turn to the good and the bad of this tenancy contract.

Although Malta was not self-sufficient in wheat, its wheat yields were among the highest in the Mediterranean region. One author, writing in 1915, described Maltese farmers as ‘the best wheat growers in the world’.²⁶¹ Apostolides provides a figure showing that wheat yields in Malta between 1921 and 1938 were between 3.3 and 2.5-times higher than yields in Cyprus, Greece, and Turkey—countries with similar climates.²⁶² Apostolides argues that land scarcity in Malta is what drove yields higher, but land scarcity was also an issue in Cyprus and we have already seen that per capita imports of grain were increasing. One way in which Maltese agriculture is different is that it did not use sharecropping, like Cyprus, Greece, and Turkey. In Greece, for example,

*[t]he sharecroppers themselves never expanded their cereal production beyond the level of subsistence (producing the part of the landlord and the necessary minimal for their family’s consumption). In late 19th century Thessaly, share-croppers preferred to employ their surplus family labor in tobacco production ...*²⁶³

There may other reasons for higher yields. The first would be mechanization, but as we saw above, Malta’s high labour–land ratio disincentivized the adoption of productivity-enhancing technologies—until the post-War period. Another would be the pull of foreign markets, which we saw was a big part of overall agricultural productivity, particularly with potatoes. Yet wheat was not an export crop; it was in fact a major import good. A more likely explanation for the high and increasing wheat yield displayed in Fig. 2.10 is that fixed-rent contracts set up the

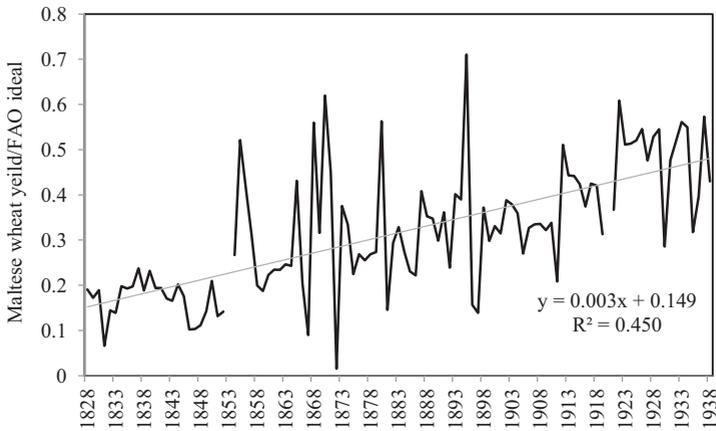


Fig. 2.10 Wheat yields in Malta as proportion of Food and Agriculture Organization of the United Nations (FAO) ‘ideal’ wheat yield, 1828–1938. Notes: According to the FAO, the ideal climatic conditions produce a wheat yield of 237.5 kg per hectare: (FAO), Yield response to water: Part A of Irrigation and Drainage paper, No. 33, I. Maximum Yield Section. Available online: <http://www.fao.org/landandwater/aglw/cropwater/docs/chap1.pdf>, Accessed: 27 June 2010. The Maltese wheat yields were calculated from the blue books data. The trend line is linear and its equation is in the graph area

parameters for high productivity while Apostolides’ land scarcity—or increasing population pressure—argument drove the rising productivity trend.

A problem with fixed-rate tenancy is that it does not offer the farmer protection against unforeseen drops in output or prices. This might occur in times of drought or in times of economic recession, when demand is low. In fixed-rate contracts, farmers assume all this risk, as their rent is independent of their output or prevailing prices. An example of the problems this can cause comes from 1820s and 1830s.

Farmers whose rents were set in the French War boom years found themselves unable to pay rent when the boom was over. As Clare wrote, ‘Foreign imports of grain and cotton were clearly bearing heavily on local agriculture, once the booming conditions of the war years had disappeared’.²⁶⁴ Depending on the quality of soil, farmers were paying between 13 and 90 shillings per acre in rent.²⁶⁵ This rent, ‘a relic

of the war-boom, was higher than current [agricultural] prices could manage'.²⁶⁶ Between 1814 and 1824 alone, officials took upwards of 1000 warrants of seizure of property, and farmers on government land were subjected to 1200 seizures of crops.²⁶⁷ There were 3000 odd tenant farmers in operation at the time.²⁶⁸ It was not until 1843 that the situation improved. The government, which at the time owned a third of the country's agricultural land, lowered its rents by 25 per cent to 30 per cent.²⁶⁹ As the government accounted for such a large share of the agricultural land market, other landowners had to follow its reduction in rents and 'the plight of the small-farmer became quickly less acute'.²⁷⁰

As there was no form of insurance to protect farmers against sudden losses in income, and as their rents were fixed, the adjustment to lower international prices of agricultural goods had to be made in the domestic labour market. Real wages for agricultural labourers were 40 per cent higher in 1843, the year in which the government triggered a reduction in agricultural land rents, than in 1842.²⁷¹

The labour market also had to adjust to another important trend in the agricultural sector: land fragmentation. The size of farm holdings has steadily diminished over the modern era. In 1891, the median holding in Malta was 18 *tmiem* (20,250 m²) and in Gozo was 13 *tmiem* (14,625 m²).²⁷² Within the space of 25 years, the Gozitan median shrunk to eight *tmiem* (9000 m²).²⁷³ By 1945, holdings shrunk to the point where the median Maltese holding was smaller than the Gozitan median at the turn of the century.²⁷⁴ The total number of agricultural holdings hit 11,000 by 1921,²⁷⁵ against an agricultural labour force of 16,270 persons,²⁷⁶ and 12,640 holdings by 1957, against a farming population of 17,242.²⁷⁷

Busuttill describes this situation as 'a major problem in the agricultural structure of the Maltese Islands'.²⁷⁸ His argument is that, first, land fragmentation is an obstacle to cooperation in marketing and production, and, second, as farms get smaller, farmers get smaller output and lower income. How did the agricultural labour market adjust to this? As Busuttill sees it, farmers had three options available to them: (1) increase unit prices of their agricultural output, (2) merge holdings with fellow farmers, and (3) become a part-time farmer or leave the sector altogether.²⁷⁹ The implications of this choice extend well beyond the agricultural sector so it is worth examining each option in some detail.

Increase Unit Prices

If a farmer's income is the product of the price times the quantity of their output, then they can adjust for a fall in quantity, brought about by a fall in farm size, by increasing prices. Busuttill claims this was not a viable option 'in view of the marketing structure' of Maltese agriculture.²⁸⁰ He is referring to the *pitkali*, who act as intermediaries between farmers and retailers, setting prices for domestically produced agricultural goods. This intermediary system was one reason why farmers could not simply increase prices, but even if this were an option, the extent to which farmers could increase prices was limited by foreign competition.

Recall that a major tariff reform was enacted in 1837 whereby duties on most imports to Malta were abolished, except for those on grains, pulses and seeds, alcohol, some animals, charcoal, and vinegar.²⁸¹ After 1837, if Maltese farmers raised their prices beyond the prevailing international price for duty-free agricultural imports, they would be uncompetitive. Consumers would switch from domestic to imported produce.

It is important to remember that the nineteenth century saw a dramatic integration of global commodity markets.²⁸² A series of developments in technology (steamships and railways) and politics (Suez Canal and colonial free trade doctrine) drove down trade costs. Smaller trade costs translate into smaller price differentials for the same good between different markets. For example, Liverpool wheat prices exceeded Chicago prices by 57.6 per cent in 1870, by 17.8 per cent in 1899, and 15.6 per cent in

Table 2.3 Domestic versus imported wheat prices in 1938 £ per *salm*, 1860–1910

	<i>Average domestic price</i>	<i>Import price</i>	<i>Import price inc. duty</i>
1860	1.18	1.22	1.72
1870	1.7	1.32	1.82
1880	1.24	1.23	1.73
1890	1.1	1.28	1.78
1900	0.77	0.85	1.35
1910	1.13	1.04	1.54

Notes: All prices are in 1938 £ per *salm*. A *salm* equalled 98.5 per cent of a quarter before 1875, and 100 per cent after. Deflated using CPI from Chap. 1. The 'Average domestic price' is the 'average' price of wheat from the 'Agriculture' chapters of the blue books. The 'Import price' is the ratio of total wheat import value to total wheat import quantity from the 'Imports & Exports' chapters of the blue books. Wheat duties are from Price, C.A., *Malta and the Maltese: A study in nineteenth century Migration*, Melbourne: Georgian House, 1954, p. 218

1912.²⁸³ High transport costs no longer protected agricultural producers from foreign competition; the task was up to tariffs alone.

While Malta maintained a high duty on imported grain, we can get a sense of the international competition Maltese farmers faced by comparing the wholesale prices of their wheat to the import prices of wheat, *excluding the duty*. Wheat is representative as it was consumed in large quantities by most of the population. More specifically, Table 2.3 contains the price per imperial quarter of wheat in 1938 prices for the 1860–1910 period.²⁸⁴ For domestically produced wheat, the blue books quote a ‘low’, ‘average’, and ‘high’ price: we are interested in the average price. For imported wheat, we can simply derive the unit price by taking the ratio of total wheat import values to total wheat import quantities. This evidence shows us that Maltese farmers had little room to make price adjustments. In 1860, the import price was 3.4 per cent higher than the domestic price, implying that Maltese farmers could have raised their price by that percentage. In 1870, however, the import price was 22.5 per cent below the domestic price, that is, if consumers were able to purchase wheat directly from importers without any duty, then they would have been 22.5 per cent better off. In the next benchmark year, 1880, the import price rose so that it was only 0.8 per cent lower than the domestic prices. In 1890 and 1900, the domestic price dropped, respectively, to 16 per cent and 9.5 per cent below the import price. It was in these two years that Maltese farmers could have made substantial price adjustments. By 1910, however, the import price dropped to a level 7.5 per cent below the domestic price. Averaging across these benchmark years, the domestic–import price differential we get is 1.1 per cent.

The wheat duty is what kept domestic wheat producers afloat. Over this period, the wheat duty was fixed at 10 shillings per *salm* (98.5 per cent of a quarter before 1875; 100 per cent after). The final column in Table 2.3 shows the import price inclusive of the duty. It is, on average, across the benchmark years 44.2 per cent higher than the domestic price. Recall that domestic wheat production was not enough to satisfy the inelastic domestic demand for wheat.

Even without the *pitkali*, Maltese farmers would have been unable to make price adjustment substantial enough to compensate for the fragmentation of their holdings, and consequent loss of output. This, of course, assumes that the size of agricultural holdings and the number of farmers per holding remain constant, bringing us to the next available option.

Merge with Fellow Farmers

If land fragmentation is a problem, then arguably farmers could reverse the fragmentation trend by merging holdings. This argument relies on the idea that larger farms are more productive—higher output per acre—than smaller ones. We briefly dealt with this idea when the question of technological backwardness in Maltese agriculture arose earlier, but it is important to raise additional points here.

First, we must set out why merging holdings might make farming more efficient. In short, a relationship between farm size and economic efficiency might arise for two reasons.²⁸⁵ Some technological improvement that was not viable on a small plot—say, large tractors—can change the farm's physical production function, so that greater output is associated with less input. This is the economies of scale argument. The other reason is that relative prices can be such that cost savings come from increasing farm size. That is, from a farm adjusting its use of factor inputs and its output mix to respond to relative prices. For example, farmers might only be able to switch to higher value-added livestock production on larger farms.

This conceptual case also provides landlords with an argument to allow mergers, even encourage them, between farmers. If larger farms are indeed more efficient, then it would pay landlords to consolidate holdings and to sign farmers up to sharecropping contracts, whereby they take a share of output.

Why, then, did mergers not happen? Busuttill argues that 'mergers did not fall within the Maltese farmers' social outlook'.²⁸⁶ There are also economic reasons. First, assuming that the above conceptual case holds, farmers who merge holdings would still face a 'free rider' problem. One farmer may contribute less than the rest of his farming group, 'freed riding' on their efforts, or, in other words, taking an equal share of output for a smaller share of input. If the rest of the group see this, or even suspect some member is free riding, they may reduce their effort as well. The result is a loss in efficiency. A possible solution to the free rider problem is to, by means of a third party, introduce regulations, and ways of monitoring and enforcing those regulations. In this case, it would be the landlords: to ensure that merged holdings provide a higher return, they would need to supervise their tenants' efforts. This role—regulation, enforcement, and monitoring—makes for additional costs that eat into the landlords' potential returns. We cannot observe just how costly this supervisory role would have been, but given we have no evidence of landlords consolidating their

holdings—in fact, the total number of holdings increased over time—it is likely that merging holdings was not a desirable option. In this vein, Refalo tells us that ‘[d]espite the declared interest in land and agriculture, the principal land-owning class of [Malta]—the nobility—did not, as a rule, involve itself in the practicalities of agriculture and the amelioration of farming methods’.²⁸⁷

The free rider problem aside, there is reason to doubt whether merging improves efficiency in the first place. The empirical evidence on the relationship between farm size and efficiency is mixed, with some studies supporting an inverse relationship, others supporting it only for certain crops and regions, and some others simply rejecting it.²⁸⁸ This is not surprising if we put some thought into the argument. It is true that farmers will not invest in a tractor for a field so small that the increased output from tractor use does not cover the cost of the tractor in the first place. But it is also true that when any one farmer cannot afford a tractor or some other piece of farming machinery for himself alone, a rental market for tractors develops. As we saw earlier, the decrease in Malta’s labour–land ratio after World War II, which raised agricultural wages, ‘compelled many farmers to hire the services of a tractor during the busy ploughing season of late summer.’²⁸⁹ By 1961, there were between 3.3 and 4.1 tractors per 1000 agricultural land holdings,²⁹⁰ or 57.6 tractors per 100 km² of arable land.²⁹¹ A rental market for agricultural machinery could have alleviated the land fragmentation problem. As the Rothbarth–Habukuk hypothesis showed us, it was not fragmentation itself or credit scarcity that delayed the mechanization of agriculture, but a high labour–land ratio.

Part-Time Farming and Emigration

Downward wage adjustments to a high labour–land ratio will eventually push workers into other lines of work. Employment in agriculture hit 26 per cent of total employment in the mid-nineteenth century, declining steadily to 24 per cent by 1931.²⁹² By the end of the 1950s, the ratio dropped to around 18 per cent.²⁹³ Workers were clearly leaving the agricultural sector, but where were they going?

Busuttill writes that one ‘vent’ for excess agricultural labour was *part-time* agricultural labour.²⁹⁴ He writes that the number of full-time farm workers had been declining slowly, but gathered pace after World War II, so that by 1951, the number of full-time farm workers had dropped to under 500.²⁹⁵ The same pattern can be observed for farmers themselves,

rather than their workers: by 1956, the number of part-time farmers (9749) was 30 per cent greater than the number of ‘whole-time’ farmers (7493).²⁹⁶ Still, the part-time farming trend cannot explain everything. Looking at the total number of people dependent on farming, whole-timers, part-timers, and their families, we see a long-run trend of decline running into the late twentieth century: from 58,928 persons in 1955 to 53,511 in 1960.²⁹⁷

Many agricultural labourers were absorbed by the manufacturing sector, as normally happens over the course of modern economic development. For the census employment estimates between 1851 and 1938, the correlation coefficient between the agricultural and manufacturing share of total employment is -0.43 : as manufacturing’s share of total employment increased, agriculture’s share declined.²⁹⁸ Yet, while the correlation is strong, it is some distance from a perfect negative correlation coefficient of -1 , implying that something else was absorbing excess agricultural labour.

Emigration, as Busuttill writes, was one of the main causes for the decline in the agricultural labour force. In 1954 alone, some 670 whole-time farmers emigrated.²⁹⁹ Emigration had long precedents, and was perhaps the single most important vent for the economy’s surplus labour.

The number of emigrants from Malta ran at around 1000 to 2000 a year between 1818 and 1832, doubling between 1833 and 1836, and remaining at the 3000-a-year level throughout the 1840s.³⁰⁰ This was equivalent to around 2.5 per cent of the population leaving annually. The corresponding figure for Britain during this period is 0.5 per cent. In 1842, a stock of 9500 Maltese migrants could be found in Algeria, over 5000 in Tunisia, 1200 in what we now call Libya, 2500 in Egypt, and 1000 in the Ionian Islands. This diaspora was equivalent to 15 per cent of Malta’s population, up from six per cent in 1825. Some 40,000 Maltese lived and worked abroad by the 1860s, rising to over 50,000 in the 1880s. At the turn of the century, around 25 per cent of Malta’s population lived outside the country.

Figure 2.11 helps us understand why these flows were large. A high labour-land ratio put downward pressure on wages in Malta, represented on the right-hand side vertical axis. Wages in the emigrant’s destination, say North, are on the left-hand side vertical axis. In this two-country world, the global labour supply is measured along the horizontal axis. An equilibrium distribution of labour is at the intersection of O and N, the two labour demand schedules. Starting at L^1 , we see that labour is

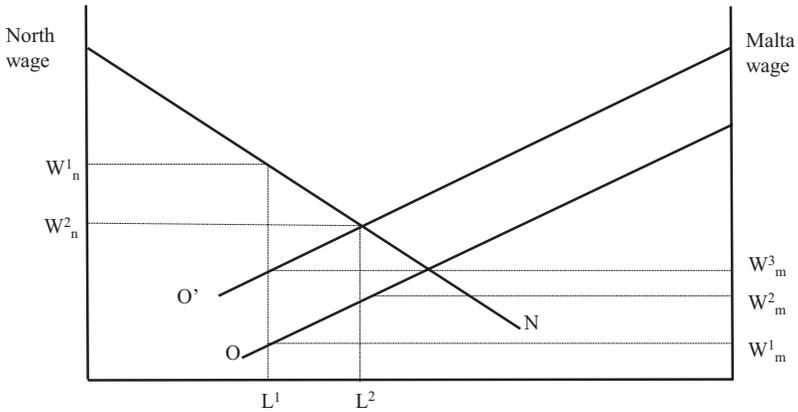


Fig. 2.11 Distribution of labour between Malta and ‘North’. Notes: Adapted from Hatton, T. and Williamson, J., *The Age of Mass Migration: Causes and Economic Impact*, New York and Oxford: Oxford University Press, 1998, p. 210

scarce in North, and so the wage gap between the two countries is large, $w_{North}^1 - w_{Malta}^1$. If migration redistributes labour towards L^2 , the wage gap closes to $w_{North}^2 - w_{Malta}^2$, and we can attribute all the wage convergence to migration.

Convergence is also possible as a result of a relative demand shift, going from O to O' . This would keep Malta’s labour share at L^1 , while raising its wage level to w_{Malta}^3 , and narrow the wage gap to $w_{North}^1 - w_{Malta}^3$. Such a relative demand shift could have been the result of a technological shock that raised labour productivity in Malta, but one important characteristic of the economy, particularly the agricultural sector, at this stage was a *low* level of mechanization.

While not the only pull factor in migrant’s decisions, the wage gap between Malta and destination countries was definitely one of the most important. Based on one analysis of Mediterranean emigration to the labour-scarce, high-wage New World in the nineteenth century, every ten per cent narrowing of the wage gap between these two regions reduced the Mediterranean’s average gross emigration rate by one emigrant per 1000 home population.³⁰¹ Between 1861 and 1870, Malta’s gross emigration rate averaged 19.9 per 1000 and 11.2 per 1000 between 1871 and 1880.³⁰² Neither do we need to go so far to find destination countries. In the early nineteenth century, agricultural labourers in the Ionian Islands

were paid 15 pence a day compared to seven pence in Malta.³⁰³ The Ionian Islands provided enough land for labourers to engage in cultivation on their own account.

The implication of Fig. 2.11 is clear. For a large enough wage gap, the flow of emigrants from Malta will eventually reduce its labour–land ratio, raising its wage level, as labour grows increasingly scarce. This would improve labourers’ living standards, but increase land and business owners’ wage costs. This much was clear to contemporary observers.

In 1838, the editor of the newspaper *Il Mediterraneo* wrote that ‘Malta presents the singular phenomenon of an exuberant population’.³⁰⁴ A Malthusian, he warned his readers not to rely on another outbreak of cholera (one occurred two years earlier) as ‘plague only ploughs a track which, like that of the sea, is speedily filled up again’.³⁰⁵ The editor was pushing for government intervention in emigration. Not much had changed by 1910, when Professor Lawrence Manché, head of the Ophthalmic Institute³⁰⁶ and later member of the Malta Emigration Committee, wrote to the *Daily Malta Chronicle* that ‘a feasible [sic] scheme to relieve Malta of its superabundant population’ was still lacking.³⁰⁷ Manché went on,

*to demonstrate the urgent necessity of Emigration in Malta, the fact of how low the wages accepted by agriculturalists and artisans, stands out as the index of the number of the unemployed who are ready to work at any low rate provided they earn a scanty livelihood to keep themselves and family ... It is desirable ... that the public might know whether there is any probability of the Government promoting a regular scheme for an extensive emigration.*³⁰⁸

The following day, Manché wrote another letter, arguing that ‘The only feasible [sic] way of encouraging, and carrying out a regular scheme of emigration rests with the local Government’.³⁰⁹

Why did the government need to intervene? One answer may be that politically influential business owners and landowners’ did not want to lose their abundant supplies of cheap labour. This happened in late nineteenth century Italy, when *latifundia* owners used their political influence to get the Ministry of the Interior to restrict emigration from Italy.³¹⁰ According to Manché, this argument also existed in Malta:

*[o]thers deprecate that Emigration will be the cause of increased wages asked for by the local labourers who will remain in Malta, as work is paid in proportion to the relation between demand and supply. But this is the opinion of selfish individuals who look for their own interest and not for the welfare of the whole population, and is not worth while [sic] noticing.*³¹¹

Indeed, not many people did notice. Already in 1878, 32 years before Manché's letter, a committee including Crown Advocate Sir Adrian Dingli, Director of Public Works Professor G. Schinas, Chief Government Architect E.L. Galizia, and the Marquis Testaferrata Olivier, a landowner, visited Cyprus to explore the possibility of establishing a Maltese colony there.³¹² As we saw earlier, landowners mainly earned their rents from fixed-rent contracts by this point—they rarely directly employed agricultural labourers or entered into sharecropping agreements with them.

Government intervention was needed because the labourers who were most in need of emigration could not afford it. Maltese labourers' wage gap with destination countries was high enough to incentivize emigration, but their own wages were low enough to make migration costs prohibitive. They rarely got loans to fund their journeys, and their incomes were generally too low to accumulate savings. For this reason, most long-distance emigration in the early nineteenth century was indentured labour. One failed venture sent illiterate, impoverished labourers to work on agricultural estates in British Guiana in the 1830s.³¹³ Emigration to the New World was low until the mid-to-late twentieth century. Until then, most migrants went to nearby North Africa and because British consuls there were obliged to fund return voyages for their 'subjects'. This is also why we see a private response, from Vincenzo Bugeja's *Bugeja Fund for Migrants* to Vincenzo Fenech, a wealthy land surveyor, supporting nine peasant families in establishing a colony in Cyprus (which failed).³¹⁴ To get a sense of journey costs, consider that the skipper of a *speronera*—a sailing boat of 50–150 tons that could carry around six people—charged 24 pence for the 100-mile journey from Malta to Tripoli or Tunis, but £1.20 for the journey to Constantinople or Egypt.³¹⁵ These figures were equivalent to 1.3 per cent and 16 per cent, respectively, of a labourer's annual earnings.³¹⁶

Why did the government not intervene? In his survey of the topic, Price provides us with three reasons.³¹⁷ First, especially in the early nineteenth century, Westminster held fast to the *laissez-faire* view that imperial and colonial governments should not get involved in social or economic matters. This *laissez-faire* approach, oddly, extended to emigration more than anything, where proposals for Maltese colonies or funded voyages were rejected by colonial officials, but not for other areas like trade policy or agricultural investment. This brings us to the second reason: foreign policy. In the late nineteenth century, colonial officials were drawn away from this *laissez-faire* stance on emigration by the argument that overpopulation jeopardized Malta's position as a first-class naval base, since military

authorities would not be able to feed the population during a blockade. World War II showed there was some truth to this. But the argument swayed back when France and Italy tightened their grip on North Africa, making Britain reluctant to fund Maltese colonies or even voyages there. Finally, there was a communication problem throughout the various levels of government:

*[t]ime after time water apparently water-tight proposals came to naught: if the Treasury did not oppose them the Colonial Office did; if the Colonial Office accepted them the Foreign Office did not; if Westminster as a whole were agreeable the elected councilors were not ...*³¹⁸

Managing the movement of people has always been contentious.

Welfare and Crisis

By 1950, the agricultural sector's failings were obvious, but their causes were complex. This chapter showed that it was not for want of enterprise and initiative alone that agriculture failed to modernize. It was also due to vested interests in trade policy, political interests in migration policy, and in an increasingly high labour–land ratio. None of these variables by themselves present an insurmountable barrier to development, but their interactions stalled Malta's progress moving into the twentieth century.

Indeed, the supply of food remained a problem in the early twentieth century, but time and again colonial and elected officials failed to change their focus from institutional control to facilitating responses to market opportunity that ensured the population's economic success and survival. The infamous *Sette Giugno* riots of 1919, in which four Maltese men were shot dead by British troops, and which is now national holiday, provides us with a microcosm of this.

During World War I, German and Austrian submarines, 'the commerce destroyers of the ... war', operated all throughout the Mediterranean, greatly disrupting seaborne trade.³¹⁹ After the War, countries became highly protectionist, even autarkic, and global commodity markets disintegrated further.³²⁰ Malta's grain trade, particularly with Russia, was completely interrupted after 1914, pushing the price of (wheaten) bread, the country's staple food, up from between 1.5 and 1.75 pence per pound in the years preceding the war to a level of two to 5.25 pence per pound during and immediately after the War.³²¹ Figure 2.12 shows the severity

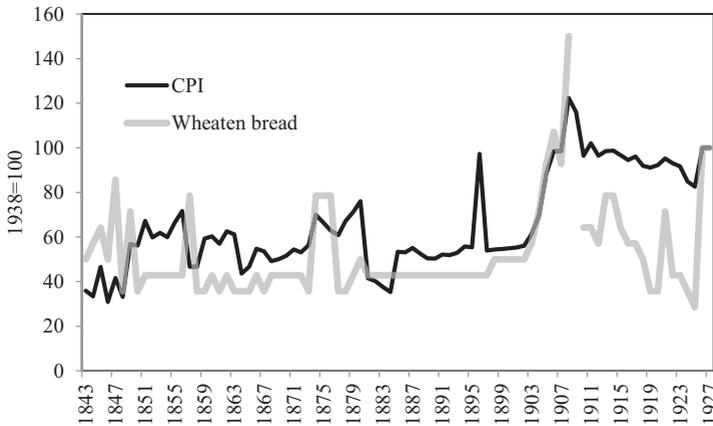


Fig. 2.12 Inflation and the price of bread, 1843–1938. Notes: Both series based to 1938. CPI is from Chap. 1 and includes bread as a major component. All underlying data from blue books. Bread prices originally in pence per pound (mean = 1.83d)

of this shock. From 1913 to 1919, the average price of bread increased by 100 per cent, compared to 66 per cent for the general price level as measured by the CPI.³²²

Many observers and historians blamed the *Sette Giugno* riots on the spike in the bread price. Lieutenant Governor William C.F. Robertson warned early in 1919 that a rise in the bread price could easily lead to a riot.³²³ Looking at the price level more broadly, Falzon and Lanzon write that the inflation spike in 1919 is a ‘representation of the social situation which led to the historical [sic] riots of 1919’.³²⁴ In short, expensive bread and the riots became heuristic to describing hardship and colonial misrule.³²⁵ But were the riots really caused by the price of bread, and could the government have acted differently?

Rioters attacked grain mills, millers, and their houses. The official inquiry into the riots wrote that its interviewees saw profiteering by millers as a circumstance leading up to the riots: ‘[t]he Millers were supposed to be profiteers and to be responsible for the quality of the Bread’.³²⁶ Millers’ hands were tied by, first, the high and volatile international price of grain, and, second, the 10-shillings per quarter duty on grain imports. One major miller, and grain importer, Antonio Cassar Torregiani wrote in a private letter to his grandchildren that

[i]n March 1919, the price of wheat had gone up considerably, and the local milling industry was faced with the dilemma: either to buy at a high price and face the public with a rise in bread up to 9½ d. per rotolo [5.4 pence per pound], or decline to import the wheat requirements of the Island.³²⁷

When Cassar Torregiani asked the Governor Lord Paul Methuen to lift the grain duty he was turned away:

[h]aving been refused the suspension of the bread tax, I again insisted that some sort of other assistance should be forthcoming, and when I mentioned a subsidy I was derided as having asked for something ... that did not exist in any country of Europe.³²⁸

Despite the grain duty, Cassar Torregiani went ahead and imported a shipload of wheat—‘to keep down the price of bread’.³²⁹ With rumours of German submarines in the Mediterranean, his ship could not leave Gibraltar insured at less than a ‘60 % premium ... which would have raised the price of bread by 3 pence per rotolo [1.7 pence per pound] ...’.³³⁰ The wheat made it to Malta, but 15 out of the convoy’s 17 steamers were sunk by enemy action.³³¹ The bread price would have undoubtedly been higher had the two ships never made it to Malta, but Cassar Torregiani overstated his case.

Using constant 1938 prices, the price of imported wheat in 1910 was £1.00 per quarter and the retail price was £1.20 per quarter: a 20 per cent retail mark up.³³² In 1919, the respective values rose to £4.30 per quarter and £7.30 per quarter: a 71 per cent retail mark up. Recall that the grain duty was the same in both years, so does not change the difference in mark up values. If the grain duty were temporarily suspended in 1919, as Cassar Torregiani petitioned for, the retail mark up would still have been 59 per cent. In other words, the duty-free 1919 mark up would still have been 39 percentage points above the 1910 mark up. This looks like profiteering, but was it enough cause for violent riots?

Going by the consumption basket used in this book, a dockyard fitter, his wife, and four children consumed 284.4 kg (627 lbs) of bread in a year.³³³ This quantity of bread would have cost them £4.57 in 1910 and £13.72 in 1919. This appears to be an impressive jump, but the *nominal* annual earnings of dockyard fitter—or someone in ‘trades’—increased from £25.40 in 1910 to £72.50 in 1919. That is, expenditure on bread as a share of income went from 18 per cent to 18.9 per cent. As we saw in the

previous chapter, real wages for both agricultural labourers and tradesmen grew reasonably fast during and immediately after World War I, as they did during the Crimean War.

Nevertheless, the government could still have suspended the grain duty as well as controlled profiteering to lower prices. Such a policy would have at least increased its support among the population. In fact, it issued Government Notices against profiteering on 9 August 1917, but these appear to have been ineffective.³³⁴ We have already seen that the government was reluctant to dismantle the ten-shilling per quarter grain duty because it depended on it for revenue—revenue needed to fund, among other things, the January 1919 increase in salaries of high-ranking colonial officials, despite ‘the precarious state of government finances’.³³⁵ At the same time, the salaries of Maltese public servants were reduced ‘on account of a depleted Treasury’.³³⁶

Disgruntled, many of the public servants turned to anti-British, pro-Italian Dr. Filippo Sceberras and his *Assemblea Nazionale*, which, along with Dr. Enrico Mizzi, had been promoting in the press the prospect of Italian rule to the prejudice of British rule since February 1919.³³⁷ The government stopped the public servants from doing so, increasing political tension. In May 1919, the newly formed Association of Civil Servants, the Association of Staff Clerks, and what in November 1919 became the Malta Union of Teachers joined forces to demand higher salaries. Meanwhile, unrest among the dockyard workers, which had been brewing since the 1917 riots there (about unequal pay between Maltese and British workers),³³⁸ intensified when the government proceeded with its plans to reduce dockyard employment to pre-War levels, from 12,000 back to 4600 workers.³³⁹ Seeing an opportunity to further its cause—a move away from British rule and towards integration with Italy—the *Assemblea Nazionale* and its supporters continued to agitate the many disgruntled parties. Consequently, the rioters did not only attack millers, but also anything they thought of as pro-British.

The riots had political motivations as well as political outcomes. On November 1919, Westminster decided ‘to entrust the people of and in Malta with full responsible control of their purely local affairs’.³⁴⁰ While there were demands for self-rule across the political spectrum, this outcome was claimed as a victory by the pro-Italian, anti-colonial elements.

All this is not to say that Malta’s food supply, agricultural sector, and agricultural policy were secondary to the political developments, but that the interactions between them and the broader institutional and economic

context are what held back the agricultural sector, and so the rest of the economy. Had the government cut back on its expenditure on staff, it might not have needed such a high grain duty. Had more emigration been encouraged, the agricultural sector might have been more productive and the country less dependent on grain imports.

NOTES

1. The oldest sedimentary deposits that form Malta date from the Oligocene (maximum 34 million years ago) period. The youngest from the Miocene (between 23 and 5.3 million years ago). See: Pedley, H.M., House, M.R., and Waugh, B., *The Geology of Malta and Gozo*, Proceedings of the Geologists' Association 87(3), 1976, 325–341.
2. These data are from the blue books, where crop acreage is 'Number of Acres in Crop' and pasture land is 'Acres in Pasture'. The denominator, Malta's surface area, is 316 km² or 78,085 acres.
3. Figures from 1961 on are from the World Bank Databank, variable: Agricultural land (% of land area).
4. This follows the discussion in Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 23–32, and Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 9–26.
5. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 12.
6. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 25.
7. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 25.
8. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 26.
9. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 11.
10. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 26.

11. Osbert was the son of Sir Edwin Chadwick, a Victorian social reformer and civil engineer who worked to improve sanitation, and gave his name to a professorship at University College London.
12. The European Commission's Water Framework Directive (2000/60/EC) made its way into Maltese law as Legal Notice 194 of 2004 (Water Policy Framework Regulations, 2004). The Notice provides for the sustainable management of water resources and protection of the aquatic environment. Its enforcement is critically reviewed in The Today Public Policy Institute, Why Malta's National Water Plan requires an Analytical Policy Framework, Malta: Valletta, April 2015.
13. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 27.
14. Originally '10miles': Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 27.
15. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 28.
16. Young, B.S., 'Agricultural Landscapes of the Maltese Islands', *Journal of Geography* 63(1), 28.
17. Wyatt, H.V. (2009) Brucellosis and Maltese goats in the Mediterranean, *Journal of Maltese History* 1(2), 4–18.
18. Burdon, T.W. (1954) *The Fishing Industry of Malta*. Valletta.
19. FAO (1959) *Mediterranean Development Project*. Rome.
20. Chircop, J., Living on Fishing, Caught in the Market: The Maltese fishing communities, 1860s-1920, *Journal of Maltese History*, 2010, p. 22.
21. The estimates are in £, are from the 'Production and Natural Resources' chapters, and refer to 'Fishery Landed Value.' To express them as a percentage of GDP, I used the GDP and CPI numbers in Apostolides, A. Economic Growth or Continuing Stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938, PhD Dissertation, London: London School of Economics, p. A28 and A81. The range of numbers, running from 1921 to 1932, is 2.5 %, 2.3 %, 2.1 %, 1.9 %, 1.4 %, 0.9 %, 1.1 %, 0.7 %, 0.6 %, 0.6 %, 0.5 %, and 0.5 %.
22. Value of landed fish in 1957—£168,285—is from Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 128. The

- 1957 GDP figure is from Central Bank of Malta, Economics and Statistics—Real economy indicators, Gross National Product by category of expenditure at current market prices (1954–2003) (Annual), online: http://www.centralbankmalta.org/site/excel/statistics/GNP_current_market_prices_annual.xls?revcount=4629.
23. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 128. GDP figure is from Apostolides, A. Economic Growth or Continuing Stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938, PhD Dissertation, London: London School of Economics, p. A79.
 24. According to the Köppen climate classification (code: Csa).
 25. Temperature values from Lang, D.M. ‘Soils of Malta and Gozo’, Colonial Research Studies No. 29, London: Colonial Office, 1960, p. 3. Values refer to the 1946–1957 period, but remain the same for later years as can be seen in Galdies, C., The Climate of Malta: statistics, trends and analysis 1951–2010, National Statistics Office, Malta, 2011. Values were originally in Fahrenheit.
 26. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) Malta: Food, agriculture, fisheries, and the environment, Montpellier: CIHEAM, 12.
 27. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) Malta: Food, agriculture, fisheries, and the environment, Montpellier: CIHEAM, 12.
 28. Lang, D.M. ‘Soils of Malta and Gozo’, Colonial Research Studies No. 29, London: Colonial Office, 1960, p. 3.
 29. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) Malta: Food, agriculture, fisheries, and the environment, Montpellier: CIHEAM, 12.
 30. Hamilton, A.P.F. (1952) *Afforestation and Water Conservation in the Waste Land of the Maltese Islands*. Valletta.
 31. Sharp, P. (2010) Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire?, *Journal of Maltese History* 1(2), 20–33.
 32. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) The British Colonial Experience:, 1800–1964, Valletta: Minerva, 1988, p. 145.

33. Wettinger, G. Agriculture in Malta in the Late Middle Ages, *Proceedings of History Week*, University of Malta, 1981, 1–48.
34. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960.
35. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, pp. 145–148.
36. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 10.
37. Figures are from the blue books, ‘Persons employed in Agriculture’ expressed as a ratio of the sum of persons employed in ‘Agriculture’, ‘Manufactures’, and ‘Commerce’. From the ‘Population’ chapters.
38. Caruana Galizia, P, Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review*, 2015, p. 9.
39. Felice, E., Estimating regional GDP in Italy (1871–2001): sources, methodology, and results, UC3M Working Papers in Economic History WP 09-07, September 2009, Madrid, p. 13.
40. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 146.
41. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 146.
42. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, pp. 146–147.
43. This is a Laspeyres quantity index, where 1900 is set as the base year (1900 = 100). The index is the ratio of, summed across all goods, the base-year price \times given-year quantity to the base-year price \times base-year quantity. It thus compares given-year output relative to base-year output, in base-year prices. The crops, as named in the blue books: Wheat, Meschiato, Barley, Beans, Cotton, Vegetables & Fruit, Forage, Sesame, Cumin, Potato, Onion, Orange and Lemon, and Other Fruit. Starting in 1900, Vegetables & Fruit was split into Vegetables & Fruit, Potatoes,

Onions, Orange and Lemon, and Other Fruit. I added all these together to form a single category again, assuming 6 lbs per dozen orange and lemons. Before 1901, the ‘horses’ category included ‘mules’ and ‘asses’. Afterwards, the animals were split into their own columns. The underlying series I use here sums all the animals across the period.

44. This growth rate and the ones that follow are compound average annual growth rate, calculated between the starting and ending year.
45. The number of British troops (‘King’s Troops’ in the blue books) stationed in is given in the ‘Population’ chapter.
46. Grima, R., Some Economic Effects of the Crimean War on Malta, *Melita Historica* 7, 1979, p. 346.
47. Cassar, C., *A Concise History of Malta*, Msida: Mireva, 2002, writes that the industry was in decline before the British arrived.
48. This is based on a Prais–Winsten regression of first-differenced total output index values on first-differenced cotton index values, and a constant term, from 1839 to 1865. This gives 26 observations; an F -statistic of 96.3; a t -ratio of 9.81, significant at the one per cent level; a coefficient of 0.062; a Durbin–Watson statistic of 2.24; and an R^2 of 0.631.
49. The 95 per cent confidence intervals surrounding the 0.062 coefficient are 0.049 and 0.075, meaning that the implied decline can account for somewhere between 79 per cent and 121 per cent of the observed decline in the total output index. The root-mean-square error is 15.43 percentage points, and the semi-robust standard error on the coefficient is 0.0063.
50. This growth rate uses the average of 1899 to 1901 as the starting period, as there is high volatility surrounding the 1900 base year.
51. Starting in 1900, Vegetables & Fruit was split into Vegetables & Fruit, Potatoes, Onions, Orange and Lemon, and Other Fruit. I added all these together to form a single category again, assuming 6 lbs per dozen orange and lemons.
52. These results are based on simple linear regressions of the crop yields in year t on the crop yields in year $t-1$. The series are the same as those in Fig. 2.2, where 1938 is set to equal 100. Each regression has 95 observations. The wheat regression gives a coefficient of 0.42 with a t -statistic of 3.57, F -statistic of 12.8, and R^2 of 0.17. The vegetables and fruits regression gives a coef-

- ficient of 0.35 with a *t*-statistic of 2.85, *F*-statistic of 8.11, and R^2 of 0.12. The barley regression gives a coefficient of 0.43 with a *t*-statistic of 5.25, *F*-statistic of 27.6, and R^2 of 0.18.
53. Busuttill, S. 'Agriculture in Malta: A Historical Note', in Busuttill, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 12.
 54. Pearson correlation coefficients: wheat-barley 0.68; wheat-vegetables and fruits 0.43; barley-vegetables and fruits 0.29. All are significant at the one per cent level. The first principal component of these three series accounts for 65 per cent of their total variation.
 55. Results from a two-sample *t*-test with equal variances. Samples split into 1839–1899 and 1900–1938. *T*-statistics: 5.65 (wheat), 5.34 (vegetables and fruits), and 3.63 (barley).
 56. From World Bank Databank, series: Cereal yield (kg per hectare).
 57. Apostolides, A., *How Similar to South-Eastern Europe were the Islands of Cyprus and Malta in terms of Agricultural Output and Credit? Evidence during the Interwar Period*, Bank of Greece SEEMHN Working Paper, July 2008, pp. 1–16.
 58. Percentage change from total population figures in 1900 and 1938 blue books.
 59. See, for example, the 'Production and Natural Resources' chapter for 1921. Section 7, 'Industrial Summary' discusses the potato yield at length and its potential exportability.
 60. Domestic crop of potatoes from 'Agriculture' chapter of blue books.
 61. Domestic crop of potatoes from 'Agriculture' chapter of blue books.
 62. This growth rate uses the average of 1899 to 1901 as the starting period, as there is high volatility surrounding the 1900 base year.
 63. Before 1901, the 'horses' category includes mules and asses. Afterwards, the books split the total number into 'horses', 'mules', and 'asses'. The series I use here sums all animals across the whole period.
 64. Numbers from the blue books are as follows: 2.3 per cent (1880), 4.6 per cent (1890), 3.6 per cent (1900), 0.5 per cent (1910–1911), 0.8 per cent (1920), and 0.2 per cent (1930). The figures are patchy, with no entries for certain animals in

- certain years. I have assumed this to mean no exports. In terms of export volumes, mules were the biggest flow, with an average of 78 (maximum of 189, minimum of 26) exported in each benchmark year.
65. These categories of exports are unavailable for most years before 1920. Hides include both raw and dried hides. Fresh or prepared meat refers to mutton and beef.
 66. Delgado, C., Rosgerant, M., Steinfeld, H., Ehui, S., and Courbois, C., *Livestock to 2020: The Next Food Revolution*, Food, Agriculture, and the Environment Discussion Paper 28, International Food Policy Research Institute (Washington, DC), Food and Agricultural Organisation of the United Nations (Rome), and International Livestock Research Institute (Kenya), 1999, p. 7
 67. Caruana Galizia, P, *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review*, 2015, p. 9.
 68. Henderson, V., *The Urbanisation Process and Economic Growth: The So-What Question*, *Journal of Economic Growth* 8(1), 47–71.
 69. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, PhD Dissertation, Durham: Durham University, 1960, p. 92.
 70. Delgado, C., Rosgerant, M., Steinfeld, H., Ehui, S., and Courbois, C., *Livestock to 2020: The Next Food Revolution*, Food, Agriculture, and the Environment Discussion Paper 28, International Food Policy Research Institute (Washington, DC), Food and Agricultural Organisation of the United Nations (Rome), and International Livestock Research Institute (Kenya), 1999, p. 7
 71. Delgado, C., Rosgerant, M., Steinfeld, H., Ehui, S., and Courbois, C., *Livestock to 2020: The Next Food Revolution*, Food, Agriculture, and the Environment Discussion Paper 28, International Food Policy Research Institute (Washington, DC), Food and Agricultural Organisation of the United Nations (Rome), and International Livestock Research Institute (Kenya), 1999, p. 7
 72. Cremona, M., *The Way We Ate: Memories of Maltese Meals*, Valletta: MidSea Books, 2010.

73. Caruana Galizia, P, Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review*, 2015, p. 9.
74. Cassar, C., Everyday Life in Malta in the Nineteenth and Twentieth Centuries, in Mallia-Milanes, V. (ed.) *The British Colonial Experience 1800–1964*, Ch. 6, Msida: Mireva, p. 101.
75. Davy, J., *Notes and Observations on the Ionian Islands and Malta*, London: Smith and Elder, 1842, p. 431.
76. These numbers are from the blue books' 'Population' chapters, and refer to 'King's Troops'.
77. Wyatt, H.V. (2009) Brucellosis and Maltese goats in the Mediterranean, *Journal of Maltese History* 1(2), 4–18.
78. Ritchie, L.A., *East of Malta, west of Suez, the official Admiralty account of the Mediterranean fleet, 1939–1943*, Boston: Little, Brown and Company, 1944, p. 42.
79. Hague, A., *The Allied Convoy System, 1939–1945: Its organization, defence and operation*, Naval Institute Press, 2000; Castillo, D., *The Maltese Cross: a strategic history of Malta*, Portsmouth, NH: Greenwood Publishing Group.
80. Olson, M., *The economics of the wartime shortage, a history of British food supplies in the Napoleonic War and in World Wars I and II*, Durham, NC: Duke University Press, 1963.
81. To see how great the differences are: Pimentel, D. and Pimentel, M., Sustainability of meat-based and plant-based diets and the environment, *American Journal of Clinical Nutrition* 78(3), 660–663.
82. This is a running theme throughout Olson, M., *The economics of the wartime shortage, a history of British food supplies in the Napoleonic War and in World Wars I and II*, Durham, NC: Duke University Press, 1963.
83. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.
84. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.
85. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.

86. Wyatt, H.V., Brucellosis and Maltese goats in the Mediterranean, *Journal of Maltese History* 1(2), 2009, p. 12.
87. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.
88. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.
89. On this point, see: Olson, M., The economics of the wartime shortage, a history of British food supplies in the Napoleonic War and in World Wars I and II, Durham, NC: Duke University Press, 1963, pp. 20–21. On the grain trade, see: Mea, J., Customs Tariff in Malta since 1530, *Melita Historica* 2(2), 1957, 88–94; Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire?, *Journal of Maltese History* 1(2), 2009, 20–33.
90. Converted into tonnes from cwts (hundred weight, 112 pounds); figure from Busuttill, S., *Agriculture in Malta: A Historical Note*, in Busuttill, S., Lerin, F., Mizzi, L. (eds.), *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 14.
91. Busuttill, S., Lerin, F., Mizzi, L. (eds.), *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 14.
92. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 47.
93. Busuttill, S., *Agriculture in Malta: A Historical Note*, in Busuttill, S., Lerin, F., Mizzi, L. (eds.), *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 15.
94. Zarb-Dimech, A., Food and agriculture provision in Malta during WWII, *The Malta Independent*, Tuesday, 7 April 2015.
95. Austin, D., *Malta and British Strategic Policy, 1925–1943*, London: Frank Cass, 2004, p. 81.
96. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 183.
97. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 84.

98. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 182.
99. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 72, 136.
100. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 183.
101. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 182.
102. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 182.
103. According the UK National Health Service: <http://www.nhs.uk/chq/pages/1126.aspx?categoryid=51>.
104. Zarb-Dimech, A., Food and agriculture provision in Malta during WWII, *The Malta Independent*, Tuesday, 7 April 2015.
105. Reece, M.C., *Mediterranean, Journal of Comparative Legislation and International Law* 23(2/3), 1941, p. 164.
106. Dobbie, S., *Grace Under Malta*, London: L. Drummond, 1944, p. 77.
107. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 135.
108. Ross, C.C., Pavlides, S., and Ganado, J.M., *Mediterranean, Journal of Comparative Legislation and International Law* 31(1/2), 1949, p. 188.
109. L.H.B., *Malta: A Political and Economic Survey, The World Today* 5(8), 1949, p. 343.
110. Busuttill, S., *Agriculture in Malta: A Historical Note*, in Busuttill, S., Lerin, F., Mizzi, L. (eds.), *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 16.
111. Central Bank of Malta, *Economics and Statistics—Prices, Inflation Rates measured by the Retail Price Index (base 1946 = 100)*: http://www.centralbankmalta.org/site/excel/statistics/inflation_rates_rpi.xls?20130910091950&revcount=128.

112. Calculated as ratio of merchandise import values in current US dollars to merchandise export values in current US dollars—from Malta to the world. Data from United Nations Conference on Trade and Development, Data Center—International Trade in Goods and Services—Trade Trends—Values and Shares of Merchandise Exports and Imports, annual, 1948–2014.
113. The agricultural sector’s share of GDP hit 7.5 per cent by 1938—compared to Cyprus’ 24.5 per cent: Apostolides, A. ‘The growth of two small economies in the depression: GDP estimation for Cyprus and Malta during the interwar period (1921–1938)’, London School of Economics, London, 2010, p. 18.
114. One food historian, Carmel Cassar, argued that the current Maltese diet is a ‘war diet’ on account of its emphasis on canned and tinned goods, and non-domestic produce. See: Carabott, S., ‘The breakfast of today is the “war diet” of yesterday’, *The Times of Malta*, Monday, 10 August 2015.
115. See, for example, Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, pp. 145–147.
116. Hough, B., Davis, H., and Davis, L., *Coleridge’s Laws: A Study of Coleridge in Malta*, London: Open Book Publishers, 2010, p. 60.
117. From Ball’s 26 December 1800 Memorandum, quoted in Hough, B., Davis, H., and Davis, L., *Coleridge’s Laws: A Study of Coleridge in Malta*, London: Open Book Publishers, 2010, p. 60.
118. An 1812 Royal Commission report indicates that the potato was still not under wide cultivation by 1812 quoted in Hough, B., Davis, H., and Davis, L., *Coleridge’s Laws: A Study of Coleridge in Malta*, London: Open Book Publishers, 2010, p. 60. See also: Cremona, M., *The Way We Ate: Memories of Maltese Meals*, Valletta: MidSea Books, 2010.
119. Busuttill, S. ‘Agriculture in Malta: A Historical Note’, in Busuttill, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 15.
120. Hough, B., Davis, H., and Davis, L., *Coleridge’s Laws: A Study of Coleridge in Malta*, London: Open Book Publishers, 2010, p. 60.

121. Price, C.A., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 13.
122. The ‘Revenue and Expenditure’ chapters contain a head called ‘Agriculture’ from 1904 to 1919, with numbers ranging from £601 to £906 (around 0.17 % of total expenditure). After 1919, the expenditure for ‘Public Gardens’ and ‘plantations’ was transferred from the Public Works Department. In fact, between 1920 and 1938, the range of numbers for the heading ‘Agriculture and Fisheries’, or the sum of ‘Agriculture’ and ‘Fisheries’ or ‘Agriculture and Labour’ and ‘Fisheries’ is £9403 to £30,658 (between 1.2 and 2.3 % of total expenditure).
123. This number, and the ones that follow, is from the UN (FAO), Government expenditure on agriculture—Experimental series, Downloads: GEA data, series: %TO_Gov. Online: http://www.fao.org/fileadmin/templates/ess/documents/economic/GEA_flatfile2001-2013_12Dec2014_.csv.
124. The employment figure for Serbia is from World Bank Databank, series: Employment in agriculture (% of total employment). Serbia hit 25 per cent in 2008.
125. The agricultural GDP series was first re-inflated into nominal £ to make it compatible with the expenditure data. The series and CPI are from Apostolides, A. *Economic Growth or Continuing Stagnation? Estimating the GDP of Cyprus and Malta, 1921–1938*, PhD Dissertation, London: London School of Economics, p. A28 and A79.
126. Growth rates from 1921 to 1938.
127. Hough, B., Davis, H., and Davis, L., *Coleridge’s Laws: A Study of Coleridge in Malta*, London: Open Book Publishers, 2010, p. 60.
128. That is, duties on imported grain were acting to protect Malta’s ‘inefficient’ grain-producing sector. It would have made more economic sense to allow free imports of grain, incentivizing resources to shift from grain production into other forms of work that could pay for grain imports.
129. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 21.

130. See: Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, pp. 20–34; Cassar, C., *Everyday Life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience 1800–1964*, Ch. 6, Msida: Mireva, pp. 91–126.
131. Person, K.G., *Grain Markets in Europe 1500–1900: Integration and Deregulation*, Cambridge University Press, 1999.
132. See: Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2010, pp. 23.
133. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 23.
134. See, for example, Pirota, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mireva, 1996.
135. Thornton, W.H., *Memoir of the Finances of Malta, Under the Government of the Order of St John of Jerusalem, During the Last Years of its Dominion, and as Compared with those of the Present Time*, Malta: Government Press, 1836.
136. Thornton, W.H., *Memoir of the Finances of Malta, Under the Government of the Order of St John of Jerusalem, During the Last Years of its Dominion, and as Compared with those of the Present Time*, Malta: Government Press, 1836.
137. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2010, p. 24.
138. Busuttill, S., *An Overview of Malta's Economic Development in the Nineteenth Century*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience 1800–1964*, Msida: Mireva, 1988, pp. 155–156.
139. Quoted in Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 24. Original source: Eton, W., *Authentic Materials for a History of the Principality of Malta*, London: T Cadell and W Davies, 1807.
140. Quoted in Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of*

- Maltese History 1(2) 2009, p. 24. Original source: Eton, W., *Authentic Materials for a History of the Principality of Malta*, London: T Cadell and W Davies, 1807.
141. This according to a Royal Commission report, quoted in Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 24.
 142. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 96.
 143. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2010, p. 26.
 144. This is based on the average daily wage rate for a ‘town labourer’ between 1806 and 1815 (10d), multiplied by 290 working days (23 feast days and 52 Sundays): an annual ‘wage’ of £12.08. Wage rates from Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience, 1800–1964*, Valletta: Minerva, 1988, p. 134.
 145. Maitland quoted in Lord, W.F., *Sir Thomas Maitland, the Mastery of the Mediterranean*, London: Fisher Unwin, 1897, p. 155.
 146. Maitland quoted in Lord, W.F., *Sir Thomas Maitland, the Mastery of the Mediterranean*, London: Fisher Unwin, 1897, p. 155.
 147. Lord, W.F., *Sir Thomas Maitland, the Mastery of the Mediterranean*, London: Fisher Unwin, 1897, p. 155.
 148. Maitland quoted in Lord, W.F., *Sir Thomas Maitland, the Mastery of the Mediterranean*, London: Fisher Unwin, 1897, p. 155.
 149. For example, Fenech, D., *Malta’s External Security*, *GeoJournal* 41(2), 1997, 153–63.
 150. See Lord, W.F., *Sir Thomas Maitland, the Mastery of the Mediterranean*, London: Fisher Unwin, 1897, pp. 155–157.
 151. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 24.
 152. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 25.
 153. *Conversions from Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*,

- Journal of Maltese History 1(2) 2009, p. 33. The four scudi duty was likely inspired by the difference between the sale and purchase price of wheat under the pre-1793 *Università*. See: Mea, J., Customs in Malta since 1530, *Melita Historica* 2(2), 1957, p. 89.
154. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 25.
 155. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 25.
 156. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 26.
 157. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 26.
 158. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 27.
 159. W.H. Thornton, quoted in Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 26.
 160. The Commission was influential in Maltese history, and took the name of its Commissioners John Austin and George C. Lewis.
 161. G. Cornwall Lewis and J. Austin, *Reports of the Commissioners Appointed to Inquire into the Affairs of Malta*, London, 1838. For an early dispatch, see: *The Sessional Papers, Printed by order of, The House of Lords, in the Session 1837–1838, Vo. VIII*, London, 1838, pp. 412–413.
 162. For a summary, see: Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 27.
 163. For a summary, see: Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 27.
 164. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, pp. 27–28.

165. Average of duties per *salm* between 1781 and 1836 from Price, C.A., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 218.
166. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 28.
167. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 158.
168. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 28.
169. O'Rourke, K. and Williamson, J.G., *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*, Cambridge, MA: MIT Press, 1999.
170. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 31.
171. The report is the 'Roswell report' Great Britain, Parliament, House of Commons, Malta. Correspondence respecting the constitution and administration of Malta, London, Vol. XLIX.213, 12 pp., 1880. Summarized in Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, pp. 32–33.
172. Quoted in Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 32.
173. Quoted in Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, p. 32.
174. This is based on the average daily wage for an agricultural labourer ('predial') in 1878, when the report was conducted, from the blue book for that year, multiplied by 290 working days (23 feast days and 52 Sundays).
175. Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009, pp. 32–33.

176. Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 29.
177. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, pp. 264–265.
178. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 265.
179. From the ‘Population’ chapter of the 1878 blue books. The residual worked in ‘agriculture’.
180. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 265.
181. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, pp. 65–66.
182. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, pp. 265–6.
183. Mitrovich, G., *The Causes of the People of Malta; now before parliament*, London: Effingham Wilson, 1826, pp. 70–71.
184. These figures, and the ones that follow, are from the ‘Revenue and Expenditure’ chapter of the blue books for that year.
185. In the book, ‘Land Revenue and Public Works’.
186. From the ‘Revenue and Expenditure’ chapter (Section B) of the blue book for 1921. Population figure from the ‘Population’ chapter.
187. This description is from Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience; 1800–1964*, Valletta: Minerva, 1988, p. 146.
188. Lang, D.M. ‘Soils of Malta and Gozo’, *Colonial Research Studies No. 29*, London: Colonial Office, 1960, p. 17.
189. Lang, D.M. ‘Soils of Malta and Gozo’, *Colonial Research Studies No. 29*, London: Colonial Office, 1960, p. 17.
190. Lang, D.M. ‘Soils of Malta and Gozo’, *Colonial Research Studies No. 29*, London: Colonial Office, 1960, p. 17.
191. Lang, D.M. ‘Soils of Malta and Gozo’, *Colonial Research Studies No. 29*, London: Colonial Office, 1960, p. 17.

192. The 1973 Fertile Soil (Preservation) Act, Chapter 236 of the Laws of Malta.
193. Named for Surgeon Captain David Bruce, who arrived in Malta in 1884, and the ancient name for Malta, *Melita*. In fact, the discovery of the disease as being endemic and carried in Maltese goats was made in 1905 by Themistocles Zammit, a Maltese doctor. See Wyatt, H.V., How Themistocles Zammit found Malta Fever (brucellosis) to be transmitted by the milk of goats, *Journal of the Royal Society of Medicine* 98(10), pp. 451–454.
194. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 106.
195. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 106.
196. See, for a summary, Wyatt, H.V. Brucellosis and Maltese goats in the Mediterranean, *Journal of Maltese History* 1(2), 2009, pp. 4–18.
197. Report of a Committee Appointed to inquire and report on the question of nutrition in Malta and Gozo, 1938, Code: GMR1368, The National Archives of Malta, Mdina, Malta.
198. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 106.
199. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 106.
200. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 107.
201. Advisors from the Department of Geography, Durham Colleges in the University of Durham, writing in 1956, quoted in Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 112.
202. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, pp. 120–121.

203. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 107.
204. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 122.
205. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 122.
206. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, pp. 116–128.
207. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 121.
208. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 121.
209. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 113.
210. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 123.
211. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 114.
212. Writing as of October 2015. See: Benna, About us, Online: <http://www.benna.com.mt/about-us>, Accessed: 13 October 2015.
213. Apostolides, A., How Similar to South-Eastern Europe were the Islands of Cyprus and Malta in terms of Agricultural Output and Credit? Evidence during the Interwar Period, Bank of Greece SEEMHN Working Paper, July 2008, pp. 1–26.
214. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 147.
215. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 36.

216. Daily wage rate of nine pence for ‘predial’ workers, multiplied by 290 working days (23 feast days and 52 Sundays), from the ‘Agriculture’ chapter of the blue book of 1836.
217. Borg, J., *Agriculture and Horticulture in Malta*, in Macmillan, A. (ed.), *Malta and Gibraltar: historical and descriptive, commercial and industrial facts, figures and resources*, London: Collingridge, 1915, p. 255.
218. Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 147.
219. Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 147.
220. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, PhD Dissertation, Durham: Durham University, 1960, p. 36.
221. Rey, D., *Development Economics*, Princeton University Press, 1997, p. 448.
222. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, PhD Dissertation, Durham: Durham University, 1960, p. 220.
223. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, PhD Dissertation, Durham: Durham University, 1960, p. 221.
224. The number of farmers and agricultural land holdings refer to Malta only, not Gozo, and are from Meli, A., *Overview of Agricultural Land Use In Malta*, in Busuttill, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 74.
225. Habakukk, H.J. *American and British Technology in the Nineteenth Century*. London: Cambridge University Press, 1962; and Rothbarth, E. *Causes of the Superior Efficiency of U.S.A. Industry as Compared with British Industry*, *Economic Journal* 223, 1946, 383–390.
226. It was recently used to explain why Britain was the first country in the world to industrialize: Allen, R.C., *The British Industrial Revolution in Global Perspective*, Cambridge: Cambridge University Press, 2009.
227. This exposition is adapted from one of the earliest schematic statements of the thesis: Temin, P., *Labor Scarcity and the*

- Problem of American Industrial Efficiency in the 1850s, *Journal of Economic History* 26(3), pp. 277–298.
228. Paris, O., *A Study of the Working of the Cooperative Societies based on enquiries in Cyprus, Palestine, and Egypt*, Valletta: Department of Agriculture, 1945.
 229. This figure is from the ‘Production and Natural Resources’ chapter of the 1922 blue books, under ‘Summary of Industrial Development’.
 230. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 17–18.
 231. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 17.
 232. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 18.
 233. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 16.
 234. The figures are from Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 16. They were deflated using this book’s CPI with a 1938 base year. For the second period, that refers to the mid-1840s, the year 1845 was chosen as the deflation year.
 235. The original figures are from the ‘Miscellaneous Returns’ or ‘Savings Banks and Friendly Societies’ chapters of the blue books. The deposit amounts were deflated using this book’s own CPI with a 1938 base year.
 236. These are the same expenditure figures are those in Fig. 2.4.
 237. Wettinger, G. *Agriculture in Malta in the Late Middle Ages*, *Proceedings of History Week*, University of Malta, 1981, 1–48.
 238. Wettinger, G. *Agriculture in Malta in the Late Middle Ages*, *Proceedings of History Week*, University of Malta, 1981, pp. 10, 36.
 239. For a summary of the debate, see: Rey, D., *Development Economics*, Princeton University Press, 1997, Ch. 12.
 240. From Rey, D., *Development Economics*, Princeton University Press, 1996, p. 420.
 241. Stiglitz, J., Sharecropping, in Eatwell, J. Milgate, M., and Newmann, P. (eds.), *The New Palgrave. Economic Development*, New York: W.W. Norton, pp. 308–315.

242. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Vletta: Minerva, 1988, p. 147.
243. Price, C., Malta and the Maltese: A Study in Nineteenth Century Migration, Melbourne: Georgian House, p. 13; and Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Vletta: Minerva, 1988, p. 146.
244. These are Busuttil's categories: Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 18–19.
245. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 18.
246. This calculation is based on averaging the values of 'Rents of lands, tenures, and tenements' in rural areas from the following blue books: 1850, 1860, 1870, 1880, 890, and 1900.
247. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 18.
248. Based on the figures are from the 'Production and Natural Resources' chapters of the blue books.
249. From the 'Grants of Land' and 'Revenue and Expenditures' chapters of the 1870 blue book.
250. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19.
251. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19.
252. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19.
253. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19.
254. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19.

255. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 13.
256. Busuttil, referring to Caruana and Mizzi in the same volume: Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19.
257. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 19–20.
258. This is the sum of 'Number of Grants' by 'purchase' and 'Granted Acres' from the 'Grants of Land' chapters from the blue books from 1870 to 1880. The chapters for 1872 and 1875 are missing, and do not appear in other years.
259. These figures are from the 'Production and Natural Resources' chapters of the blue books.
260. Busuttil, S. 'Agriculture in Malta: A Historical Note', in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 20.
261. Borg, J., *Agriculture and Horticulture in Malta*, in Macmillan, A. (ed.), *Malta and Gibraltar: historical and descriptive, commercial and industrial facts, figures and resources*, London: Collingridge, 1915, p. 235.
262. Apostolides, A., *How Similar to South-Eastern Europe were the Islands of Cyprus and Malta in terms of Agricultural Output and Credit? Evidence during the Interwar Period*, Bank of Greece SEEMHN Working Paper, July 2008, pp. 1–16.
263. Petmezas, S., *Agricultural Change and Export Trade in Greece, ca. 1830–1914*, University of Crete, 2003, pp. 1–23.
264. Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 146.
265. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 13. Same upper bound figure quoted in Clare, A., *Features of an Island Economy*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 146.
266. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 13

267. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 146.
268. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, pp. 13–14.
269. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 13.
270. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 13.
271. Own real wage series from Chap. 1.
272. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
273. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
274. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
275. From the ‘Production and Natural Resources’ chapter of the blue book for 1921.
276. From the ‘Population’ chapter of the blue book for 1921.
277. Meli, A., Overview of Agricultural Land Use In Malta, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 74.
278. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
279. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
280. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
281. For a summary, see: Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 27.
282. O’Rourke, K. and Williamson, J., *Globalization and History*, 1999, MIT Press.

283. O'Rourke, K. and Williamson, J., When did globalisation begin?, *European Review of Economic History* 6, 2002, p. 37.
284. The domestic prices are from the 'Agriculture' chapters of the blue books, which give the quantity of wheat produced in Malta and a range of unit prices from 'Low', 'Average', to 'High'. We focus on the average here. Before 1875, one *salin* was equivalent to 98.5 per cent of an imperial quarter; after 1875, the ratio was 100 per cent. The import prices are from the 'Imports and Exports' chapters of the blue books. The unit prices are derived by taking the ratio of total import value in £ of wheat to the total import quantities in *salin* (same conversions as above apply). Prices deflated using the standard 1938 CPI.
285. Hall, B. and LeVeen, E., Farm Size and Economic Efficiency: The Case of California, *American Journal of Agricultural Economics* 60(4), pp. 589–600.
286. Busuttill, S. 'Agriculture in Malta: A Historical Note', in Busuttill, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
287. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 47.
288. For a summary, see Roumasset, J. and Lee, S-H., Labor: Decisions, Contracts and Organization, in R. Evenson and P. Pingali (eds.), *Handbook of Agricultural Economics Vol. 3*, 2007, North-Holland, pp. 2705–2740.
289. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 220.
290. The number of farmers and agricultural land holdings refer to Malta only, not Gozo, and are from Meli, A., Overview of Agricultural Land Use In Malta, in Busuttill, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 74.
291. World Bank Databank, series: Agricultural machinery, tractors per 100 sq. km of arable land.
292. Figures are from the blue books, 'Persons employed in Agriculture' expressed as a ratio of the sum of persons employed in 'Agriculture', 'Manufactures', and 'Commerce'. From the 'Population' chapters.
293. The numerator is based on the 1960–1961 estimates of 'whole-time farmers' (7380) and 'Part-time farmers' (8815) from the

- Report on the Working of the Department of Agriculture for the Year 1963, Malta: Department of Information, p. 56, Table 2. The denominator is based on the estimate of gainfully employed persons in 1960 from Central Bank of Malta, Statistics—Real Economy Indicators—Labour market indicators based on administrative records (1960–2002) (Annual), 2015, online: http://www.centralbankmalta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1331.
294. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23–24.
 295. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 23.
 296. Meli, A., Overview of Agricultural Land Use In Malta, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 74.
 297. Estimates include whole-time farmers, part-time farmers, ‘farm population not engaged in farming’, and children. From the Report on the Working of the Department of Agriculture for the Year 1963, Malta: Department of Information, p. 56, Table 2.
 298. This is based on the employment data from the ‘Population’ chapters in the blue books. The Pearson correlation coefficient is -0.43 , significant at the one per cent level.
 299. Busuttil, S. ‘Agriculture in Malta: A Historical Note’, in Busuttil, S., Lerin, F., and Mizzi, L. (eds.) *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 24.
 300. This figure, and the rest in the paragraph, are from Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, pp. 90–91.
 301. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 57.
 302. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 41.
 303. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 91.

304. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 105.
305. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 105.
306. Trachoma, a contagious bacterial eye infection, was a big problem among labourers and would-be migrants at the time, giving Manché first-hand knowledge of the issues. For example, Attard tells us that: ‘In 1911 a number of emigrants from Malta were left stranded on Ellis Island, New York, because their eyes were infected with trachoma’. Online: <http://www.maltamigration.com/history/earlymigration1.shtml>. Accessed: 22 October 2015.
307. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 105.
308. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 105.
309. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, pp. 105–106.
310. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, pp. 104.
311. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 106.
312. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 106.

313. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 48.
314. Fenech supported in 1879 nine peasant families—10 men, six wives, 15 boys, and 10 girls—in establishing a farming community on a swathe of malaria-infested land in Cyprus. The colonists were infected some four months after arrival, and were brought back to Malta in 1881. Quoted in Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 98.
315. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 98.
316. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 98.
317. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, ‘Conclusion’.
318. Price, C., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 205.
319. Semple, E.C., *Pirate Coasts of the Mediterranean Sea*, *Geographical Review* 2(2), 1916, p. 134.
320. Jacks, D., O’Rourke, K., and Williamson, J., *Commodity Price Volatility and World Market Integration since 1700*, *Review of Economics and Statistics* 93(3), 800–813.
321. From the ‘Agriculture’ chapters of the blue books. Prices per pound, expressed in decimals. War level is 1914 to 1919, and pre-War 1892 to 1913.
322. The CPI basket includes a large share of bread. The correlation between the two series in the graph is 0.48.
323. Cassar, C., *Everyday Life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience 1800–1964*, Ch. 6, Msida: Mireva, p. 101.
324. Falzon, J. and Lanzon, D., *Price and Quantity Indices of Food Imports in Malta: 1856–1938*, *Journal of Maltese History* 2, 2011, p. 13.
325. Cassar, C., *Everyday Life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience 1800–1964*, Ch. 6, Msida: Mireva, p. 101.

326. Malta, Reports of the Commission appointed to inquire into the events of the 7th and 8th June 1919 and into the circumstances which led up to those events—18th and 19th September, 1919, Malta: Government Printing Office, p. 15. National Archives, Kew, UK: FCO141/11799.
327. Vassallo, R., Unpublished letter that shed new light on Sette Giugno, Malta Today, 7 June 2013, Online: <http://www.malta-today.com.mt/news/national/27386/unpublished-letter-that-shed-new-light-on-sette-giugno-20130607#.VijDG2Sqqko>. Accessed: 22 October 2015.
328. Vassallo, R., Unpublished letter that shed new light on Sette Giugno, Malta Today, 7 June 2013, Online: <http://www.malta-today.com.mt/news/national/27386/unpublished-letter-that-shed-new-light-on-sette-giugno-20130607#.VijDG2Sqqko>. Accessed: 22 October 2015.
329. Vassallo, R., Unpublished letter that shed new light on Sette Giugno, Malta Today, 7 June 2013, Online: <http://www.malta-today.com.mt/news/national/27386/unpublished-letter-that-shed-new-light-on-sette-giugno-20130607#.VijDG2Sqqko>. Accessed: 22 October 2015.
330. Vassallo, R., Unpublished letter that shed new light on Sette Giugno, Malta Today, 7 June 2013, Online: <http://www.malta-today.com.mt/news/national/27386/unpublished-letter-that-shed-new-light-on-sette-giugno-20130607#.VijDG2Sqqko>. Accessed: 22 October 2015.
331. Vassallo, R., Unpublished letter that shed new light on Sette Giugno, Malta Today, 7 June 2013, Online: <http://www.malta-today.com.mt/news/national/27386/unpublished-letter-that-shed-new-light-on-sette-giugno-20130607#.VijDG2Sqqko>. Accessed: 22 October 2015.
332. The retail prices are from the ‘Agriculture’ chapters of the blue books, which give the quantity of wheat of produced in Malta and a range of unit prices from ‘Low’, ‘Average’, to ‘High’. We focus on the average here. The import prices are from the ‘Imports and Exports’ chapters of the blue books. The unit prices are derived by taking the ratio of total import value in £ of wheat to the total import quantities. Prices deflated using the standard 1938 CPI.

333. The basket is based on a 1938 official inquiry into Maltese nutrition. See Chap. 1 for more details.
334. Malta, Reports of the Commission appointed to inquire into the events of the 7th and 8th June 1919 and into the circumstances which led up to those events—18th and 19th September, 1919, Malta: Government Printing Office, p. 15 (Point F). National Archives, Kew, UK: FCO141/11799.
335. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 377.
336. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 378.
337. Malta, Reports of the Commission appointed to inquire into the events of the 7th and 8th June 1919 and into the circumstances which led up to those events—18th and 19th September, 1919, Malta: Government Printing Office, p. 12 (Point C 1). National Archives, Kew, UK: FCO141/11799.
338. British Admiralty, Malta Dockyard. L.E.P. Report on Strike. Revised Terms and Conditions and Consideration as to inclusion of War Bonus in Weekly Wages [Closed Until 1968], 1st October 1917, London. National Archives, Kew, UK: ADM 1/8500/221.
339. Malta, Reports of the Commission appointed to inquire into the events of the 7th and 8th June 1919 and into the circumstances which led up to those events—18th and 19th September, 1919, Malta: Government Printing Office, p. 11 (Point A 1). National Archives, Kew, UK: FCO141/11799.
340. Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 384.

Industry and Trade, 1800–1938

THE ROLE OF THE COLONIAL GOVERNMENT

Aside from wartime, colonial Malta was a private enterprise economy. Between 1921 and 1938, for example, government expenditure as a percentage of GDP averaged 16.5 per cent.¹ This is slightly lower than the equivalent figure for the post-colonial period: 17.5 per cent.² That the private sector made most decisions about the allocation of resources is a situation many historians have criticized as excessively *laissez-faire*. Clare, for example, wrote that the colonial government's 'faithful accord with the economic tenets of "laissez-faire"' combined with the absence of 'rich resources in terms of both men and materials ... retarded economic growth' in the nineteenth century.³ In any case, aggregate measures of government expenditure do not give a full sense of the links between the colonial government and Maltese firms and markets. The colonial government brought to Malta new expenditure priorities, new laws and public policy, and new firms. As in all other colonies, British rule created a colonial economy shaped by colonial institutions. Yet in some areas, policies affecting industry and trade showed longer continuity.

There was tension between what Maltese leaders expected from British rule and what the British were prepared to deliver. As Zammit noted, while the Maltese leaders protested strongly against the return of the Knights of the Order of St John, they expected the British to—like the Order—safeguard their interests, revive the economy, and grant limited

representative rights.⁴ In contrast, Britain had ‘very narrowly defined interests in Malta, namely that of exploiting its strategic values’,⁵ and avoided managing Maltese affairs as much as possible. This was a difficult stance, as exploiting the country’s strategic value depended on civilian cooperation and contentment. Colonial administrators’ economic liberalism was thus tempered.

An immediate concern for the new colonial government was providing employment for a large share of the labour force. When the Order lost Malta, Malta lost income derived from the Order’s extensive overseas assets and corsairing spoils, which had enabled the population to grow beyond its domestic means. Population growth continued under the British—from about 100,000 in 1820 to about 300,000 in 1960⁶—and it also shifted from the countryside to the urban areas around the harbour. This was symptomatic of the economy’s continued dependence on foreign sources of income: from overseas assets and corsairing under the Order to the Royal Naval Dockyard, Armed Forces, and ancillary services under the British. The dockyard was of particular importance. It was enlarged to provide frequent and large-scale naval repairs. It quickly emerged as the economy’s single largest employer, creating a concentration of industrial workers around the harbour. At the dockyard, Frendo writes, ‘thousands of jobs were secured at a rate of pay which was not any worse, often rather better, than that paid to workers in private enterprise, on the farms, or indeed in the lower ranks of the Civil Service’.⁷

Some writers use this continuity of dependence as evidence of colonial misrule—of a missed opportunity to provide Malta with a more sustainable economic foundation.⁸ Their implicit argument is that dependence on external sources of income—whether from foreign governments or foreign trade—was distortive and volatile, and what the economy needed instead was a stable industrial base.⁹ We will explore this argument over the course of this chapter, but for now, it is important to note that subtle and important changes *did* occur during the colonial period without parallel in previous periods. Maltese merchants and industrialists were able to use British imperial commercial lines to access supply and demand markets farther afield than before. They also benefitted from better physical infrastructure, and an incrementally healthier and more educated population.

Education

In the previous chapter, we saw how a lack of physical capital (machinery like tractors) held back agricultural progress. This also applies to the

industrial sector, but a more important blockage when it came to commercial activity was a lack of human capital: ‘labor that is skilled in production, labor that can operate sophisticated machinery, labor that can create new ideas and new methods in economic activity’.¹⁰ Like most developing countries, early colonial Malta was short of human capital—in other words, it had a low ratio of skilled to unskilled labour. This reduces the rate of return to physical capital and limits the range of economic activities in the economy. Overcoming human capital blockages requires investment in education.

Before Britain took Malta, the country did not have a national school system. The few schools that existed under the Order of St John were ‘elitist’ and ‘generally catered only for the few and the select’.¹¹ The Order restricted the establishment of schools, the training of teachers, and regulated the curriculum: it was a highly controlled sector. The French aimed to reform Malta’s education structure, but did not have the time or space to do so. Nor was there any sudden change in education under the British rule. During the first three of four decades of British rule, education was ‘haphazardly constituted’: government support for schools remained weak, the teacher corps consisted of clergy and foreigners, and instruction itself mainly consisted of Italian and Latin language lessons.¹² It was not until the 1838 Austin–Lewis Royal Commission, which visited Malta in 1836, that ‘caused ... a revolution in the educational system of the Maltese islands and started what later on would become popular education for all’.¹³

Education in the early nineteenth century cost little. The three elementary schools were generally free, the Lyceum (a high school) cost two shillings per year and the University 30 shillings per year.¹⁴ These fees were equivalent to 1 per cent and 14 per cent of an agricultural labourer’s annual income.¹⁵ Despite the low fees, enrolment was low and illiteracy high. The 1838 Austin–Lewis Commission described education in Malta as ‘small in quantity and bad in quality’.¹⁶ By 1851, only 10 per cent of the population could read and write.¹⁷ By 1861, out of the national male population of 76,283,¹⁸ only 8000 could read Italian (10.5 per cent)—at the time emphasized as the language of commerce—and fewer than 4000 could read English (5.2 per cent)—the language of administration.¹⁹ Women fared worse than men. The 1891 census reported that 85 per cent of women between the ages of 45 and 50 were illiterate, compared to 80 per cent of men.²⁰

There are two things to point out here. First, high illiteracy was unfortunately the norm across peripheral Europe. Total illiteracy in Italy, for

example, went from 69 per cent in 1871 to 55 per cent in 1891.²¹ But this obscures regional variation: the respective figures for Sicily are 85 per cent and 76 per cent.²² In 1890 in Dalmatia, then part of Austria-Hungary, male illiteracy was 85 per cent and female illiteracy 89 per cent.²³

Second, high illiteracy in Malta was not for want of trying to do something about it. The 1838 Royal Commission, while advocating against state intervention in most parts of the economy, chastised the administration for doing little in the area of education. The commissioners thought that Maltese dependence on the state could only be alleviated if the people were able to help themselves. Education was seen as the key to this: ‘a great extension and improvement of popular education would ultimately diffuse through the body of the people a knowledge of the causes which determine their physical condition’.²⁴ The commissioners also argued that education would increase Maltese attachment to Britain. They recommended that, in contrast to Britain, the state should take on all the administrative and financial responsibilities of education in Malta, and that a Department of Education should eventually be established.

By the turn of the century, 30 elementary schools, 20 infant schools, a few night schools, and 1 Sunday school were established.²⁵ There were also four main secondary schools and a few small private schools.²⁶ The Lyceum enrolled 415 students in 1900, the Girl’s Grammar School enrolled 120 students, and the University only 85 all male students.²⁷ By 1914, accommodation in schools reached 29,000 places: 25,000 in government schools and 4000 in private schools.²⁸

More broadly, Fig. 3.1 shows the percentage of government expenditure on education of total government expenditure. We can see that around the time of the commissioners’ report, the percentage ranged from a mere 1.4 per cent to 2.2 per cent. After 1838, however, the percentage began a secular growth trend, going from 4.4 per cent in 1839, to 6.2 per cent in 1880, and around 12 per cent on the eve of World War II. By current standards, this may seem low—40 years later, the equivalent percentage reached 24.1 per cent²⁹—but Fig. 3.1 shows us that education was increasing in importance for the colonial government. Neither was the concern for education limited to the government.

In his 1886 report on Maltese industries, Nicholas Zammit, a philosophy professor at the University, argued forcefully for the role of ‘public instruction’ in driving Malta’s industrial progress.³⁰ More specifically, Zammit, like many of his contemporaries, emphasized the need for technical education. That is, training suitable for business rather than for careers

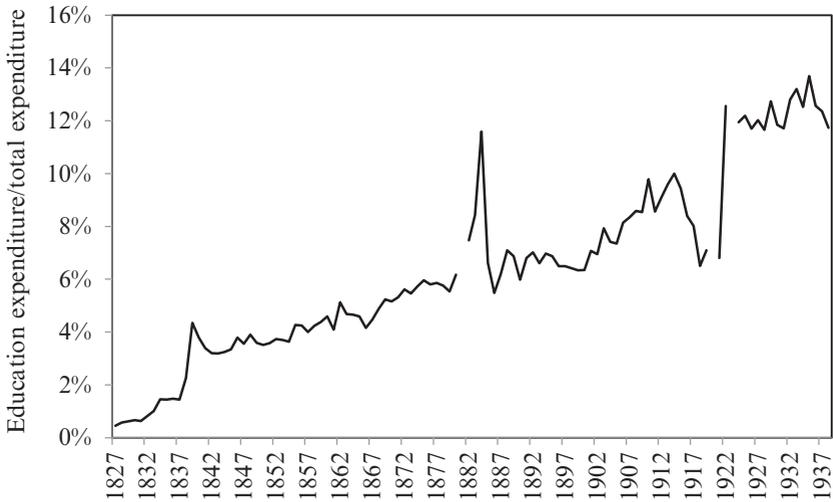


Fig. 3.1 Government education expenditure/total government expenditure, 1827–1938. Notes: Data from blue books. Education expenditure brings together annual expenditure on the University, the Lyceum and secondary schools, the School of Art, elementary schools, and the public library. All data are in nominal £

in law, medicine, or the clergy, a move frustrated by the Church, which Britain granted special privileges in the area of education.³¹

Despite these calls for action, improvement was limited. The movement to extend technical education ‘achieved virtually nothing’.³² For example, when the University rector in 1872 proposed extending the schools of architecture and mechanical engineering, so that ‘it will be easier for ... (young Maltese of good family) ... to find a lucrative employment abroad’, he only managed an enrolment of 40 students by 1878, and the number tended to shrink over the next years.³³ The new Technical and Manual School had an enrolment of 15 students in 1891.³⁴ Similarly, despite increased government expenditure on education, few pupils ever completed their elementary schooling. Between 1908 and 1916, 43,000 pupils were withdrawn from elementary schools—17,000 were withdrawn before completing their second grade out of the complete course of seven grades.³⁵ According to Cassar, it was only in the late 1960s that ‘secondary and tertiary education came within the reach of the masses’.³⁶

If government support was not the main issue, then what explains Malta's slow educational progress under colonialism? The short answer is that for much of the colonial period, the opportunity cost of education was high. This was a time when children were made to work at an early age, and were considered to be adults by age 15, marrying soon after.³⁷ As Cassar noted, the higher the cost of living, the more this was likely to happen, as families needed additional sources of income.³⁸ The opportunity cost of each year of schooling is equal to the wage the pupil would have received had they been in the labour force. So, for example, if one pupil in 1836 finished their elementary (primary and secondary) schooling and went through an additional five years of post-secondary schooling, their opportunity cost would have been around £64 (in 1938 prices), or around £13 per year that could have gone on consumption and family support.³⁹

Another way of looking at this is that the expected return on education—the relative wage of skilled to unskilled workers—was not high enough to justify the time spent in education. In fact, the ratio of the wage earned by workers in trades to that earned by agricultural labourers averaged 1.7 from 1836 to 1938.⁴⁰ A 70 per cent premium sounds like it might be high enough to incentivize educational investment, but this ratio also varied substantially—ranging from 0.97 to 4. Such high variation in the skilled–unskilled wage ratio made predicting expected earnings from education difficult: a pupil could not enter school, missing out on wage income, confident in the knowledge that their earnings would be higher upon graduation.

The administration could not guarantee some level of the skilled–unskilled wage ratio to incentivize enrolment, but by offering stipends that matched the opportunity cost of education to pupils, it could have plausibly increased enrolment and decreased truancy. This would have been more helpful than building even more schools and employing even more teachers, as some historians have argued for,⁴¹ or making elementary education compulsory, as the administration did in 1947.⁴² The point here is not that education improved dramatically under British rule, but that serious, although sometimes misplaced, efforts were made at improving educational outcomes, and that the situation would have been worse without those efforts.

Infrastructure

Changes in the stock and quality of Malta's infrastructure are easier to identify, particularly in the area of sanitation. Improvements in the coun-

try's sanitary conditions under colonialism raised the population's living standards and also improved its productive capacity. In this sense, a healthier population can be thought of as one with higher human capital. Sanitary improvements occurred under the Order—notably the 1615 Wignacourt Aqueduct, which carried water over 15 km from Dingli to Valletta—but the colonial period, with a larger and denser population, necessitated further advance.

Cassar describes sanitary conditions in nineteenth-century Malta as 'deplorable'⁴³—a description supported by numerous cholera outbreaks and a high incidence of trachoma and undulant fever. Limited progress was made by the end of the century when in 1885 a drainage system was introduced throughout the overcrowded harbour region. At the start of the century, one contemporary doctor observed, 'open sewers existed in these localities, into which many of the inhabitants of those streets were wont to throw night soil and all sorts of filthy matters, which accumulating at the surface evolved very offensive effluvia'.⁴⁴ By the start of the twentieth century, the drainage system was extended to most villages—with Safi, getting a drainage system in 1945, being a notable exception.

This mirrored attempts to extend a regular water supply to all parts of the country. From 1836 to 1843, under Governor Henry Bouverie, an aqueduct was built to bring water from the natural fresh water spring at Fawwara, on the south coast, to the villages of Mqabba, Luqa, Tarxien, Paola, the Three Cities, Gudja, Ghaxaq, Żejtun, and Żabbar.⁴⁵ It began operation in 1845. Starting in 1851, motorized water pumps were introduced to boreholes, tapping water from the country's perched aquifer to meet the demands of a growing population.⁴⁶ A number of groundwater-collecting galleries were constructed across the country's aquifer system; a pumping station was built at Wied il-Kbir; Sliema got a water supply with the construction of a boiling-type seawater distillation plant in Tigné in 1881; and by 1887 Sliema was connected to a pipeline system that reached to Valletta, Floriana, Birkirkara, Żebbuġ, Siġġiewi, Rabat, and Mdina. A national water supply system was formed by 1890, before which many people had to use public water pumps and private wells. In 1909, officials Sir Themistocles Zammit and Major A.H. Morris saw, through their recommendations, water sterilization by chlorine and a switch from an open channel to closed pipe system. Reservoirs were built at il-Fiddien and Qrendi, and major pipe-laying works occurred again in 1955 and 1961.

Communications infrastructure contributed to economic development in the long run by reducing trade costs and extending markets. Internally, rural areas were connected to urban markets through roads and railways;

externally, Maltese exporters were connected to foreign markets through better port infrastructure. In the short run, investment in infrastructure was used as counter-cyclical policy tool—to generate employment and boost consumer demand in times of economic recession.

Infrastructural development was a mix of public and private investments. Yet, Fig. 3.2 shows that expenditure on infrastructure accounted for an increasing large share of total government expenditure from 1831 to 1931. The share went from around 11 per cent in 1831, jumping to 21 per cent in 1841 when naval expenditure peaked during the Greek Wars and the Mehmet Ali crises.⁴⁷ The next level jump, to 24 per cent, occurred in 1871 with the opening of the ‘Somerset’ or Number 3 Dock at Senglea. The Marsa extension to the Grand Harbour over 1864 and 1865 also contributed to this jump. The share hovers around the 22 per cent level until 1891, when it jumps again to 29 per cent with the construction of Hamilton Dock at Birgu. The Dock was opened in 1892, and was likely motivated by the need for stimulus during a sharp contraction in economic activity following the prosperous 1880s.⁴⁸ The construction of a new breakwater starting in 1903, the establishment of the Water Works and Electric Lighting Departments, and the government takeover of the Railway Company kept the share at around 30 per cent until 1931.

For the first part of the nineteenth century, internal communications in Malta remained poor. Roads were ‘uneven and dusty paths and lanes that turned to mud with the first rain, making them impossible to use in winter’.⁴⁹ Roads that served military purpose were improved first and new ones were built to serve new settlements, but road building, at least initially, was more a case of adapting the early modern network to modern needs. In the early colonial period, *kalessi*—two-seater horse-drawn carriages—were used for internal transport; they increased their capacity to four-seaters in 1831. In 1853, the country was home to a total of 278 *kalessi*.⁵⁰ The *kaless* remained in use up to the 1870s, undergoing gradual improvement, but was too expensive for most of the population. A private operator introduced horse-drawn omnibuses in 1856, and while they were more affordable than the *kaless*, they were still too expensive for the ‘common worker’.⁵¹ The omnibuses grew in carrying capacity, from 16 to 24 passengers, and in reach, gradually covering most of the central and harbour area. They waned in popularity with the introduction of the *karrozin*, a modern, larger version of the *kaless*, in the 1890s.

The railway came to Malta in 1883. It ran a full 11 km between Mdina and Valletta. Plans to extend to other parts of the country were never realized, as distances were already cut short, thanks to the construction

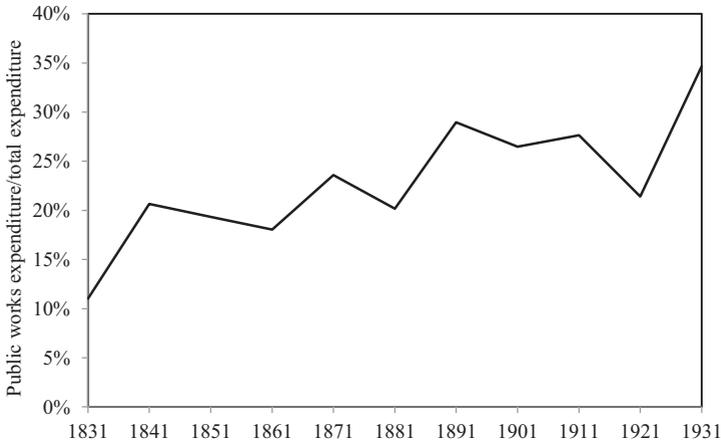


Fig. 3.2 Government expenditure on public works/total government expenditure, 1831–1931. Notes: Data from blue books. Public works expenditure comes under the various headings: Public Works & Repairs (includes disbursements) (1831); Land Revenue & Public Works (includes disbursements) (1841); Public Works & Land Revenue (salaries and allowances) plus Disbursements for ‘Roads, streets and Bridges’ and ‘Works and Buildings’ (1851); Land Revenue (salaries and allowances) plus Disbursements for ‘Roads, streets and Bridges’ and ‘Works and Buildings’ (1861); Public Works & Land Revenue (salaries and allowances) plus Disbursements for ‘Roads, streets and Bridges’ and ‘Works and Buildings’ (1871); Public Works plus Disbursements for ‘Roads, streets and Bridges’ and ‘Works and Buildings’ (1881); Superintendent of Works Department plus Public Works, Recurrent plus Public Works, Extraordinary (1891); Superintendent of Works Department plus Public Works, Recurrent plus Public Works, Extraordinary plus Water Works and Electric Lighting Department plus Water Works and Electric Lighting, Extraordinary (1901); Public Works Department plus Water Works and Electric Lighting Department plus Public Works, Recurrent plus Public Works, Extraordinary (1911); Water Works and Electric Lighting Department plus Water Works and Electric Lighting Extraordinary plus Public Works Department plus Public Works Annually Recurrent plus Public Works Extraordinary (1921); Public Works Department plus Water and Electric Department plus Railway plus Public Works Annually Recurrent plus Public Works and Water and Electric Works Extraordinary plus Railway (1931). All data are in nominal £

of new roads, on which transport was cheaper than the railway. In 1892, the government took control of the failing Railway Company. Under government control, the Company prospered for a while, but by the 1930s it was clearly an unprofitable piece of infrastructure and was shut down.

Electric trams, introduced in 1903, also faced a similar fate. Initially a successful form of transport for the harbour area and its suburban environs, its operator, the Electric Tram Company, was taken over by the government in 1929 and closed down shortly after. Why did the railway and tram companies fail?

In 1922, bus fares were regulated, making buses more affordable and popular. By the 1930s, the bus network reached remote parts of the country like Żurrieq. Secondary routes were developed, connecting villages like Luqa and Paola to one another, and the service was extended to the summer months. In 1941, fares were again regulated, remaining unchanged until the early 1960s, despite the country's economic progress over the period. While the bus service consisted of a collection of private companies, the government's fare limits and its road building are what made it a relatively more attractive mode of transport.

Lighting was another area of government reform. Oil lamps were used for street lighting until the mid-nineteenth century and were often ineffective or only found in village cores. In 1857, the government introduced gas lighting in the harbour cities while increasing the number of oil lamps in other villages, where it was not possible to distribute gas supplies. Most village streets were still lit by oil lamps in the early twentieth century.

Meanwhile, the government, in conjunction with the Secretary of State for the Colonies, commissioned the first feasibility study for a national electrical current supply in 1890. The study, prepared by Consulting Engineer William H. Preece, recommended the introduction of a high-pressure alternate current system to power 10,000 lamps of 10-candle power each.⁵² The cost of the plant was estimated at £40,000⁵³—the equivalent to 15 per cent of total government expenditure for that year.⁵⁴ The study planned for the extension of mains to Valletta, Floriana, the Three Cities, Hamrun, and Sliema. Four years later, Malta got its first public electricity service. The Central Power Station was built in the limits of Floriana, overlooking the Grand Harbour. Initially, it was used for street lighting, but slowly replaced gas as a means of lighting houses and building premises, and finally was used in industry. The next few years saw the government extending its electrical reach. Luqa, for example, got an electricity supply in 1929, and Safi in 1927. In 1926, a power station was built in Victoria, Gozo, and used mainly for street lighting since there was little non-agricultural activity there at the time. By 1953, however, demand increased, and some rural Gozitan villages were provided with electricity. At the same time, Malta saw the completion of its new power plant—

at Marsa, and financed in part by a grant from the Marshall Plan—that remained in operation until 1994. By 1959, it became clear that Gozo’s electricity demands were better served from the Malta station, and so the Gozo power station ceased operation.

The port facilities around the Grand Harbour provide an example of the colonial government’s use of infrastructure as both a long-run investment and a short-run, counter-cyclical policy tool. Before the construction of the dry docks, created to serve the Royal Navy and inaugurated in 1848, one observer predicted in 1838, that they ‘would become one of the most extensive and important [industries] of the island’.⁵⁵ He was right: the dockyards in general became the economy’s single largest employer, and continued to expand until World War II. The embellishments of Malta’s port facilities, along with the growing labour force of skilled shipwrights and Malta’s central location, made the country an attractive base for commercial shipping. Coaling, ship chandlery, storage, and reexporting became major economic activities in their own right. Still, most workers were dependent on the naval dockyard. The dockyard workers were underemployed when the Mediterranean Fleet was away. In one such instance, the British Admiralty decided to have a warship—the H.M.S. *Melita*—built in Malta ‘to ensure that the capacity of the Malta Dockyard facilities were fully used and, indirectly, to improve employment prospects in the island’.⁵⁶ This it did: construction began in 1883 and ended in 1888. In comparison, the five other *Mariner* class warships commissioned at British dockyards at more or less the same time were built within two years and cost 20 per cent less.⁵⁷

Public Service

A state’s capability to execute and implement its policies is an important determinant of economic development.⁵⁸ This capability depends on the state’s ability to recruit and allocate bureaucratic talent. A modern state emerges with the transition from appointments by patronage to institutions that codify the meritocratic and transparent selection and rule-based career progression.⁵⁹ A large public service sector developed under colonialism, but it was perhaps not as ‘modern’ as it may appear. Its genesis lies with Sir Alexander John Ball, the man who brought Malta under British control, and who was entrusted with the country’s civil administration twice between 1800 and 1809. According to Ball, Britain could only hold Malta if the Maltese themselves were given ‘a material interest in preserv-

ing British rule in Malta'.⁶⁰ Britain adopted this policy approach within less than a year of Ball's recommendation. There were four elements to this approach.⁶¹

First, a British administration had to respect the power and authority of the Maltese Catholic Church, and to acknowledge the interdependence between civil and religious authorities. The clergy held enormous sway over the population, and in fact led the revolt against the French, triggered when French troops ransacked churches. The British were aware of this early on: an 1812 Royal Commission concluded that abolishing the clergy's privileges 'would undoubtedly draw down the indignation of an angry priesthood and, through their means, create a considerable degree of discontent among the people'.⁶² In 1853, Lord Russell, at the time Foreign Secretary and later Secretary of State for the Colonies, declared in the House of Commons that 'with reference to the island of Malta, there was an open and solemn declaration that the religion of the Maltese should be confirmed, maintained, and respected'.⁶³ Church involvement in state affairs continued throughout the colonial period and beyond.

Second, Britain had to resume the Order's paternal system of government. We saw this in the previous chapter, with the colonial administration maintaining the *Università*. With the hunger and strife surrounding the 1800 revolt, Britain was expected to take on this role immediately, and the paternalistic support offered by the Order was the yardstick that the Maltese used to assess the advantages of British annexation. Ball noted how paternalism secured the Order centuries of stable rule, and that Maltese dissatisfaction with the Order grew when it was unable to perform its paternal role.

Third, Maltese had to be offered offices at every level of the colonial administration, with the exception of the governor and chief secretary. Under the Order, the Grandmaster bestowed public offices on Maltese people at his pleasure, but none of these were executive in nature. In the modern era, however, the Maltese were emboldened by their revolt against the French and expected to take some control over their country's administration.

Fourth, it was Ball's view that Britain should not surrender any degree of its political and military control over Malta. In this way, Britain would avoid a situation where Maltese agents were used by foreign powers to gain control of the country's government and a situation where the Maltese themselves were able to destabilize British rule. Maintaining a hard stance in this regard was difficult because of the Church's involve-

ment in state affairs and because of the policy of granting public office to Maltese people.

These four elements had a number of economic implications. First, the Church's influence constrained the administration's ability to design and implement policies in the area of, among others, education. Bonnici writes that the Church 'may have felt that, though not plausible in itself, illiteracy kept the doors closed to erroneous doctrines and dangerous innovations'.⁶⁴ The 'erroneous doctrines' referred to is Protestantism. The Maltese clergy suspected that Britain's promotion of education in Malta was one way of eroding the Church's influence. As governor of Malta, Major General Fredrick Ponsonby, wrote to the Secretary of State, Lord Stanley, 'the Clergy considered education as another word for "conversion"'.⁶⁵

Second, the need to engage in paternalistic government to ensure administrative stability meant a typically *laissez-faire* colonial government was not possible in Malta. Third, the expectation that Maltese were to be offered public offices in conjunction with the latter point created a persistently bloated public service, used for patronage and rent-seeking. The salary bill of all civil, judicial, and ecclesiastical establishments averaged 36 per cent of total government expenditure between 1851 and 1931.⁶⁶ Between 1851 and 1881, a period for which we have more detailed salary data, the governor and chief secretary's salaries alone accounted for between 12 per cent and 15 per cent of the total wage bill—or between four per cent and six per cent of total government expenditure. In a 1933 report to the governor, James Galizia, head of the Treasury, wrote that the practice of rewarding party supporters with government jobs, contracts, and other favours was both costly and abusive.⁶⁷ Fourth, the imperative of British political and military control, in conjunction with paternalism, meant that more than ever before Maltese political and economic developments were intrinsically bound together. We must set our study of Malta's commercial and industrial economy against this background.

DEINDUSTRIALISATION AND THE FATE OF COTTON HANDICRAFTS

The writing on Maltese industrial development under colonialism is dominated by counterfactual questions of the like, could the colonial government have done more to help Malta industrialize; was the administration itself responsible for the loss of certain industries?⁶⁸ These historical questions can be illustrated with the example of cotton growing and manu-

facturing. Malta had a large and successful cotton industry up until the colonial period, and cotton yarn was for a long a time the country's most important export commodity.

Most likely introduced by the Arabs in the tenth century, cotton was firmly established as an export industry in Malta by the fourteenth century. In 1414, King Ferdinand ordered officials to examine Maltese cotton earmarked for export.⁶⁹ In 1472, a tax of two per cent was levied on exported cotton to maintain the walls of Mdina.⁷⁰ In 1492, the *Università* appointed officials to fix prices for and levy taxes on spun cotton.⁷¹ The Order continued to regulate cotton prices, and demanded payment of 10 per cent advance money on foreign orders and exempted cotton exports from customs duty, 'so that the cotton industry, which was a considerable source of wealth for our Islands, might develop still further'.⁷² In 1732, Grand Master Manoel built two hostels in Floriana for the aged and for poor girls to spin cotton. They were given half the profits of their labour.⁷³ The last Grand Master in Malta, von Hompesch, continued to monitor and promote the cotton industry. Between 1788 and 1798, Malta exported about 27,500,000 French francs (£1,375,000 or £2,267,000 in 1938 prices)⁷⁴ worth of cotton.⁷⁵ When Ball arrived in Malta, he noted that cotton yarn was the country's most important export and its main cash crop, with a considerable quantity used for domestic consumption.⁷⁶ Similarly, the 1812 Royal Commissioners wrote that trade 'consisted chiefly in the exportation or cotton twist [yarn], the produce and manufacture of the Island. Of this, their staple commodity, the Maltese merchants conveyed the greater part to Spain, where it was held in high estimation'.⁷⁷

By the early to mid-nineteenth century, however, the cotton industry clearly entered a phase of long-run decline. This can be seen in Fig. 3.3, which displays an agricultural cotton output index from 1828 to 1938. The average annual rate of decline in output is 8.9 per cent, and the bursts of output in 1856 and 1864 can be explained by two temporary exogenous shocks—the Crimean War and the American Civil War, which disrupted the global cotton supply. How did the cotton economy go from a major to almost non-existent activity?

The first blow to Maltese cotton came in 1800, when the Spanish government issued a proclamation blocking all foreign cotton imports.⁷⁸ Catalonia was Malta's main cotton market. Maltese merchants turned to other foreign markets and were successful with Sicily for a while. But in 1816, the Kingdom of the Two Sicilies abrogated the ancient Treaties of Commerce it held with Britain. This abrogation involved a total prohibi-

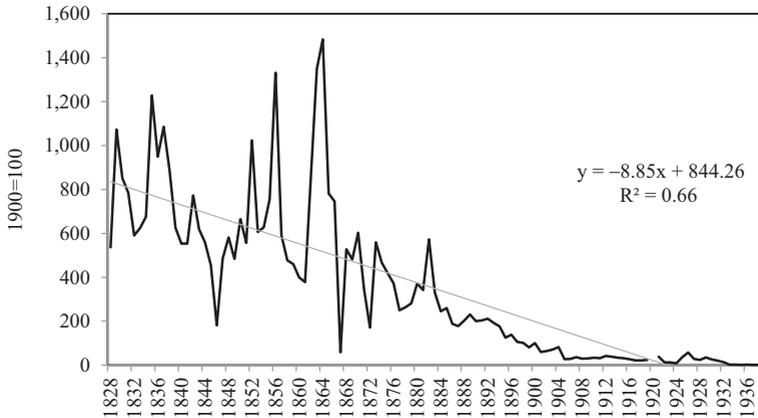


Fig. 3.3 Cotton lint output quantity index, 1828–1938. Notes: This is a Laspeyres quantity index as was the agricultural output quantity index from Chap. 2. This index measures the production of cotton lint, not manufactured cotton (yarn/twist). It measures the output of cotton growers in Malta. The trend line is linear and its equation is in the graph area

tion of imports of hand-spun cotton, done expressly to exclude Maltese cotton yarn.⁷⁹ Again, Malta lost its main export market. Already by 1812, however, the Royal Commissioners considered Maltese cotton yarn an unsalable commodity.⁸⁰ It was too coarse compared to its machine-produced equivalent from other suppliers.

The Maltese cotton yarn industry was unable to find another export market and so turned to the domestic market. Here the colonial administration provided legislative support, as the ‘social consequences of the collapse of the trade were serious’.⁸¹ A large body of poor labourers supplemented their incomes by spinning or weaving cotton. Losing this income supplement would cause hardship. Support took the form of restrictions on the export of domestic lint to provide domestic cotton spinners and weavers with monopoly buying power.

Another blow came in 1801, when the British government made Valletta a free port in an attempt to improve the country’s overall foreign trade.⁸² This allowed cotton lint to be imported freely into Malta. Maltese merchants pushed for the free port, arguing cheap cotton lint would boost the cotton manufacturing industry. Maltese landowners objected to the free port, arguing cheap foreign lint would lower the price of Maltese

cotton, and so reduce the value of or demand for their agricultural land. Landowners were assuaged by what turned out to be an ineffective system of quality marking that distinguished high-quality Maltese cotton from the cheaper Levantine imports.

When the marking system failed, landowners began pushing for the creation of an export trade in cotton lint, particularly in 1809 when the suspension of trade between Britain and America created an opportunity for Malta to supply Britain with lint. But the argument that exports of lint would cause hardship for the many spinners and weavers won. It was not until 1822 that lint exports were permitted—for one year, and on condition that free imports of cheaper, lower-quality lint were allowed for domestic spinners. This policy was stopped in 1824, as ‘nobody wanted to buy flabby, ragged, low-priced clothes made from such inferior material’.⁸³ Waning in number and political influence, the spinners were faced with a revision to the policy just a year later. In 1826, there ‘was a brisk trade in Maltese cotton lint, and there appeared a petition from spinners to prevent exports’.⁸⁴ Export demand was raising the price of lint for domestic spinners. The petition was rejected on the basis that it was prejudicial to growers.⁸⁵ Britain allowed Maltese cotton lint to enter Britain free of duty that same year.

Starting in 1828, however, both cotton growers *and* spinners began to suffer. Maltese yarn was still struggling to find a new market after Sicily and Maltese lint could not compete in terms of price with the new Egyptian lint. By 1830, the ‘export trade in Maltese cotton yarn disappeared so that all that remained was a small export of raw cotton’.⁸⁶ As weavers and spinners geared themselves towards the domestic market, their employment deteriorated markedly from the mid- to late-nineteenth century as can be seen in Table 3.1. The lint export market was mainly Greece, but even this declined in importance as cultivation expanded in the Peloponnese.

So goes the standard narrative. But a number of important questions remain. Why were spinners unable to find another foreign market for their yarn? Why did free trade affect spinners and growers differently? And why could either group not compete on the global market, despite government support?

Standard trade theory predicts that the global demand for cotton lint should have been good for Malta’s cotton growers.⁸⁷ As we saw in the previous chapter, Malta had an abundance of labour, and as cotton is a labour-intensive crop we should expect Malta to have specialized more

Table 3.1 Employment in the cotton economy, 1861–1871

	<i>Cotton, total</i>	<i>Spinning</i>	<i>Weaving</i>
	% of total employment		
1851	20.5	13.6	6.4
1861	14.9	9.8	4.8
1871	12.3	7.7	4.5

Notes: Expressed as percentages of total employment (agriculture, manufacturing, and commerce) from the blue books. Employment numbers for cotton, spinning, and weaving from Charlton, W.A., Trends in the economic geography of Malta since 1800, Unpublished PhD Dissertation, Durham University, 1960, p. 154

and more in the growing of cotton for export at the expense of less labour-intensive activities. This is what happened until around 1830. Under the Order, cotton was the single most important crop, and even in the early British period it remained a major crop—il-Fiddien (‘the silvered’), a fertile agricultural area in the south, took its name for its lush cotton fields.⁸⁸ The complication is that cotton is also land-intensive and Malta was, as we know from the previous chapter, land-scarce. The global demand for cotton lint thus pushed up the price of land, an important input cost, making Maltese cotton lint less competitive compared to the new supply coming on stream from land-abundant producers like Egypt and India, which, like Malta, had plentiful supplies of cheap labour.

The previous chapter also showed us that a high labour–land ratio disincentivized mechanization, as the price of labour was not high enough to justify the cost of labour-saving machines (the Rothbarth–Habukuk thesis). Indeed, Maltese spinners and weavers—mostly women and children—worked for a pittance on old-fashioned looms. Women spinners worked for 17 hours a day, earning less than a penny a day; weavers worked 13 hours a day, earning 10 pence a day; and children earned small fractions of one penny daily.⁸⁹ They never made the switch to the spinning jenny, which allowed one spinner to work eight or more spools at once, as their British counterparts did at the end of the eighteenth century. The mechanization of cotton manufacturing, particularly in Lancashire, destroyed whatever hopes Maltese cotton spinners had of a foreign market. They were afforded support through the prohibition of yarn imports and for a time lint exports, but the domestic market was still not deep enough to support an entire cotton industry built up during less globally competitive times.

As such, the logic of free, or freer, trade choked off the cotton spinners first, and then the growers. In 1830, a spinner would rarely earn more than two pence a day, compared to 6.5–8 pence a day for agricultural workers or urban unskilled labourers.⁹⁰ The country's relative factor endowments—a high labour–land ratio—made both cotton growing and manufacturing uncompetitive relative to new suppliers, even with considerable government support. This might provide an argument for yet more government support, as some historians advocated,⁹¹ but it might also suggest that Maltese workers should simply have been reallocated to different activities. Indeed, the government cotton factory built in Gozo in 1828 'could only run at a loss, and it was soon closed'.⁹² It was only through government support and shocks to the global cotton supply chain that Maltese cotton growing and manufacture lasted as long as it did.

A casualty of the cotton industry's demise was the absolute and relative decline of the female working population. In 1851, women accounted for about 45 per cent of the total working population,⁹³ and 50 per cent of the total population,⁹⁴ implying that most women worked. By 1948, women accounted for just 14 per cent of the working population.⁹⁵ In 1851 most women were employed in textile work of various kinds—cotton spinning and weaving absorbed about 37 per cent of them.⁹⁶ The remainder worked as seasonal labourers in agriculture, mostly in the spring, after the rain, when fields were being prepared for summer crops, and also in autumn after the harvest. Yet spinning and weaving were more regular, long-term occupations, and the agricultural sector, in terms of employment, was in secular decline and unable to absorb excess labour from other sectors. In fact, the temporary rise in the female working population registered from the 1861 to 1871 census was down to enumeration in spring (1871) rather than autumn (1861), and the rise between 1911 and 1921 was a consequence of male emigration during the period. The following decade saw an immediate drop. By 1948, the female working population stood at 11,966,⁹⁷ that is, around 6.5 per cent of the total working age population,⁹⁸ implying a female labour force participation rate of around 13 per cent.⁹⁹ By 2003, the year before Malta's entry into the European Union, the female labour force participation rate rose to just over 30 per cent—the lowest among member states.¹⁰⁰ The share of women in total employment stood at 30 per cent¹⁰¹—a full 15 percentage points below the figure for 1851.¹⁰² Charlton wrote that until the mid- to early twentieth century '[t]he decrease in the female working population reflects

the decline of the cotton industry'.¹⁰³ This, combined with the decline of agricultural employment, the traditional absorber of female labour, kept female employment low by European standards until the late twentieth century.

MANUFACTURING FAILURE

The case of deindustrialization in cotton speaks to a broader debate on the absence of a substantial manufacturing sector throughout the colonial period. In the next chapter, we will see how it was only in the mid-1960s that a considerable number of manufacturing firms were established in Malta. Shipbuilding and ship-repair at the dockyard became a large industry in the 1840s, but was the product of British military expenditure and mainly served the navy. This was a special case of 'manufacturing', which we will cover in the coming section. It is the absence of an 'industrial revolution' that interests us here.

At the start of the nineteenth century, cotton spinning was still the main manufacturing occupation, second to cotton weaving.¹⁰⁴ Next came cigar manufacturing, which, by the 1830s, employed some 600 workers.¹⁰⁵ For comparison, total employment in 1851, the first year for which we have data, numbered 52,588 persons.¹⁰⁶ Using imported tobacco leaves, the industry manufactured 50 million cigars annually, contributing some £10,000 to foreign earnings.¹⁰⁷ This was equivalent to around 2.3 per cent of total exports (including reexports) in 1830 and 3.4 per cent in 1839.¹⁰⁸ This sum surpassed the export value of the two other important manufactured exports—wrought stone and precious metals—by £3000.¹⁰⁹ Other manufacturing concerns were small and mainly served the domestic market: salt and earthenware at Birkirkara, matting for chair bottoms at Siggiewi, and hide tanning at Tarxien.¹¹⁰ By 1856, cigar manufacturing provided work for 1500 workers, whose produce was exported across the Mediterranean.¹¹¹ By 1881, the number of workers dropped to 1033.¹¹² Zammit provides highly optimistic figures, implying annual revenue net of tobacco imports at around £2396 during this period.¹¹³ That is, £2.32 per worker a year, when he also writes workers earned eight pence a day—or £9.67 a year.¹¹⁴ In fact, as Cassar writes, 'the industry was doing very badly by the end of the century', as were manufacturing industries in general.¹¹⁵

Clare concluded his survey of the nineteenth-century economy as follows:

*the island's dependence on commercial activities and defence spending signified a weak economic structure; one with no industrial base ready to fortify the weaker parts. Had something been done to diversify the economy at an earlier time, then perhaps, a different story would today have been written.*¹¹⁶

The implicit argument in Clare's conclusion is that Malta could and should have industrialized, and was prevented from doing so by government neglect. Let us start by examining the 'could'—the potential and limits of manufacturing—before moving onto the 'should'—why a missing manufacturing sector can be problematic in the long run.

Limits and Potential of Manufacturing

We have seen that a high labour–land ratio disincentivized mechanization, making industry uncompetitive in an open environment. Writers have offered a number of other explanations for the failure of large-scale manufacturing to take off, which are worth exploring: a lack of government support, income inequality and credit blockages, and the distortive effect of the dockyard. They argue that Malta could have industrialized without these issues.

Starting with government support, Clare is perhaps the strongest proponent of the argument that colonial Malta needed more 'state economic action' to support industry,¹¹⁷ although contemporaries held the same view. In his presentation to the 1931 Royal Commission, Henry Casolani, at the time Superintendent of Emigration, argued that Malta's economic 'danger lies in laissez faire'.¹¹⁸ Clare argues that such action was needed for Malta to overcome its 'dire lack of essential raw materials' and its 'inadequate capitalist development'.¹¹⁹ He does not outline any specific policies that might have done this, but we have already seen that the colonial administration experimented with trade policy to protect the cotton industry—from banning yarn imports to banning lint exports.

In fact, Fig. 3.4 shows that the general level of protection—as measured by the ratio of customs revenue to total import values—afforded to Maltese producers was high. In the early period, it shot up to around 20 per cent, stabilizing and dropping around the 1837 major tariff reforms to hit a level below five per cent from 1855 to World War I. It was during this period alone that we can safely say Malta's economy was open. Interestingly, however, the cotton industry declined a long time before. Protectionism increased with the advent of World War I and climbed up to

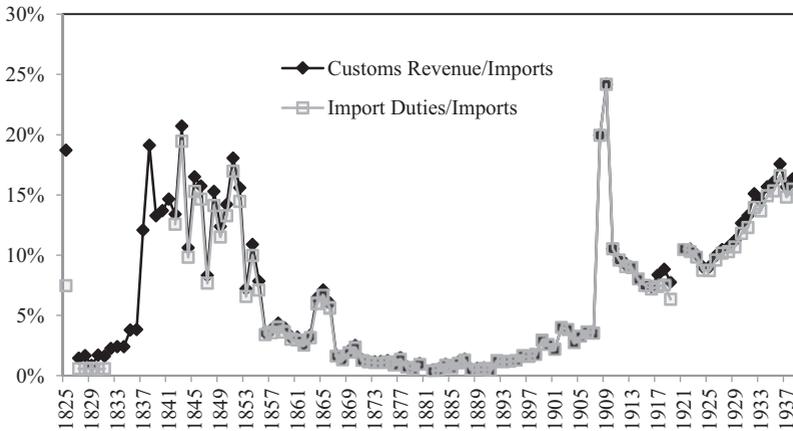


Fig. 3.4 Protection from imports, customs and import duties/imports, 1825–1938. Notes: All underlying data are from the blue books and were originally in nominal £. ‘Customs Revenue’ includes revenue from import duties, tonnage dues, store rent, sales of goods seized and in contraband, and excise duties. The ‘imports’ denominator is total import values. Before 1910, the blue books only recorded imports values for items that were subject to tax

around 15 per cent during the interwar period. Most countries closed off from the world economy during this period, and Malta was no exception.

It is not, however, the average protection level that matters, but the structure of protection.¹²⁰ Industrial tariffs tend to be positively correlated with economic growth, while agricultural tariffs tend to be negatively correlated with economic growth.¹²¹ By protecting an agricultural sector that does not have a comparative advantage, agricultural tariffs prevent the reallocation of resources like labour to more productive sectors like industry. In this case, the economy would benefit from shifting to industry and trading industrial for agricultural goods. In Malta’s case, some 43 per cent of the customs revenue displayed as the numerator in Fig. 3.4 came from the wheat duty alone.¹²² The high wheat duty itself implies that a high level of protection was needed to keep domestic wheat production in business, or, in other words, the wheat duty discouraged the shift away from agricultural activity. Had Malta imported even more or perhaps all of its wheat, then all the resources employed in domestic wheat production would have been freed up for the industrial sector.

The colonial government, for reasons we saw in the previous chapter, was unable to dismantle the wheat duty, so it simultaneously tried to protect the industrial sector. As early as 1911, A Royal Commission was ‘appointed to consider the expediency of granting temporary monopolies’ to industrial firms.¹²³ With this policy, the government grants a monopoly over the production of a certain good to a private individual or company. It is similar to modern-day infant industry policy, which we will explore in detail in the following chapter, where a certain industry is protected from competition by the government supposedly until it builds up competitive and productive power to eventually supply both domestic and foreign markets. The threat of the policy being ‘temporary’ is supposed to incentivize firms to build up that capacity during the protection or monopoly period—if they do not do so, then the removal of protection will result in failure. The Royal Commission concluded that the benefits of such monopolies would only accrue to the firms’ owners, so the policy was never implemented. Their conclusion, according to contemporary research, is not far off the mark.¹²⁴ Gains do mainly accrue to firm owners during the monopoly period, but a larger problem is that the threat of lifting protection is not credible. Under protection, firms grow to account for a large share of output, gaining substantial bargaining power. Comfortable in their monopoly position, firms thus fail to raise productivity and become uncompetitive on foreign markets and dependent on domestic markets, elevating the price for their product there. Still, there were other ways in which the colonial administration could have helped industry.

Clare singled out a lack of raw materials as a barrier to industrial development.¹²⁵ As raw materials were needed as an industrial input, they had to be imported. Import tariffs raised the price of those inputs and thus the cost of industrial production. It is for this reason that the 1927 ‘Compact’ between the liberal Constitutional Party and the Labour Party included an agreement on the ‘removal of customs duty on raw material and the requirements of industry’.¹²⁶ Not much appears to have happened until the late 1940s and early 1950s when Elias Żammit, founder president of the Federation of Malta Industries, argued for a more active industrial policy that involved cutting duties on industrial inputs.¹²⁷

The degree to which this matters for industrialization depends on the intensity of raw material inputs. Producers do not consider raw material input costs alone, but consider *total* costs relative to potential revenue. For example, after the opening of the Suez Canal in 1869, Malta became an important coaling station for imperial steamships moving between Britain

and India. Malta has no coal deposits—all coal, for coaling and for domestic consumption, was imported. It was not the availability of coal that made Malta an important coaling station, but its location on the route from northern Europe to India via Suez. As Anderson wrote, ‘neither favourable location for trade nor abundant natural resources is a necessary condition for economic development, as the history of Japan strikingly demonstrates’.¹²⁸

The second problem Clare singles out is ‘inadequate capitalist development’.¹²⁹ He does not define this precisely, but like other writers seems to be referring to problems of capital scarcity and an inadequate capital market; in particular, that capitalists showed more interest in the reexport and retail trades than industry. Spiteri argues that British services-led modernization ‘did not help to transform the island [sic] into a capitalist formation because it was tailor-made [sic] for imperial needs and linked to services but not to production’.¹³⁰ Price writes that the government feared an 1837 bazaar to encourage local industry would fail for a lack of capital, a view with which the 1838 Royal Commission concurred.¹³¹ However, Price shows that banks’ liabilities, deposited by merchants and landowners, were large enough to imply capital was indeed available for ‘any project capable of arousing local enthusiasm and determination’.¹³² Similarly, Nicholas Zammit wrote in 1886 that ‘[T]he aristocratic owners of large fortunes lord it over the enterprising and producing agents of the community ... the financial position of a few is a barrier to the industrial success of the many’.¹³³ He goes on to argue for a ‘coalition of capitalists’ to overcome this barrier.¹³⁴ Refalo’s study of the Maltese commercial class shows that its members accumulated capital through trade and that the country’s geographical position and colonial status ‘ensured the paramountcy [sic] of commerce’.¹³⁵ These capitalists, who in some cases owned their own banks, were ‘loath to invest in industrial pursuits’.¹³⁶ The proximate reason is simple: such pursuits were much ‘higher risk’ and ‘lower margin’ than the import, reexport, and distributive trades.¹³⁷ As Refalo asked, ‘[w]hy, in other words, should money be risked in industry when the return was, at best, uncertain?’¹³⁸ We saw in the previous chapter just how profitable the grain trade was. For example, the firm *Agostine e Paolo fratelli Cassar Torregiani*, grain traders, had in February 1911 a net cash balance of over £30,800¹³⁹—equivalent to 6.9 per cent of the total government revenue for that year.¹⁴⁰

Capital was available and was going to where its risk-weighted returns were highest—that is, trade rather than industry. This is unsurprising, and

did what writers lament: drew capital away from industry. If the goal were to industrialize for its own sake, then policies that attempted to divert capital away from trade and commerce and towards industry were indeed the right approach. One such example comes from 1888 when Gerald Strickland, then an elected member of the Council of Government, put forward a bill that empowered the Government Savings Bank to advance credit in aid of ‘industry, particularly agriculture’ secured by the land owned.¹⁴¹ The bill never got past its preliminary stages.

If, however, the goal were to boost aggregate growth and distribute the gains of that growth more equally, which is implicit in some writers’ arguments, then a better policy approach might have been to further encourage trade and commerce. As Refalo wrote, this was a much lower risk and higher margin sector.¹⁴² It was predictable that a British colony at the centre of the Mediterranean would in this period specialize in trade and commerce. The problem was not a specialization in trade and commerce *per se*, but that the gains of this specialization were accruing almost exclusively to mercantile and banking families. Policies aimed at industrialization are a roundabout way of tackling this. A more immediate one would have been a direct tax on some of the country’s most profitable imports, such as those consumed by the middle class, like beer, wine, and spirits. The tax revenue raised on these imports could then have been used to fund public education and infrastructure projects and would have afforded a limited degree of protection to domestic manufacturers. When one such proposal was made in 1878, 2000 persons went to Valletta in protest and to block the proposal’s passage through the Council Chamber.¹⁴³ But there were also blockages within the Council: one representative from the Chamber of Commerce, which as a body represented importers and merchants, and another elected official who claimed to represent the commercial class from his district.¹⁴⁴ In parallel, there were various attempts at introducing a public statistical register covering all imports and importers. Without this, no one—least of all the government—could know what the profit margins on certain imports were. After a tortured passage through the Council, the proposal was enacted as a law in 1893 but repealed a year later on the power of the same interests who opposed the tax reforms.¹⁴⁵ In the meanwhile, non-elected members of the Council deferred to their elected members, arguing that taxation was a ‘local’ matter.¹⁴⁶ If the colonial administration’s energy were spent on breaking up this interest group and managing the proposed tariff reforms, they would have served the twin purpose of distributing the gains from commerce more evenly and afforded some limited protection for domestic manufacturers.

The colonial economy did not give rise to a substantial manufacturing sector because it simply specialized along the lines predicted by standard trade theory. Its relative factor endowments, expensive land and cheap labour, made agricultural activity like wheat growing uncompetitive, and disincentivized the productivity-enhancing mechanization of labour-intensive industries like cotton. Further, mechanization was necessary if cotton was to compete on the world market—the domestic market not being large enough to support the industry alone. Trade and commerce were sectors that were both labour-intensive and did not require land or capital-intensive mechanization—only a commercially exploitable geographical location. Busutil writes that from 1871 to 1881, ‘labour connected with commercial activity’ increased by 27 per cent while the total labour force grew by 37 per cent.¹⁴⁷ Most commercial activity was centred on Malta’s role as an entrepôt—a transshipment point for reexports. We will turn to precisely what these commercial activities were in the section after the next, but for now it is worth examining this argument in some more detail. We can do this by looking at the correlation between Malta’s terms of trade—the ratio of export prices to import prices—and its employment structure.

A boom in the demand for Malta’s reexports—which accounted for around 90 per cent of total exports¹⁴⁸—should have raised the price of those goods, drawing labour away from manufacturing and into commerce. This is a variant of the ‘Dutch Disease’, where strong external demand for non-manufactures (usually a commodity like oil) drives currency appreciation, making manufactures uncompetitive, and leading to deindustrialization. Figure 3.5 plots the commercial share of employment and the manufacturing share of employment (both indexed to 100 in 1851) against the total terms of trade. Both relationships support the argument that Malta tended to specialize in commerce in an open environment. The ‘commerce’ trend line (solid black line) shows that as Malta’s terms of trade grew, commercial employment as a share of total employment increased. The correlation is not tight, which is expected given the noisy proxy for terms of trade we use here, but is still considerable—an R^2 of 30 per cent. The reverse is true for manufacturing, which shows a declining manufacturing employment share with terms of trade growth (dashed grey line). Again, the correlation is not tight, but still meaningful—an R^2 of 25 per cent. Figure 3.5 shows that during a period of trade openness, Malta’s relative factor endowments led to a specialization away from manufacturing and into trade and commerce. Was this a bad thing?

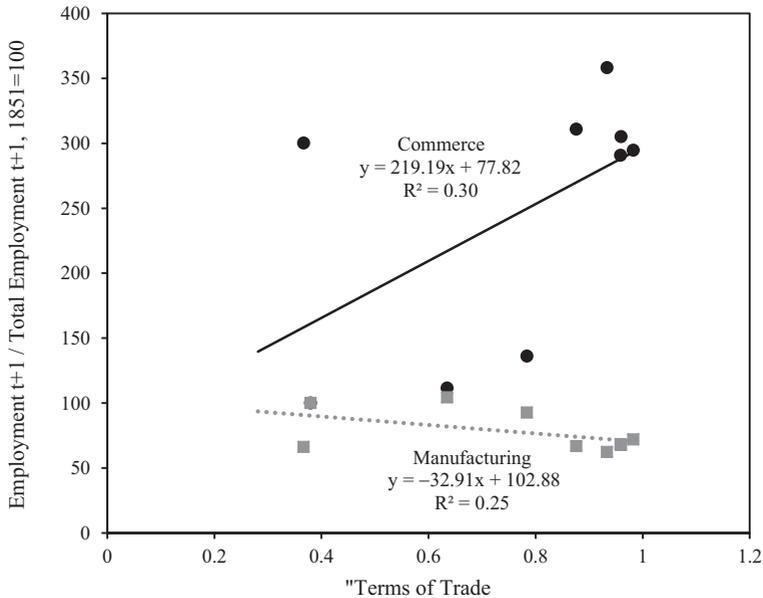


Fig. 3.5 Employment shares in commerce and manufacturing and the ‘terms of trade’, 1851–1910. Notes: ‘Terms of Trade’ is ideally the ratio of changes in an import price index to changes in an export price index. The index used here is simply the ratio of import values to export values as data do not allow for the construction of trade price indices. Before 1910, the blue books only record export and imports that were taxed. Note that employment shares are related to preceding ‘terms of trade’ values. All data are from the blue books. Both trend lines are linear and their equations are displayed in the respective graph areas

Manufacturing Fetish

Underlying the arguments for industrialization is what some writers have called a ‘manufacturing fetish’¹⁴⁹—that is, the point of view that industrialization is good for its own sake and that it is inherently superior to ‘illusory’ and ‘foreign’ sources of income.¹⁵⁰ Proponents of this view argue that deindustrialization and slow manufacturing productivity growth damage a country’s ability to export, eventually leading to balance-of-payments difficulties.¹⁵¹ Commercial activities (‘services’) are mostly non-tradable—ship-repair, for example—while tradable services tend to

account for a much smaller share of the entire sector, and in the long run depend on insights gained from manufacturing production processes. Opponents of this view argue that technological progress is not limited to manufacturing, but can also be found in services like retailing. Nor is there a necessary complementarity between manufacturing and services within an economy—manufactures can be imported.

A recent instalment in this debate came from Rodrik, who made a useful distinction between deindustrialization caused by productivity advances in manufacturing and by globalization or trade openness.¹⁵² In the former, manufacturing experiences faster productivity growth than the rest of the economy. This then reduces the share of employment in manufacturing. This line of argument, however, cannot explain the decline of manufacturing's share in total income, which should increase with productivity advances, and it does not fit developing countries' experiences, notably Malta's. Rather, this line of argument works for economies like Britain that, in the standard linear progression, graduated from agriculture to manufacturing to services. Malta's experience fits with Rodrik's second line of argument: that as the country opened up to trade, its manufacturing sector was shown to lack a strong enough comparative advantage to stay in business. This is what we saw in Fig. 3.5 and in our discussion of the cotton industry. Thus, colonial Malta deindustrialized before seeing any productivity advances in manufacturing.

Rodrik goes on to argue that this kind of '[p]remature deindustrialization has serious consequences, both economic and political'.¹⁵³ It reduces an economy's aggregate growth potential: manufacturing is the sector with the strongest tendency to 'unconditional convergence', that is, with the strongest potential to catch up with more advanced manufacturing sectors in other countries. This is because manufacturing produces 'tradable goods that can be rapidly integrated into global production networks, facilitating technology transfer and absorption'.¹⁵⁴ Further, even when manufacturers produce for the domestic market only, they still operate under competitive threat from efficient suppliers abroad, keeping them efficient and up to date. In contrast, agriculture and most services do not share these characteristics, and so show limited international catch-up potential. Catch-up growth in manufacturing has been an important growth driver for developing countries in recent years. Indeed, the next chapter shows that Malta's fastest aggregate growth rates were registered during its manufacturing expansion, but we cannot retrospectively assume from this that a manufacturing sector would have driven growth in earlier years. Further,

throughout the colonial period there was no clearly articulated theory on the long-run benefits of a manufacturing sector and the concept of catch-up growth. The political consequence of premature deindustrialization is that it makes ‘democratization less likely and more fragile’.¹⁵⁵ Mass political parties have traditionally been by-products of industrialization, as the disciplined and coordinated labour forces needed by large industries are necessary for bargains between political elites—like Malta’s colonial administration—and non-elites—the total labour force. We can see these themes very clearly in a close examination of the dockyards, which were for a long time Malta’s only substantial industry and whose workers grew to form ‘the nucleus of the Maltese Labour Movement’.¹⁵⁶

BRITISH MILITARY EXPENDITURE AND THE DOCKYARDS

It is commonplace to say that Malta’s fine natural harbour around Valletta and position in the Mediterranean are central to its history. They are in fact the reasons why the country was colonized. England required a base for its fleet in the Mediterranean, and the Maltese, who required a strong naval protector, supplied it. Over a century after colonization, Vice-Admiral George Alexander Ballard was able to call Malta ‘one of the most important and best equipped naval bases and arsenals in the whole world’,¹⁵⁷ adding that ‘[i]mmense sums have found their way into the Island from the British Imperial Treasury’.¹⁵⁸ Yet historians are unanimous in their view that the expenditure of the British Armed Forces and Admiralty on its ports and dockyards had a negative and distortive effect on the economy.

Spiteri, for example, writes that with the emergence of the dockyards as the country’s single largest employer, ‘Malta ... slid into an unprecedented dependence on imperial defence spending’, further hindering its transition to an industrial economy, and that from 1870 onwards ‘the level of economic activity became a function of the strength of the garrison and naval population’.¹⁵⁹ The Crimean War, when Malta was used as a naval base and hospital, saw more British troops in Malta, resulting in high labour demand and incomes, both Grima and Clare write.¹⁶⁰ Holland writes that Crimea became known as a ‘time of plenty’ and that subsequently peace always brought ‘economic relapse’.¹⁶¹ Busuttill writes that ‘if there is one principal feature running through the economic denouement of Malta ... it is that of the island-fortress economy’.¹⁶²

On the face of it, the correlation between British military expenditure and measures of prosperity like real wages is compelling. Figure 3.6 plots the real wage series of workers in trades alongside real military (including naval) expenditure. It is important to note that save from an annual £5000 contribution by the Maltese government, funds for military expenditure were not raised in Malta itself. We can see the war–peace pattern of boom and bust emphasized by historians. The correlation between the two series is significant and positive: 0.37.¹⁶³ Explaining the real wage series as a function of real military expenditure alone, we get a low R^2 of 14 per cent—that is, real military expenditure can only explain 14 per cent of the variation in real wages. We get a coefficient on real military expenditure that implies when real military expenditure increases by its mean annual value of £552,262, the annual real wage series tends to grow by £21—or 33 per cent of its mean value of £63.¹⁶⁴ The effect of military expenditure on real wages is large because some wages were directly paid

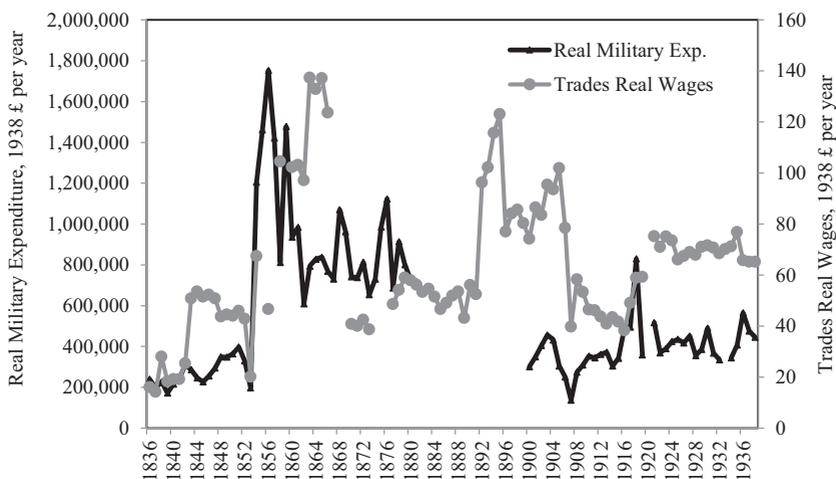


Fig. 3.6 Real wages for tradesmen and real military expenditure in 1938 £, 1836–1938. Notes: Real wages assume 290 working days per year. Real military expenditure includes naval expenditure. Both series deflated with CPI from Chap. 1. Military expenditure data from 1826 to 1885 from Price, C.A, *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, pp. 208–209. All other data are from the blue books

by expenditure, as in the case of dockyard wages, because wages were paid for services contracted by the Armed Forces, and because Maltese workers earned trading profits on sales to garrison personnel. British military expenditure is what allowed such a high consumption of imports in Malta. Rising real military expenditure represented an increasing demand for military-related services and industry.

The Development of Naval and Military Establishments

The demand for naval and military services emerged before the British period, but it was in the modern era that military expenditure became a foundational part of the economy. The 1530 arrival of the Knights of the Order of Saint John in Malta brought with it shipbuilding and repairing needs, which started the shift of labour out of agriculture and the population's concentration around the harbour area.¹⁶⁵ Admiral Sir Alexander Ball, on being appointed governor, put all the Order's buildings along the shore of the Grand Harbour and its surrounding creeks at the disposal of the British Admiralty. The buildings included storehouses, the Old Galley Arsenal, a shipway and magazine, forts and bastions, but were not adequate for the depot of a large modern fleet. A map of the dockyard and harbour area is shown for reference in Fig. 3.7.

Not much changed for the first few years of British naval administration as the British occupation of Malta was not considered permanent under the Peace of Amiens, signed in 1802. Further, British interests in the Mediterranean were at the time still small. The Black Sea grain trade had yet to emerge, the Sultan of Turkey was friendly, and the path to India was not yet open. British departure was postponed, at Maltese insistence and with outbreak of war with France once again. Captain Robert Otway from the Royal Navy was sent to Malta as Resident Commissioner for Naval Affairs and, seeing that British occupation was set to be permanent, he was charged with strengthening the personnel and administrative capacity of Malta's Naval Establishments.

In 1804, the only metal workers in the dockyard were a pair of blacksmiths. Of the remaining 168 workers, over half were sail-makers and rope-makers.¹⁶⁶ The remaining Dockyard artisans were all shipwrights, sawyers and caulkers—skilled wood workers.¹⁶⁷ Unskilled workers consisted of 24 labourers, who also worked as boatmen and lightermen.¹⁶⁸ By 1921, Dockyard employment reached 8985 persons¹⁶⁹—14 per cent of the total employment¹⁷⁰—most of whom were fitters, turners, boiler-

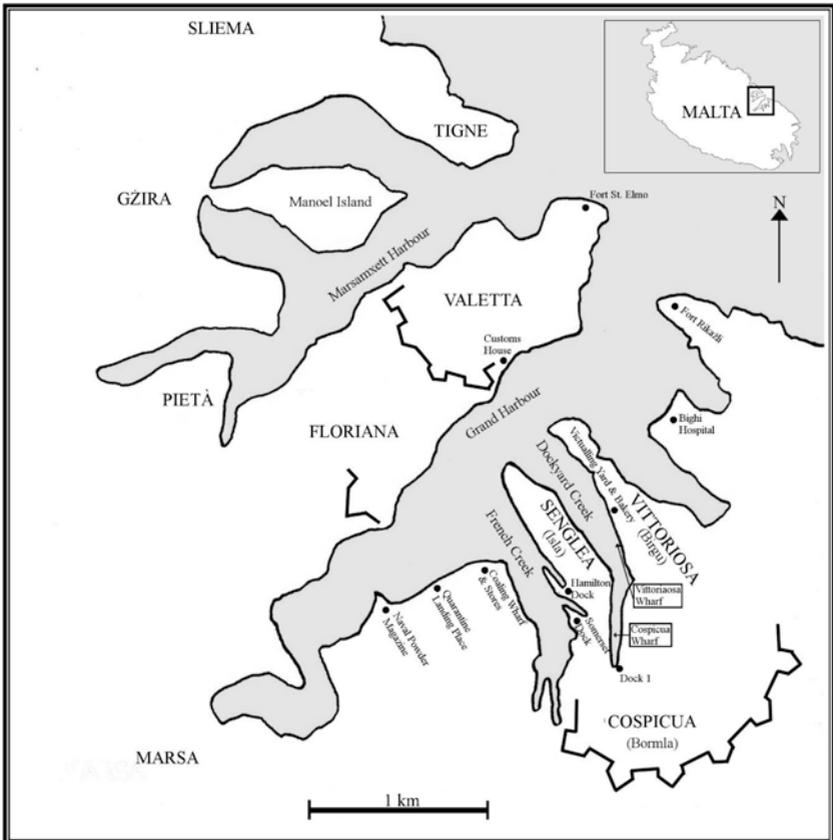


Fig. 3.7 The harbour and dockyard area. Notes: Adapted from Figure 1 of King, R., *The Changing Role of Malta's Dockyards*, *Geography* 63(4), 1978, pp. 363–366

makers, officers, and clerks. Besides the Resident Commissioner himself, three other officers were established: the Master Attendant, the Master Shipwright, and the Storekeeper. These were the predecessors to, respectively, the Captain Attendant, the Chief Constructor, and the Naval Store Officer. Also established was a Surgeon for the Naval Sick Quarters and an Agent Victualler—later the Surgeon Captain at Bighi Hospital and the Superintendent of the Victualling Yard. Such was the complete staff of officers and workers in the Naval Establishments when Malta was made

the headquarters of the British Fleet in the Mediterranean in response to competition with France.

The second boost to military expenditure came with Britain's next confrontation in the Mediterranean, some 50 years later in the Crimean War. France was then an ally rather than an enemy, and Malta was spared the danger of direct attacks or invasions, thanks to British maritime supremacy. Malta's role was that of a naval base: British and French ships constantly called at Malta for coal supplies and repairs *en route* to Crimea. The two powers deposited large stocks of naval and military stores in Malta, and as Fig. 3.6 shows Maltese workers enjoyed their first experience of war-related 'great prosperity'.¹⁷¹

Even before the Crimean War boost the Maltese economy benefited from some expansion of the Naval Establishments. Bigli Villa was acquired by the Admiralty and converted into a 'first-class hospital ... superior to any other Naval Hospital abroad [outside Britain] in those days'.¹⁷² Admiralty property in Dockyard Creek had been extended, rearranged, and consolidated. The Vittoriosa public jetty was converted into a government wharf. The old Galley Arsenal was converted into a naval bakery, which issued 'hundreds of tons' of 'naval biscuits'.¹⁷³ The Admiralty acquired and expanded public jetties and wharfs at Cospicua and Bormla. Most notably, the Admiralty constructed the country's first dry dock in 1848 at Dockyard Creek. The dry dock met an urgent and long-standing need for dry docking in the Mediterranean, and at the time could service all ships in the Royal Navy. By 1854, the Admiralty acquired about three-fourths of the entire shores of Dockyard Creek.¹⁷⁴ Its staff consisted of 360 officers and workers—double the number 50 years earlier.¹⁷⁵ The wage bill averaged £260 (£143 in 1938 prices) per week—almost three times the amount 50 years earlier.¹⁷⁶ The workers were still mainly specialized in sail and rope-making and woodwork, as there was only one steam battleship in the Mediterranean Fleet at the time.

Sixty peaceful years elapsed before the next war boom, when on 4 August 1914, the Admiralty dispatched a telegram to British Admirals across the world announcing Britain's declaration of war against Germany.¹⁷⁷ Fortunately, Malta was again immune from direct attack as Britain still reigned supreme in the Mediterranean, despite numerous hostile submarines circulating around the Sea. Not a single shot was fired by land defences on Malta at an enemy from the start to end of the World War I.¹⁷⁸

The intervening period between Crimea War and World War I, however, saw a dramatic expansion of naval and military activities in Malta for five main reasons: the resurgent maritime power of France, the building of large fleets by Germany and Italy, the opening of the Suez Canal, the rise of the Black Sea grain trade, and the change from wood to steel as the main shipbuilding material and from sail to steam as the main method of propulsion. The growing fleets of France, Germany, and Italy, along with growing volumes of Mediterranean trade, called for a larger British fleet to protect it. Changes in shipbuilding and propulsion increased ship tonnage fivefold and ship construction costs by a factor of 15.¹⁷⁹ To cope with larger vessels, the Admiralty acquired more land around the Grand Harbour area as well as land on the shores of Marsamxett and Marsa, at Kalafrana for a seaplane base, at Għajn Tuffieħa, Ricasoli, and at various other points for signal stations and wireless telegraph stations.

A number of new docks were constructed during this period. Increasing ship lengths made a new dry dock necessary soon after Crimea. With no room around Dockyard Creek, the Admiralty built the new ‘Somerset Dock’ at Senglea, completed in 1871. It was at the time large enough to take any naval ship, but was deemed too small two decades later. The Suez Canal opened in 1869, while the construction of Somerset Dock was underway, changing the Mediterranean’s strategic and commercial situation. More and bigger naval ships were needed to protect commercial ships plying between India and Britain. A third and larger dock was built at Senglea in 1892, and named ‘Hamilton Dock’. Within a few years of its completion, it became apparent that a larger dock was needed. New ships kept growing in size and volume, as an international naval arms race lasting up to World War I ensued. The Admiralty acquired swathes of new land along French Creek and Cottonera Lines. Here two new and much larger docks were built with all the ancillary factories and workshops. Breakwaters were built at Fort Saint Elmo and at Ricasoli. All told, this work provided ten years’ employment for a large number of labourers, with total expenditure amounting to £3 million¹⁸⁰ (equivalent to eight times total government expenditure in 1900¹⁸¹) at a time when wider economic conditions were stagnant.¹⁸²

It is interesting that during this period the Admiralty’s focus was on building larger and better docks and ancillary factories, but not on shipbuilding itself. Indeed, it was during this period that shipbuilding, which had not advanced to steamers, declined in Malta. According to Vassallo,

‘the total number of vessels [built at Malta] declined from 195 in 1860 to 158 in 1870 and 111 in 1880. But if we discount vessels of less than fifty tons, the drop is even sharper ... the number of vessels over fifty tons fell from 141 in 1860 to 106 in 1870 and just fifty-one in 1880’.¹⁸³ By 1880, the average tonnage dropped sharply to 131 tons. As Vassallo wrote, ‘[d]espite some half-hearted attempts at adapting to steam, the Maltese fleet ended with the twilight of the age of sail’.¹⁸⁴ He does not provide a reason for this industrial failure, but it fits with our previous discussion on the decline of manufacturing and industry more generally. While shipbuilding cannot be fully mechanized, making it seemingly appropriate for Malta’s labour abundance, the transition to steam did require mechanization and heavy industrial investment. As shipbuilding declined, the importance of ship-repair, particularly naval ship-servicing, grew in importance. This was both a labour-intensive activity and one that could not be fully mechanized.

The introduction of steam necessitated storage for supplies of coal in thousands of tons and later of large volumes of fresh water for modern boilers. The Admiralty found land for this purpose at French Creek, initially on a small scale along the east and west of the Creek, gradually growing all over Corradino Heights. The ground surface at the top of Corradino Heights was converted into a rain catchment area to fill tanks with a volume of 40,000 tons while the inside of the hill was converted into an explosives storage area.¹⁸⁵

A corresponding increase in the number of workers in dockyard employment occurred. Table 3.2 shows an increase from 3000 workers in 1896 (4.7 per cent of total employment), up by a thousand by 1906 (6.2 per cent of total employment), rising to a total of 13,000 during World War I (19.9 per cent of total employment), and dropping slightly to 10,000 on the eve of World War II (13.7 per cent of total employment). Given that Captain Otway had fixed the number of workers required at the Dockyard *and* the Victualling Yard and Naval Hospital at 170 in 1804, this is a remarkable growth.¹⁸⁶ The wage bill of Admiralty workers reached in 1918 an average of £20,000 (£19,691 in 1938 prices, up from £143 in 1854) per week¹⁸⁷—the equivalent to 3.3 per cent of total government expenditure.¹⁸⁸ Assuming, as Vice-Admiral Ballard did in 1920, that on average each workman had four dependents on him, some ‘50,000 Maltese men, women, and children received their daily bread from Admiralty money’.¹⁸⁹ This is a substantial number for a total population of 215,785 persons.¹⁹⁰

Table 3.2 Dockyard employment, 1896–1939

	<i>Dockyard workers</i>	<i>Dockyard workers/total employment (%)</i>
1896	3000	4.70
1906	4000	6.20
1918	13,000	19.90
1921	8985	13.70
1928	7500	11.40
1939	10,000	15.20

Notes: Dockyard employment number for 1921 from Charlton, W.A., *Trends in the economic geography of Malta since 1800*, Unpublished PhD Dissertation, Durham University, 1960, p. 205. The rest from Zammit, E.L., *A colonial inheritance: Maltese perceptions of work, power and class structure with reference to the labour movement*, Msida: Malta University Press, 1984, p. 42

Effects and Non-Effects of Naval and Military Expenditure in Malta

This brief historical overview of the British Armed Forces and Admiralty in Malta until the interwar period has revealed two problems with some of the writing on the topic. First, the dichotomy between ‘times of plenty’ during war, and recession during peace, is false. While it is true that dockyard employment reached an unprecedented peak during World War I, it was not much lower during the interwar period. Nor is dockyard employment the only measure that should concern us. Some of the largest military expenditures occurred during peacetime, particularly between Crimea War and World War I, pushing wages above their ‘normal’ level for contractors, retailers, and workmen not in the Admiralty’s direct employment. Further, not all wartime experiences were equal. Malta was spared direct attacks during the Napoleonic and Crimean Wars, and World War I, due to Britain’s unchallenged Mediterranean supremacy. But the naval arms race leading up to World War II changed things and, in fact, Malta’s experience during World War II was costly. The country suffered direct attacks and its vital shipping supply lines were cut off, as we saw in the previous chapter.

Second, while historians argue more ‘state economic action’ was needed to, for example, protect and subsidize the cotton industry, they make an issue with the support provided to the dockyard industry by the ‘great disbursement from the pocket of the British taxpayer’.¹⁹¹ Historians resolve this paradox by arguing the dockyard industry was only beneficial to the Maltese economy during wartime and so it drew in a substantial share of

the economy's resources only to provide a volatile income, keeping it from developing a stable industrial base. Yet, as we have seen above, the dockyard industry provided support in both peacetime *and* wartime—only more in wartime—and that there were other reasons as to why industry did not take off and why Malta was dependent on foreign trade for much of its income.

It is also difficult to argue that British military expenditure distorted the economy in the sense that without such expenditure Malta would have developed some other, more stable industry.¹⁹² Malta had all four requirements for a successful dockyard industry: a good harbour, a sufficient labour supply, a building and accommodation site near deep water, and access to coal, iron, and wood. The Valletta peninsula has on either side Marsamxett Harbour, 'an excellent harbour in every respect',¹⁹³ and the Grand Harbour, 'one of the finest natural harbours in the world'.¹⁹⁴ A plentiful supply of labour is needed because ship-servicing cannot be 'mass-produced' or fully mechanized. This makes it ideally suited to Malta's factor endowments. Malta's labour abundance, which in itself disincentivized mechanization, provided the manpower needed for this activity and provided it a low wages, compared to dockyards in England. Besides the harbour area itself, the areas around Ta' Xbiex and Manoel Island are ideally suited to shipbuilding on account of their surrounding deep waters and ample area for workshops and factories. As regards the fourth point, while there is no domestic supply of coal and iron, foreign supplies were never far off enough to make importing them prohibitively expensive. Trade costs declined dramatically from the mid-nineteenth century to World War I.¹⁹⁵ Further, as we have seen above, it is not trade costs alone that matter, but *total* costs: while Britain had domestic supplies of coal and iron, its labour costs were much higher than Malta's.

These fundamental advantages, along with Malta's central Mediterranean position, lead us to the counterfactual conclusion that had Britain not developed the dockyard industry in Malta another Great Power would have, given the competition for control of the Mediterranean at the time. For this reason, it is also unlikely that a purely commercial rather than naval dockyard would have emerged in Malta. Britain took Malta not because it had a special interest in building a dockyard there, but because it wanted to keep Malta out of Napoleon's hands or the control of the King of Spain and other Latin states. Britain was simply the more powerful. In a previous age, it was the Order that played this role and the Order too developed a dockyard industry and, indeed, an entire city at Valletta.

The real problem was not that the dockyard dominated the economy, but that the *British Admiralty* funded it. This funding acted as a peculiar form of government protection: as a continuous subsidy of an industry that needed to be on standby in the event that conflict erupted and the need for naval repairs arose. A look at Table 3.1 shows that by 1918 the dockyards directly employed some 13,000 persons (19.9 per cent of total employment). While Table 3.1 shows fluctuations in the number of workers from year to year, the level reached in 1918 was evidently hard to bring down to pre-World War I levels—it dropped to an average of around 8800 in the interwar period, which is still more than double the pre-World War I numbers.

Most dockyard workers were concentrated in the harbour area. It is ironic that a colonizer formed, for first time in Malta's history, the kind of disciplined and coordinated group of workers needed for mass political protest and bargaining. Dockyard workers' bargaining power was not only a function of their numbers and share of total employment, but also their knowledge that Britain's naval success in the Mediterranean depended on their cooperation. Dockyard workers often went on strike for higher wages and did so even in times of war. One strike in 1917 is what led in no small part, as we saw in the previous chapter, to the 1919 *Sette Giugno* riots and subsequent calls for self-government.¹⁹⁶ There were other strikes in 1943.¹⁹⁷ Later the dockyard workers came to dominate the decolonization debate and economic policy until well after independence.

British naval activity was not bound to Maltese politics alone. It was also linked to global commerce during the nineteenth to early twentieth century. British naval power was behind two of the major events that put the Mediterranean back on the world economic map, after centuries of decline: the end of Barbary corsairing, which had plagued seaborne trade for centuries, the opening and maintenance of the Suez Canal, which re-oriented trade through the Mediterranean, and the world transport revolution, which made long-distance trade cheaper and easier.¹⁹⁸ Fenech writes that an 'international crisis involving British interests was likely to boost defence spending, but equally likely to disrupt trade'.¹⁹⁹ But the correlation is not so simple. If British defence spending in the Mediterranean was in large part aimed at protecting British commercial activity there, then we can equally expect rising defence expenditure to be correlated with rising trade volumes. Vassallo writes in this vein that in the early nineteenth century 'Maltese merchants were ... finally able to have unhindered access to the extensive North African littoral nearby under the protection of the Union Jack'.²⁰⁰

Thinking more broadly about the linkages between expenditure, trade, and growth, one econometric analysis covering Cyprus, Gibraltar, and Malta between 1836 and 1913 shows that real export growth (including reexports) and Mediterranean trade (as measured by Suez Canal traffic) and real net expenditure (government plus military expenditure less revenue) all grew over the period.²⁰¹ But, it was only the trade variables that had consistently positive and significant effect on real wage growth.²⁰² In fact, real net expenditure was an insignificant determinant of real wage growth across all three colonies after controlling for trade variables.²⁰³ The seemingly strong positive correlation between real wages and military expenditure that we saw in Fig. 3.6 suffers from omitted variable bias—the omitted variable is trade.

THE ENTREPÔT: COALING, SHIPPING, AND BANKING

Standard international economic theory assumes that trade occurs between producers and final consumers. A firm in the home country contracts domestic resources to produce a good, which the firm then sells directly to foreign consumers. While this thinking underlies most trade models, the way in which Malta actually traded is more complicated.²⁰⁴ As an entrepôt economy, Malta intermediated trade between buyers and sellers in different economies. Most goods imported to Malta were reexported—reshipped to other ports either ‘in the same bottoms’ or after ‘merely touching at port’, as the blue books put it. These reexported goods, by definition, were not subjected to manufacturing operations, but may have received simple processing like sorting and packing, or service activities like marketing and transport.²⁰⁵ We know that Malta did not have a large manufacturing base and that it was a net importer of foodstuffs, so the disproportionately large trade volumes recorded in the blue books highlight Malta’s entrepôt function.

Figure 3.8 shows the scale of this activity by plotting the ratio of reexports to total exports between 1875 and 1938. While there is a downward trend in the data, the average is remarkably high at 0.82, that is, 82 per cent of goods arriving in Malta were reexported. The average was higher before World War I—90 per cent—and was likely higher in the early nineteenth century during the Continental Blockade and Crimean War, for reasons that we will turn to soon. First, we must ask why entrepôts even exist—or why producers do not directly sell to consumers—and why this activity was beneficial for the Maltese economy.

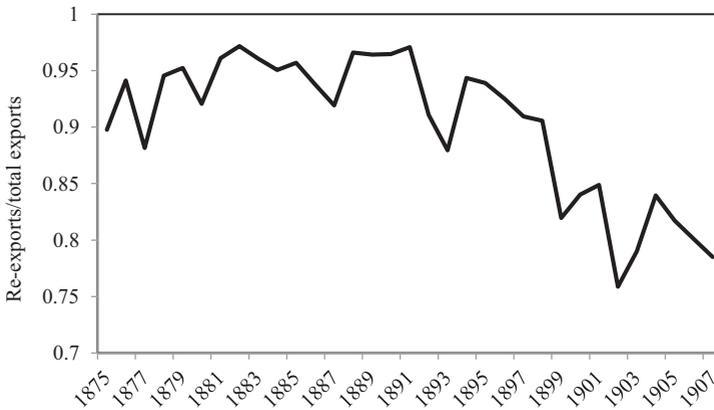


Fig. 3.8 Reexports as proportion of total exports, 1875–1907. Notes: All underlying data in nominal £ and from the blue books. Ratio calculated as $1 - \text{Landed Imports} / \text{Total Exports}$

Emergence of Entrepôts

One reason why *entrepôts* emerge is to help traders economize on transport costs. The idea is illustrated as follows. Say country *A* exports £100 worth of goods to country *B* at a shipping cost of £50. *A*'s profit is £50 or 100 per cent ($=100/50-1$). *B* is the *entrepôt*: it simply reexports *A*'s goods to country *C* at a price of £150—a 50 per cent mark-up on *A*'s original price—and pays a shipping cost of £40 to get to *C*. That is, *B*'s profit is 7 per cent ($= [150 - 100] / 40 - 1$). Seeing as *C* is willing to pay £150 for the same goods, why does *A* not export directly to *C* instead of going through *B*? It does this because the profit rate it gets from exporting to *B*—100 per cent—is much higher than what it would get from going directly to *C*—67 per cent ($= 150 / [100 + 40] - 1$). Using the *entrepôt* route instead of the direct route reduces shipping costs *per unit of exports*.

Transshipment also reduces the *overall* cost of shipping.²⁰⁶ If *A* wanted to export to a wide range of different markets, it could either support a large fleet of its own that reaches out to all its markets or it could export to one transshipment point from where regular shipments are made to those markets. In short, there are economies of scale in shipping. With such a hub and spokes system, exporters do not need costly direct links to all ports, but a single link to the hub.

All this mattered more in the pre-steam age when horse-drawn carriages and sailing ships were too slow to manage long distances without stopping at an entrepôt for refueling and rest, making transport prohibitively expensive. As transport technologies improved, particularly with the arrival of steam power, the per unit cost of shipping dropped precipitously and with it the need to economize on shipping costs. As an island at the centre of the Mediterranean, Malta had access to major shipping routes after Suez and other transshipment centres and, starting in the mid-nineteenth century, a developed port and dockyard with all infrastructure and labour needed for the quick turnaround of vessels.

Another reason for entrepôts is that they tend to have an informational advantage that allows them match buyers and sellers across markets.²⁰⁷ To use the example above, *B* might have an informational advantage in trade between *A* and the rest of the world, say *C*. This advantage may be a function of its geographical proximity to *A*. Traders in *B* may specialize in finding producers in *A* who can meet foreign quality standards and in locating buyers for *A*'s goods in *C*. The mark-ups these traders charge—in the previous example, seven per cent—can be interpreted as the price paid for their information. Clancy-Smith described Malta from 1815 onwards as a 'huge informational intake or bellows', and that after the arrival of steamships in 1842, Malta 'evolved into the premier communications clearing house for the Mediterranean'.²⁰⁸ It gained this status, according to Clancy-Smith, from its central position and the lax legal restraints on publishing imposed by the British. Yet Clancy-Smith was writing about labour flows and news of work and wages rather than the demand for goods or productive capacity of certain economies. Vassallo writes that in the mid-to-late-nineteenth century, the Black Sea grain trade 'tended to be one of the specialties of Maltese merchantmen',²⁰⁹ and that Maltese merchants also enjoyed 'a brisk entrepot trade in North African olive oil'.²¹⁰ The first is likely to have been an outcome of Malta's heavy dependence on imported grain. The second is likely to have been an outcome of British protection afforded to Maltese merchants along the North African littoral and the country's geographical proximity to ports along that littoral. It is difficult to interpret these two examples as evidence of Maltese merchants' informational advantage. If the information channel was at work, then we would expect the entrepôt trade going through Malta to have been dominated by differentiated goods that depended on merchants' specialized knowledge, since it is those goods that require greater quality sorting.²¹¹

In contrast, less differentiated goods—like grain and olive oil—require less specialized product-specific knowledge. As for grain, the great nineteenth-century transport cost decline changed the value-to-bulk ratios of grain exports, creating a global grain market with exports and imports reaching ports all around the world.²¹²

A final and more compelling reason for the emergence of entrepôts is their ability to facilitate tariff evasion.²¹³ This explanation also relies on the role for specialized merchants who are better positioned to transport goods to their final markets. Here the merchant's specialization is not product-specific knowledge, but is in transporting goods without paying required tariffs. Returning to our example, suppose that the shipping costs from *A* to *B* and *B* to *C* are equal. Suppose further that *A*, *B*, and *C* are legally separate customs areas, and that *C* levies identical import tariffs on goods from *A* and *B*. This means there is no legal tax advantage of sending goods to *C* via *B* and there is no shipping cost advantage either. In this case, the use of *B* as an entrepôt is consistent with the hypothesis that merchants in *B* have some ability to evade *C*'s tariffs that merchants in *A* do not. According to this hypothesis, rising tariffs in *C* should be associated with greater volumes of goods passing through (reexported from) *B*. Malta was a major entrepôt in this regard. At one point under the Continental Blockade, Napoleon's attempt at blocking British exports from reaching continental Europe, an impressive 8.8 per cent of exports from Britain were smuggled into Europe via Malta.²¹⁴

Economic Benefits of Entrepôt Activity in Malta

The government was a beneficiary of Malta's entrepôt role through its collection of revenue from import duties and port dues. There was no income tax until 1948 and so the aforementioned revenue sources were the main revenue sources for the government for most of the colonial period. Table 3.3 gives an impression of their importance. From 1825 to 1935, duties on imports (including excise on wine and spirits and the grain duty) accounted for an average of 59 per cent of total revenue. Including port and quarantine dues brought the average up to 64 per cent. The ratios dropped in 1915, due to interruption of world trade during World War I. They remained at a lower level during the interwar period of world trade protectionism. It is also interesting to note that the 1837 major tariff reform, which abolished duties on most imports to Malta, except those on

Table 3.3 Revenue from port activity, 1825–1935

	<i>Import duties</i>	<i>Port dues, Marine police</i>	<i>Quarantine</i>	<i>Total govt. revenue</i>		
	Nominal £				Import duties/Total govt. revenue (%)	All/Total govt. revenue
1825	53,322	2923	–	94,425	56	60
1835	60,909	3552	3763	96,230	63	71
1845	64,719	5117	2282	102,303	63	70
1855	77,744	7946	31	126,738	61	68
1865	106,575	7183	477	159,418	67	72
1875	100,665	8831	34	157,184	64	70
1885	120,695	15,210	360	192,346	63	71
1895	168,729	7685	1219	305,440	55	58
1905	273,954	6546	710	467,240	59	60
1915	258,439	3286	545	463,001	56	57
1925	406,997	9414	1010	773,014	53	54
1935	606,556	9937	302	1,160,600	52	53

Notes: Figures are in nominal £. Penultimate column contains ratio of import duties (first column) to total government revenue (fourth column). Final column contains ratio of the row-wise sum of first three columns to total government revenue (fourth column). Import duties included excise on wines, spirits, and grain. Port dues include storage, tonnage fees, and proceeds from sale of goods in contraband. Quarantine applied to shipping of susceptible goods, cattle, and passengers. All data from blue books

grains, pulses and seeds, alcohol, some animals, charcoal and vinegar,²¹⁵ did not decrease the proportion of import duties in total revenue from 1835 to 1845, but rather kept it constant.

Import duties were levied on a range of goods, not just grain. In 1850, for example, the import duty on a barrel of beer was two shillings.²¹⁶ On top of this, importers paid one penny per barrel for store rents. The respective figures for spirits were one pound two shillings and two pence per barrel. These store rents allowed importers to hold articles in storage on bond. The rent payments were payable from the day on which the goods were lodged for grain and after 10 days for most other goods. The benefit of this store rent system was that it facilitated reexports. Importers did not need to take delivery of their goods, but could leave them in port storage ready for reexport against the store rent fee. Importers also paid ‘tonnage dues’, where vessels discharging goods at Malta were, on

clearing outwards, made to pay a price per ton of cargo. In 1850, this was set at six pence for all goods. In 1871, this was dropped to three pence per ton.²¹⁷ On top of tonnage and storage fees, vessels entering Malta had to pay port dues. In 1871, for example, steamships not exceeding a tonnage of 400 tons paid 20 shillings; 40 shillings not exceeding 800 tons; and 60 shillings exceeding 800 tons.²¹⁸ As steamships grew in tonnage in the late nineteenth century, most fell into the latter category. In 1900, for example, the government collected £6179 in port dues, 96 per cent of which came from the latter category alone.²¹⁹ The government also collected revenue from shipping in quarantine—from 1885 at a rate per tonnage. It charged extra daily quarantine fees for ships of any size that left quarantine before its expiry, for ships that evaded quarantine and carried on into port, for every guard needed by ships ‘compelled by stress of weather’ to enter port (the number of guards determined by the Superintendent of Quarantine), for ships carrying contagious disease on board, for cleaning ships (‘deputation’), and per head of cattle on board. Other miscellaneous revenues came from the sale of contraband goods, empty casks, and samples of goods, and fees charged for administrative forms and machinery like ventilating fans. In 1900, for example, along with its £6179 in port dues, the government collected £701 in tonnage, £1440 in storage, £193,367 in import duties, £2584 in quarantine fees, and £3498 in all other fees and sales.²²⁰

Merchants, who opposed the government’s various fees on trade, were the other major beneficiaries of entrepôt activity. In 1825, for example, they asked as compensation for quarantine restrictions an annual grant from that ‘piu paterno di Governi’, the Imperial Parliament.²²¹ Nevertheless, Maltese merchant families were already by the start of the nineteenth century the wealthiest persons in the country.²²² The 1812 Royal Commissioners noted ‘twenty to thirty Maltese houses of large capital and considerable enterprise’.²²³ Some of these merchants had their roots in the cotton trade, moving to the profitable cereal trade with Egypt and the Black Sea, and finally the growing entrepôt trade connecting Europe with Africa and Asia. We have no direct data on profits earned by merchants, who were notoriously secretive about their profit margins to the point of blocking official attempts at having import and export values recorded.²²⁴ While some commercial branches were more profitable than others, according to Refalo ‘one rule traversed commerce: profits and growth were generally inward-looking’.²²⁵ Imports, particularly of food-stuffs, geared at the domestic retail market, including the British commu-

nity, while low in profit margin were high in volume, yielding considerable returns. Similarly, Charlton writes that, for grain, almost all imports were reexported and that ‘the Maltese merchant probably had very little to do with it, for trade was mainly in the hands of grain merchants in the Black Sea area and in Western Europe’.²²⁶

Yet profits and growth were generally inward-looking because this is how the *entrepôt* trade worked for merchants in Malta. Think back to the first reason for the emergence of an *entrepôt*: that it helps traders economize on transport costs. That is, *B* the *entrepôt* receives *A*’s goods, charging a mark-up to sell them to *C*, saving *A* the transport cost of going all the way to *C* itself. The effective mark-up charged by Maltese merchants was a share of the cargo that it would then sell domestically: the mark-up was for its domestic market. Most of the cargo carried on to its final destination at the original price. The volumes were large: in 1871, of the £4,754,553 worth of wheat imported from Russia—at 46 shillings per *salm*—only 4.6 per cent was entered for domestic consumption.²²⁷ The Maltese retail price for wheat that year was 51.5 shillings per *salm*²²⁸—a 12 per cent mark-up on the import price. Maltese merchants were driving a wedge between the international price of wheat (among other goods) and the domestic one. While this strategy made merchants unpopular among their contemporaries and some historians, their imports increased port activity and so port employment, meaning that ‘that externally derived wealth was more widely dispersed through the lower levels of the population’.²²⁹

More ships calling at Malta resulted in a growing demand for technical skill in the dockyards and on the wharves. It also demanded what the 1871 census first categorized as ‘porters, carriers, and coal-heavers’. During the trade boom between 1871 and 1881, the number of male workers in the latter group increased by 2772—the greatest single contributor to all commercial employment.²³⁰ In contrast, the number of workers in construction did not increase. This contrast is significant: Malta derived most of its income from either foreign trade or British expenditure on public works. The former benefits workers like porters and coal-heavers, while the latter benefits construction workers. This implies that the overall growth in commercial employment during this decade was driven by commercial activity. Of the port-related employment, it was the coal-heavers who derived the longest prosperity. The coal bunkering trade, where ships stopped at Malta for refuelling, began in the 1870s and lasted until the 1920s. Indeed, coal only became a major import in the late nineteenth

century, with the opening of Suez and the increase in the global steamship cargo fleet. Busuttill writes that from 1861 to 1871, covering the Suez's opening, the number of coal-heavers, porters, and carriers increased by 100 per cent.²³¹ In 1869, coal imports amounted to 50,291 tons.²³² By 1882, coal imports exceeded 0.5 million tons for the first time in the country's history,²³³ reaching an all-time high of 618,796 tons in 1885.²³⁴ Bunkering created a new class of labourers who worked solely with coal. They were recorded as a distinct group from the 1891 census, where they amounted to over 2000 labourers, hovering around that level until 1921, when coal imports were reaching over one million tons per year.²³⁵

Shipping-related employment was not limited to hard manual labour. Coal importation itself became a large commercial business. In 1876, the trade was concentrated in the hands of around six firms, including Smith & Co., O.F. Gollcher, P&O Co., which together accounted for 78.7 per cent of the business—most of the residual was taken up by the Naval Department.²³⁶ Coal importers earned around two shillings and sixpence per ton in 1880,²³⁷ meaning that the trade brought in around £77,350 at its peak in 1885, which is equivalent to 146 per cent of domestic exports for that year. Further, from 1871 to 1881, 'labour connected with commercial activity' increased by 27 per cent; 129 per cent for 'labour connected with transport', 25 per cent for retailers, 11 per cent for shopkeepers, and eight per cent for 'general merchants and traders'.²³⁸ More specifically, this group included bankers, merchants, dealers, brokers, auctioneers, shopkeepers, warehouse-keepers, petty vendors, hucksters, and ship's chandlers. The number of workers in this group grew from 5466 in 1871, to 6921 in 1881.²³⁹ This increase was confined to the harbour area.

Banking and Entrepôt Trade

The clearest example of shipping creating entirely new lines of work is banking. In his survey of Maltese banking history, Consiglio writes that 'the first two banks set up on the island [Malta] had as their main target, or even as their main objective, the servicing of the needs of a commercial community that was predominantly engaged in import and entrepôt trade'.²⁴⁰ In fact, as Refalo points out, the Tagliaferro and Scicluna families—who owned the country's two leading banks—started out as entrepôt traders.²⁴¹ Yet neither could claim to be the first bankers—at least in name as well as function—in Malta. While the Board of Supply, which superseded the *Università*, was only abolished in 1822, modern

banking started as early as 1809 when William Higgins, an Englishman, established the *Banco Anglo Maltese*—the same year in which the Order of His Majesty in Council of the 15 March 1809 gave Malta an advantageous trading status in the Mediterranean under the Continental Blockade. The idea was, as the founders put it, ‘to facilitate commercial transactions by providing a convenient circulating medium’.²⁴² The prospects of long-distance trade under British protection made modern banking indispensable in the transferring of cash and in dealing with complex exchange rates—from British coinage to the coinage left by the Order, alongside those of other European powers. The *Banco Anglo Maltese*’s capital endowment was one million *scudi* (around £83,300), consisting of 200 shares of 5000 *scudi* each.²⁴³ Its principal activity was discounting bills and taking deposits from approved clients and shareholders, but it also issued notes ranging in face value from 10 *scudi* to 1000 *scudi*, summing to no more than its subscribed capital.²⁴⁴ Three years later, a rival bank was established: *Banco di Malta*. It also had a capital endowment of one million *scudi*, and was subject to more or less the same conditions as the *Banco Anglo Maltese*.²⁴⁵ George Thomas Jackson, an Englishman, headed it, and its vice-president was Sir Agostino Portelli, who founded the Chamber of Commerce in 1848. In 1812, the Genoese merchant Biagio Tagliaferro founded his own firm in *B. Tagliaferro et fils*. Besides banking, the firm owned a number of ships for the transshipment of grain from Crimea. It was also involved in shipbuilding in the days of sail, building ships for the grain trade with Russia, and in the age of steam moved into the coal business. The Tagliaferro family, Consiglio tells us, ‘had an outstandingly successful track record in ship-chandelling, real estate operations, and in grain merchandising’ and that the bank financed long-term projects that the other two banks could not finance.²⁴⁶ Next came the Scicluna family’s bank in 1840, *Joseph Scicluna et fils*, which by 1890 had three offices in Valletta.²⁴⁷ The Scicluna family also made its fortune in the grain trade, and in large part dealt with the importation of grain.²⁴⁸ The Scicluna’s Bank, as it was named in 1926, was the first in Malta to introduce cheques for payments against current accounts.²⁴⁹ Another two banks—James Bell & Co. (in Malta from the 1820s) and the Anglo-Egyptian Banking Co. (in Malta from 1888)—specialized in servicing the British army and navy in Malta. The Marquis of Hastings’ bank *Provvido Banco Maltese per Risparmi* (1834) was the precursor of the *Malta Government Savings Bank*, Malta’s only ever pure savings bank.

The *Banco Anglo Maltese* and *Banco di Malta* were in January 1946 fused into the *National Bank of Malta*, under the chairmanship of Antonio Cassar Torregiani, the grain importer. As the Chamber of Commerce noted in 1950, the ‘part played by the National Bank of Malta in promoting an increase of trade proved to be of great public service and the fusion of the two Banks increased the strength of the united concern’.²⁵⁰ In 1948, it incorporated Scicluna’s Bank and by 1950 gained a fully paid capital endowment of £1 million.²⁵¹ In 1969, the *National Bank of Malta* merged with *B. Tagliaferro et fils*, forming the *National Bank of Malta Group*, under the chairmanship of Louis Vella, previously president of the Chamber of Commerce in 1954 and 1964. Four years later, under the socialist Prime Minister Dom Mintoff, the *National Bank of Malta Group* was controversially taken over by the government—a topic we will discuss in the following chapter.

Maltese bankers began life as traders and shipbuilders. Their ‘commercial acumen’ along with Malta’s geographical position and colonial status, and the profit margins to be had in financing the entrepôt trade, made banking a natural home.²⁵² It was their background, along with possibility of better risk-weighted returns in trade, which led bankers to specialize away from industrial firms. It was only around 1950 that the non-Maltese *Barclays Bank*, having absorbed the *Anglo-Egyptian Banking Co.* in 1925, set up a dedicated fund for industrial development—the *Barclays Development Fund*.²⁵³ A historical overview of Malta’s commercial activity shows us the appeal of trade, but also the vagaries of the trade cycle from which Malta earned a living.

*Maltese Trade and Commerce in the Long Run*²⁵⁴

During the nineteenth century, trade and port activity increased dramatically. The most important determinant of this increase was Malta’s ever-closer association with Great Britain whose economic and maritime supremacy was only challenged towards the end of the century. Through this association, the Maltese economy grew increasingly synchronized with global trade cycles.

For the first year of British rule, trade was very slow. Declaring Valletta a free port in 1801 failed to encourage more trade as the 1802 Treaty of Amiens, which temporarily ended hostilities between France and Britain, weakened Malta’s position as entrepôt for British goods. Trade did not pick up until hostilities between Britain and France restarted in 1803. A

boom followed as a result of a series of Orders in Council—legislation made in the name of the monarch by their Privy Council—that allowed trade between Malta and ports along the northern Mediterranean shore. The first Orders in Council date from 1807 and forbade French trade with Britain and its allies, and ordered the Royal Navy to block off French and allied ports. These Orders also required all shipments that stopped at English ports to be checked for military goods that might have aided France.

The 1807 Orders in Council were a reaction to Napoleon's Berlin Decree of 1806, issued almost exactly a year earlier. The Berlin Decree forbade the import of British goods into European countries allied with or dependent on France, and started the Continental Blockade (from 1806 to 1814) in Europe. Under the Blockade, all direct connections with Britain, even the mail, were to be cut. Ships discovered to have been trading with Britain were liable to French maritime attacks and seizures. The French military actively enforced the Blockade along the coastline of the French empire. The idea behind the system was to weaken the British economy by blocking its exports to French-controlled markets, but as the blockade operated on direct trade from Britain to French-controlled territories, British merchants were able to smuggle goods into continental Europe via *entrepôts* like Malta.

Consequently, Napoleon issued the Milan Decree in 1807. This Decree reinforced the Berlin Decree, by authorizing the French navy and French privateers to capture neutral ships travelling from any British port or from any country that was occupied by Britain—like Malta, which was then not yet a colony. Yet while this latest iteration of the Blockade was generally effective along the coastline of the French Empire, holes opened up 'almost immediately, and instead of achieving the original goal of stopping trade flows between Britain and the Continent, the blockade displaced trade to more circuitous, and hence more expensive routes'.²⁵⁵ Trade intended for Northern European markets was diverted to Southern Europe. While British exports to Northern Europe fell fivefold over the Blockade, exports to Southern Europe increased threefold.²⁵⁶ Napoleon's military and naval weakness in the Mediterranean, along with the Spanish insurgency against Napoleonic rule during the Peninsular War (1807 to 1814), made the Blockade ineffective overall and boosted trade passing through the Mediterranean.

To smuggle British goods into Europe, British merchants either used ports they directly controlled—Gibraltar, Malta, and Helgoland—or

which were allied to them—Gothenburg. As Napoleon was weaker relative to Britain in Southern Europe, most trade passed through Gibraltar and Malta. French consular reports described markets for British cotton yarn in Malta without there being much real domestic demand for it.²⁵⁷ Merchants purchased the yarn for reexport. As Juhász notes, the increase in shipping in the western Mediterranean ‘driven almost single-handedly by Malta ... at one point, 8.8 % of exports from Britain were taken into Europe via Malta’.²⁵⁸ Vassallo writes that between 1808 and 1812, Malta ‘became the principal centre of contraband goods in the Mediterranean’.²⁵⁹ The country attracted traders from across the Sea, so that in 1807, one in 5 people in Malta were foreign, compared to fewer than one in 50 in 1842.²⁶⁰ In 1803, the number of vessels ‘belonging’ to Malta totalled 165, but the total increases fivefold to 840 by 1811.²⁶¹

The Anglo–Turkish War of 1807–1809 did not damage Malta’s trade, as Valletta had by then become the entrepôt for all trade between Britain and the Levant and also the point of contact between the Levant and the Austrian States, as British Orders in Council forbade direct trade between the two.²⁶² The 1808 American Embargo Act, which blocked all exports from the United States in an attempt to coerce a Franco–British peace, increased the demand in British markets for Levantine and Sicilian goods as substitutes for American goods. Due to the Anglo–Turkish War, these goods could only be brought through Malta. At the same time, Malta became the centre for Sicilian trade because of the British capital invested in there and the security British forces afforded it. That same year, the demand for British goods, particularly yarn, increased in the Levant. Before 1808, Levantine cotton demand was served by Saxony, but trade restrictions under the Blockade ended that relationship. The Levant had to buy from Britain, and its imports had to come through Malta. Exports consisted almost entirely of British manufactures and colonial goods. Returns from the Adriatic included timber, hemp, cordage pitch, tallow, flax, and iron.²⁶³ By the end of 1808, quantities of Levantine produce in Malta ‘became so great that shipping could not be found for carrying it to England, and in Malta storage facilities were inadequate’.²⁶⁴ Not to let anything go to waste, Sir Alexander Ball, as Civil Commissioner, allowed the export of the more perishable of these goods to some restricted ports upon payment of duty.

Trade slowed somewhat in 1809 as the American Embargo Act was repealed, peace with Turkey was established that same year, and the Ionian Islands came under British control. These events brought with them a gen-

eral slackening in trade restrictions that worked against Malta's entrepôt position. This is reflected in the number of export and import licences granted by Britain for the protection of traders working with blockaded ports: 150 export licences and 303 import licences in 1808, dropping, respectively, to 41 and 76 in 1809.²⁶⁵

The following year (1810), however, trade picked up and became more regular. The number of granted export licences and import licences increased above their 1808 levels to 157 and 438, respectively.²⁶⁶ A series of Orders in Council issued in this year relaxed restrictions on exports to include a broader range of Levantine and Sicilian produce, especially salt, which was heavily taxed by the French. So important was salt to French revenue that *any* vessel bringing two-thirds in bulk of salt could freely enter ports in Italy.²⁶⁷ Colonial produce accounted for most of the trade in the Mediterranean: salt produce at Malta government salines, for example, was considered colonial produce, but other goods, like large quantities of coffee, also passed through Malta. At this time, there were 60 British commercial enterprises in Malta, between 20 and 30 Maltese businesses, and many foreign establishments—mainly German, Italian, and Greek.²⁶⁸ Countless merchants from Sicily, Albania, and neighbouring shores also traded colonial produce during this period. The main trading contacts in Europe were Marseilles, Livorno, Naples, Ancona, and Trieste, the latter for contraband goods. Other trading relationships were formed with the Barbary States, Egypt (depending on variations in the grain trade), Smyrna, Constantinople, the Arabian Peninsula, Felix (southern Spain), Acre (Israel), Cyprus, the Ionian Islands, and the Peloponnese peninsula. Albanian ports were instrumental in providing access to continental markets, as was the route between Salonika (Thessaloniki) and Austria.

Table 3.4 shows the statement of cargoes leaving Malta between 1 January 1808 and 31 July 1812. Unfortunately, we do not have data on the tonnage or value of these cargoes, but the table shows us how central Malta was to European trade during the early nineteenth century. It also shows how much trade occurred with 'Napoleonic' ports.

During this period, Malta benefited not only from the Continental Blockade, which diverted direct trade from continental ports through its own port, but also from a further series of Orders in Council that protected direct trade between Malta and ports under nominal French control through the granting of licences to merchants. This was possible because of Napoleon's naval weakness in the Mediterranean and because countries defeated by France, and so forced to participate in the Blockade,

Table 3.4 Statement of cargoes from Malta, 1 January 1808 to 31 July 1812

	1808	1809	1810	1811	1812
Levant	89	8	–	–	–
Trieste	44	22	34	8	10
Fiume	3	1	14	13	23
Venice	–	–	12	5	14
Goro	–	10	24	6	24
Ancona	–	–	15	3	16
Lissa	–	–	19	39	10
Lossin	–	–	–	3	–
Parga	–	–	–	–	1
Galipoli	–	–	1	–	–
Taranto	–	–	2	1	–
Barletta	–	–	2	–	–
Naples	–	–	6	4	5
C. Vecchia	–	–	4	–	–
Livorna	2	–	14	2	–
Marseilles	–	–	10	1	–
Taragona	1	–	–	–	–
Alexandria	11	–	–	–	–
Total	150	41	157	85	103

Notes: Adapted from Charlton, W.A., Trends in the economic geography of Malta since 1800, Unpublished PhD Dissertation, Durham University, 1960, p. 54. Lissa was annexed by Britain in 1811

still desired to continue trading. British naval supremacy allowed them to do so. These countries suffered under the Blockade, which put strong upward pressure on prices in their markets, giving them an incentive to break through the Blockade whenever possible.

With the end of the Continental Blockade in 1814 and of the Napoleonic Wars in 1815, the ‘particular advantage of Malta disappeared, and other places began to re-capture their lost trade’.²⁶⁹ Trade that previously passed through Malta, even British trade, began to bypass the country. A press pamphlet published in 1822 praised Malta’s potential as an entrepôt and admonished the British for not making use of this potential.²⁷⁰ When Governor Thomas Maitland finally opened the grain trade to private speculation in 1823, it was after years of calls from Black Sea merchants to build granaries in Malta for their trade with Spain and Portugal.²⁷¹ They wanted to land cargoes in Malta, cooling them and building up stocks there, and to then distribute them in response to unpredictable market demand from Southern Europe. The sea journey from the Black Sea direct

to Spain was at the time still long and uncertain. Despite the opening of the grain trade, Colonial Office dispatches up to 1830 remark on the low level of trade, particularly with the Eastern Mediterranean, a result of the political turbulence in Greece and high quarantine dues following small-pox epidemics in Malta.²⁷² Some brief respite for the Maltese economy came between 1827 and 1829 with the arrival of a joint British, Russian, and French fleet *en route* to the Battle of Navarino (1821–1832).²⁷³

Figure 3.9, which plots the number of vessels and tonnage clearing at Malta from 1826 to 1938, shows that while there was a slight revival in trade during the 1840s, it was not until the outbreak of the Crimean War in 1854 that trade boomed again. The Crimean War, however, coincided with and followed important changes in the world economy, making it hard to attribute all of Malta's resurgence in trade to the War alone.

Even without the Napoleonic Wars, the transport costs associated with staple foods and manufactures were enormous and so choked off trade.²⁷⁴ Mercantilism and protectionism were the preferred policies of the day, choking off trade even further. When a durable peace arrived in the 1820s, the world was still hostile to open trade. It took decades for the major economies to move away from insular commodity and factor markets, and

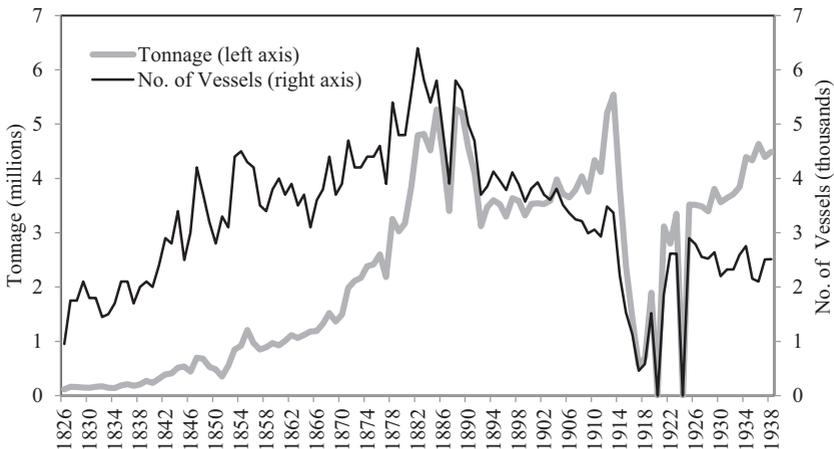


Fig. 3.9 Ship tonnage and number of vessels cleared at Malta, 1826–1938. Notes: Data from 1826 to 1885 are from Price, C.A., *Malta and the Maltese: A Study in Nineteenth Century Migration*, Melbourne: Georgian House, 1954, p. 211. All other data are from blue books

towards integrated world markets. Some writers pin the changes down to the late 1840s and 1850s, covering the repeal of the Corn Laws in 1846, the mass migration triggered by the Irish Famine starting in 1845, and the first successful submarine telegraph cable under the English Channel laid in 1851 that connected financial markets in London, Paris, and other continental capitals. Others point to the changes in transport technology leading up to the mid-century: the quadrupling of navigable waterways in Britain from 1750 to 1820, the construction of the Erie Canal between 1817 and 1825, Matthew Fontaine Maury's revisions to global sailing routes from 1842 to 1855 which cut sailing distances dramatically without any ship improvements, and the application of steam power to railways in 1825 and to ships, with the first regular transatlantic steamship service opening in 1838.²⁷⁵ Malta's merchant fleet increased from 143 vessels and 10,6400 tons in 1822 to 186 vessels and 25,556 tons by 1851, by which point it employed just under 2000 men.²⁷⁶

Yet the big leap in world trade expansion and market integration occurred in the late nineteenth century. The typical size of sea-going ships increased from 500 tons in 1840, to 900 tons in 1860, and to 2000 tons by 1880.²⁷⁷ This, of course, marks the switch from wooden sailing ships to iron steamships. Steam shipping took off on a global scale around 1860 to 1871, with the arrival of the screw propeller and the compound engine, which increased fuel efficiency, steel hulls, which increased carrying capacity, and more ships, which allowed for more efficient crews and shipping schedules.²⁷⁸ Onboard refrigeration began in 1877, with the first refrigerated ship carrying frozen beef from Argentina to France.²⁷⁹ The other major improvement to shipping occurred on land: the Suez Canal, which opened in 1869, halved the distance from London to Bombay (Mumbai) and cut the distance for Chinese traffic by a quarter to two-thirds.²⁸⁰ The Canal also influenced the development of steamships themselves, demanding longer range and larger steamers. The Red Sea is difficult to navigate by sail, and the cost of being towed the 100 miles through the Canal made sailing journeys prohibitively costly.²⁸¹ Indeed, the French, recovering from a lost war, were ill-equipped for iron and steel shipbuilding and consequently the 'French' Suez Canal was crowded with ships from Britain, which was perhaps the most advanced steamer-building country at the time. In 1879, for example, of the 2,263,000 tons of shipping that passed through Suez, 77 per cent was British and just eight per cent was French.²⁸² Symbolic of this imbalance, the first sailing ship to pass through

the Canal, the French barque *Noel*, was wrecked on the same evening it left the Canal, just 86 miles south of Suez.²⁸³

More broadly, general acceptance of the Gold Standard, which ensured exchange rate stability, also helped international trade,²⁸⁴ allowing O'Rourke and Williamson to conclude that, '[b]y 1914, there was hardly a village or town anywhere on the globe whose prices were not influenced by distant foreign markets'.²⁸⁵

While these changes were operating at a global level, more regionally specific developments also affected world trade during the mid- to late-nineteenth century. The Crimean War, while beneficial to Malta, caused international political tension that retarded normal world trade patterns. It was followed by the 1857 financial panic, which started when American banks contracted their credit provision in response to a drop in demand for Western American goods from Europe, and it quickly spread across the world. The American Civil War, which we have seen was beneficial to Malta's cotton industry, had a distortive effect on world trade as a whole. This was followed by the Panic of 1873, known before 1930 as the 'Great Depression', triggered when the American railway bubble burst, spreading via financial markets to Europe. The slump after 1873 lasted until 1880, when world wholesale prices began to pick up again.

By 1880, Britain was so heavily involved in world trade due to its large industrial sector, transport facilities, and financial market that, in the famous words of Clapham, it became 'sensitive to the economic weather of the whole earth'.²⁸⁶ The British business cycle grew increasingly synchronized with the world business cycle, commercial activity in Britain reflecting as much as shaping commercial activity around the world. The slump in prices from 1873, the competition from foreign manufacturers from the 1880s onwards, and the imposition of import tariffs on British goods at around the same time created a period—1885 to 1886—of depression. A brisk revival occurred in 1887, bringing renewed economic activity to Britain: British exports in 1890 were 25 per cent higher than in 1885–1886, mostly due to an increase in volume rather than just prices.²⁸⁷ This activity once again slackened in 1891. Prices fell again, hitting a trough in 1895. From that point on, global demand surged, pushing up prices until World War I and the subsequent world trade collapse. We can see in Fig. 3.8 that Maltese shipping and trade activity are best understood against this global backdrop, with a focus on developments in Britain.

Between 1850 and 1870, the Maltese business cycle was synchronized closely with the British business cycle except for one period. Malta ben-

effitted from the Crimean War, unlike most trading areas, through greater civil shipping activity. British forces and materials passed through Malta on their way to the warzone. Charlton is unimpressed with Malta's role during this period, describing it as more of a 'staging-point rather than an entrepot in the true sense'.²⁸⁸ Yet the fact of the matter is that from 1852 (pre-War) to 1855 (peak), tonnage entered and cleared at Malta increased by 117 per cent and tonnage dues, in real terms, increased by 139 per cent.²⁸⁹ Real wages for tradesmen peaked later, in 1858, at 5.2 times higher than they were in 1853 at the start of the War. On top of this immediate boost to trade, Crimea raised Britain's awareness of Malta's strategic value as a British base. We have seen that in the years following Crimea, the Admiralty bought up more land around Dockyard Creek and built new dockyards.

After 1870, 'the tonnage of ships handled at Malta increased at a greater rate than did world trade'.²⁹⁰ Most of the traffic through Suez was still at this point composed of small coal-burning ships that needed frequent bunkering points along the Mediterranean route. This was one of the main drawbacks of steamships in their early years: that they needed to carry coal in storage at the cost of their regular payloads. A steamship built in 1855, for example, required about 40 per cent of its available cargo space to store enough coal to cross the Atlantic.²⁹¹ The number of such steamers stopping at Malta increased fast enough to support domestic commercial activity despite the downturn in the global business cycle in 1873. Tonnage increased by three per cent from 1872 to 1873, but by 10 per cent from 1873 to 1874. From 1873 to 1879, the increase was of 39 per cent—in that terminal year Malta entered and cleared over three million tons. By 1882, tonnage reached 4.8 million—a level only surpassed in 1885 (5.3 million), 1888 (5.3 million), and 1889 (5.2 million). The 1870 to circa 1890 proved to be a sweet spot when steamships still required bunkering at Malta and when trade passing through Suez was buoyant enough. Tonnage calling at Malta increased at an average annual rate of eight per cent over these 21 years—the rate turned negative in seven years, a low number given the volatility of the tonnage series. The only time port activity surpassed this level was before 1939, in the abnormal years of 1913 and 1914: a return to war.

A short but severe recession from 1886 to 1887 interrupted the decade's prosperity: 1886 marked the trough of Britain's contemporaneous trade cycle. Peak (1882) to trough (1886), British exports dropped in value terms by 11 per cent and imports by 14 per cent.²⁹² Over the same

period, the number of vessels calling at Malta dropped by 24 per cent and tonnage by 7.2 per cent. The Maltese cycle, however, lagged the British one by about a year and if we look at the change from 1882 to 1887, then the respective drops are 39 per cent and 29 per cent. From 1889 to 1892, shipping activity declined continuously. The number of vessels calling at Malta hit 3703—a level not seen since 1869, the year Suez opened. Meanwhile tonnage dropped by 40 per cent.

From 1892 on, Charlton writes, ‘Maltese commercial activity at this new level showed trends which correlate closely with those of world commerce’.²⁹³ Indeed, the correlations between tonnage at Malta and British total imports and exports are much stronger between 1892 and 1913 than between 1870 and 1891.²⁹⁴ The point here is that in the first period (1870–1891) shipping activity at Malta was ‘inflated’ by the need for still-small steamships to bunker at Malta—this is why, as we saw earlier, Maltese shipping activity grew at a faster rate than world trade. When this phase passed starting in the 1890s, shipping activity reached a more ‘normal’ level—one that was more in tune with the British trade cycle. A simple estimation of the elasticity at which tonnage calling at Malta responds to British exports gives an elasticity of 1.6 per cent from 1870 to 1891 compared to one of 0.4 per cent from 1892 to 1913.²⁹⁵ Using British imports instead, the respective figures are 2.2 per cent and 0.5 per cent.²⁹⁶ Again, the rate at which shipping activity in Malta responded to broader trade cycles was unusually high before 1891 and weaker but more highly correlated after 1891.

The estimated elasticities for 1870–1891 are remarkable. In both cases—as responses to total British imports and exports—they exceed unity. That is, every percentage increase in British trade was accompanied by a relatively larger increase in tonnage entered and cleared at Malta: 2.2 per cent going by imports and 1.6 per cent going by exports. In standardized terms, the effects imply that increasing British imports by one standard deviation—£140 million (mean = £1210 million)—would increase tonnage at Malta by about 1.1 million tons (mean = 1.58 million tons). Increasing British exports by one standard deviation—£97.7 million (mean = £890 million)—would increase tonnage at Malta by about 0.7 million tons.²⁹⁷ As Ordinance No. VIII of 1871 set tonnage dues at three pence per ton,²⁹⁸ these increases would imply a gain in tonnage dues of, respectively, £13,750 (= 3 pence × 1.1 million tons ÷ 240 pence) and £8750 (= 3 pence × 0.7 million tons ÷ 240 pence)—to say nothing of the increases in merchants’ revenue and port employment. This is not to

emphasize the elasticities as point estimates—the trade of other economies also mattered and estimating elasticities of this nature is fraught with difficulties—but to give a sense of how unusually strong the shipping boom from 1870 to 1891 was. It is worth taking a closer look at this period since it brings out the nature of Malta's 'commercial significance' very clearly.²⁹⁹

Shipping to and from Malta during the boom can be classified into two main groups.³⁰⁰ First, localized movements to and from Mediterranean ports. Second, long-distance movements to and from ports outside the Mediterranean. We can further divide the second group into (1) movements from the Black Sea region to Britain and Northwest Europe, and (2) movements to and from Britain and the Far East. These movements all correspond to well-defined product linkages.

Malta was an *entrepôt* for British trade with the Mediterranean and quickly emerged as a coal bunkering station after Suez, which explains the first group of localized shipping movements. The long-distance shipping movements formed trade linkages between (1) the grain trade from the Black Sea region to Britain and Northwestern Europe, (2) the movement of British goods to the Middle and Far East, including coal to Malta for bunkering, and (3) the movement of 'colonial produce' to Britain.

The boom was not noticeable in all shipping lines. It was evident in the sum of local movements within the Mediterranean, rather than in the individual movements themselves.³⁰¹ It was in long-distance movements that the greatest rise—and fall, after 1889—occurred. Detailed shipping data are unavailable before 1871, so pre-Suez Canal movements cannot be accurately compared with post-Suez movements. We can at least go by Charlton's assessment of shipping tonnages entered and cleared before and after the opening of the Canal and of the trend of local movement in years immediately after 1871.³⁰² According to this assessment, only about half of the movement was long-distance in the late 1860s and was mainly to and from Britain. After the opening of the Canal, we see an immediate rise in registered tonnages—of 10 per cent in 1870 and 32 per cent in 1871,³⁰³ by which point long-distance movement accounted for 64 per cent of the total.³⁰⁴ By 1882, the long-distance movement accounted for 82 per cent of registered tonnage and,³⁰⁵ apart from 1886 and 1887, the proportion remained around this level until the normalization around 1890. Five years later, the proportion dropped to 70 per cent, and 39 per cent alone was to and from Britain.³⁰⁶

The first reason for the 1870–1890 shipping boom was the boost given to trade and movement through the Mediterranean by the opening of

the Suez Canal.³⁰⁷ While we cannot know from the data that the ships calling at Malta were passing through Suez, we have seen above that the Canal's opening coincided with a substantial rise in tonnage calling at Malta. Given the total net tonnage and traffic passing through the Canal itself from 1870 onwards, shown in Fig. 3.10, this is unsurprising. Most steamships were initially small—the opening of the Canal itself influenced the development of large, more powerful steamships³⁰⁸—and so required frequent stops for bunkering at Malta and at other intermediate points along the Mediterranean's east–west axis. Many of the ships calling at Malta and registered as coming from and going to Egypt are likely to have been on the Far East, Suez Canal route.

The second reason for the 1870–1890 shipping boom was the boom in the Black Sea grain trade after 1877, lasting until around 1890. Large tonnages—over two million in 1888³⁰⁹—entered at Malta from the Russian and Danube ports, major sources of grain for the global market,³¹⁰ and there was a similar rise in clearances for Britain and Northwest Europe. The grain trade was volatile, and so the tonnages of grain calling at Malta fluctuated from year to year, but the trend was clear. Increasing demand

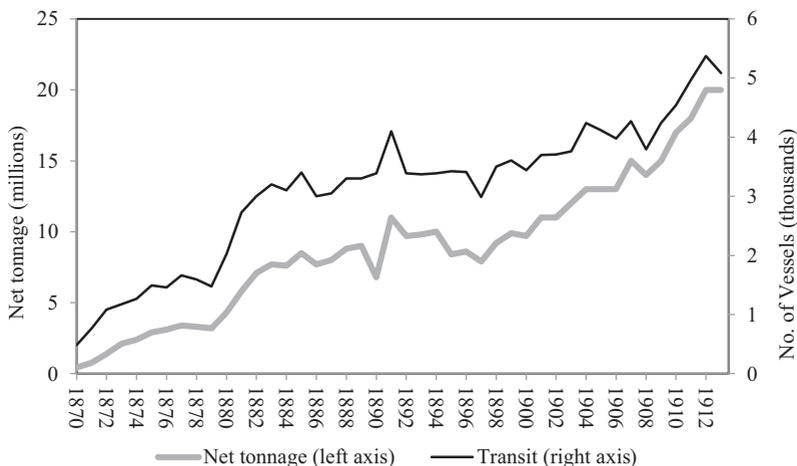


Fig. 3.10 Total net tonnage and transit through the Suez Canal, 1870–1913. Notes: Adapted from Figure 3 of Caruana Galizia, P., *Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913*, *Economic History Review* 68(4), pp. 1250–1276

for grain came from Britain following its rapid population growth in the second half of the nineteenth century: initially, this was met by supplies from the East and later from the New World. Russian and Danube grain exports boomed even more in the late 1870s and late 1880s, as during this period Britain saw particularly bad harvests in 1875, 1876, 1877, and 1879.³¹¹ The 1877 Russo–Turkish War temporarily hindered Black Sea trade, but the trade boomed straight after when Britain began importing cheap wheat in large quantities. Between 1852 and 1859, 26.5 per cent of Britain’s annual wheat consumption was imported.³¹² The proportion rose to 48 per cent between 1868 and 1875 and to 70 per cent in the later 1870s.³¹³

Malta was a beneficiary of the grain trade between Britain and Eastern Europe more because grain ships bunkered there rather than from profits earned on transshipped cargo. The Welsh industrialist and Liberal Member of Parliament David Alfred Thomas, Viscount Rhondda, gave us a useful characterization of this coal bunkering ‘trade’ in 1903:

*... shipments of coal and the imports of wheat and other commodities is not ... a direct exchange of freight, but ... steamers go a round voyage, part of which is in ballast, taking coal, say, to the Mediterranean and then grain from the Black Sea to Hamburg and home. ... The course of the export trade in coal is influenced in some degree by the return freight, and in this way, its direction is, if only slightly, modified by favourable harvests or otherwise in different parts of the world, and the consequent varying sources of our food supplies.*³¹⁴

The boom in bunkering in Malta ended when grain shipments declined after 1890, as Europe turned to the New World for grain imports. This decline in tramp tonnage (shipping without fixed routing or schedules) calling at Malta was partially offset by a rise in liner tonnage (shipping with a fixed port rotation), but liner tonnage had lower demands on coal bunkering.³¹⁵ This is why the decline in coal bunkering was more dramatic than that in tonnage. But there were other reasons for the decline of bunkering.

Foreign competition played a role. In Algiers, coal was discharged and loaded from the quayside or into large hulks in contrast to Malta where it was discharged onto barges and had to be stored. Labour was also cheaper in Algiers: direct coaling in Algiers cost one penny per ton compared to one shilling per ton in Malta in 1912.³¹⁶

Another reason for the decline of coal bunkering was the increase in the size of ships, which lowered the proportion of coal fuel in tonnage, and

increases in the efficiency of steam turbines, which generated more power from the same quantities of coal. Put together, these technical changes meant that ships needed fewer bunkering points. This is shown in Table 3.5, which shows the rising dominance of steam over sail in global net tonnage and the break-even distance between sail and steam—that is, the distance at which the transport cost of sail equalled that of steam. Distances above (below) the break-even point meant sail (steam) was more economical. By way of comparison, the distance between Plymouth and Valletta, via the straits of Gibraltar, is 2027 nautical miles; the distance between Plymouth and Bombay (Mumbai), via Suez, is 6002 nautical miles.³¹⁷ The break-even distance increased over time—from 3000 to 10,000 miles—as steamers no longer needed to use up large portions of their carrying capacity for coal, which increased the cost per unit of cargo, and to bunker, which increased the total cost of the journey. These changes also meant that entrepôt trade could concentrate in large continental ports, where port facilities were superior, giving ships another reason to bypass Malta.

Trade and commerce had served Malta well for most of the nineteenth century, but by the twentieth century, like other island harbours in the Mediterranean, Malta lost the commercially exploitable position that led it to specialize in trade and commerce—in sense, its geography changed. Trade had become too large in volume, and ships too large in tonnage and long in range, to use Malta as a port. The country had none of the extensive deep quays and the expansive storage facilities needed for trade in this new age. Neither did it have a large hinterland, which would have allowed

Table 3.5 Sail/steam break-even distance and global net tonnage, 1850–1895

	<i>Break-even distance Sail/Steam, Miles</i>	<i>Global net tonnage, Steam/Sail</i>
1850	3000	–
1860	4000	–
1870	7000	0.24
1880	8500	0.4
1890	10,000	0.79
1895	–	1.11

Notes: Net tonnage values for 1870 refer to 1876 and for 1880 to 1882. Tonnage data from Lowe, J., Measuring the transition from Sail to Steam, 28 January 2008, accessed 5 December 2015, http://homepages.ihug.co.nz/~j_lowe/C17Transition.htm. Break-even distance for Sail/Steam from Bernstein, W.J., *A Splendid Exchange: How Trade Shaped the World*, New York: Atlantic Monthly Press, 2008, p. 327. Values approximate

it to engage in the emerging direct trade flows between industrial and agrarian markets. All told, Malta's commercial port activity was reduced to a 'lower plane',³¹⁸ reflecting the true value of its commercial status moving into the twentieth century. It was at this stage that the need for economic diversification became most pressing and the country needed to adapt to new global economic conditions. There were, however, other events to deal with first.

INDUSTRIAL DIVERSIFICATION IN THE INTERWAR PERIOD

The 1918 Armistice was followed by large layoffs in Malta. At the peak of the War, over 20,000 men were involved in the war as soldiers, sailors, artisans, and labourers, both in Malta and abroad.³¹⁹ As we saw in Table 3.1, the dockyard alone employed 13,000 men in 1918 and, while this figure dropped to the still high level of 7500 men by 1928, it meant that 5500 men were suddenly unemployed. Vassallo writes that layoffs at the dockyard were 'one of the major contributory factors to the June 1919 events'.³²⁰ This is true, but it is unlikely that the events would have escalated as they did without the coincidence of protesting public servants and a vociferously anti-British *Assemblea Nazionale*, as we saw in the conclusion to the previous chapter. Further, with increasing international tension leading up to World War II, dockyard employment rose back up to 10,000 persons, re-inflating its presence in Malta's economy.

World War I blocked most trade unrelated to the Fleet and Garrison. From 1913 to 1918, tonnage entered and cleared at Malta dropped by 87 per cent and the number of vessels calling at Malta by 83 per cent.³²¹ The bunkering trade still employed over 2000 heavers at the end of the War, but coal imports dropped from 549,110 tons in 1913–1914 to just 4175 tons in 1918–1919, recovering to only 110,495 tons by 1920.³²² In December 1922, the President of the Chamber of Commerce John C. Camilleri declared that 'it is unfortunately only too true that we are passing through the most trying period in the Commercial History of this country'.³²³ It was not just Malta that suffered during the interwar period.

Some writers have characterized the 1870–1913 period as 'the birth of the first era of trade globalization' and the 1914–1939 period as 'its death'.³²⁴ The world trade-to-GDP ratio dropped from a peak of around 22 per cent before World War I to a trough of around eight per cent before World War II.³²⁵ World War I saw a breakdown in international relations and in the Gold Standard, removing the 'common currency' effect on

world trade. This was followed by a return to activist protectionism, with average *ad valorem* tariffs going from around eight to 20 per cent, and a rise in maritime transport costs, by about 100 per cent, due to restrictive cartel and labour practices.³²⁶ Both growth in world GDP and in world exports was much slower in the second period.

Maltese merchants turned inwards, seeing sales to service personnel and their families as the ‘last remaining lucrative trade’ available.³²⁷ Here the Navy, Army, and Air Force Institute (NAAFI), established in Malta in 1919 as the Expeditionary Force Canteens to run recreational establishments and to sell goods to servicemen and their families, challenged them. With the arrival of the NAAFI in Malta, contractors could no longer profit from providing service canteens to the army and navy. Adding insult to injury, the NAAFI was allowed free and preferential access to the extremely limited shipping available during the interwar period—a privilege that eventually extended beyond military establishments to establishments like the Union Club, founded in 1826 by British service personnel, and private individuals.³²⁸ The NAAFI made redundant at least 193 people formerly employed by naval contractors, but at the same time created another 360 well-paid jobs.³²⁹ Indeed, the NAAFI affected merchants more than workers. The former group protested and wrote public letters against the NAAFI, called on politicians to have the Institute removed, at a point even called for a boycott of British imports, but in the end little changed.³³⁰ The NAAFI was not budging.

Reflecting this inward nature of trade, Vassallo notes how correspondence within the Chamber of Commerce no longer mentioned ‘outward looking and highly active sections of ship operators, locally capitalized insurance companies, merchants clamouring for storage space for their prosperous entrepôt trade or coal merchants engaged in maintaining open Britain’s lines of communication with the East’.³³¹ Instead correspondence focused more and more on inward-looking trade, on the domestic market, and consequently, on import duties, port dues, weights and measures, Customs opening hours and guards, and so on. At the same time, calls were made to seek economic alternatives to the ‘diminutive export trade in potatoes, onions and cumin ... and to explore other avenues such as tourism, emigration and industry’.³³²

In 1923, the president of the Chamber of Commerce, observing the move towards tourism in towns across the Mediterranean coast, argued that Malta should follow suit, given its ideal position as a place for tourism.³³³ The Chamber welcomed the increasing numbers of cruise ships

calling at Malta—25 in 1932—and the establishment of a Tourist Bureau in 1924, and called for the construction of a modern hotel.³³⁴

In 1925, the government introduced a new law that allowed the granting of monopolies to new industries.³³⁵ The Chamber did not object to this law on condition that it did not interfere with the import trade, the business of its members. This law marks a reversal in official opinion on the use of monopolies from the 1911 Royal Commission ‘appointed to consider the expediency of granting temporary monopolies’ to industrial firms, which rejected the idea, arguing that benefits would only accrue to firms’ owners.³³⁶ But desperate times called for desperate measures. The world trade depression grew worse in the late 1920s and even worse after the Great Depression. Malta was one of many countries to experiment with protectionism during this period. Sanctions were imposed upon trading with Italy in 1935. In 1939 the Chamber complained about ‘an influx of foreigners into the island [Malta] to the serious detriment of trade in general’.³³⁷ It transpired that at the time 41 foreign men and 62 foreign women live in Malta, of whom 20 were governesses or nurses with service families.³³⁸ It further transpired that four of the foreigners were providing employment to 34 Maltese.³³⁹

Port activity was not hopeless during this period, but was substantially slower than the pre-World War I years. Tonnage entered and cleared at Malta grew at an average annual rate of 4.3 per cent between 1870 and 1913, but at 2.3 per cent between 1922 and 1938.³⁴⁰ There were, as we saw in the previous section, structural problems with this sector (longer range steamers, etc.). What the economy needed was growth in domestic exports and some degree of industrial diversification rather than a resuscitation of the entrepôt trade.

Table 3.6 shows the values of Malta’s domestic exports divided, in line with the blue books, into four classes. The first class covers ‘Food, drink, and tobacco’, the second ‘Raw materials and articles mainly unmanufactured’, the third ‘Articles wholly or mainly manufactured’, and the fourth ‘miscellaneous and unclassified’ goods.³⁴¹ The bulk of Malta’s exports fell into the first class: an average of 57 per cent of total domestic over this period. Potato exports alone accounted for the value of most of this class: 75 per cent in 1930, for example. The second class of exports accounted for an average of 33 per cent of all domestic exports. That is, an average of 90 per cent of all domestic exports were accounted for by food and drink products (mainly potatoes) and raw materials and other unmanufactured goods. There was no progress in diversifying towards manufac-

Table 3.6 Domestic export diversification, 1917–1938

<i>Class:</i>	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>Total</i>	
	Domestic exports in nominal £					Herfindahl Index
1917	25,343	52,825	9162	8816	96,146	0.64
1918	60,462	45,794	23,609	13,901	143,766	0.56
1919	83,194	56,936	43,858	36,302	220,290	0.53
1920	116,871	92,890	53,444	38,552	301,757	0.54
1921	136,717	71,901	29,171	1828	239,617	0.68
1922	184,404	77,649	24,469	1828	288,350	0.74
1923	124,329	153,321	10,024	1373	289,047	0.72
1924	56,953	186,070	6256	1865	251,144	0.85
1925	161,701	102,000	10,223	3389	277,313	0.73
1926	148,900	77,078	7464	5129	238,571	0.75
1927	180,381	81,690	3012	5664	270,747	0.79
1928	172,168	91,665	3988	5810	273,631	0.76
1929	175,112	70,158	6468	2691	254,429	0.8
1930	116,565	57,760	3554	1918	179,797	0.77
1931	138,401	49,543	2237	1692	191,873	0.84
1932	140,510	37,784	1907	2049	182,250	0.89
1933	99,270	37,650	3484	3041	143,445	0.8
1934	123,430	45,825	5167	816	175,238	0.82
1935	130,074	51,711	9369	5976	197,130	0.76
1936	127,135	44,382	20,397	3186	195,100	0.74
1937	137,642	72,866	35,301	4757	250,566	0.66
1938	152,850	39,630	25,803	831	219,114	0.78

Notes: All data from blue books. Class I: animals living (usually sheep), beer, cheese, cigarettes, cigars, fruits and vegetables (onions, oranges, potatoes, tomatoes fresh and preserved), grain (bread, flour, semola), food and drink unenumerated. Class II: bones and hoofs, coke, cotton raw and seed, cumin seed, broken glass, hides and skins (raw or dried), metal (old), rags and shoddy, stone (blocks and slabs), tallow, tar, wool, good unmanufactured unenumerated. Class III: acyls and alkalis, baskets of all kinds, cordages and twines, furniture, fishing implements, hats (straw), lace, textiles, goods manufactured unenumerated. Class IV: animals living (mules and other kinds), bran, seeds. Herfindahl Index ranges between zero and one, with higher numbers indicating greater concentration in one class, and a value of one indicating a monopolistic class. It is the sum of the squares of the shares of the domestic export classes in total domestic exports, where the market shares are expressed as fractions, weighted by the number of export classes. It is the same as the average market share, weighted by market share

tures. These goods, according to the third class, accounted for an average of just 7 per cent of total domestic exports. Further, the trend of this share was one of decline: from an average of 15 per cent between 1917 and 1921, to one of five per cent thereafter—three per cent, discounting the brief resurgence from 1936 to 1938. The Herfindahl Index in the penultimate column measures the degree of export concentration.³⁴²

It ranges between zero and one, with higher numbers indicating greater concentration in one class, and a value of one indicating a monopolistic class. The Index goes from an already-high 0.64 in 1917 to 0.78 in 1938, averaging 0.73 across the period. That is, domestic export concentration grew over time, despite the Chamber of Commerce's calls for economic diversification. This might not have been so problematic had real domestic exports been growing, but as the final column of Table 3.5 shows they were not. After domestic real exports grew by an impressive 207 per cent from 1917 to 1923, when they peaked, they stagnated until 1929, and declined thereafter.

Malta found itself unable to access much needed foreign markets, given the NAAFI's dominance of the services personnel market in Malta, and unable to diversify away from low-value-added goods at a time when port activity slowed and the dockyard was releasing surplus labour. The first reason for this is the unaccommodating global environment. It was not just that world trade volumes dropped and import tariffs rose, but that world *industrial* output was falling, by about 40 per cent from 1929 to 1933,³⁴³ and that *maritime* transport costs, so crucial for Maltese exports, were increasing. The Maltese economy was saddled with higher export costs and fast-falling demand for manufactures just as it needed to export manufactures. The second reason for this export underperformance is that there were coordination problems within the economy that prevented it from reallocating resources to more productive sectors.

Big Push Policies

We have seen that merchants preferred investing in the entrepôt trade throughout the nineteenth century because it offered higher risk-weighted returns than industry. These higher relative returns were, in turn, determined by Malta's central geographical position in the growing Mediterranean trade network. However, one of the puzzles of the early nineteenth century, particularly the interwar years, is why the shift to investing in industry did not occur. By this point, returns to trade and commerce had dropped and the need for economic diversification was apparent to contemporaries. While labour abundance disincentivized mechanization in earlier years, in a more globalized world the downward pressure on wages it created could have been exploited by outward-oriented manufacturers (the domestic market was too small, and dominated by the NAAFI)—in the same way that the current low-wage economies are export-focused,

exporting to developed economies. At the start of the twentieth century, Maltese tradesmen's PPP-adjusted wages were about a fifth of those paid in industrial centres of Europe like London and Leipzig.³⁴⁴ Yet, as Table 3.5 showed us, no progress was made in this regard.

Again, the deteriorating global environment can explain much of this low progress, but perhaps a more structural problem was that industrial investments did not occur simply because other complementary investments were not made, and these latter investments were not forthcoming simply because the former were missing. The failure to diversify into industry was at this time partially the outcome of what the development economist Rosenstein-Rodan called a 'coordination failure'.³⁴⁵ This explanation can link the recognizable potential for manufacturing as well as its failure to emerge.

For the sake of clarity, suppose that the development of an export sector specialized in manufacturing is dependent on a steady and reliable supply of skilled workers—in reality there are more necessary inputs.³⁴⁶ The government provided low-cost relevant training for this at its Technical School. Had this sector emerged, skilled workers would have earned a high rate of return on their training, as manufacturing firms would have invested to take advantage of the skilled labour. But how would this sector have emerged on its own? The externalities imposed by the *initial* lack of skilled workers made the costs of investing in the manufacturing export sector very high. Consequently, the initial demand for skilled workers was low, and so the rates of return to acquiring skills too low to overcome the opportunity cost of their acquisition. Yet the same combination might have succeeded if both skilled workers and manufacturing investment were somehow simultaneously forthcoming. This is the coordination failure: it is the *conjunction* of the two variables that makes them *jointly* viable in a way that each individual variable is not. Workers face the risk of exiting technical training with no industrial employment opportunities, while investors face the risk that there are no skilled workers available for their industries, yet both would be better off if they took their risks.

This explanation is clearer with the help of Fig. 3.11. It shows us two sectors, Commerce and Manufacturing. In both panels Commerce and Manufacturing, suppose that externalities are present: the return to any one worker for participating in a sector depends positively on the number of workers already active in that sector. This is captured by the rates-of-return lines in both panels that slope upwards with the number of workers in that sector. The initial allocation of workers across the two sectors

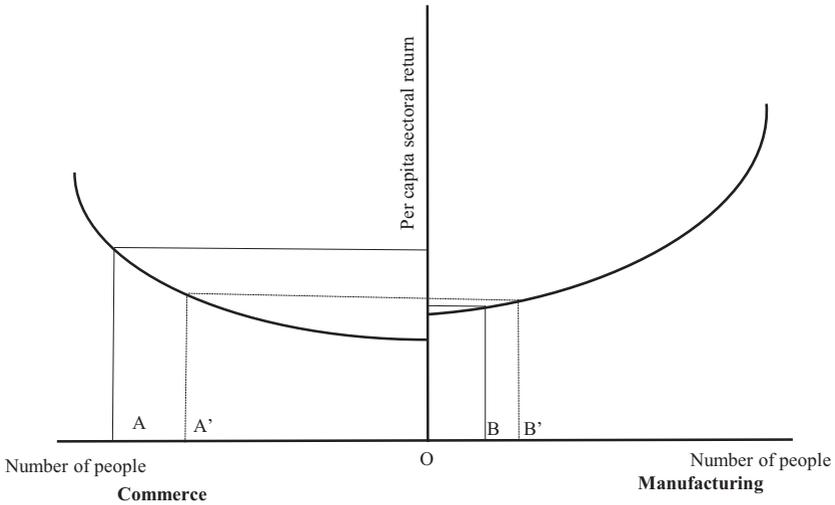


Fig. 3.11 Externalities and sectoral change. Notes: Adapted from Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1998, p. 145

is the outcome of preceding events like the *entrepôt* boom: this is given by OA workers in Commerce and OB workers in Manufacturing. The line segment AB is the total number of workers in the economy. As the allocation of workers changes, the only thing that is altered is the *position*, not length, of AB .

Figure 3.11 shows that the rate-of-return line in Manufacturing is better than that in Commerce. If we superimpose them on the same panel, the Manufacturing line would lie above the Commerce line. Second, in contrast to the first point, at the *initial* location the *actual* rate of return in Commerce, r_0 , exceeds the actual rate of return in Manufacturing, r_N . Given this initial inequality, over time workers will gravitate from Manufacturing to Commerce. This describes the failure of a new sector to emerge when there is not enough critical mass to sustain it. This logic predicts that eventually all workers will move into Commerce until there is nobody in Manufacturing.

Had there been sufficient critical mass, outcomes would have been different. For example, suppose that historical events lead us to the allocation OA' and OB' , where the rates of return in the two sectors are exactly

equal. In this case, even the slightest tilt towards Manufacturing would trigger an accelerating pace of beneficial change, as workers switch to the more productive sector. This will not happen until the first worker makes the switch. Workers delay their decision beyond what they expect their colleagues to do, so as to avoid the time lag that occurs in the build up of returns. Collectively, this tendency to delay traps the whole economy in a low-level equilibrium, with investment in Manufacturing also delayed.

The investment needed to switch to manufacturing, to tilt the allocation of labour away from commerce, was beyond the means of the private sector. Even if the private sector had enough resources to invest, it would not have done so as the problem here is that the social return is higher than the private return, meaning there is no incentive for individual entrepreneurs to invest. This is the coordination failure and calls for ‘big push’ policies: governments step in to provide large investments in social overhead capital—mainly infrastructure—or support to particular industries, overcoming the coordination failure.

The government did not play this role in Malta before World War II. ‘Big push’ policies only formally emerged right after the War—Rosenstein-Rodan’s seminal paper was published in 1943, with a follow-up specifically on ‘big push’ policy in 1957.³⁴⁷ There was no clearly articulated theory that could explain the coordination problems in the Maltese economy and that would help policymakers solve them. Instead, the interwar period saw experiments with import licences and monopoly grants that were not directed at solving the fundamental problem of coordination. The War further stalled progress in this regard, with economic policy shifting towards building up essential reserves and controlling prices. It was not until the government’s *Development Plan for the Maltese Islands 1959/64*,³⁴⁸ the country’s first development plan, published in October 1959, that progress was made. It was at this time, too, that Hong Kong and Singapore, countries with similar colonial histories and factor endowments to Malta, began their big push policies: after 1968 in Singapore and in the 1950s in Hong Kong.³⁴⁹ For Malta, the British government pledged a contribution of £29 million towards the economic development of Malta to be disbursed over the Plan’s five-year period.³⁵⁰ The Plan stated that,

[t]he aim of economic and political policy must ... be to make a considerable diversification of the economy in the next few years. ... Malta must get out into the world and earn its own living in other ways than it has done in the past, when its living was secured by the realising of the strategic assets of its harbours and geographical position. ... The only practical course is to direct every

*effort, of investment, administrative measures and legal machinery, and of the skills of the people, towards the achievements of a self-supporting and viable economy.*³⁵¹

It aimed to do this by using the financial support in Britain to embark on export-led industrialization:

by the very smallness of the home market, any significant industrial development must look largely to the highly competitive export markets in the United Kingdom and elsewhere, particularly in the Mediterranean and African markets. The lack of natural resources other than industrial skill, make it imperative to offer substantial inducements for overseas industrialists to invest in Malta. Together with such inducements the basic physical services needed for industrial development (efficient harbour facilities, adequate roads, power and the like) must be provided, together with the necessary administrative background of up-to-date commercial legislation, a suitable tax structure, and modern customs duty and drawback arrangements.³⁵²

The plan was a classic ‘big push’ effort at moving Malta towards more productive sectors. It used large investments to overcome coordination problems, like the gap between industrial skill and physical infrastructure, and the constraints of the small domestic market, by turning to exports. This policy is the subject of the following chapter, where we will assess the plan’s success, along with the successes and failures of the many development plans that followed. Malta entered a new age of government intervention and economic restructuring, but first came World War II.

NOTES

1. Expenditure data are from the blue books’ ‘Revenue & Expenditure’ chapters, and exclude military expenditure. The GDP data (re-inflated) are from Apostolides, A. ‘The growth of two small economies in the depression: GDP estimation for Cyprus and Malta during the interwar period (1921–1938)’, London School of Economics, London, 2010, p. 18.
2. Refers from 1970 to 2008. Data from World Bank Data Bank, series: General government final consumption expenditure (% of GDP). This series also excludes military expenditure.

3. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988, pp. 235–6.
4. Zammit, E. Maltese Patterns of Behaviour, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988, pp. 163–83.
5. Zammit, E. Maltese Patterns of Behaviour, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988, p. 165.
6. Zammit, E. Maltese Patterns of Behaviour, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988, p. 166.
7. Frendo, H., *En Route from Europe to Africa: Malta, her people and her history*, Malta: Mireva, 1978.
8. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002; Zammit, E. Maltese Patterns of Behaviour, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988, Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988; Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954.
9. One of the most forceful expositions of this view is Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988.
10. Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1998, p. 100.
11. Cassar, G., Before the Birth of Real Popular Education in British Colonial Malta, *Symposia Melitensia* 1(2), 2004, p. 31.
12. Cassar, G., Before the Birth of Real Popular Education in British Colonial Malta, *Symposia Melitensia* 1(2), 2004, p. 42.
13. Cassar, G., Before the Birth of Real Popular Education in British Colonial Malta, *Symposia Melitensia* 1(2), 2004, p. 42.
14. Figures refer to 1836 to 1838, quoted in Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 14.
15. Based on the agricultural wage series used throughout this book. Average for 1836 to 1838 is £11.10 per year, in nominal terms, and based on 290 working days per year.

16. Quoted in Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
17. Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 20.
18. From 1861 blue books ‘Population’ chapter.
19. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
20. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
21. Felice, E., *Determinants of Italy’s Regional Imbalances over the Long Run: Exploring the Contributions of Human and Social Capital*, Discussion Papers in Economic and Social History No. 88, University of Oxford, March 2011, p. 27.
22. Felice, E., *Determinants of Italy’s Regional Imbalances over the Long Run: Exploring the Contributions of Human and Social Capital*, Discussion Papers in Economic and Social History No. 88, University of Oxford, March 2011, p. 27.
23. Cvrcek, T., *School, what is it good for? Useful Human Capital and the History of Public Education in Central Europe*, National Bureau of Economic Research Working Paper No. 19690, Cambridge, MA, December 2013.
24. Quoted in Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro State*, Malta: Mireva, p. 163.
25. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
26. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
27. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
28. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 107.

29. Calculated as the ratio of the indicator 'Expenditure on education 2005 \$' to 'General government final consumption expenditure (constant 2005 US\$)' from World Bank Data Bank.
30. Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886.
31. Harwood, M., *Malta in the European Union*, London: Ashgate, 2014, p. 35.
32. Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 151.
33. Quoted in Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 151.
34. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
35. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 107.
36. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 107.
37. Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 9.
38. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 106.
39. This is based on the agricultural real wage series.
40. This is based on the ratio of the daily wage earned by those in 'trades' to that earned by agricultural labourers. Both series in nominal terms, covering 1836 to 1938, are from the blue books.
41. Schools: Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro State*, Malta: Mireva, p. 164. Teachers: Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 107.
42. There is a weak correlation between the introduction of compulsory schooling laws and subsequent school enrollment: Soysal, Y.N. and Strang, D., *Construction of the First Mass Education Systems in Nineteenth Century Europe*. *Sociology of Education*, 62(4): 277–288, 1989.

43. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 105.
44. Pisani, S.L., *Faulty hygiene in connection with the mortality from cholera morbus at Malta during the epidemics of 1837 and 1850*, Edinburgh, 1874, p. 55.
45. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 105.
46. Sapiano, M., Micallef, P., Attard, G., Zammit, M.L., *The evolution of water culture in Malta: an analysis of the changing perceptions towards water throughout the ages*, in El Moujabber M., Shatanawi M., Trisorio-Liuzzi G., Ouessar M., Laureano P., Rodríguez R. (eds.). *Water culture and water conflict in the Mediterranean area*, Bari: CIHEAM, 2008, pp. 97–109.
47. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 81.
48. Busuttill, S., *Malta's Economy in the Nineteenth Century*, *Journal of the Faculty of Arts, University of Malta* 3(1), p. 62.
49. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 112.
50. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 113.
51. Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 113.
52. Farrugia, M., *History of Power Generation in Malta*, *Malta History & Heritage*, online: <https://vassallohistory.wordpress.com/electricity-in-malta/>. Accessed 18 November 2015.
53. Farrugia, M., *History of Power Generation in Malta*, *Malta History & Heritage*, online: <https://vassallohistory.wordpress.com/electricity-in-malta/>. Accessed 18 November 2015.
54. *Expenditure in 1890 was, according to the blue books, £266,900.*
55. Quoted in Cassar, C., *Everyday life in Malta in the Nineteenth and Twentieth Centuries*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 116.

56. Bishop, M., H.M.S. Melita—the Only British Warship Built in Malta, *Melita Historica*, New Series, 12(3), 1998, 323.
57. *Mariner* (1884), *Icarus* (1885), *Racer* (1884), and *Reindeer* (1883) built at Devonport Dockyard, and *Acorn* (1884) at Milford Haven Shipbuilding Co. Bishop, M., H.M.S. Melita—the Only British Warship Built in Malta, *Melita Historica*, New Series, 12(3), 1998, 323–330.
58. Besley, T. and Persson, T., *Pillars of Prosperity: The Political Economics of Development Clusters*, Princeton, NJ: Princeton University Press, 2013.
59. For a recent empirical addition to this literature, see: Xu, G., *The Cost of Patronage in the Appointment of Chief Bureaucrats: Evidence from the British Empire*, London School of Economics, October 6, 2015.
60. A. Vella quoted in Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro State*, Malta: Mireva, p. 45.
61. See Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro State*, Malta: Mireva, pp. 45–47.
62. Quoted in Bezzina, J., *Church and State in an Island Colony*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 48.
63. Quoted in Bezzina, J., *Church and State in an Island Colony*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 47.
64. Bonnici, A., *History of the Church in Malta*, Vol. III, Malta: Empire Press, 1975, p. 158.
65. Quoted in Cassar, G., *Before the Birth of Real Popular Education in British Colonial Malta*, *Symposia Melitensia* 1(2), 2004, p. 38.
66. This is based on decadal data points from 1851 to 1931, inclusive, from the blue books' 'Revenue and Expenditure' chapters. Salaries include 'allowances'. The number for 1881 is an average of 1880 and 1882 as it is missing from the collection. Civil establishments include everything from offices of government, educational establishments, public works, and so on. Judicial includes the courts, public registry, syndics, judicial police, and crown lawyers.

67. Fenech, D., How Malta lost self-government, 1930–1933, Malta Historical Society—Proceedings of History Week 2011, Malta: University of Malta, 2011, pp. 141–154.
68. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988; Busuttill, S., An Overview of Malta’s Economic Development, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valetta: Minerva, 1988; Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, Ch. 2; Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886; Chircop, J., Living on Fishing, Caught in the Market: The Maltese fishing communities, 1860s–1920, *Journal of Maltese History* 2(1), 2010; Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966.
69. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 210.
70. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 210.
71. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 210.
72. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 211.
73. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 210.
74. Based on an exchange rate of 20 French francs per pound around 1798, from Global Financial Data, series: GBPFREF2D. Conversion to 1938 prices done using the Retail Price Index calculator at <http://www.measuringworth.com>.
75. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 213.
76. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 42.
77. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 41.

78. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 41.
79. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, pp. 44–45.
80. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 41.
81. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 41.
82. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 42.
83. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 214.
84. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 44.
85. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 44.
86. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 45.
87. This is the Stolper-Samuelson theorem: Stolper, W. F. and Samuelson, Paul A., Protection and Real Wages, *Review of Economic Studies* 9(1), 1941, 58–73.
88. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966, p. 212.
89. Busuttill, S., Malta's Economy in the Nineteenth Century, *Journal of the Faculty of Arts, University of Malta* 3(1), p. 52.
90. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 45.
91. Vella, A.P., The Cotton Textile Industry in Malta, *Melita Historica* 4(3), 1966; Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988.

92. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 45.
93. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 152.
94. From the 'Population' chapter of the 1851 blue books.
95. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 152.
96. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 152.
97. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 161.
98. The working age population is defined here as population between the ages of 15 to 64 (inclusive) for the year 1950. Data from the United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects Database, 2015 Revision.
99. This is the ratio of the female working population in 1948—11,966—from Charlton (1960) to the female working age population in 1950. The female working age population is defined here as the female population between the ages of 15 to 64 (inclusive). Data from the United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects Database, 2015 Revision.
100. Caruana, K., Female Labour Market Participation in Malta: A Lisbon Agenda Perspective, Bank of Valletta Review 33, Spring 2006, p. 19.
101. This is the ratio of gainfully employed women to the total gainfully employed population in 2004. Data from Central Bank of Malta, Labour Market Indicators based on the Labour Force Survey, 2015, Online: http://www.centralbankmalta.org/site/excel/statistics/labour_lfs.xls?20130910091950&revcount=3551.
102. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 152.

103. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 152.
104. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 37.
105. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 144.
106. From the 1851 blue books ‘Population’ chapter.
107. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 144.
108. Export values in nominal £ from ‘Imports & Exports’ chapter of blue books.
109. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 144.
110. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 37.
111. Cassar, C., Everyday life in Malta in the Nineteenth and Twentieth Centuries, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 117.
112. Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886, p. 33.
113. Sum of ‘£12396 paid for manufacture’, against ‘cost of tobacco as imported in leaf at £10,000’: Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886, p. 33.
114. ‘Suppose that labourers employed in this manufacture earn 8d a day per head’—I assume 290 working days per year: Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886, p. 33.
115. Cassar, C., Everyday life in Malta in the Nineteenth and Twentieth Centuries, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 117.
116. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 153.

117. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 128.
118. Quoted in Brincat, M., Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan, *Proceedings of History Week*, University of Malta, 2005, p. 64.
119. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 128.
120. Lehmann, S. and O'Rourke, K., The Structure of Protection and Growth in the Late Nineteenth Century, *Review of Economics and Statistics* 93(2), 606–616.
121. Lehmann, S. and O'Rourke, K., The Structure of Protection and Growth in the Late Nineteenth Century, *Review of Economics and Statistics* 93(2), 606–616.
122. The 43 per cent figure is the average for the period 1837–1899 of the ratio of the 'Amount Received £' from the wheat duty to import values. The former is from Sharp, P., *Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire*, *Journal of Maltese History* 1(2) 2009.
123. Quoted in Brincat, M., Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan, *Proceedings of History Week*, University of Malta, 2005, p. 74.
124. Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, pp. 714–715.
125. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 128.
126. Quoted in Brincat, M., The Birth of the 'Maltese Model' of Development 1945–1959, *Journal of Maltese History* (1)2, p. 43. See also Chircop, J., *The Left Within the Maltese Labour Movement*, Malta: Mireva, 1991.
127. Zammit, E., *An Outline for Industrial Development*, lecture delivered by Elias Zammit on 19 April 1949.
128. Anderson, J.L., *Explaining long-term economic change*, Cambridge: Cambridge University Press, p. 22.

129. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 128.
130. Spiteri, E.J., *Malta: from Colonial Dependency to Economic Viability*, Malta: self-published, 2002, p. 8.
131. Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 16.
132. Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 16.
133. Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886, p. 16.
134. Zammit, N., *Malta and its Industries*, London: Waterlow and Sons Ltd, 1886, p. 16.
135. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 68.
136. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 37.
137. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 45.
138. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 100.
139. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 59.
140. The revenue figure, according to the 1911 blue book chapter ‘Revenue and Expenditure’, is £448,113.
141. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 50.
142. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 45.
143. Pirota, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, p. 265.
144. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, pp. 65–66.
145. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, pp. 64–68.
146. Pirota, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*. Msida: Mierva, 1996, pp. 265–266.

147. Busuttil, S., Malta's Economy in the Nineteenth Century, *Journal of the Faculty of Arts, University of Malta* 3(1), p. 59.
148. Based on the blue books 'Imports & Exports' chapters from 1875 to 1907, which specify reexports and cargo actually landed in Malta. The 90 per cent figure is the average for these years.
149. Hard to say who coined the exact term, but its underlying argument was developed by Lord Kaldor in the 1960s. Its most vocal critic is Kaldor's student, the Columbia University economist Jagdish Bhagwati: Bhagwati, J., "Made in America" is not the way out, *The Financial Times*, 9 August 2010.
150. Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988.
151. A useful summary of this debate is Lane, P., Chang, H.-J., and Bhagwati, J., *The Economist.com Debate: Manufacturing*, 'This house believes that an economy cannot succeed without a big manufacturing base', 28 June— 8 July 2011. Available online: http://www.columbia.edu/~jb38/papers/pdf/The_Economist_com_Debate_Manufacturing.pdf. Accessed 24 November 2015.
152. Rodrik, D., *Premature Deindustrialisation*, National Bureau of Economic Research Working Paper No. 20935, February 2015, Cambridge, MA.
153. Rodrik, D., *Premature Deindustrialisation*, National Bureau of Economic Research Working Paper No. 20935, February 2015, Cambridge, MA, p. 5.
154. Rodrik, *Unconditional Convergence in Manufacturing*, *Quarterly Journal of Economics* 128(1), 2013, pp. 201–202.
155. Rodrik, D., *Premature Deindustrialisation*, National Bureau of Economic Research Working Paper No. 20935, February 2015, Cambridge, MA, p. 5.
156. Crossman, R.H.S., *International Commentary—055: [Malta Round Table Conference; Egyptian-Russian Arms Deal; British Budget]*, BBC Hebrew Service, Broadcast on 28 October 1955, University of Warwick Digital Collections Document Reference MSS.154/4/BR/6/224, Online: <http://contentdm.warwick.ac.uk/cdm/ref/collection/rcc/id/577>. Accessed 24 November 2015.

157. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 129.
158. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 129.
159. Spiteri, E. Malta: from colonial dependency to economic viability, 1800–2000, Malta: privately published, 2002, pp. 3 & 8.
160. Grima, R., ‘Some economic effects of the Crimean War on Malta’, *Melita Historica* 7, 1979, pp. 346–355; Clare, A., Features of an Island Economy, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, pp. 127–154.
161. Holland, R., *Blue-water empire: the British in the Mediterranean since 1800*, London: Penguin, p. 128.
162. Busuttil, S., An Overview of Malta’s economic development, in Mallia-Milanes, V. (ed.) *The British Colonial Experience: 1800–1964*, Valletta: Minerva, 1988, p. 156.
163. Pearson correlation coefficient, significant at the 1 % level.
164. Simple linear regression of real wage series for trades on real military expenditure and a constant term from 1836 to 1938. Observations are annual and some are missing: $N = 74$; F -statistic = 11.98; $R^2 = 0.14$; Coefficient = 0.000038; Standard error = 0.00001; t -ratio = 3.46; p -value = 0.001. The correlation is robust to a first-difference estimation with robust standard errors: $N = 65$; F -statistic = 22.68; $R^2 = 0.31$; Coefficient = 0.000039; Standard error = 0.00001; t -ratio = 4.76; p -value = 0.000.
165. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960.
166. Total fixed by Otway in 1804 for 170 workers: Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 132.
167. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 132.

168. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 132.
169. Charlton, W.A., Trends in the economic geography of Malta since 1800, PhD Dissertation, Durham: Durham University, 1960, p. 205.
170. Total labour force figures from 1921 blue books 'Population' chapter: sum of persons employed in agriculture, manufactures, and commerce.
171. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 133.
172. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 133.
173. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 134.
174. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 134.
175. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 135.
176. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 135.
177. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 135.
178. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 135.
179. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 136.
180. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 137.

181. Using total government expenditure from blue books for 1900: £372,760.
182. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 137.
183. Vassallo, C., The Maltese Merchant Fleet and the Black Sea Grain Trade in the Nineteenth Century, *International Journal of Maritime History* 13(2), p. 26.
184. Vassallo, C., The Maltese Merchant Fleet and the Black Sea Grain Trade in the Nineteenth Century, *International Journal of Maritime History* 13(2), p. 26.
185. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 138.
186. Total fixed by Otway in 1804 for 170 workers: Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 132.
187. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 139.
188. Total government expenditure figure from 1918 blue book 'Revenue and Expenditure' chapter.
189. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 139.
190. Average of population figures for 1919 and 1921, as 1920 blue book missing. From "Population" chapters.
191. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 139.
192. Vassallo, for one, writes that in 'the longer term British defence expenditure tended to have a displacement effect on local commerce both in physical terms...and in terms of attitudes': Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 64.
193. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 140.

194. Ballard, G.A., The Development of Malta as a First-Class Naval Base Since its Inclusion in the British Empire, *Journal of the Royal United Services Institute* 65(457), p. 127.
195. Harley, C.K., Coal exports and British shipping, 1850–1913, *Explorations in Economic History* 26(3), 1989, 311–338.
196. The official report on the 1917 dockyard strike casts doubt on the idea that strikers were purely after higher wages, arguing instead that they were political—nationalist—in nature: British Admiralty, Malta Dockyard—L.E.P. Report on Strike. Revised Terms & Conditions & Considerations as to inclusion of War Bonus in Weekly Wages, Admiralty 1 Oct 1917, National Archives at Kew, UK: ADM 1/8500/221.
197. Hansard, House of Commons Debate, 13 October 1943, vol. 392, cc900-2W—MALTA (STRIKES).
198. Caruana Galizia, P., Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review* 68(4), 2015, pp. 1250–1276.
199. Fenech, D., Birgu during the British Period, in *Birgu: A Maltese Maritime City*, Vol. 1, edited by Lino Bugeja et al., Malta, p. 128.
200. Vassallo, C., The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade, Malta: Malta Chamber of Commerce, 1998, p. 30.
201. Caruana Galizia, P., Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review* 68(4), 2015.
202. Caruana Galizia, P., Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review* 68(4), 2015, Table 2.
203. Caruana Galizia, P., Strategic Colonies and Economic Development: Real Wages in Cyprus, Gibraltar, and Malta, 1836–1913, *Economic History Review* 68(4), 2015, Table 2.
204. Vassallo provides a range of fascinating evidence of Malta's pre-colonial entrepôt economy: Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, Ch. 1.
205. Feenstra, R.C. and Hanson, G. Intermediaries in Entrepôt Trade: Hong Kong Re-Exports of Chinese Goods, *Journal of Economics and Management Strategy* 13(1), 2004, 3–35.

206. Andriamananjara, S., Arce, H, Ferrantino, M.J., Transshipment in the United States, Office of Economic Working Paper, U.S. International Trade Commission No. 2004-04-B, April 2004.
207. Feenstra, R.C. and Hanson, G. Intermediaries in Entrepôt Trade: Hong Kong Re-Exports of Chinese Goods, *Journal of Economics and Management Strategy* 13(1), 2004, 3–35.
208. Clancy-Smith, J., *Mediterraneans: North Africa and Europe in an Age of Migration, C. 1800–1900*, California: University of California Press, 2011, “Why Leave Home? Information and Mobility”.
209. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 51.
210. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 53.
211. Fisman, R., Moustakerski, P., Wei, S-J., Outsourcing Tariff Evasion: A New Explanation for Entrepôt Trade, *The Review of Economics and Statistics* 90(3), 2008, pp. 587–592.
212. Harley, C.K., Transportation, the world wheat trade, and the Kuznets Cycle, 1850–1913, *Explorations in Economic History* 17(3), 1980, pp. 218–250.
213. Fisman, R., Moustakerski, P., Wei, S-J., Outsourcing Tariff Evasion: A New Explanation for Entrepôt Trade, *The Review of Economics and Statistics* 90(3), 2008, pp. 587–592.
214. Juhász, R., Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade, *Job Market Paper*, London School of Economics, December 21, 2014, London UK, p. 24.
215. For a summary, see: Sharp, P., Malta and the Nineteenth Century Grain Trade: British free trade in a microcosm of Empire, *Journal of Maltese History* 1(2) 2009, p. 27.
216. Figures from the ‘Taxes, Duties, Fees’ chapter of the 1850 blue books.
217. Dues and fees levied under the Ordinance No. VIII of 1871.
218. Dues and fees levied under the Ordinance No. VIII of 1871.
219. Figures from the ‘Taxes, Duties, Fees’ chapter of the 1900 blue books.

220. Figures from the 'Taxes, Duties, Fees' chapter of the 1900 blue books.
221. Quoted in Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 23.
222. Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 15.
223. Quoted in Price, C., *Malta and the Maltese: A study in nineteenth century migration*, Melbourne: Georgian House, 1954, p. 15.
224. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, pp. 64–66.
225. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 80.
226. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 78.
227. From 'Import and Export' chapter of 1871 blue books.
228. From the 'Agriculture' chapter of the 1871 blue books.
229. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 79.
230. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 172.
231. Busuttil, S., *Malta's Economy in the Nineteenth Century*, *Journal of the Faculty of Arts, University of Malta* 3(1), p. 59.
232. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 60.
233. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 179.
234. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 60.
235. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 179.

236. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 60.
237. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 60.
238. Busuttill, S., *Malta's Economy in the Nineteenth Century*, *Journal of the Faculty of Arts, University of Malta* 3(1), p. 59.
239. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 174.
240. Consiglio, J., *A History of Banking in Malta*, Malta: Progress Press, 2006, p. 53.
241. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 44.
242. Quoted in *The Chamber of Commerce, Malta, A Century of Progress, 1848–1948, 1950*, Malta: Chamber of Commerce, p. 48.
243. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 41.
244. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 41.
245. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 41.
246. Consiglio, J., *A History of Banking in Malta*, Malta: Progress Press, 2006, p. 56.
247. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 45.
248. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 45.
249. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 45.
250. *The Chamber of Commerce, Malta, A Century of Progress, 1848–1948, 1950*, Malta: Chamber of Commerce, p. 51.
251. *The Chamber of Commerce, Malta, A Century of Progress, 1848–1948, 1950*, Malta: Chamber of Commerce, p. 48.

252. Refalo, M., *The Maltese Commercial Class, 1870–1914: Business, Families, Networks*, Pisa: Pisa University Press, 2010, p. 45.
253. *The Chamber of Commerce, Malta, A Century of Progress, 1848–1948*, 1950, Malta: Chamber of Commerce, p. 51.
254. This survey extends the excellent Chap. 1 in Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, pp. 38–73.
255. Juhász, R., *Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade*, Job Market Paper, London School of Economics, 21 December, 2014, London UK, p. 4.
256. Juhász, R., *Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade*, Job Market Paper, London School of Economics, 21 December, 2014, London UK, p. 4.
257. Juhász, R., *Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade*, Job Market Paper, London School of Economics, December 21, 2014, London UK, p. 22.
258. Juhász, R., *Temporary Protection and Technology Adoption: Evidence from the Napoleonic Blockade*, Job Market Paper, London School of Economics, December 21, 2014, London UK, p. 24.
259. Vassallo, C., *The Maltese Merchant Fleet and the Black Sea Grain Trade in the Nineteenth Century*, *International Journal of Maritime History* 13(2), p. 22.
260. Vassallo, C., *The Maltese Merchant Fleet and the Black Sea Grain Trade in the Nineteenth Century*, *International Journal of Maritime History* 13(2), p. 22.
261. Vassallo, C., *The Maltese Merchant Fleet and the Black Sea Grain Trade in the Nineteenth Century*, *International Journal of Maritime History* 13(2), p. 22.
262. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 47.
263. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, pp. 50–51.

264. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 51.
265. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 52.
266. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 52.
267. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 52.
268. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 48.
269. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 55.
270. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 55.
271. Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, pp. 55–56.
272. Between 1830 and 1831, 1344 people died from smallpox in Malta: Charlton, C.A., Trends in the economic geography of Malta since 1800, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 56.
273. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 10.
274. O'Rourke, K. and Williamson, J.G., *Globalization and History: The Evolution of a Nineteenth Century Atlantic Economy*, Cambridge, MA: MIT Press, 2001, p. 1.
275. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, pp. 15–16.

276. Vassallo, C., *The Maltese Merchant Fleet and the Black Sea Grain Trade in the Nineteenth Century*, *International Journal of Maritime History* 13(2), p. 24.
277. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 57.
278. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 17.
279. Caruana Galizia, P., *Mediterranean Labor Markets in the First Age of Globalization: An Economic History of Real Wages and Market Integration*, New York: Palgrave Macmillan, 2015, p. 18.
280. Fletcher, M.E., *The Suez Canal and World Shipping, 1869–1914*, *Journal of Economic History* 18(4), 1958, p. 559.
281. Fletcher, M.E., *The Suez Canal and World Shipping, 1869–1914*, *Journal of Economic History* 18(4), 1958, p. 556–573.
282. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 60.
283. Fletcher, M.E., *The Suez Canal and World Shipping, 1869–1914*, *Journal of Economic History* 18(4), 1958, p. 558.
284. López-Córdova, J.E. and Meissner, C.M., *Exchange-Rate Regimes and International Trade: Evidence from the Classical Gold Standard Era*, *American Economic Review* 93(1), 2003, pp. 344–353.
285. O'Rourke, K. and Williamson, J.G., *Globalization and History: The Evolution of a Nineteenth Century Atlantic Economy*, Cambridge, MA: MIT Press, 2001, p. 2.
286. Clapham, J.H., *An Economic History of Modern Britain, Vol. III: Machines and National Rivalries*, Cambridge: Cambridge University Press, 1938, p. 4.
287. Charlton, C.A., *Trends in the economic geography of Malta since 1800*, unpublished PhD dissertation, University of Durham, Durham, 1960, p. 62.
288. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 78.

289. Based on data in Fig. 3.8. Tonnage dues are from the ‘Revenue and Expenditure’ and ‘Fees, Duties, and Taxes’ chapters of the blue books. Deflated using the 1938 CPI.
290. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 64.
291. Rodrigue, J-F., ‘Break-Even Distance between Sail and Steam, 1850–1890’, The Geography of Transport Systems, 2015, Online: <https://people.hofstra.edu/geotrans/eng/ch2en/conc2en/steamsailbreakeven.html>. Accessed 5 December 2015.
292. Data are in nominal pounds sterling from Jacks, D. and Pendakur, K., Global Trade and the Maritime Transport Revolution, Review of Economics and Statistics 92(4), 2010, pp. 745–755.
293. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 65.
294. Correlation between tonnage and imports (exports) from 1870 to 1891 is 0.62 (0.46); from 1892 to 1913, the correlation is 0.81 (0.84). All are significant at least at the five per cent level. British export and import data are in nominal pounds sterling from Jacks, D. and Pendakur, K., Global Trade and the Maritime Transport Revolution, Review of Economics and Statistics 92(4), 2010, pp. 745–755.
295. Based on a regression of log tonnage on log total British exports in nominal pounds sterling. Results from 1870 to 1891: coefficient = 1.57, robust standard error = 0.58, p -value = 0.013, R^2 = 0.21, F -statistic = 7.4, N = 22. Results for 1892 to 1913: coefficient = 0.41, robust standard error = 0.09, p -value = 0.000, R^2 = 0.67, F -statistic = 21.5, N = 22. Tonnage data are from Fig. 3.8 and export data from Jacks, D. and Pendakur, K., Global Trade and the Maritime Transport Revolution, Review of Economics and Statistics 92(4), 2010, pp. 745–755.
296. Based on a regression of log tonnage on log total British imports in nominal pounds sterling. Results for 1870 to 1891: coefficient = 2.22, robust standard error = 0.47, p -value = 0.000, R^2 = 0.44, F -statistic = 22.4, N = 22. Results for 1892 to 1913: coefficient = 0.54, robust standard error = 0.12, p -value = 0.000, R^2 = 0.64, F -statistic = 19.3, N = 22. Tonnage data are from Fig.

- 3.8 and export data from Jacks, D. and Pendakur, K., *Global Trade and the Maritime Transport Revolution*, *Review of Economics and Statistics* 92(4), 2010, pp. 745–755.
297. All figures refer to the 1870 to 1891 period. The regression results are based on that period too. The standardized coefficient for exports regression is 0.44 and for the exports regression it is 0.67. The standard deviation of tonnage is 1,576,449 tons—for the whole period it is 1,658,820 tons.
298. Dues and fees levied under the Ordinance No. VIII of 1871.
299. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 65.
300. Classification from Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 66.
301. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 67.
302. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 68.
303. Tonnage figures from Fig. 3.8.
304. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 68.
305. Tonnage figures from Fig. 3.8.
306. Tonnage figures from Fig. 3.8.
307. Tonnage figures from Fig. 3.8.
308. Fletcher, M.E., *The Suez Canal and World Shipping, 1869–1914*, *Journal of Economic History* 18(4), 1958, p. 556–573.
309. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 69.
310. Falkus, M., *Russia and the International Wheat Trade, 1861–1914*, *Economica* 33(132), 1996, pp. 416–429.
311. Charlton, W.A., *Trends in the economic geography of Malta since 1800*, University of Durham, unpublished PhD dissertation, 1960, p. 70.

312. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 70.
313. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 70.
314. Thomas, D.A., 'The growth and direction of our foreign trade in coal during the last half century', 1903, quoted in Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, pp. 70–71.
315. This argument was provided by a Maltese merchant, I.R. Bianchi, in 1912, quoted in Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 71.
316. Taken from the 1912 Royal Commission report, quoted in Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 72.
317. Calculated from <http://www.sea-distances.org/>, accessed December 5, 2015.
318. Charlton, W.A., Trends in the economic geography of Malta since 1800, University of Durham, unpublished PhD dissertation, 1960, p. 73.
319. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 85.
320. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 85.
321. Data from Fig. 3.8.
322. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 85.
323. Quoted in Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 85.
324. Estevadeordal, A., Frantz, B., Taylor, A., *The Rise and Fall of World Trade, 1870–1913*, *Quarterly Journal of Economics* 118(2), 2003, p. 359.

325. Based on Figure 1 in Esteveordal, A., Frantz, B., Taylor, A., *The Rise and Fall of World Trade, 1870–1913*, *Quarterly Journal of Economics* 118(2), 2003, pp. 359–407.
326. Based on Figure 2 of Esteveordal, A., Frantz, B., Taylor, A., *The Rise and Fall of World Trade, 1870–1913*, *Quarterly Journal of Economics* 118(2), 2003, pp. 359–407.
327. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 85.
328. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 86.
329. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 86.
330. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, pp. 86–87.
331. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 88.
332. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 88.
333. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 88.
334. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 88.
335. Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 89.
336. Quoted in Brincat, M., *Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan*, *Proceedings of History Week*, University of Malta, 2005, p. 74.
337. Quoted in Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 91.

338. Quoted in Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 91.
339. Quoted in Vassallo, C., *The Malta Chamber of Commerce 1848–1979: An Outline History of Maltese Trade*, Malta: Malta Chamber of Commerce, 1998, p. 91.
340. Based on Fig. 3.8.
341. Class I: animals living (usually sheep), beer, cheese, cigarettes, cigars, fruits and vegetables (onions, oranges, potatoes, tomatoes fresh and preserved, grain [bread, flour, semola], food and drink unenumerated. Class II: bones and hoofs, coke, cotton raw and seed, cumin see, broken glass, hides and skins (raw or dried), metal (old), rags and shoddy, stone (blocks and slabs), tallow, tar, wool, good unmanufactured unenumerated. Class III: acyls and alkalis, baskets of all kinds, cordages and twines, furniture, fishing implements, hats (straw), lace, textiles, goods manufactured unenumerated. Class IV: animals living (mules and other kinds), bran, seeds.
342. The Herfindahl Index here is the sum of the squares of the domestic export classes in total domestic exports, where the market shares are expressed as fractions, weighted by the number of export classes. It is the same as the average market share, weighted by market share.
343. Based on Figure 1 in O'Rourke, K., *Government policies and the collapse in trade during the Great Depression*, Voxeu.org, 27 November 2009, Online: <http://www.voxeu.org/article/government-policies-and-collapse-trade-during-great-depression>. Accessed: 8 December 2015.
344. Based on the welfare ratios in Chap. 1.
345. Rosenstein-Rodan, P., 'Problems of Industrialization of Eastern and South- Eastern Europe', *Economic Journal* 53(210/211), 1943, pp. 202–211.
346. Exposition of this theory is from Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1998, pp. 136–138.
347. Rosenstein-Rodan, P., 'Problems of Industrialization of Eastern and South- Eastern Europe', *Economic Journal* 53(210/211), 1943, pp. 202–211. A follow-up specifically on 'big push' policies was published in 1957: Rosenstein-Rodan, P., 'Notes on the

- Theory of the “Big Push”, MIT Economic Development Programs Italy Project C/67-25, Center for International Studies Massachusetts Institute of Technology, Cambridge, MA, March 1957, pp. 1–17.
348. Government of Malta, Development Plan for the Maltese Islands, 1959–1964, Malta: Department of Information, 1959.
 349. Schenk, C., Economic History of Hong Kong, EH.Net Encyclopedia, edited by Robert Whaples. 16 March 2008. URL <http://eh.net/encyclopedia/economic-history-of-hong-kong/>; Rodrik, D., East Asian Mysteries: Past and Present, National Bureau of Economic Research Reporter, March 1999, Cambridge, MA, Online: <http://www.nber.org/reporter/spring99/rodrik.html>. Accessed 8 December 2015.
 350. Brincat, M., Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan, Malta Historical Society Proceedings of History Week 2003, 2005, p. 44.
 351. Quoted in Brincat, M., Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan, Malta Historical Society Proceedings of History Week 2003, 2005, p. 60.
 352. Quoted in Brincat, M., Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan, Malta Historical Society Proceedings of History Week 2003, 2005, p. 61.

The State and the Economy, 1939–1986

THE COSTS OF WORLD WAR II

Unlike the Crimean War and World War I, the World War II affected economic life in Malta badly. Between 1940 and 1945, the Maltese economy was under severe strain, the effects of which lasted until after the War. The main problem was inflation. British military expenditure in Malta always exerted inflationary pressures on the domestic economy, but these were heightened during the War by the Axis strategy of bombing Malta's Allied supply lines.¹

Military expenditure on the modernization of defences, ship repair, and recruiting a larger garrison² supported Malta's aggregate level of income and high employment³ at a time when the quantity of goods available for the civilian population decreased. The result was a sharp increase in the price of consumer goods, particularly foodstuffs, in the domestic market during the War and for a few years afterwards. There were various attempts at controlling inflation, but political instability from the restoration of self-government from 1947 to the early 1950s weakened the will and effectiveness of public policy. As a result, inflation persisted into the post-War period leading to protectionist experiments.⁴

At the start of the War, Malta's agricultural sector could only feed one-third of its inhabitants.⁵ During the War, the majority of Malta's goods—not just food, but also equipment, fuel, munitions, and petrol—could only

reach the islands from the east via sea-going convoys, many of which never completed the journey.⁶ As we saw in Chap. 2, some scope for substitution in production—killing livestock, and switching to crops,⁷ and consumption—mixing flour with maize⁸, alleviated food shortages, but the food situation remained dire. In the desperate summer of 1942, rations were down to 1690 calories a day for men and 1500 calories a day for women and children.⁹ During that same summer, rations dropped to between 1500 and 1100 calories a day for most adults.¹⁰ The normal daily caloric requirements for men and women are, respectively, 2500 and 2000 calories.¹¹ Communal kitchens and strict rationing ended in 1943, but the government retained its control over retail and wholesale prices of agricultural goods until 1947.¹² These controls were unable to stave off inflationary pressure. Sybil Dobbie, wife of wartime Governor Lieutenant-General William Dobbie, wrote that during the War ‘eggs were 5s. a dozen when they could be got (before the war they had been 1s)’.¹³ After the War, price controls coupled with food shortages continued to support a large black market whose dealers illegally acquired goods and sold them at exorbitant prices.¹⁴

Already in 1944 a Cost-of-Living Conference claimed that to reduce high prices the government would need to decontrol domestic and import prices, but this policy faced an important problem.¹⁵ The demand for fresh vegetables—a major component of the worker’s diet—was inelastic and, unlike the plan for imported tinned milk to substitute for domestic fresh milk, fresh vegetables could not be imported. If domestic prices were controlled with a maximum price, then farmers would have no incentive to increase their output of vegetables, creating shortages and exacerbating inflationary pressure. However, if price decontrol succeeded in lowering prices in the short run, the long-run effect would be a rise in real prices due to the inelasticity of demand for the farmer’s goods.

This situation is summarized in Fig. 4.1, the standard representation of the effect of a price ceiling (P_c) on the equilibrium price (P_e) and quantity (Q_e) of some goods. The inelasticity of demand for fresh agricultural goods is represented by a downward-sloping concave demand curve here. Moving the price from its equilibrium to the lower ceiling level brings quantity in from Q_e to Q_c . At this lower ceiling price there is an implied shortage running from the intersection of P_c and Q_c to the demand curve. While P_e is above P_c , the price at which Q_c intersects the demand

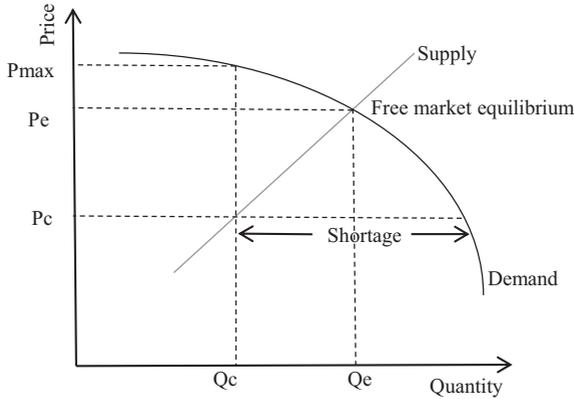


Fig. 4.1 Government-imposed price ceiling. Notes: Author's own

curve, P_{\max} , denotes the price the marginal consumer is willing to pay at Q_c , which is the quantity that the industry is willing to supply under the government-set price. P_{\max} is the black market price: with the price ceiling-imposed shortage, some consumers will be willing to pay more than the ceiling price for the same quantity.

When the market for agricultural goods was reopened in 1946 and 1947, a series of droughts struck.¹⁶ Constrained domestic supply coupled with inelastic demand created inflationary pressures and moved the economy towards a reliance on imports. The annual inflation rate averaged 5.9 per cent between 1946 and 1952.¹⁷ Between 1948 and 1952, Malta spent an average of \$10.63 on merchandise imports for every \$1 of merchandise it exported.¹⁸ This imbalance of trade, in turn, led to early attempts at restricting import demand, through the protection of domestic industry and granting of monopoly licences.¹⁹ Elias Zammit and the Federation of Malta Industries, of which Zammit was founder-president, called in 1949 for protection from imports, except those that are used as industrial inputs, and a drive to establish new productive industries.²⁰ Motivated by circumstance rather than intention, trade policy in the late 1940s gave way to more formal import-substitution and export-promotion policies of the 1950s and 1960s. First in line, however, was the matter of reconstruction and the bloated military sector on which the Maltese economy became ever more dependent.

RECONSTRUCTION AND EARLY DEVELOPMENT PLANNING, 1945–1962

All told, the *Luftwaffe* and *Regia Aeronautica* flew 3000 bombing raids on Malta between 1940 and 1942.²¹ It was estimated that at least 15,000 tons of bombs were dropped on the country, and 1486 civilians died.²² Physical destruction was considerable: 29,674 private dwellings were destroyed or damaged, as were 111 churches and convents, 50 buildings in the category of hospitals, institutes, and colleges, 36 in hotels, theatres, and clubs, 46 in *auberges*, palaces, and villas, 79 in factories, bakeries, and flourmills, and 31 in government departments and commercial banks.²³

In 1945, the Colonial Office commissioned Sir Wilfred Woods to estimate the cost of war damage Malta had suffered, and how much of it should be compensated by the United Kingdom, to suggest improvements to Maltese social standards, and to suggest how the government of Malta could raise revenue to cover expenditure in normal times.²⁴ Woods provided a grand total figure of £42million, made up of £10million for reconstruction, £28.8million for war damage, £3.06million for social welfare and development, and £0.58million to cover budget deficits. To raise revenue, Woods recommended an income tax and private property tax and the elimination of subsidies for public utilities. After much debate in the House of Commons,²⁵ in 1947 the United Kingdom government increased the size of its original 1942 British War Damage Fund from £10million to £30million, £12million short of Woods' recommendation. An income tax was introduced and subsidies were eliminated in 1948. By 1954, inflation had been reined in, but other important problems remained.

Malta's economy was more dependent on military expenditure than ever at a time when the British government planned to cut its global defence expenditure.²⁶ In 1954, the armed forces, defence department, and dockyard accounted for 42 per cent of total employment, while manufacturing for only 12 per cent.²⁷ Even after planned redundancies of 1200–1300 dockyard workers in 1949, dockyard employment would still remain above its 1938 level.²⁸ Recognizing this pattern of dependency early on, Malta's first self-rule post-War government, headed by Paul Boffa's Labour Party, commissioned in 1950 Sir George Schuster to recommend ways in which the Maltese government could raise revenue and diversify its economy.²⁹ Schuster recommended expanding industry, rationalizing agriculture, and promoting tourism. This was to be done by building infrastructure, providing industrial incentives in the form of

protective duties, and providing training grants. Turbulent party politics deterred private investment, and so held back the funds needed to implement the Schuster report's recommendations.³⁰

In 1949, before the Schuster report was even commissioned, the Labour Party split into Boffa's Workers' Party and Dom Mintoff's Labour Party over a disagreement on the 1949 Admiralty plans to cut dockyard employment.³¹ Pressure around the dockyards had long been boiling. A four-day strike was held in August 1943 at the dockyard, and another 10-day strike was held in September and October 1943, both times over wages and the cost of living.³² Strikes during the War were effective, as the Royal Navy still needed Malta's dockyards then. When in 1947, the Admiralty suggested that dockyard workers might be put on reduced hours, they triggered another strike.³³ The dockyards came to dominate Malta's political and economic debate over the next few decades.

Boffa managed to carry on with a minority government until 1950, when a fragmented parliament enabled the Nationalist Party to form a minority government. In 1955, with Boffa's party out of the way, Mintoff's Labour Party won a majority, largely on the premise that it would negotiate full integration with the United Kingdom, thereby guaranteeing British military expenditure in Malta.³⁴ The implication was that by integrating with Britain, the dockyards would have to be maintained by Britain rather than be discontinued or privatized. Indeed, on the other side of the debate, J.S. Bennett, head of the Colonial Office Mediterranean Department, argued in 1955 that

[i]f after 150 years the Navy now has little further use for Malta, it would seem an odd moment to choose to link the Island permanently with this country by some form of incorporation, and there might be a case for giving the Maltese freedom to sell themselves elsewhere if they wish.³⁵

That same year, Mintoff commissioned his own development plan to use in his negotiations on integration with the British government. The Balogh and Seers report, like Schuster's report before it, called for infrastructural improvement, and for the transfer of labour-intensive industry from Britain to Malta.³⁶ An industrial estate was needed, along with the facilities to train its workers. The Balogh–Seers report, unlike previous reports and policy goals stretching back to the early nineteenth century, advised against emigration. They argued that aid grants to emigrants would be costly in a direct sense, but that in an indirect sense Malta was

losing its young and its skilled people. Balogh and Seers put a total cost on their plan of £3million to 3.5million in yearly capital grants, and a current budget support grant of £1.5million a year.

Malta's integration with Britain, and the maintenance of its dockyards, seemed secured when at the 1955 Roundtable Conference held in London the British government agreed to co-finance the Balogh–Seers development plan.³⁷ The debate leading up to the 1956 referendum on Malta's integration was heated, however, and while pro-integrationists won the vote, the majority of voters abstained. Mintoff blamed this disappointing outcome on the British government not offering enough financial assistance to Malta, and the British blamed it on Mintoff's inability to deliver his side of the bargain.³⁸ As Mintoff switched to anti-colonialism, so too did Britain, which saw in the referendum result an opportunity to get out of 'costly external entanglements'.³⁹ The 1956 Suez Crisis, in which Britain and France lost control of the Suez Canal and so their role in the Mediterranean diminished, was perfectly timed to support the view that the Royal Navy had 'little further use for Malta'.⁴⁰ A period of social unrest followed, which intensified in 1957 when the British Defence White Paper announced sweeping cuts to Britain's global defence budget that would affect Malta's dockyards.⁴¹ Between August 1957 and January 1958, there were three strikes at the dockyard.⁴² In April 1958, a 'national strike' was held.⁴³ At this time, the dockyards and other Admiralty establishments employed 12,800 persons, some 6200 of whom were Maltese.⁴⁴ Unable to force Britain's hand on integration and hence maintaining the dockyards, Mintoff resigned in 1958, thinking that Britain would tire of direct-rule and reappoint him as prime minister soon after.⁴⁵ This proved to be a miscalculation. Meanwhile, social unrest continued, with another dockyard strike under direct-rule in February 1959.⁴⁶ Another development plan was shelved, and another came forth.

The government of Malta's first official development plan—formed under direct-rule and covering the years from 1959 to 1964—was launched in 1959.⁴⁷ One of its first policies was to transfer the dockyards to private management. It was unlikely that a self-rule government, or a development plan drafted under a self-rule government, would have been able to put this policy forward. The agreement between the Royal Navy, the government of Malta, and Bailey's, the civilian firm of ship repairers and engineers that took over the dockyards, was that Bailey's would pay £15,000 a year to the Admiralty and another £15,000 a year to the government of Malta.⁴⁸ While not a large sum, Bailey's also agreed to

reemploying the 6000 workers discharged by the Admiralty, and employing the dockyards' remaining 5000 workers.⁴⁹ The British government agreed to make loans up to a total of £7.25million to help meet the cost of conversion to commercial facilities and to provide equipment.⁵⁰ A strike was called for March 1959 to protest against the transfer.⁵¹ The transfer went ahead, but after years of mismanagement, Bailey's failed to make the dockyards commercially viable,⁵² making the remaining goals of the 1959–1964 plan all the more important.

Like the previous two plans, the 1959–1964 plan advised building infrastructure and promoting tourism and industrial development. It also provided incentives for emigration. It encouraged import-substitution through protective tariffs, but the planners also wanted to attract export-oriented industry with the 1959 Aids to Industry Ordinance, which provided capital grants, low interest loans, the provision of government-built factories, exemption from import duties on raw material inputs, and tax breaks. Estimated expenditure on development in the first year of the plan was about £5million, of which £1million was spent on the £2.5million plan to modernize Valletta's harbour, while another £1.9million was earmarked for expenditure on industrial projects and hotel construction.⁵³

Did the plans meet their aims of economic diversification and growth? Table 4.1 shows sectoral employment shares from 1954 to 1962. A central part of all developments up to this point was shifting employment from military services, particularly in the dockyard, and into manufacturing. On this count, the plans' aims were not met. The share of manufacturing employment in total employment—excluding dockyard workers—increased by 1.42 percentage points from 1954 to 1962. Meanwhile, the share of military services—including dockyard workers—decreased by 5.5 percentage points. Another aim of the development plans was to promote tourism. While we do not have a direct measure of employment in tourism, we can take as a proxy the employment shares of transport and communications, and wholesale and retail trade, which are sectors that grow in line with tourism. Here too the plans' aims were not met: together, these two sectors increase their share of total employment by only 0.35 percentage points. A notable shift is the increasing share of employment in government enterprises and public administration, from 13 per cent to 16 per cent of total employment. Even this expansion, however, could not offset the loss of employment in military services and the dockyards. The number of unemployed persons rose from 3100 in 1956 to 6360 in 1962, with the unemployment going from 3.6 per cent to 6.8 per cent.

Table 4.1 Sectoral employment shares (%), 1954–1962

	1954	1956	1960	1961	1962
Agriculture and fishing	9.8	10	9.2	8.8	9.1
Construction and quarrying	12.3	10.9	13.6	13.6	11.7
Total manufacturing, excluding dockyard	10.9	10.2	10.8	11.3	12.3
Transport and communications	4.7	4.6	4.6	4.6	4.9
Wholesale and retail trade	13.1	11.7	12.8	12.9	13.2
Banking, insurance, and finance	0.4	0.5	0.6	0.6	0.7
Government enterprises and public administration	12.6	14.8	15.3	15.3	16
Private services	8.1	8.6	9.2	9.5	9.5
Military services, including dockyard	28.1	28.5	24	23.3	22.6
Total	100	100	100	100	100
Gainfully occupied	82,580	82,950	88,690	89,220	86,820
Unemployed	–	3100	3730	4370	6360

Notes: From Findlay and Wellisz (1993: 258–259). Figures are % shares in 'Gainfully occupied'. Dockyard was transferred from military services to manufacturing in 1950, but here it was extracted from manufacturing and put back into military services

In terms of growth, Table 4.2 shows a breakdown of GDP by sector from 1955 to 1962. The last row shows an overall poor real GDP growth record: an average of 2 per cent per year, but a standard deviation of 4.9 percentage points. In 1962 alone, real GDP dropped by 5.1 percentage points. The wholesale and retail trade sector accounts for the largest share of GDP, with an average share of 21 per cent. The military services sector—this time excluding the dockyards, due to data limitations—is not far behind, with an average share of 18.8 per cent. The share of military services declined by 7.3 percentage points over the period, which is the second biggest change after the manufacturing sector's increase of 8.8 percentage points. The data do not allow us to see how much of the gain in manufacturing employment was accounted for by the dockyards, but we know from Table 4.1 that in terms of *employment* shares manufacturing *excluding* dockyard workers did not expand much.

A simple growth accounting exercise based on the figures in Table 4.2 shows that manufacturing growth contributed 1.4 percentage points to total real GDP growth on average across the period.⁵⁴ The average contribution of military services was –0.61 percentage points, meaning the sector was on balance a drag on economic activity during this period. The wholesale and retail trade sector, plus the transport and communica-

Table 4.2 Sectoral GDP shares (%), 1955–1962

	1955	1956	1957	1958	1959	1960	1961	1962
Agriculture and fishing	5.1	5.6	5.5	6.6	6.5	6.4	6.9	7.1
Construction and quarrying	7.9	7.7	7.3	8.3	6.9	7.3	6.3	5.6
Manufacturing	8.2	8.8	8.1	7.8	15.4	15.6	16	17
Transport and communications	3	4	4	3.8	3.5	3.4	3.8	4.1
Wholesale and retail trade	20.5	22.6	23.7	22	21.2	19.9	19.1	18.9
Banking, insurance, and finance	0.9	1.1	1	1.2	0.7	1.3	1.5	1.5
Government enterprises	3.3	2.9	2.5	2.8	2.5	3	2.9	3.2
Public administration	8.8	8.2	8.6	8.7	9.9	10	11.6	11.6
Military services	23	21.5	21.4	20.3	16.1	16.5	16	15.7
Ownership of dwellings	5.4	4.8	4.8	4.5	4.4	4.3	4	3.9
Other property income from domestic sources	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Private services	6	5.6	5	5	4.8	4.5	4.6	4.1
Net income from abroad	7.3	6.6	7.6	8.5	7.6	7.3	6.7	6.9
GDP total	100	100	100	100	100	100	100	100
GDP millions 1973 lm	51.6	55.7	56.8	60.1	58.7	62.4	61.9	58.7
GDP growth %	–	7.9	1.9	5.7	–2.2	6.3	–0.8	–5.1

Notes: From Central Bank of Malta (2014), ‘GNP constant 1973 prices’. Figures are % shares in total real GDP. Final row is real GDP growth. Underlying data in millions of 1973 Lm

tions sector, which we used to proxy growth in the tourism sector, made an average combined contribution of 0.43 percentage points. This is a smaller contribution than that of public enterprises and public administration: 0.59 percentage points.

It was clear by 1962 that sustainable economic growth and economic diversification had not been achieved despite the best intentions of all the development plans. Table 4.1 showed that public sector and manufacturing expansion did not compensate for the rundown of military services, as overall unemployment increased. Table 4.2 showed that military services’ share of GDP dropped over the period, but that the sector remained a drag on overall growth. While manufacturing increased its share of income, we cannot tease out the share of the dockyards within this sector. Meanwhile, the public sector increased its share of GDP. It was in this context of rising unemployment, a lack of structural change, and uncertainty surrounding Malta’s post-independence economy that the next development plan was formed.

INDEPENDENCE, PLANNING, AND INDUSTRY, 1962–1971

The British government proceeded with plans to rundown military employment and expenditure, producing more anti-British sentiment among Maltese dockers and Mintoff's Labour Party. Among the broader electorate, however, voters feared that 'Mintoffian bombast concealed a complete absence of any coherent economic programme for an independent Malta bereft of British friendship'.⁵⁵ At the general election of February 1962, Borg Olivier's Nationalist Party won a majority of seats, and moved swiftly to effect an independence settlement and commission the next development plan.

In 1962, the government of Malta asked the United Nations for help in preparing its second five-year plan.⁵⁶ This report came to be known as the 'Stolper report' after its lead author, Wolfgang Stolper, an economist who did important work in international trade theory.⁵⁷ The report had a 'strong free market orientation, although it did endorse subsidies for technical training'.⁵⁸ It was pessimistic on the potential for Malta's economy to absorb labour released from the military services sector and the dockyards, and so promoted emigration strongly. The plan's other central theme was export promotion. It advised that the key to Malta's economic success lay in gearing industry, tourism, and agriculture towards exports, so that economic growth would not be limited by Malta's small domestic market. This report's emphasis on openness marked a break from previous plans, which advised that greater degrees of protection were needed to promote industry. The Stolper report also placed renewed emphasis on emigration, along the lines of nineteenth-century debates. We have already seen in Chap. 2 how and why emigration affects employment and wages. The same theory applies here. It is now worth spending some time on theory behind the Stolper report proposals to encourage export-led growth.

Export Promotion: Theory and Policy

It is the standard view in economics that when a country has a small domestic market it 'must export successfully to the outside world'.⁵⁹ Both the 1959–1964 plan, with its 1959 Aids to Industry Ordinance, and the Stolper report, with its more explicit outward-orientation strategy, recognized that this is because a small domestic market cannot provide the competition that spurs intensive economic growth. This is why larger developing economies, like Latin American countries in the 1950s and

1960s⁶⁰ or Turkey in the 1930s,⁶¹ tend to implement inward-oriented policies. Export-promotion policies, the likes of which feature in the Stolper report, expand trade beyond market-determined limits. Policies that promote an export-led growth strategy, like those that promote import-substitution, require government intervention. The first uses policy to introduce foreign competition, while the second uses policy to foster domestic competition. The first uses policies to subsidize exports in several ways, while the second uses tariffs and quotas on imports to protect domestic industry.

Malta could not promote the export of primary products, like Latin America at the time, as it did not have enough of them. Instead, the policy focus was on textiles, electronics components, precision tools, synthetic rubber seals, shoes and leather goods, furniture, toys, and wigs. These goods minimize the basic disadvantages of industrial location in Malta: the concentrated use of imported raw materials, low consumption of water, power and space, and a high value–bulk ratio. The growth of these industries was encouraged through export subsidies and preferential credit terms. Until 1972, Malta’s currency was pegged to the British pound, meaning lowering the real effective exchange rate had to happen internally rather than externally through devaluation. We will look at each instrument in turn.

Figure 4.2 shows domestic demand and supply curves for, say, shoes.⁶² Initially, the international shoe price is p^* . At this point, domestic sales are given by the amount OA : any lower level of sales would be met by a higher price than the international price, while a higher level would sell

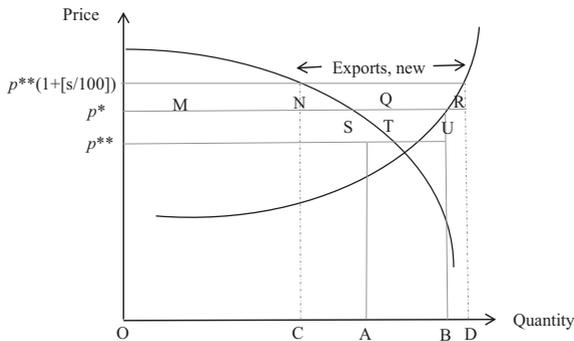


Fig. 4.2 Export-promotion effects. Notes: Adapted from Rey (1998: 680)

only domestically at a lower price than the international price. The leftover supply at that price is exported, the quantity of which is AB . Say the government wants to encourage shoe exports by introducing an *ad valorem* subsidy, with a payment s per cent of the export price for every pair of shoes exported. This would shift the effective international price for producers up to the level $p^*(1 + s/100)$. This will stimulate shoe production while reducing domestic sales. The gap between the two represents export growth.

Export growth might lower the international price of shoes, as more shoes are supplied to the international market. In Fig. 4.2, this is represented by the price falling from p^* to p^{**} . When this happens, the international price falls while the domestic price rises.

The effectiveness of export subsidies thus depended on the elasticity of demand for Malta's exports. If the elasticity were high, then prices would not have fallen by much as the world market would have absorbed the greater supply of shoes. If the elasticity of demand were low, then prices would have dropped and the export subsidy would not have had an impact in the short run, as the value of exports would have been pushed down.

Even if an export subsidy is successful at increasing a country's revenue from exports, the distribution of those gains may be unequal. Domestic consumers, for a start, initially paid a price of p^* but now pay a higher price as can be seen in Fig. 4.2. This loss in their welfare can be measured as the loss in consumer surplus, which is delineated by the area $M+N$. Producers, analogously, gain: their gain is given by the summed areas $M+N+Q$. The subsidy paid by the government also has to be factored in. It is total exports multiplied by the unit subsidy: the area of $N+Q+R+S+T+U$.

If these actors had equal weight, we can add up the aggregate net gains as follows. Producers and consumers together have a net gain of Q . Accounting for the loss of government, we get a net loss given by the sum of $N+R+S+T+U$. The triangles N and R are deadweight losses. The remaining areas $S+T+U$ are the losses from the international price dropping from p^* to p^{**} , which are gains for consumers abroad but not for the exporter country. In sum, this welfare accounting yields a net loss. As with all trade policy interventions, however, the goal is not necessarily to even out an income distribution. As was the case with Malta in the 1960s, the goal was to expand the manufacturing sector through subsidizing exports.

The Stolper report, along with the 1959–1964 development plan, proposed other instruments of export promotion. An important instrument was preferential access to credit: below-market interest loans for factory

machinery, for example. Each one of these alternative instruments works like a direct export subsidy. For example, the differential rate of interest in credit is paid for by banks themselves or via government subsidies to those banks, or depositors in the form of lower interest rates on deposits. Whoever pays, exporters gain in the same way as outlined in Fig. 4.2.

Most of the capital needed for Malta's various export-promotion instruments was provided in grants and loans from the British government. A contribution of £22million in development aid was secured from Britain to fund the total £28million scheduled in the 1959–1964 plan, giving Malta the highest per capita aid of all British dependencies.⁶³ For the Stolper report, total capital expenditure was estimated at £38million, and as part of the Financial Agreement accompanying Malta's independence the British government agreed to a contribution of £51million in aid for 10 years for the Stolper report and the subsequent development plan.⁶⁴ The division of the contribution was set to 75 per cent grant and 25 per cent loan.⁶⁵ Much of the money went on improving infrastructure and, while some researchers⁶⁶ wrote that this went against the Stolper report's recommendation that the 'basic solution to the economic problems of Malta is not to be found so much in the capital works to be constructed as in the policies to be pursued',⁶⁷ we have already seen export-promotion policies will always require spending. The next subsection asks whether this was money well spent.

Measuring the Success of the 1959–1964 Development Plan and Stolper Report

The first measure of success is export growth, which was central to both plans. Figure 4.3 shows, in the broken line, Malta's real merchandise exports, that is goods exports only, between 1950 and 1970, expressed as a ratio scale where 1964, the year of independence and publication of the Stolper report, is set to equal 100. It shows that between 1959 and 1964, the years covered by the first development plan, the real value of merchandise exports grew by 49 per cent, giving an average annual growth rate of 9.2 per cent. From 1964 to 1970, the growth in real merchandise exports was 122 per cent or an average of 23 per cent a year.

This is fast growth, but we do not know how much of it was due to export subsidies. We cannot know exactly what export growth would have been like without subsidies. The export of services was not promoted as heavily—save tourism, which we will discuss to next—as the exports of

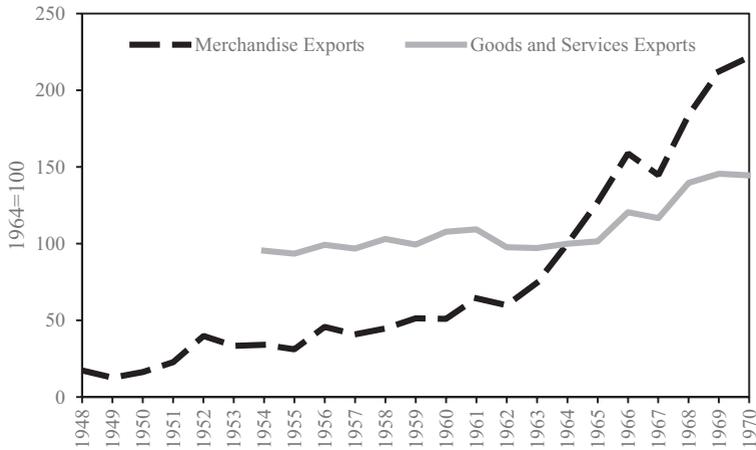


Fig. 4.3 Export growth, 1948–1970. Notes: ‘Merchandise Exports’ are goods-only exports. ‘Goods and Services Exports’ are goods plus services exports. From United Nations Conference on Trade and Development Data Center. Underlying data in nominal dollars. Deflated using Central Bank of Malta Retail Price Index. Expressed as ratio scale, where 1964 = 100

goods. The straight line in Fig. 4.3 represents the exports of goods *and* services, again in real terms and indexed to 100 as with the previous series. Here we see much slower growth. Between 1959 and 1964, growth in the exports of goods and services was just 0.6 per cent or an average of 0.12 per cent a year. Growth picks up after 1964: from this year to 1970, total growth was 45 per cent or an average of 6.4 per cent a year. The export of merchandise goods, which were heavily subsidized, was driving Malta’s total export growth.

Adding weight to this, Table 4.3 shows total employment in manufacturing firms, excluding the dockyard, between 1959 and 1969. The data are split into employment in firms that did not receive government assistance under the Aids to Industry Ordinance of 1959 (‘non-aided firms’) and firms that did receive such assistance (‘aided firms’). In the first year of the Ordinance, aided firms employed 290 workers, which was 3 per cent of total employment in manufacturing, excluding the dockyard. This number grew by 124 per cent by 1961, while employment in non-aided firms grew by 5 per cent. From 1961 to 1969, the average annual growth of employment in aided firms was 40 per cent compared to 1.2 per cent

Table 4.3 Employment in manufacturing excluding the dockyard, 1959–1969

	<i>Non-aided firms</i>	<i>Aided firms</i>	<i>% aided of total</i>
1959	8530	–	0
1960	8830	290	3.2
1961	9290	650	6.5
1962	9640	980	9.2
1963	9860	1480	13.1
1964	10,000	2370	19.2
1965	10,310	2870	21.8
1966	10,034	3400	25.3
1967	10,680	3920	26.8
1968	10,320	5530	34.9
1969	10,140	8830	46.5

Notes: Adapted from Jones (1971: 134). Aided firms are those receiving government assistance under the Aids to Industry Ordinance

for non-aided firms. By 1969, aided-firm employment accounted for 47 per cent of total manufacturing employment. That same year exports from aided firms accounted for 87 per cent of total domestic exports.⁶⁸

On this measure, the Ordinance was a success, but there also were external factors that contributed to Malta's export-manufacturing growth. First, political independence in 1964 was followed by a stable parliamentary democracy, compared to the social and political unrest of the late 1950s that deterred investment and slowed growth.⁶⁹ Second, there was the increase in direct and indirect costs in British industry since the mid-1960s, which encouraged British firms to locate their production in Malta.⁷⁰ In 1964, for example, the average hourly wage rate, excluding bonus and overtime payments, for adult factory hands in Malta's private industry was 13.5 pence for men and 6 pence for women, compared to the respective United Kingdom figures of 39.5 pence and 23 pence (which, however, include supplements).⁷¹ Third, the 1967 Robens Report, commissioned as a reaction to the British government's announcement that the Force's rundown was to be accelerated in 1966 and completed by 1968, provided a blue print for rapid industrial development, with plans for factory-building and a more intense promotional campaign. As part of the plans, there were also internal institutional improvements like facilitating applications for industrial aid through the establishment of the Malta Development Corporation in 1968. We will examine these institutional

developments in the following section, but first we will turn to the tourism industry and general economic diversification—two other broad goals of the development plans.

Tourism, an export industry, got off to a slow start, despite the emphasis the 1959–1964 plan and Stolper placed on it. In 1960, total tourist arrivals amounted to just 19,800.⁷² This grew to 37,900 arrivals by 1964.⁷³ The 1955 Balogh–Seers report argued that poor accessibility, the high cost of travel, limited accommodation, and the reluctance of Maltese workers to involve themselves in the tourism industry slowed its growth.⁷⁴ Under the 1959–1964 plan, a programme of capital expenditure aimed at promoting the tourism industry led to 11 new hotels between 1959 and 1964, almost doubling bed capacity.⁷⁵ The industry received new impetus after 1964. Total arrivals went from 48,700 in 1965 to 186,100 in 1969.⁷⁶ Arrivals, equivalent to 61 per cent of Malta’s population, required the construction of more hotels.⁷⁷ The number of hotels went from 38 in 1965 to 101 in 1969, and 2000 new jobs were created in the hotel sector alone.⁷⁸ In 1960, gross income from tourism was equivalent to 1.6 per cent of GDP, 3 per cent in 1965, and 10 per cent in 1970.⁷⁹ As impressive as the tourism industry’s growth was, it developed a precarious reliance on the British market. In 1960, 65 per cent of all arrivals were from the United Kingdom, and in 1969 the number reached 75 per cent.⁸⁰ The tourism drive also fuelled an unsustainable construction boom of hotels and homes for British retirees: between 1958 and 1969, the number of construction and quarrying workers rose from 7700 (8 per cent of the labour force) to 12,370 (12 per cent of the labour force).⁸¹ This overreliance on the British market, coupled with the 1970 lifting of restrictions on spending outside the Sterling area by British tourists, and the construction boom with its associated real estate price boom, contributed in part to the 1971 change in government.

In the late 1960s, economic diversification was achieved. By 1969, receipts from tourism and goods exports exceeded those from military expenditure, but an overreliance on other sectors also developed.⁸² Table 4.4 contains sectoral employment numbers. In 1965, the armed services accounted for an impressive 25 per cent of the total number of gainfully employed, but it was just 8 per cent in 1969. This decline represents a loss of 3380 jobs. Meanwhile, employment in the construction and quarrying sector went from 9 per cent to 12 per cent of the total number of gainfully employed: an increase of 4970 jobs. The manufacturing sector was the main story. Including dockyard workers, its share of the total number of

Table 4.4 Sectoral employment, 1958–1969

	1958	1965	1969
Government	17,050	17,570	19,430
Armed services	22,480	11,160	7780
Agriculture and fishing	8650	7150	6280
Construction and quarrying	7700	7400	12,370
Wholesale and retail trade	10,700	12,310	12,530
Manufacturing	8430	18,130	22,790
Transport	3640	3680	4460
Personal services	6370	6230	9500
Others	3690	4490	6000
Gainfully occupied	88,710	88,120	100,460
Unemployment	3500	7860	3810
Labour force	92,210	95,980	104,270

Notes: Adapted from Jones (1971: 131). Armed services includes Maltese serving with Her Majesty's forces. Unemployment registered on 31 December

gainfully employed went from 10 per cent to 23 per cent—a 4660-worker increase. Excluding dockyard workers, the increase was of 5790 workers. By 1969, manufacturing, excluding the dockyard, accounted for 18 per cent of the total number of gainfully employed, compared to 11 per cent in 1954 as in Table 4.1.⁸³ While this manufacturing growth was fast, Malta started from a low base and still lagged behind developed economies. By 1969, for example, United States manufacturing employment accounted for 26 per cent of its total employment.⁸⁴ Further, while growth in manufacturing, and tourism and construction, was able to absorb much of the labour released from the armed services emigration still had a role to play in reducing the economy's labour supply.

The Stolper report argued that, given the armed services rundown, maintaining living standards and employment levels would require net emigration of 37,500 over the five years from 1964 (7500 per year).⁸⁵ The government encouraged emigration by paying for travel fares, providing settlement allowances, and allowances for family members who remained in Malta. In the end, the report's projection of necessary emigration turned out to be too pessimistic. The natural population growth rate was lower than expected, and more jobs than expected were created in tourism, construction, and manufacturing. Instead of averaging 7500 emigrants per year, as advised by the Stolper report, the 1964–1968 period saw an annual average of 5662 emigrants.⁸⁶ Malta's 1961 population level was almost the same as its 1971 level: 301,487 against 301,453.⁸⁷

Table 4.5 Gross emigration and unemployment, 1961–1971

<i>Year</i>	<i>Gross emigration rate</i>	<i>Unemployment (%)</i>
1961	11.9	4.7
1962	2.1	6.8
1963	21.9	7.5
1964	30.1	8.1
1965	27.3	8.2
1966	14.5	6.8
1967	13.1	5.5
1968	9.7	4.2
1969	8.8	3.7
1970	8.9	4.7
1971	9.3	5.4

Notes: Gross emigration is emigrants per thousand home population. Emigration from Findlay and Wellisz (1993: 288), and population data from World Bank Databank. Unemployment rate (%) is from Central Bank of Malta

Table 4.5 shows that between 1961 and 1971, gross emigration—emigrants per thousand home population—moved in lockstep with the unemployment rate: the correlation coefficient between the two series is 0.72. That is, unsurprisingly, emigration was higher when domestic unemployment was higher. If we look at the correlation between unemployment and return migration—emigration less immigration—we get a weaker, but still positive coefficient of 0.49. The incentive to emigrate is also shaped by economic conditions abroad, and those conditions explain why these simple correlations are strong, but not perfect. Still, it was the improvement in employment trends in Malta in the second half of the 1960s that reduced the demand for emigration.⁸⁸ The growth in manufacturing, owed largely to the direct and indirect subsidies offered to exporting firms, accounted for much of this employment growth.

As most emigrants during the 1960s were young and skilled,⁸⁹ some have argued that this made for a ‘brain drain’.⁹⁰ This view has been around since at least the mid-1960s, after economic growth picked up, when ‘concern was being widely expressed about likely labour shortages by the mid-1970s’.⁹¹ Even before the recession at the end of 1970, this view was unfounded. The difference between the actual and potential labour force reveals considerable slack, which could have easily been taken up. The civil service was overstaffed, as were, infamously, the dockyards and the rest of

the Admiralty and military establishments, all of which employed young and skilled workers. Female activity rates were low throughout the whole period, with only 22 per cent of women between 14 and 59 years old participating in the labour force in 1970.⁹² If anything, emigration during this period is partly what allowed underemployment in the dockyards and the civil service to continue. In fact, in 1968, the government nationalized the dockyards, as its private managers had failed to make it commercially viable.⁹³ This put thousands of dockyard workers—5223 workers going by one estimate for 1969⁹⁴—back on the government's payroll.

Institution Building up to 1971

We have seen that governments throughout the 1960s, in line with their development plans, boosted exports, expanded manufacturing, and encouraged emigration. This period also saw deeper reforms that sought to change Malta's economic institutions. Four of these reforms—to the monetary system, capital movements, trade regime, and price controls—laid the foundations for increased dirigisme in the post-1971 period.

Malta *de facto* used British currency for the colonial period up to 1949, when the Currency Notes Ordinance allowed a Local Currency Board to issue Maltese pounds at par with the British pound, becoming mutually exchangeable with the British pound on demand.⁹⁵ In 1967, for example, the Maltese pound—later renamed the lira or Lm—was devalued against the dollar by 14.3 per cent in line with the devaluation of the British pound.⁹⁶ Later that year, the Central Bank of Malta Act laid the ground for independent monetary policy. The Central Bank of Malta opened in 1968, but maintained a peg to sterling throughout the remainder of the Nationalist government. Its first governor, Dr. Philip L. Hogg, was previously a senior official at the Bank of England.⁹⁷ Establishing a central bank was one of the Stolper report's recommendations.

The 1970 Banking Act allowed the government to selectively control bank lending. This could be done in aggregate as well as for particular purposes, and the minister responsible for finance and the economy was allowed to prescribe banks from lending for particular purposes at all.⁹⁸ The Nationalist government did not use the considerable discretionary power allowed by this Act, but later governments did. In 1973, for example, the Labour government appointed one of its ministers to 'take charge of the assets of the National Bank [a private bank] in accordance with the terms of the Banking Act, 1970'.⁹⁹

With the outbreak of war in 1939, the United Kingdom controlled the movement of capital out of the sterling area of which Malta was a member. Malta's 1959 Exchange Control Ordinance formalized how funds moved in and out of Malta from non-sterling areas.¹⁰⁰ In April 1970, this exchange control system was extended to the sterling area to prevent the flight of capital.

Malta showed a preference for low interest rates for much of the post-War period. In 1962, the government set an eight per cent ceiling on all commercial loans, which remained in effect until the financial liberalization of the mid-1990s.¹⁰¹ The preference for low rates was to encourage spending in Malta and to fuel the construction and tourism boom: in 1969, building and construction accounted for 16.5 per cent of all local lending by deposit money banks; hotels, restaurants, and tourist trades for 20.6 per cent; and total personal loans (mortgages, consumer durables, etc.) accounted for 8.4 per cent.¹⁰² Low rates, however, also led to capital outflows. In the late 1960s, for example, interest rates in the sterling area increased, hitting nine per cent on United Kingdom government bonds, while time deposits in Malta yielded between 2.5 and 3.5 per cent.¹⁰³ The resulting drain on Maltese capital could have been stopped by higher rates, but this would have dampened domestic economic activity and also made government borrowing more expensive. At the start of 1970, the Central Bank raised its discount rate from five to 5.5 per cent, where it would remain until the end of 1981,¹⁰⁴ and the time deposit rate was raised to 4.5 per cent.¹⁰⁵ As an additional measure to stem capital outflows, the government extended controls on capital movements to other sterling countries, and it imposed an interest rate equalization tax on high-yield foreign obligations. From this point on to the mid-1990s liberalization covered in the next chapter, powerful capital controls became a feature of the Maltese economy.

Strict capital controls, and a currency pegged to the British pound, meant that the 1967 sterling devaluation increased the cost of living in Malta. The government implemented retail price controls, but from 1967 to 1968, the retail price index still increased by 3.7 per cent.¹⁰⁶ The controls were suspended when inflation was reigned in, but they could be brought back under the existing law. Rent controls on houses built before 1959 remained in place, but the Housing (Decontrol) Ordinance of April 1959 that decontrolled rent prices on new dwellings was not changed, allowing property and rental prices to move freely.¹⁰⁷

Under the Nationalist governments in the 1960s, tariff duties were levied for revenue, while quantitative restrictions were used for protection and balance of payments purposes. The former, using tariffs to generate revenue, has an ancient tradition in Malta, and little changed there.¹⁰⁸ The second role that tariffs played was in line with the 1959–1964 development plan, which advocated some degree of protection from imports for domestic industry. This second role became an increasingly important part of post-independence trade policy. For example, the Importation Control Regulation was introduced in 1969 as a currency control measure, but came to be used as a protective device.¹⁰⁹ The tariff schedule introduced in 1964 allowed for the preferential treatment of imports from the Commonwealth. This was more an extension of the Imperial Preference tariff system formally adopted by Malta in 1920 rather than a structural break in trade policy.¹¹⁰ Aside from the European Economic Community replacing the Commonwealth as Malta's favoured supplier in 1976, little else had changed.

As Findlay and Wellisz observed, the institutions established by Nationalist governments throughout the 1960s provided those in government with far-reaching tools to control the economy.¹¹¹ The power of these tools was not matched with the institution of appropriate checks and balances, allowing the Labour governments of the 1970s and 1980s to use them extensively.

Aggregate Economic Performance and Transition

What effect did the above policies have on aggregate growth? Figure 4.4 shows Malta's real GDP growth rate between 1959 and 1971. In the pre-independence period, we can see, on average, annual growth rate of -0.4 per cent, the political unrest coming out of the late 1950s, and the lacklustre performance of the economy despite the best intentions of the 1959–1964 development plan. In 1964, the year of independence, growth was -1.2 per cent. This marked a turning point: the growth rate reached 7.8 per cent, and averaged 9.1 per cent until 1970. Malta's real GDP in 1970 was 66 per cent more than it was in 1964. The policy mix of export-promotion and manufacturing expansion, and the promotion of tourism and its associated construction boom, came together to drive aggregate growth during the late 1960s.

In 1970–1971, on the eve of general elections in 1971, an economic slowdown became apparent. In Fig. 4.4, we can see the growth rate drop



Fig. 4.4 Real GDP growth (%), 1959–1971. Notes: Underlying GDP data from Central Bank of Malta (2014), 'Gross National Product by Category of Expenditure (at constant 1973 market prices)'

from 11 per cent to just two per cent. The literature emphasizes the lifting of restrictions, from January 1970, on spending by British tourists outside the sterling area as a primary reason for the slowdown.¹¹² This had an effect: tourist arrivals from the United Kingdom fell by 8.4 per cent from 1970 to 1971.¹¹³ Still, total tourist arrivals actually increased by 4.5 per cent,¹¹⁴ and a simple growth accounting exercise on the data underlying Fig. 4.4 shows that net exports—tourism receipts contribute to exports—*increased* from 1970 to 1971, contributing 6.7 percentage points to the 1971 GDP growth rate of 2 per cent. The problem was not so much fewer tourist arrivals, but an end to the tourism and construction investment boom. Already in 1970, a drop in gross fixed capital formation shaved 3.9 percentage points off GDP growth, and another 4.4 percentage points in 1971. Consistent with this picture, Jones writes that in the first ten months of 1970, the number of new buildings completed was 762 less than the 2410 completed in the equivalent part of 1969,¹¹⁵ while employment in construction dropped by 2000 workers in 1971 from its peak of 12,600 workers.¹¹⁶ Further, government expenditure remained flat from 1970 to 1971, meaning it had a nil contribution to growth in 1971, compared to 6.1 percentage point contribution in 1970. There was

also a rundown in total inventories in 1971, which shaved 0.3 percentage points off growth.

While the construction boom came to an end, it set in motion a property price boom. Recall that the 1959, Housing (Decontrol) Ordinance deregulated rent prices on new dwellings, and allowed rent increases for certain renovated dwellings. As home ownership stood at just 32 per cent in 1967,¹¹⁷ this made the government unpopular. Maltese families found it increasingly difficult to find accommodation. This situation bred general dissatisfaction, but what swayed the 1971 general election, and resulting dramatic change in economic policy, was the dockyards situation.

The dockyards had long been at the centre of political debate in both Malta and the UK. We have already seen that planned redundancies there were the reason for the Labour Party's split in 1949, the political unrest of the late 1950s, Mintoff's resignation in 1958, and the subsequent suspension of Malta's constitution and the institution of direct-rule. Officials at the Colonial Office reported that Mintoff cared more about the dockyard's future than the issue of Malta's constitutional status.¹¹⁸ The dockyards' importance was heightened during the late 1960s. First, Baileys, the private firm that took over management in 1959, failed to make the dockyards commercially viable, leading the Nationalist government to nationalize them in 1968, making this very much a public problem again. Second, Britain's rundown of its armed services in Malta was due to be completed by 1972,¹¹⁹ but as seen in Table 4.4, by 1969 the services still employed 7780 workers, some 5223 workers in the dockyards alone.¹²⁰ Third, the sudden and unexpected closure of the Suez Canal in 1967 (lasting until 1975) dashed any hopes of commercial success at the dockyards. Put together, these events consolidated the view that the dockyards could only be maintained through aid and public subsidies. Consequently, the 1971 election, more than previous elections, centred on which party was better able to maintain the livelihoods of the thousands of dockyard workers.

In the run up to 1971, the incumbent Nationalist government led by Borg Olivier was struggling to secure enough aid from the UK to support the dockyards. As Borg Olivier put it, 'whoever agrees to a reduction in the dockyard has had it'.¹²¹ On one side of the debate in the UK, some argued that it was 'wrong in principle to give budgetary aid to an independent country'.¹²² Others made the point that offering inadequate aid would be 'imprudent', implying it would result in a Mintoff victory in

the coming election rather than a victory for Borg Olivier, who is ‘genuinely pro-British’.¹²³ By this time, Mintoff and his Labour Party adopted a foreign policy of ‘neutralism’: in fact, more pro-Eastern bloc than pro-West.¹²⁴ Friendliness with the Eastern bloc, he calculated, gave him more bargaining power in dealing with the West, and the bloc may be even more forthcoming with aid.

Despite Britain’s reluctance to grant never-ending aid to Malta, the consensus view in the British government was that ‘failure to reach agreement [on aid] could not but weaken Dr Borg Olivier’s chances in the forthcoming Malta elections, and the prospect of having to deal with a Government headed by Mr. Mintoff was uninviting’.¹²⁵ Much toing and froing over aid and the dockyards took place between Borg Olivier’s government and the British government. In 1969, Borg Oliver was offered aid in the form of a 50 per cent grant and 50 per cent loan split. By September 1970, even after being offered a 70:30 split, Borg Oliver was still ‘holding out stubbornly for the 75:25 on which he believes his election chances depend’.¹²⁶ His bargaining power rested on that age-old theme in Malta’s strategic history: that the country, or a presence in the country, was not so much desired for its own sake but to prevent other powers from controlling it. The 1969 Libyan *coup d'état* strengthened the view in London of the ‘need to consolidate all the Mediterranean footholds where the West at present still has an advantage over the Soviet Union’.¹²⁷ Borg Olivier’s strategy was to play Britain and NATO off Soviet threats in the region. Mintoff, in contrast, based his campaign on the benefits of foreign relations with a wider range of states.

Ultimately, Borg Olivier got his 75:25 split for aid in grants and loans from Britain, but he was nevertheless defeated in the 1971 election by Mintoff’s Labour Party. Mintoff’s success in appealing to the Maltese electorate lay in disguising his need for foreign aid in a tough-on-foreigners rhetoric. In his words, ‘If I am to prostitute Malta any further, I am only justified in doing so if I can obtain for Malta, through that prostitution, enough money to enable it to lead a better life in the shortest possible time’.¹²⁸ Within days of his election, Mintoff restarted negotiations on aid with Britain and other powers, but his economic policy did not stop there. From 1971 to 1987, successive Labour governments brought the economy under stronger and stronger state control.

CONSOLIDATING STATE CONTROL, 1971–1980s

That Malta switched so suddenly from an outward orientation to an increasingly closed, protected economy poses a puzzle. It is consensus in economics that '[m]any (if not most) of even the most cogent reasons for import-substitution disappear for countries that have small internal markets'.¹²⁹ For countries with small domestic markets, like Malta, international trade is inevitable: resorting to import-substitution is possible only when domestic markets are large enough to avoid global trade competition.¹³⁰

The government did more than control external trade. It quickly nationalized the banking sector, for example, and exerted strong control over all other parts of the domestic economy. Spiteri justifies this policy stance as follows: '[s]ince the Maltese economy is highly vulnerable to conditions in the external world-economy over which it has no control, the state had to exert a larger measure of public control over the internal activities of private bodies and institutions'.¹³¹ The experience of other small open economies like Hong Kong, South Korea, and Singapore, which industrialized with heavy state involvement, suggests there may be some truth in this. Yet in Malta's case there were other reasons for the increasingly powerful control that the state exercised over the economy.

At this point the government operated under one major constraint. It needed to offset the loss of military expenditure and dwindling British grants while maintaining employment at the dockyards—its electoral pledge. As the government saw it, this could be done in three ways: (1) securing more foreign aid and concessionary loans, (2) reducing fiscal spending in other areas, and (3) accessing the international borrowing market.

The third option was quickly struck off the list. Parliament passed Act Number XVII, the 'Development Loan Act', in May 1972, which capped the amount the government could borrow from foreign sources at Lm25 million—then 24.5 per cent of GDP—and capped the interest rate at which it could borrow at three per cent.¹³² In that same year, USA ten-year treasuries yielded 6.2 per cent, reaching 13.9 per cent in 1981.¹³³ The respective numbers for United Kingdom treasuries were 5.5 per cent rising to 12.9 per cent.¹³⁴ Malta excluded itself from international commercial borrowing. As the American Ambassador John Getz wrote in 1973, this unrealistic limit on interest rates 'reflects the MLP's [Malta Labour

Party's] populist and socialist ethic' but 'they have encouraged the transfer of capital abroad where interest rates are higher'.¹³⁵ To prevent capital flight, the government put rigid controls on capital flows.

This led the government, unusual for socialists, to emphasize on the second option: fiscal conservatism. Between 1971 and 1981, the government budget was in deficit in only three years.¹³⁶ Although the government was able to raise both revenue and expenditure, balancing the budget would have been impossible without foreign aid.¹³⁷ As we shall see in the coming subsection, foreign aid flowed in, but at much lower levels than between 1964 and 1970.¹³⁸ For now, however, think back to the low interest rate policy stance.

As Malta broke away from its peg to the British pound in 1971, low interest rates put downward pressure on its currency. A weaker currency makes imports more expensive, bringing inflation into the domestic economy. According to the retail price index, the annual inflation rate averaged 7.5 per cent between 1972 and 1982.¹³⁹ Keeping the cost of living down was one of the government's main pledges. To maintain a high exchange rate, and so prevent imported inflation, the government introduced increasingly strict quantitative import restrictions. Restricting import demand reduced, in effect, the demand for foreign currency (that denominated imports), pushing up the lira's value. These import restrictions, which served to increase inflation, eventually came to be used as protection for import-substituting enterprises rather than exchange rate management tools.

Low interest rates can have another important effect on an economy. While a weaker currency makes imports more expensive, it makes exports relatively cheaper. As exports grow, consumers will switch from imported goods to domestically produced ones. Domestic demand grows as a consequence. Coupled with low interest rates, this can result in credit overexpansion, which tends to be associated with a build-up in low-quality credit and, in turn, leads to banking crises.¹⁴⁰ This chain of events is one reason governments use to justify banking sector nationalization. The Maltese government of the early 1970s had another reason to do this.

Starting in late 1973, the government began nationalizing banks, practising credit rationing and maintaining large credit reserves. Its first nationalization was the National Bank of Malta in December 1973, the economy's largest, whose shareholders were forcibly deprived of their shares without compensation by the government.¹⁴¹ This was ostensibly done as a bank run had started a few months earlier, despite the Bank

being in good health, and because the government blocked the not-yet-independent Central Bank of Malta from acting as a lender of last resort.¹⁴² The underlying motive for this nationalization, and eventual total control of the banking sector, was that the government needed to funnel cheap credit into an increasingly large state-owned enterprise sector, particularly the dockyards, as a means to support and retain its loyal faction of industrial workers.¹⁴³

In this roundabout way, Malta closed off from the global economy and its government consolidated more and more control over the Maltese economy. This change in orientation required a complete transformation of all other parts of the economy, which we will discuss next.

Foreign Aid and Development Assistance

The government's first concern was securing foreign aid and development assistance. Under agreements negotiated by the previous government, the United Kingdom was due to give Malta annual grants for the use of naval and air base facilities, which amounted to around Lm4.2million from 1967 to 1971—around 5.1 per cent of GDP.¹⁴⁴ In 1972, Mintoff negotiated a new seven-year agreement for NATO's rental of defence facilities in Malta. Under this agreement, Malta was to receive an annual fee of Lm14million (13.7 per cent of GDP¹⁴⁵), 37.5 per cent of which was to come from the United Kingdom alone.¹⁴⁶

Balancing the budget would have been impossible without these rental fees—in effect, grants in aid. For example, in 1974–1975, total revenues and expenditures were budgeted at Lm59million; domestic revenues amounted to 75 per cent of the total, and foreign loans and grants amounted to the remaining 25 per cent.¹⁴⁷ Of this 25 per cent figure, 94 per cent came from NATO rental fees alone.¹⁴⁸ In their assessment of Malta's pre-1987 economy for the World Bank, Findlay and Wellisz wrote, '[t]he fact remains ... that during the years of Labour rule Malta was highly dependent on donor aid and on economic contracts granted for political reasons—as in the case of its contracts with Libya'.¹⁴⁹

Figure 4.5 shows Malta's net inflows of official development assistance and official aid, in real terms, from 1960 to 1986. These data include disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies, multilateral institutions, and other countries. It includes loans with a grant element of at least 25 per cent. Figure 4.5 makes two things clear.



Fig. 4.5 Net inflow of official development assistance and aid, 1960–1986. Notes: World Bank Databank, indicator: Net official development assistance and official aid received (constant 2012 US\$)

First, net inflows were on average 32 per cent higher before 1971 than between 1971 and 1987 (or 11 per cent higher than the 1971–1979 period, before the sharp drop in 1981). This itself is surprising, given the literature’s celebration of Mintoff’s ability to secure aid.¹⁵⁰ Post-1971, Labour governments used net inflows of aid to increase expenditure—by 39 per cent in their first year in government¹⁵¹—while they worked on increasing revenue—by 40 per cent in their first year.¹⁵² Pre-1971 foreign aid was needed to restructure and rebuild the economy. After 1971, aid was needed to ramp up government expenditure on, as we shall see, underemployment in the dockyards and social policies like unemployment benefits.

Second, net inflows dropped by 71 per cent from 1979 to 1980. Malta’s post-1971 commitment to neutrality meant that the foreign military bases had to be phased out of the country by 1979—five years after Mintoff declared Malta a republic—when all rental payments were to cease. Figure 4.5 shows a rebound from the 1980 trough: an increase in net inflows of 281 per cent from 1980 to 1981.

Ahead of NATO’s departure, Mintoff frantically negotiated for other sources of foreign aid. He secured grants and concessionary loans from,

most of all, Libya, then under Muammar Gaddafi, and from Saudi Arabia, the United Arab Emirates, Italy, the European Economic Community, and China, among others.¹⁵³ Mintoff's negotiation strategy was to, in the Cold War environment, play Western and Eastern donors against each other. He argued that aid donors and lenders were ensuring against Malta coming under the control of their potential enemies; that aid kept Malta out of NATO and out of Soviet control.

In contrast, Borg Olivier, who had already outlined various potential areas of cooperation between Malta and Libya in his 1968 visit to the country, which was still under King Idris, argued for relationships that were not based purely on foreign aid. He stated: '[w]e must produce goods and services and we must sell them. To this end we trade with all countries irrespective of their ideologies ... we foster cordial relations with all countries and we seek to do this especially with the Commonwealth, within Europe and in a particular manner within the Mediterranean'.¹⁵⁴

Mintoff's strategy worked to an extent in a fragile and paranoid global environment, but it came at a high diplomatic price. Relations with NATO and Britain deteriorated, with their negotiators describing Mintoff as 'irrational and unpredictable' but that doing business with him was needed to 'deny the use of the islands to the Soviet Government'.¹⁵⁵ The motives for Mintoff's strategy were also apparent. In a comment on Mintoff's 1975 letter to the United States Secretary of State that demanded financial assistance, the United States Embassy in Valletta wrote that,

*the letter, which is at once a blackmail threat and a plea for our understanding of Malta's economic straits when the British leave in 1979, betrays Mintoff's growing anxiety as the election nears. ... The 'urgency' Mintoff constantly stresses is purely of his own making and designed solely to enhance Labor's chances of reelection. We see no reason to play Mintoff's game.*¹⁵⁶

As such, aid was not forthcoming from Malta's old allies. All funds secured by Mintoff's government still could not compensate for the loss of rents from Malta's defence facilities.¹⁵⁷ Further, as Fig. 4.5 shows, net inflows of aid declined rapidly after 1983, by 89 per cent, to 1986. This sharp drop in foreign aid is perhaps why Spiteri claimed 'Malta entered the eighties [1980s] unshackled by political affiliations and allegiances of the past which hindered the country's aspiration to attain economic viability'.¹⁵⁸

Exchange Rate, Monetary Policies, and the Financial Sector

Breaking the Maltese pound's one-for-one link with the British pound enabled the government to pursue flexible monetary and exchange rate policy. The government's main concern up to 1986 was to manage the exchange rate in such a way that it blocked imported inflation (high exchange rate), but still allowed export competitiveness (low exchange rate). Post-1971 governments continued the export-led industrialization policies of earlier years. By 1974, 120 modern factories of various sizes had been built on five industrial estates, one being in Gozo.¹⁵⁹ This export-manufacturing expansion was central to the government's growth plans and shaped exchange rate considerations.

In 1972, the Maltese lira was linked to a trade-weighted basket of seven European currencies. The United States dollar was included in 1973, as the oil price increase of that year made the dollar more important in Malta's trade. Another revision was made in 1979, where the dollar, the pound sterling, and Italian lira weights were reduced, while the stronger European currency weights were increased. The government argued that this revision was necessary to reduce imported inflation and ensure relative currency stability.¹⁶⁰

The dollar's weight was increased in 1980, after its appreciation over the preceding year. The Central Bank of Malta wrote that this revision was 'to ensure that the Malta pound is not weakened unjustifiably, thereby affecting the cost of living, which is a prime concern of the authorities'.¹⁶¹ This reweighting did not stop the lira from depreciating against the dollar by 4.3 per cent from 17 March 1980, when it was reweighted, to 8 April 1980.¹⁶² This depreciation led the authorities to again increase the dollar's weight. In 1985, as the dollar weakened, the authorities reduced its weight to keep the lira's value relative to European currencies stable.

Malta used capital controls to link the lira to the basket of reference currencies. Despite a global environment of inflation, high nominal interest rates, and towards the 1980s' high real interest rates, the Maltese government did not raise the nominal interest rate on commercial loans beyond the eight per cent level set in 1962.¹⁶³ As can be seen in Table 4.6, this resulted in several years of negative or flat real interest rates for depositors (nominal interest rates less inflation as measured by the retail price index). Banks remained profitable as interest rates on deposits were even lower—3.5 to 5 per cent¹⁶⁴—and depositors had no alternative but to use the banks.

Table 4.6 Real deposit rates (%), 1977–1998

	<i>Inflation (%)</i>	<i>6-Month Deposit Rate (%)</i>	<i>Real Deposit Rate (%)</i>
1977	10.01	5	-5.01
1978	4.72	5	0.28
1979	7.14	5	-2.14
1980	15.76	5	-10.76
1981	11.5	5	-6.5
1982	5.8	5	-0.8
1983	-0.87	5	5.87
1984	-0.44	5	5.44
1985	-0.24	4.5	4.74
1986	2	4.5	2.5
1987	0.42	4.5	4.08

Notes: Inflation rate is % per annum, measured by the Central Bank of Malta's Retail Price Index with 1946 = 100. The Malta six-month deposit rate is % per annum from Global Financial Data (2015). The Real Deposit Rate is the second column minus the first

For example, until 1982, every Maltese citizen had a personal foreign investment allowance of Lm500 a year.¹⁶⁵ This was equivalent to 60 per cent of GDP per capita in 1971 and 14 per cent in 1982.¹⁶⁶ This allowance was set to zero when Air Malta, the national airline, decided to buy 3 Boeing 737–200 jets.¹⁶⁷ To finance this purchase, the Central Bank issued Lm19million in bonds on behalf of Air Malta: some yielding 10.5 per cent and repayable in 11 years, others yielding 12 per cent and repayable in 10 years.¹⁶⁸ In line with abolishing the foreign investment allowance, sale of these bonds was restricted to repatriated Maltese funds held abroad, and to the foreign investment allowance for 1982 and 1983.¹⁶⁹ Demand for the bonds was weak, however, so the government altogether suspended the allowance for what it claimed would be another two years. In fact, some form of foreign investment allowance was not restored until the mid-1990s liberalization period. In a last attempt at bringing Maltese capital back home, in 1984 the government offered an additional 0.5 percentage points on the standard nominal eight per cent rate for repatriated capital, marking the first violation of the self-imposed low interest rate rule set in 1962.¹⁷⁰

Moderating inflation gained the government popularity among consumers, but did controlling the domestic credit market meet the economy's credit needs? By 1975, the government enjoyed a 'virtual monopoly over commercial banking in Malta'.¹⁷¹ It nationalized the National Bank

of Malta (later named Bank of Valletta) in 1973,¹⁷² and the Maltese branch of Barclays Bank (later named Mid-Med Bank) in 1975,¹⁷³ when it also took a controlling stake (25 per cent) in Lombard Bank.¹⁷⁴

There is no hard and fast rule for measuring how much credit an economy needs, but recent empirical work has shown that across 129 economies, credit growth is positively correlated with GDP per capita growth.¹⁷⁵ Taking this positive correlation as our central case, we can compare the correlation between credit growth and GDP per capita growth in Malta for the 1960 (when data begin) to 1970 period, when the credit market was not controlled as extensively, with the 1971–1986 period, when the credit was extensively controlled. A weak or negative correlation implies that the credit market was not synchronized with the wider economy.

For the 1960–1970 period, the correlation between annual growth in net domestic credit¹⁷⁶ and annual GDP per capita growth,¹⁷⁷ both in real terms, is 0.43. For the 1971–1986 period, the correlation is reversed: -0.45 .¹⁷⁸ That is, in the first period a growing economy was associated with growth in credit (and *vice versa*), while in the second period economic growth and credit growth diverged so that growth in credit was associated with declining GDP (and *vice versa*).¹⁷⁹ This reversal points towards post-1970 inefficiency in the domestic credit market. It also fits with Findlay and Wellisz's view that the efficient allocation of capital broke down in the post-1970 period: '[b]y controlling the banks through credit rationing, [the government] exercised a powerful influence on business and the favored businesses in effect became its clients'.¹⁸⁰ In fact, this was more than credit rationing and favouring certain businesses: the government outright controlled the banks, along with many other businesses in the economy.

A government-controlled banking sector, an inefficient domestic credit market, and large public enterprise sector deterred foreign direct investment (FDI) at a time when the economy needed it the most. Recall from Fig. 4.5 that foreign aid and development assistance was also in decline, and that foreign military expenditure in Malta was to end by 1979.¹⁸¹

Figure 4.6 shows FDI inflows as a percentage of Malta's GDP from 1970, when the data begin, to 1987. Starting out at 4.5 per cent of GDP in 1970, the ratio quickly dropped to 1.5 per cent in 1972, averaged 2.2 per cent until 1987, when it hit 1.1 per cent. By way of comparison, the average value for Cyprus during this period was 3.7 per cent.¹⁸² This drop in FDI partly explains the government's frenzy to secure more foreign aid from a variety of different donors and states. It also provides a rationale

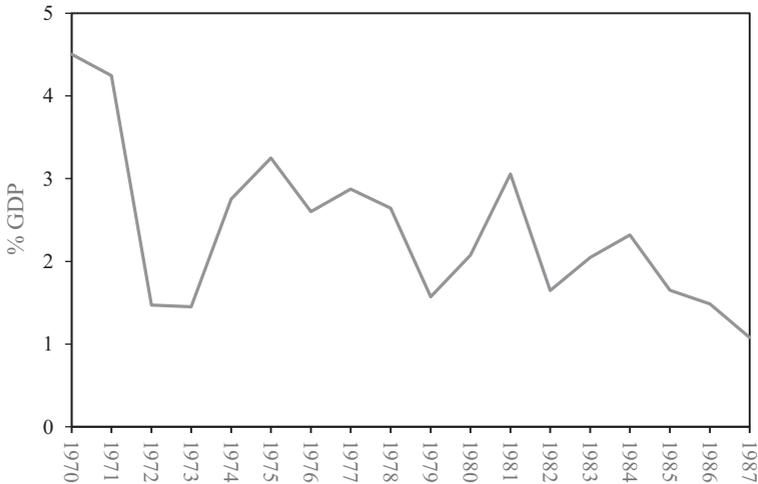


Fig. 4.6 Foreign Direct Investment Inflows, 1970–1987. Notes: United Nations Conference on Trade and Development, inward and outward foreign direct investment flows, annual, 1970–2013, % of GDP

for further control of the banking sector, since investment was not freely forthcoming to public enterprises and so credit needed to be rationed.

Indeed, it is unlikely that the economic costs associated with a government-controlled banking sector were incurred only to ration credit and moderate inflation. To sustain its hold on power, the government needed an alternative to private banks and a substitute for declining FDI as a means to fund a growing public enterprise sector, and so retain its loyal base of industrial and public-sector employees. The Labour Party's electoral strategy, promising public-sector support for the thousands of soon-to-be-redundant armed services workers, gave rise to a privileged class of unionized, urban service and industrial workers who voted for the Party in large numbers and could be mobilized for rallies that showed the rest of the electorate, particularly business owners, that protest was futile.¹⁸³ This situation is strikingly similar to the control Mexico's 'party-based dictatorship' had over the economy's banking sector in the 1970s, which Calomiris and Haber classify as banking under 'autocracy' in their landmark book.¹⁸⁴ In their scheme, when political parties rise to government on the back of promises of support for a large group of workers, they tend to establish unproductive public enterprises and fund them by con-

trolling the banking sector. As the Maltese government-controlled banks, interest rates, and capital outflows, it could supply cheap credit directly to its increasingly large public enterprise sector and consolidate political support. The more FDI declined, the greater was the government's need to do this.

Public Enterprise

Government investments in the Maltese economy in 1986 totalled about Lm42million, or 3.2 per cent of GDP, of which some Lm16million was directly invested by the government and the remaining Lm26million was invested through the Malta Development Corporation (MDC), founded by the government in 1967.¹⁸⁵ In the direct investment category, Lm6million alone is invested in the Libyan Arab Maltese Holding Co., Ltd. (49 per cent stake; a product of Mintoff's turn away from the West); about Lm1.5million in Air Malta; and Lm6million in Mid-Med Bank, Bank of Valletta, and Lombard Bank.¹⁸⁶ In the MDC investment category, investments were made in food processing, textiles, engineering, transport, banking, insurance, and other areas. Still, of the Lm26million invested by the MDC, Lm12million is invested in Malta Shipbuilding alone, and another Lm1.5million in Metalfond (a metal foundry).¹⁸⁷ All told, as of 1983, government investment represented between 20 and 25 per cent of total investment in the Maltese economy's productive activities.¹⁸⁸

Findlay and Wellisz outline three reasons for this heavy investment, and its bias towards harbour activity: (1) that the dockyard workers were the Labour Party's main source of political support, (2) that harbour works required large capital outlays, and (3) demand for shipbuilding services came from China and the USSR.¹⁸⁹ The last two reasons, however, cannot be separated from the first.

The authors are right to emphasize the dependence of the Labour Party, particularly Mintoff, on support from the dockyard workers. Upgrading and extending the dockyards to, on the face of it, widen the variety of shipping services they offered and increase their capacity 'enlarged the membership and clout of the core group of workers, whose leader held cabinet rank in the Labour government'.¹⁹⁰ Whether this investment was required to meet demand for the dockyards' services is harder to say. The authors quote orders for ships from China and the USSR, but these orders are in effect more foreign aid, another product of Mintoff's negotiations with the East to secure subsidies for, mainly, the dockyards. Finally, while

it is undeniable that dockyard investment requires large capital outlays, those outlays would not have been necessary—neither would the ship orders have been forthcoming—in the first place if the first condition were not there: that the dockyards provided the Labour Party with political support.

Public investments were profitable on the whole. For example, in 1984 the government received directly and through the MDC a 10 per cent return on its total investment.¹⁹¹ As Findlay and Wellisz point out, such a high return is possible because public enterprises can exploit their monopoly power.¹⁹² This meant that public enterprises were not a burden on the government's budget, but they still had effects on the economy through their crowding out of the private sector. The nature of public investment in this case was important: the government's focus was on investment in public enterprises that took monopoly power in their sector rather than infrastructure like roads, which would have been complements to private sector investment.¹⁹³ Figure 4.7 shows this clearly. Domestic credit extended to the private sector as a percentage of GDP went from a level of around 51 per cent between 1971 and 1972. It then dropped precipitously to a trough of 23 per cent in 1978. It was not until 1986 that the percentage surpassed its 1971–1972 level.

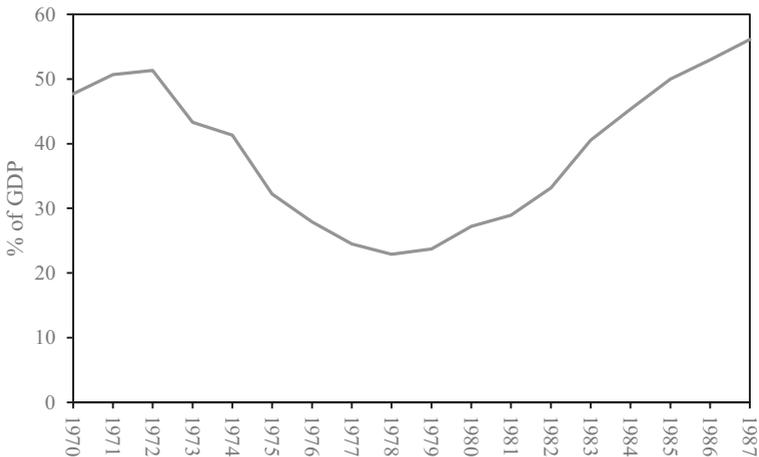


Fig. 4.7 Domestic credit to the private sector, 1970–1986. Notes: Data from World Bank Databank, indicator: Domestic credit to private sector (% of GDP)

It is difficult to say what Malta's aggregate economic performance would have been like had the private sector not been crowded out in this way. The debate on the relative productivity of private and public investment is long and nuanced, but empirical research has shown that private sector investment tends to have a larger effect on GDP per capita growth than public investment does.¹⁹⁴ Going by this tendency, it is reasonable to assume that heavy public investment, particularly in non-complementary goods and firms, had a detrimental effect on aggregate productivity. The effects that government involvement had on trade and capital flows were more clear-cut.

Trade Flows

Controls on imports were used by previous governments, but were strengthened after 1971. Recall that the post-1971 government was committed to low interest rates, which weakened the lira, making imports more expensive, and introducing inflation into the domestic economy. Import restrictions started out as a way of maintaining a high exchange rate that block imported inflation, but they came to be used extensively as part of the government's import-substitution strategy. Restricting imports also had a direct effect on the lira: by reducing the demand for foreign currency (that denominated imports), the lira's value rose.

Import-substitution seeks to create an environment of artificial competition. Governments foster this kind of environment by turning to their domestic markets. They erect various barriers to the importation of foreign goods, making it difficult for foreign firms to access the domestic market, and substitute those foreign goods by producing them domestically. The strategy can take a number of forms. In post-1971 Malta, imports were divided into four categories: (1) freely licenced imports (most production inputs, like raw materials and machinery), (2) imports under the government's bulk-buying scheme, (3) imports subject to specific product quotas, and (4) suspended products.¹⁹⁵ What these categories meant in practice was a mix of import tariffs and quotas. It is worth spending some time on them here.

An *ad valorem* tariff is a percentage rate applied to the value of an imported good, with the resulting sum—customs revenue—going to the government. For example, with a 50 per cent tariff on a £100 good, £50 goes to the government. As the good in effect costs £150, the tariff raises the price of the good above the international price, and generates

government revenue. If domestic producers can produce the good for anything less than £150, say £140, then the tariff also serves as an import-substitution measure. As £140 is more than the pre-tariff \$100 price, domestic producers would go out of business without the tariff.

An import quota stipulates a maximum quantity on a specific good: imports above the quota are not allowed. Often there is a total ban on certain goods, that is, an import quota of zero. In post-1976 Malta, there was a total ban on imports of chocolates, biscuits, soap, toothpaste, and television sets. Firms with government-granted monopolies produced these goods domestically. Larger quotas were permitted where domestic production capacity was too small: for example, 50 per cent of butter was imported.¹⁹⁶ The government determined quotas based on whether they thought a given product is or is not essential.¹⁹⁷

Figure 4.8 shows the effect of placing a tariff on a good.¹⁹⁸ The international price for this good is p^* . Domestic supply meets only OA of total demand OB at this price. Remaining demand, AB , is imported. Suppose a tariff, $t\%$, is implemented. This raises the international price, as perceived by buyers, to the level of $p^*(1 + t/100)$. Total demand then drops to OD , but domestic supply increases to OC . This is how domestic producers are provided with an incentive to produce the good. Imports fall to CD . It is easy to see in Fig. 4.8 how a high enough tariff can prohibit imports com-

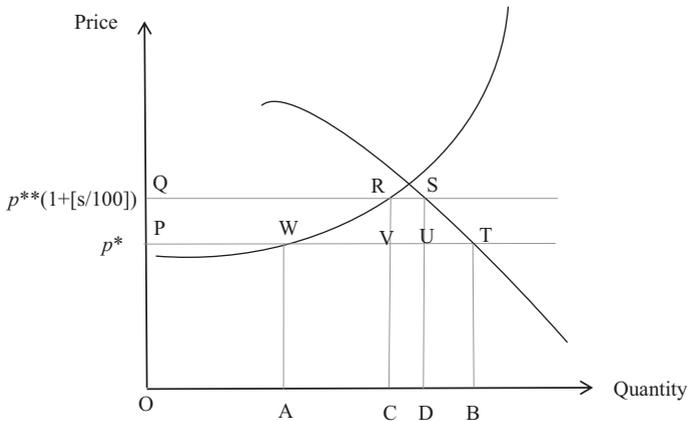


Fig. 4.8 Import tariff effects. Notes: Adapted from Rey (1998: 661, 666)

is the same as the old price plus the tariff. Production levels under the quota and tariff are also the same, as is the amount of imports.

One important difference between the tariff and quota system is, of course, there is no tariff revenue with a quota. However, someone still receives the implicit amount represented by *VRSU* in Fig. 4.8. This depends on how the government disburses quota rights. The government can auction quota rights. In this case, the final bid price paid to the government will equal tariff revenue *VRSU*. Rights can be allocated to buyers through a lottery, giving buyers back *VRSU* of their loss *PQST*. Alternatively, quota rights can be *de jure* randomly allocated, producing an ideal opportunity for bribe taking by government officials and the accumulation of wealth by firms or individuals.²⁰⁰ The Maltese government after 1976 used both tariffs and quotas on what it declared were ‘luxury’ goods (e.g., lipstick). To import such goods, import companies would need to first get an import licence and then pay a tariff, in some cases 75 per cent, on them.

We will turn to the distributional effects of these policies in the following subsection, but it is first worth considering their effectiveness in achieving their aims of reducing imports. To get a handle on this, we can look at the proportion of imports in domestic absorption—the total final demand for goods and services in the domestic economy, regardless of the origins of those goods and services. A declining proportion of imports in domestic absorption would be consistent with successful import-substitution policies, as it implies more of domestic demand is being met by domestic production.

Figure 4.10 shows that the proportion of imports in domestic absorption between 1954 and 1970 was on average 74 per cent. For the period 1971–1980, before the European recession struck, the average was lower at 69 per cent. The trends displayed in Fig. 4.10 are clearer when we focus on the five-year moving average represented by the dashed line. Looking at this series, we can see a clearer break around 1971. After this point, the proportion stabilized at around 70 per cent, dropping again in 1981 when the global recession hit Malta’s export partners hard. The 1981 recession aside, it would seem that the government’s import-substitution policies achieved their aims.

It is a matter of debate whether a change from a proportion of around 74 to 70 per cent was worth the costs associated with pursuing these policies, but perhaps the four percentage point change highlights the difficulty of pursuing import-substitution policies in an economy that is dependent

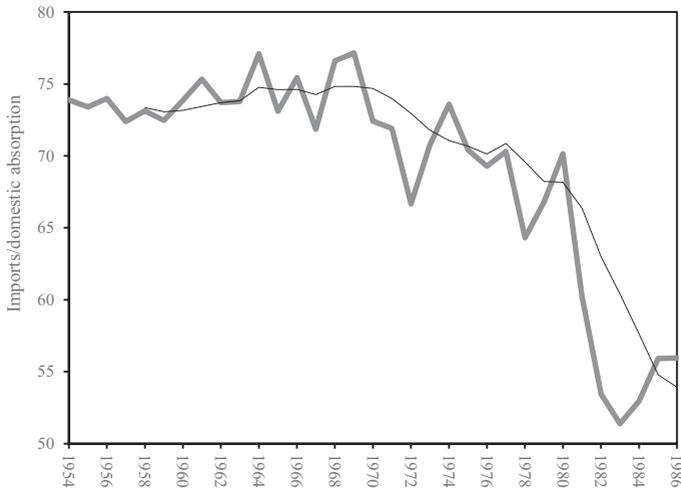


Fig. 4.10 Proportion of imports in domestic absorption. Notes: Domestic absorption is the sum of consumer expenditure, government current expenditure, gross fixed capital formation, and inventory changes. Underlying GDP data from Central Bank of Malta (2014), ‘Gross National Product by Category of Expenditure (at constant 1973 market prices)’

on imports and maintains low interest rates, which weakened the lira. Domestic production could not substitute for imports to anywhere near the extent required to keep out imported inflation—especially after the 1973 oil crisis caused a global inflationary spike. The demand for imports was inelastic. As Fig. 4.11 shows, between 1954 and 1970, the annual inflation rate averaged 1.9 per cent, while between 1971 and 1982 it averaged 7.1 per cent.²⁰¹ If anything, inflation became more of a problem after 1971. Higher inflation has the effect of increasing the value of imports, and so in Fig. 4.10 we see a sticky proportion of imports in domestic absorption despite all the tariffs and quotas.

It is telling that the proportion in Fig. 4.10 drops after 1980, when the global recession hit. This recession was particularly severe in Western Europe, which was home to Malta’s trade partners. The recession weakened European currencies relative to the lira. For example, the lira–British pound exchange rate went from a low of 1.127 in January 1981 to around 1.829 by December 1986.²⁰² As the price of the lira rose, imports became cheaper. This pushed down the proportion of imports in domestic absorption, seen in Fig. 4.10.

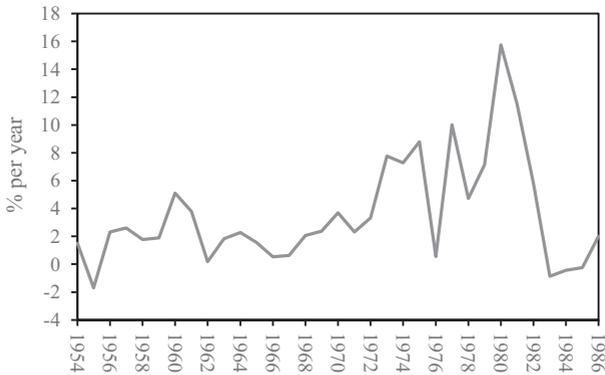


Fig. 4.11 Inflation rate (%), 1954–1986. Notes: Figures are inflation measured by Retail Price Index in % per annum. Underlying data from Central Bank of Malta (2014), ‘Inflation rates measured by the Retail Price Index1 (base 1946 = 100)’

There was also a direct policy intervention that helped the proportion down. In 1983, the government put into force a stricter system of price controls. A general price order fixed the margins for importers-wholesalers and retailers as a percentage of the import price, according to product categories.²⁰³ The idea was to keep prices at their 1982 level. As Fig. 4.11 shows, these controls were effective. The annual inflation rate went from 5.8 per cent in 1982, to -0.87 per cent in 1983, averaging 0.44 per cent until 1987. These price controls and the weakening of trade partners’ currencies, rather than the import-substitution policies themselves, are what drove down value of imports in domestic absorption by a meaningful degree.

The same can be said for the effectiveness of the government’s other import control policy: the bulk-buying scheme. Instituted in 1979, the scheme was intended to reduce the cost of essential imported commodities—mostly foodstuffs and raw material inputs—by achieving economies of scale in buying in bulk. Purchases were made by a board of not more than ten licenced importers, who met under the auspices of the Ministry of Trade.²⁰⁴ The Ministry tracked inventories, and planned and executed orders based on international tenders. Importers who sat on the board financed purchases. This is another way of running an import quota system, except for the fact that some of the profit—retail price less bulk-bought price—was transferred to the government. Under such schemes,

as tenders go to the lowest bidder, import quality and variety declines. This happened in Malta,²⁰⁵ and as a concession to consumers, some private dealers were allowed to import goods not covered by the scheme. The demand for these scarce products exerted pressure on retail prices. As Fig. 4.11 shows, inflation in 1979, when the scheme was introduced, hit 7.1 per cent, 15.7 per cent in 1980, and 11.5 per cent in 1981.

At this point it is worth asking why import-substitution policies persisted despite their costs and limited effectiveness. The argument for maintaining import-substitution policies is that they are temporary. The idea is to provide breathing space to ‘infant industry’ before exposing it to the international market; the domestic market is used as a training ground. The problem is that in a captive domestic market, firms have little incentive to become competitive—unless the government sets a deadline, which it is meant to, for the removal of protective barriers. If the firms are not prepared for foreign competition by that deadline, they will not survive. This should be enough of an incentive for the firms to build up competitiveness over the protection period, so the whole argument rests on whether the government’s threat to remove the protective measures is credible. Protection, however, encourages the accumulation of vested interests in the persistence protection. Think of the import quota holders, for example, and how they would lobby for continued protection rather than work at making themselves more competitive. Pareto’s explanation of interest groups’ influence over policymaking can help us understand this dynamic:

[i]n order to explain how those who champion protection make themselves heard so easily, it is necessary to add a consideration that applies to social movements generally. ... If a certain measure A is the case of the loss of one franc to each of a thousand persons, and of a thousand franc gain to one individual, the latter will expend a great deal of energy, whereas the former will resist weakly; and it is likely that, in the end, the person who is attempting to secure the thousand francs via A will be successful.²⁰⁶

Officially, protection lasted until the change from a Labour to economic-liberal Nationalist government in 1987. Many of the businesses that accumulated capital under protectionism did not prepare their industries for liberalization and, unable to compete with imports, used their capital to move into entirely new sectors.²⁰⁷ Even before 1987, however, the 1981 global recession pushed Malta’s economic institutions to their limits. It

is unlikely that without substantial reform those institutions would have survived much longer. We will see at the start of the next chapter how the global recession itself triggered the 1987 change in government, and moved away from protectionism. Before we get there, it is worth looking at some other effects protectionism had on the economy.

The Shadow Economy

We have seen that the pattern of protection after 1971, enabled by institution building in preceding years, created a highly protected domestic market with a high cost structure, leaving demand for goods and services unfulfilled. As a consequence, inflation rose until the government implemented price and wage freezes. Further, the state's ownership of much of Malta's financial and productive sectors, along with its controls on foreign investment and maintenance of a high exchange rate, crowded out private sector initiative. Put together, these characteristics created highly favourable conditions for the growth of rent-seeking activity, corruption, and a shadow economy.²⁰⁸

By shadow economy we mean all unreported activity that goes unmeasured 'by society's current techniques for monitoring economic activity'.²⁰⁹ Activity is unreported to evade tax, unlawfully claim benefits, or simply because the activity itself is illegal, such as drug trafficking or money laundering. For example, one effect of the ban on certain imports was the emergence of a black market. The mechanism is the same as that in Fig. 4.1: with a price ceiling or quantity ceiling, a shortage develops, creating a black market. With price ceilings, we get a black market price above the ceiling. If the product in question is banned, due to import protection, then the black market can only be created through smuggling. A low-quality chocolate bar—'Catch'—was produced in Malta and was the only one available, creating a black market for other brands that were smuggled in and bought at excessively high prices.²¹⁰ Smugglers 'often had to grease the palms of Customs officials'.²¹¹

As shadow activity is concealed by its nature, we can only estimate its growth indirectly.²¹² There are two main indirect measures of shadow economic activity: currency demand and the 'multiple causes, multiple indicators' approach.

The currency demand approach assumes that cash is used for transactions in the shadow economy. Alternatives to cash in Malta during this period were cheques, money orders, credit notes, and bank transfers. Of

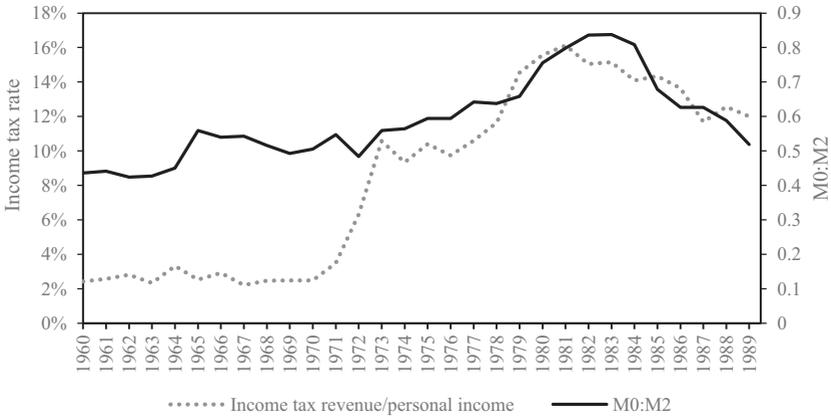


Fig. 4.12 Demand for cash and income tax, 1960–1989. Notes: M0 is currency in circulation (notes, coins), and M2 is M0 plus traveller’s cheques, demand deposits, and checkable deposits. Income tax rate is the ratio of income tax revenue to total personal income. Underlying data from Central Bank of Malta (2013), ‘Monetary Aggregates and their Counterparts (1960–2007)’

all payment methods, cash is the hardest to trace, so an *increase* in the ratio of cash to broad money is consistent with a growing shadow economy. More specifically, an increase in the ratio of coins and notes in circulation (‘M0’) to coins and notes in circulation *plus* traveller’s cheques, demand deposits, and checkable deposits (‘M2’) is consistent with growth in shadow activity. As Fig. 4.12 shows, currency demand increased substantially between 1971 and 1986. During this period, the M0:M2 ratio averaged 0.66 compared to 0.49 for 1960–1970 period. Much of the growth occurred between 1973 and 1982, when the ratio peaked at 0.84. This ratio implies that 84 per cent of Malta’s broad money base was made of hard currency in circulation.

How much of this growth in currency demand can we attribute to the shadow economy? The pattern in Fig. 4.12 mirrors very closely the increase in income tax over the same period, as shown by the dashed line. Indeed, many perceived income tax rates to be excessively high throughout this period. Up to 1989, the highest income tax rate was 65 per cent, giving people a strong incentive to conduct transactions in cash.²¹³ The income tax structure was changed only in 1990 by reducing the highest rate from 65 to 35 per cent. However, a demand for cash can also be

driven by ‘transaction motives’, to buy consumer goods and services or to pay short-term business expenses, and by ‘asset motives’, where people increase or decrease their cash holdings based on the interest rate.

One answer comes from Briguglio’s work on the determinants of currency demand in Malta from 1970 to 1987.²¹⁴ He first models the M0:M2 ratio as a function of the average tax rate, tourist expenditure (mostly cash-based), and the unemployment rate.²¹⁵ Each one of these variables has a significant positive effect on the M0:M2 ratio and together explain 95 per cent of the variation in the ratio.²¹⁶ He then computes the predicted values of M0:M2 based on this model’s estimates, and compares them to predicted values of M0:M2 with alternative tax rates—the main hypothesized reason for currency demand being tax evasion. The alternative tax rate Briguglio chooses is 2.5 per cent—the average rate prevailing in the early 1960s, as Fig. 4.12 shows.²¹⁷

Table 4.7 contains the results of this exercise. The results imply that between 1970 and 1972, the demand for currency from the shadow economy was small—just six per cent of total currency demand. Between 1973 and 1975, the ratio jumped dramatically to 16 per cent, eventually peaking at 21 per cent between 1979 and 1981. The ratio then dropped slightly to 19 per cent by 1985–1987, after which tax Nationalist governments brought down rates. This pattern implies that the growth in currency demand outlined in Fig. 4.12 was largely driven by the sharp income

Table 4.7 Estimated currency demand in total and shadow economy, 1970–1987

<i>Years</i>	<i>Total currency demand</i>	<i>Formal economy currency</i>	<i>Shadow economy currency</i>	<i>Shadow/Total currency (%)</i>
<i>Annual averages: Nominal Lm million</i>				
1970–1972	54.8	51.6	3.2	6
1973–1975	85.8	71.9	13.9	16
1976–1978	134.3	111.6	22.7	17
1979–1981	208	165.1	42.9	21
1982–1984	266.3	212.6	53.7	20
1985–1987	289.6	234.6	55	19

Notes: Adapted from Briguglio, L., Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989, pp. 9–10. ‘Total Currency Demand’ is the sum of ‘Formal Economy Currency’ and ‘Shadow Economy Currency’. The latter was estimated using alternative tax rates of 2.5 per cent. The final column is ratio of shadow currency to total currency

tax increases after 1971, also shown in Fig. 4.12. The post-1971 income tax hikes generated revenue for the government, but they also drove a considerable portion of economic activity underground. If growth in the shadow-currency-demand ratio perfectly mirrored the shadow economy's growth, then we are looking at an increase of 217 per cent from 1970 to 1987.

Some supporting evidence on tax evasion during this period comes from the Foreign Investment Registration Scheme, launched during the Nationalist government liberalization in 2001. The Scheme offered individuals the possibility of regularizing and repatriating their investments abroad through payment of a small fee. Despite overseas investment being heavily restricted before the post-1987 liberalization programmes, Maltese residents had built up significant amounts of funds offshore throughout this period to cope with high tax rates and limited domestic investment opportunities. Funds were moved offshore either by smuggling or through arrangements to be paid into secured overseas accounts. The IMF estimated that, under the Scheme, Lm291 million (18 per cent of 2001 GDP) were registered, of which Lm55 million (four per cent of 2001 GDP) were repatriated.²¹⁸ Relative to pre-1987 GDP, say 1986, the scale of this shadow offshoring is more impressive: 57 per cent of GDP.

The currency demand approach, and the supporting evidence on repatriation of funds, suggests impressive shadow economic growth, but such an indirect estimate is subject to a large degree of measurement error. Not all shadow transactions need occur in cash and neither is tax evasion the only reason for shadow activity. For these reasons, it is important to look at other ways of measuring shadow economic activity.

Cassar provides another study of Malta's shadow economy from 1971 to 1997, using a 'multiple indicators, multiple causes' approach. The approach examines the relationships between a number of observable economic conditions (causes) that determine the level of shadow activity (as measured by a number of indicators).²¹⁹ The causal variables Cassar considered are tax rates, per capita disposable income, the unemployment rate, and inflation. The shadow activity indicators are the M0:M2 ratio, as used in Briguglio's study,²²⁰ the male labour force participation rate, where lower indicators might imply greater participation in shadow activity, and growth in GDP at factor cost, the idea being that as the shadow economy flourishes, more resources, especially labour, will leak out of the official economy to be deployed in shadow activity. Despite this very different approach to measuring Malta's shadow economy, Cassar's resulting

‘Underground Activity Index’ grows by 210 per cent²²¹—seven percentage points less than Briguglio’s estimate²²²—from 1971 to 1987.

Both the currency demand evidence and the ‘multiple indicators, multiple causes’ evidence on Malta’s shadow economy point to fast growth of underground economic activity between 1971 and 1987. This growth, according to Briguglio’s estimates, took the size of Malta’s shadow economy from 5.9 per cent of GDP between 1970 and 1972 to 25 per cent of GDP between 1985 and 1987.²²³ Interestingly, recent estimates imply that the size of Malta’s shadow economy has remained stable since then. It went from 27.5 per cent of GDP in 1999, declining slightly to 24 per cent of GDP by 2014.²²⁴

The opportunity to evade taxes, presented by a growing shadow economy, rendered Labour governments’ policies in the 1970s and 1980s, which aimed at improving workers’ living standards and at evening out the distribution of income, less effective.

Labour Market Policies

Low wages were used in the 1960s to attract manufacturing industries to Malta.²²⁵ Improving the living conditions of the working class was an important pledge the Labour Party made for its 1971 election. This manifested itself in the various attempts at controlling inflation that we have seen above, and in imposing and raising a minimum wage. Malta’s national minimum wage was introduced in December 1974, through the Conditions of Employment (Regulation) Act, with the aim of ‘ensuring an equitable distribution of income ... [and] ... narrowing the wide differences between income earners’.²²⁶

The first minimum wage was set at Lm10 per week, and workers were also entitled by law to an annual bonus.²²⁷ A 1976 law instituted male–female wage parity, depriving the manufacturing industry of a low wage labour source.²²⁸ Before this, between 1974 and 1976, the minimum wage varied by approximately 20 per cent between male and female workers.²²⁹

As can be seen in Table 4.8, the minimum wage was raised repeatedly. From 1974 to 1975, it was raised by 20 per cent in nominal terms and 10 per cent in real terms. In 1977, 1979, and 1980, the minimum wage was raised twice. Until the global recession hit in 1980, the average annual rate of increase was 10 per cent in nominal terms and 6 per cent in real terms.

While raising the minimum wage may increase the standard of living of its earners, it can also have a perverse effect on unemployment. First,

Table 4.8 National minimum wage and cost of living, 1974–1986

	<i>National minimum wage</i>	<i>Cost of living index (1974 = 100)</i>	<i>Estimated real minimum wage (1974 prices)</i>
1974	10	100	10
1975	12	108.8	11.03
1976	13.25	109.5	12.1
(a)1977	14.75	120.5	12.24
	15.88	–	13.18
1978	17.38	126	13.79
(a)1979	18.88	135	13.98
	19.88	–	14.72
1980	22.88	156.3	14.64
	26.88	–	16.26
1981	26.88	174.3	15.42
1982	29.88	184.4	16.2
1983	29.88	182.8	16.36
1984	29.8	182.1	(b)16.42
1985	29.8	181.5	(b)16.45
1986	29.8	185	(b)16.11

Notes: Adapted from Findlay and Wellisz (1993: 282). National minimum wage in Lm per week. (a) indicates minimum wage was revised during the year, (b) indicates figures were calculated by linking new cost of living index with base (1983 = 100)

raising the minimum wage above its market-determined level increases the costs of production and the price of output, lowering the quantity demanded and leading to an output gap—the underutilization of labour and capital. Second, a minimum wage can incentivize firms to substitute labour for capital, creating a ‘disemployment’ effect. Looking at the 1975–2011 period, Vella and Briguglio found that increases in the minimum wage exerted upward pressure on the average wage rate, lowering overall labour demand, resulting in unemployment.²³⁰

Many of the minimum wage increases seen in Table 4.8 occurred, in fact, during periods of rising unemployment. This does not necessarily imply a causal relationship, but raising labour costs during periods of low aggregate demand does not help employment. The government appreciated this and in 1983, after the global recession hit Malta’s export industry, it attempted to compensate for rising unemployment through a wage freeze along with a price freeze.

Unemployment increased from a low of 3.7 per cent in 1969 to six per cent in 1972.²³¹ It averaged 5.4 per cent until 1974.²³² Unemployment then fell to 2.7 per cent in 1979, as a result of the government’s ‘emer-

gency employment' policies.²³³ These policies recruited volunteers to carry out public works. By 1974, the 'labour corps' had 4000 members, 7800 members by 1976, and by 1977 membership reached 8000 or a third of public-sector employment.²³⁴ This public-sector expansion meant that by 1977 the labour corps, government services, and national defence sectors accounted for 29.7 per cent of all employment.²³⁵ All told, total government expenditure went from 39 per cent of GNP in 1973 to 45 per cent in 1983.²³⁶

No government can afford endless employment creation policies. The idea behind the 1983 wage and price freeze was to boost Malta's external competitiveness, and so raise employment. It can, in this sense, be read as the government de-emphasizing government worker programmes and providing incentives (lower labour costs) to the private sector to create employment in the face of a severe crisis.²³⁷

Redistributive Policies

Post-1971, governments pursued its pledge to raise workers' living standards not only through the minimum wage and employment creation, but also through the provision of social services. Here the government was building on social programmes established in the colonial period.

The framework for social insurance was introduced in the interwar period. It started with the introduction of pensions for the widows of government employees in 1927, and the Workmen's Compensation Ordinance of 1934.²³⁸ The Ordinance established a contributory scheme providing compensation for workplace injuries, illnesses related to industry, and pensions for widows of victims of industrial accidents. In 1948, a non-contributory old-age (citizens who were 60 or over) pension scheme was introduced, which was subject to a means test. In 1974–1975, it was extended to include people with severe mental illnesses and serious handicaps.

A Labour government, in 1956, introduced the non-contributory National Assistance Act and the contributory National Insurance Act. The first provided financial assistance for poor households, cash benefits for chronically ill persons, and assistance for the unemployed. The second incorporated the 1934 Workmen's Compensation Ordinance, and was based on the United Kingdom's National Insurance Scheme. It provided cash benefits for marriage, maternity, child support, sickness, unemployment, widows, orphans, retirement, disability, and industrial accidents.

Employees, employers, and the government were each required to contribute one-twelfth of an employee's salary.²³⁹

In 1979, the government provided retirement pensions equal to two-thirds of the average of the highest wage earned in any three years before retirement, and gave widows five-ninths that sum.²⁴⁰ In 1982, the self-employed were entitled to two-thirds of their average earnings in the ten years prior to retirement.²⁴¹ Between 1980 and 1986, unemployment benefits averaged 0.43 per cent of GDP, 2.2 per cent in 1983 alone.²⁴² In terms of liri per unemployment claim per year, the average between 1980 and 1986 was Lm133, Lm660 in 1983 alone.²⁴³ For the sake of comparison, in 1980 the annual national minimum wage was Lm1190,²⁴⁴ while the average salary was Lm1992.²⁴⁵

More controversially, in 1977 the government required all doctors to serve two years in the National Health Service. In 1978, the National Health Scheme provided free hospitalization to all Maltese citizens, free outpatient service at local polyclinics, free dental healthcare, free vaccinations for schoolchildren, and free homes for old people. At the same time, the government also closed down all private healthcare providers, most infamously even those run by religious organizations, like the 'Blue Sisters' (of the Little Company of Mary) Zammit Clapp Hospital in 1979.²⁴⁶ In 1987, the budget allocated Lm54.7million for expenditures under the 1956 National Insurance Act, and Lm17.7million for expenditures under the National Health Act.²⁴⁷ The sum—Lm 73.3million—represented 38 per cent of all recurring expenditures. Of this sum, 49.8 per cent was covered by employers' and employees' contributions, and the rest was a burden on the budget.²⁴⁸

Housing was also set for substantive reform. Despite the housing policies of the 1960s, including the provision of grants and favourable mortgages,²⁴⁹ which increased the number of private dwellings from 73,619 in 1957 to 87,060 by 1967, there remained an acute housing shortage.²⁵⁰ Recall that this housing shortage contributed to the Nationalist party losing the 1971 general election. The Labour government stepped up previous housing policies, building more low-rental housing estates—some 5000 units by the mid-1970s²⁵¹—and implemented new policies like adapting government-owned and expropriated buildings and plots for housing, the extension of favourable credit terms for homeowners, and the provision of a rent subsidy to families occupying 'vacant' buildings. Rental accommodation and plots were allocated to people who were too poor to compete on the open housing market.²⁵² A Housing Authority

was established in 1976, with the aim of increasing the housing supply by developing, financing, and administering housing estates and other residential accommodation.²⁵³

One other area of major redistributive reform was education. In 1978, the University—the only one in the country, which was publicly subsidized—was severed from government aid. The 1974 Education (Amendment) Act provided for two universities. An ‘old university’ was to take responsibility for law, humanities, science, and theology, historically the preserve of the upper-middle class. A ‘new university’ was to be called the Malta College of Arts Science, and Technology (MCAST), and take responsibility for accounting, administration, business management, architecture, engineering, medicine, dentistry, pharmacy, education, and ‘related branches of learning’, supported by a worker–student scheme.²⁵⁴ Under the scheme, prospective employers must sponsor all students, and study must be combined with work that was unrelated to their study. The government’s idea behind this reform of education was to promote ‘radical change in the country’s institutions ... to develop a society founded on work and justice’.²⁵⁵ In practice, private sponsors were lacking, and the Malta Development Corporation assumed the function of sponsorship.²⁵⁶ Admission to the University was not decided by the University itself, but by workers’ committees, union officials, and government officials.²⁵⁷

Ralf Dahrendorf, a professor of sociology specialized in class conflict, at a point director of the London School of Economics and member of the House of Lords, as well as a committed socialist, was appointed by Mintoff to lead the University’s reform. In 1978, Dahrendorf resigned, predicting in an open letter to Mintoff that a worker–student scheme

*produces either unhappy workers or underqualified students, or both. It adds nothing to education, or to social integration. The best one can hope for is that the scheme will defeat itself, because it will not work; but I must dissociate myself from such plans in unambiguous terms.*²⁵⁸

To get a sense of the atmosphere in which education policy was conducted, consider that after Dahrendorf—a concentration camp survivor²⁵⁹—resigned the official paper *Malta News* ran the headline ‘Dahrendorf chickening out’.²⁶⁰

After this played out, Mintoff’s successor, Labour Prime Minister Karmenu Mifsud Bonnici in 1984 demanded that Roman Catholic Church schools remove their fees and admit all comers, failing which he would

close them down.²⁶¹ This mirrored Mintoff's attempts to close down healthcare institutions run by the Church. Unlike with healthcare, however, total government expenditure on education declined precipitously under post-1971 governments, despite attempts to restrict private education. It is difficult to find a rationale for Mintoff's education policy. A clue comes from a conversation that Dahrendorf reports he had with Mintoff in 1978. When Dahrendorf asked why Mintoff does not allow free study, Mintoff allegedly replied, using a metaphor drawn from his background in civil engineering, that 'but don't you realize that education is gelignite!'.²⁶²

As can be seen in Fig. 4.13, the government's total expenditure on education started out in 1971, when the data begin, at 6.2 per cent of GDP or 40.3 per cent of total final government expenditure. By 1981, the respective numbers dropped to 2.9 per cent and 20.9 per cent. Both series stabilized at this point, averaging, respectively, at 3.1 per cent and 22.1 per cent between 1982 and 1986.

It is difficult to say what *contemporaneous* effects substantially lower expenditure on education, and the dramatic reforms to the educational sector itself, had on educational and income outcomes. There are long time lags in the returns to educational investment. Maltese primary education and secondary education lasted for six years and seven years, respec-

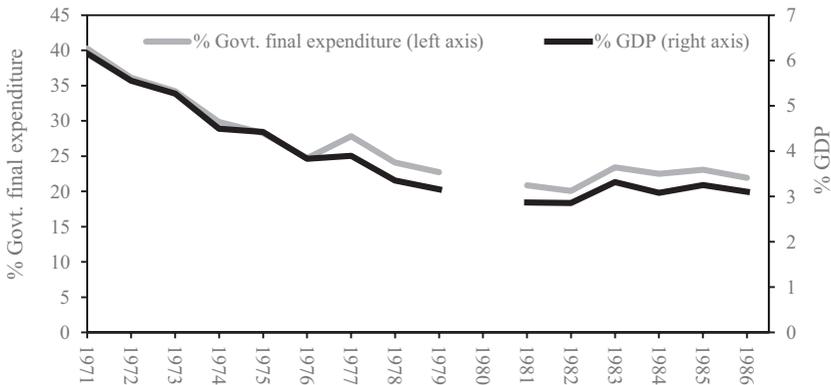


Fig. 4.13 Government total expenditure on education, 1971–1986. Notes: Data from World Bank Databank. ‘% GDP’ is the indicator, ‘Government expenditure on education, total (% of GDP)’. The other indicator was calculated as the ratio of the indicator ‘Expenditure on education 2005 \$’ to ‘General government final consumption expenditure (constant 2005 US\$)’

tively; university-degree level education for at least another three years. If the government somehow knew that 1987 would mark the point at which the demand for skilled labour would increase, as it did with the post-1987 liberalization reforms, then investments in education would have been needed at least 13 years earlier, in 1974. In that year, the government's expenditure on education totalled 4.5 per cent of GDP, or 29.8 per cent of total expenditure, as can be seen in Fig. 4.13. In fact, 1974 marked the halfway point in an education expenditure decline that went from 6.2 per cent of GDP (40.3 per cent of total expenditure) in 1971 to a trough of 2.85 per cent of GDP (20.1 per cent of total expenditure) in 1982. At this point, Malta's expenditure on education as a percentage of GDP ranked it in 54th place out of the 71 countries covered by the World Bank for that year—immediately above it was Cameroon, and immediately below it the Democratic Republic of the Congo.²⁶³ The OECD member level was 5.4 per cent of GDP.²⁶⁴ In the following chapter, we will see what effect this declining and low expenditure on education had on income inequalities in the post-1986 period, but we can for now see the effects of the government's other redistributive policies.

Recall that Labour governments in the 1970s were concerned with income inequality directly, and not just through its inputs, like education. One of its early Acts was the 1974 Conditions of Employment (Regulation) Act, aimed at 'ensuring an equitable distribution of income ... [and] ... narrowing the wide differences between income earners'.²⁶⁵ The various minimum wage hikes seen in Table 4.8 were pursued with this concern in mind, as was the collection of import revenues, and the drive for higher income taxes, which saw the percentage of income tax receipts in personal income going from an average of 2.6 per cent between 1964 and 1970 to an average of 11.9 per cent between 1971 and 1986.²⁶⁶ Were these policies reducing income inequality?

Figure 4.14 shows the evolution of an index of estimated household income inequality, where higher values indicate greater inequality.²⁶⁷ It is based on both measured and estimated income differences between households in the Maltese economy. We can see a secular decline in household inequality from 1963 to around 1982, when inequality levelled off. From 1963 to 1970, the decline in this index was 14.5 per cent. From 1971 to 1986, the decline was slightly slower at 12.6 per cent. Looking instead at the average annual rate of change in the index, the first period average is -2.2 per cent and the second period average is -0.69 per cent. In sum, Fig. 4.14 gives us two important facts. First, household income

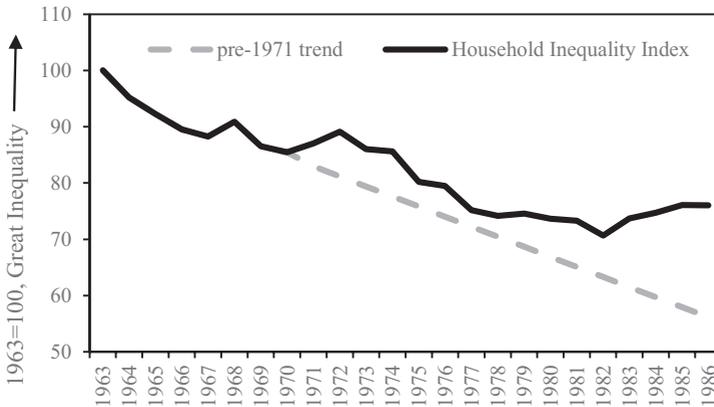


Fig. 4.14 Household inequality, 1963–1986. Notes: Data from Galbraith and Kun (2004). Household inequality index is a Theil index, where larger values indicate greater inequality. The ‘pre-1971 trend’ is a linear extrapolation of the index values before 1971

inequality was initially high, but already in decline before 1971 when redistributive policies took centre stage. Second, inequality was declining at a *faster rate* before 1971. While this looks like it is largely due to the levelling off of inequality between 1982 and 1986, during which the government implemented a wage and price freeze, the annual average rate of decline between 1971 and 1981, at 1.4 per cent, remains lower than the 1964–1970 period annual average rate.

The solid line on Fig. 4.14 highlights this difference in trend. This solid line stretches out the linear trend between 1963 and 1970 to the end of the period. It indicates that had the 1963–1970 downward trend in inequality continued, then the index would be 26 per cent lower than what it actually was in 1986. This is a rough way of getting at a difficult question. It is unlikely that inequality would have declined indefinitely at a constant rate until it hit zero. This solid line at least suggests, however, that the drastic redistributive policies implemented throughout the 1970s and early 1980s became less effective at reducing residual income inequality.

What about the size of the proverbial pie? We now know that income inequality was in decline, but the evidence we have on the labour share of national output indicates that the pie was shrinking. The labour share

is a rough measure of how much of national gross value added is earned by labour (wages and salaries) and how much is earned by capital (the residual). Table 4.9 shows that Malta's labour share went from 54 per cent of national gross value added in 1974 to 51 per cent in 1986. The average annual change was -0.51 per cent, and there were only two years in which the labour share grew, 1978 and 1982, when Malta's real net exports were struggling to recover from the global recession while wages *grew*, thanks to the minimum real wage hikes we saw in Table 4.8.

Table 4.9 also shows that one side effect of the government's continued drive to expand manufacturing output and exports was a declining labour share of income. Growing manufacturing productivity reduced the need for labour, and so more income went to the likes of factory owners (capital owners) rather than their workers.

How can we reconcile declining household income inequality with a shrinking labour share? There is in fact no necessary link between the labour share and household income inequality, which relies almost entirely on labour in contrast to capital.²⁶⁸ A likely possibility is that the growth of Malta's low wage, capital-intensive manufacturing industry from the late 1960s onwards generated more and more income for capital owners relative to labour owners. This lowered the labour share, while government policy acted to even out the distribution of income within that labour share. The sharp increase in the labour share in 1982, along with

Table 4.9 The labour share of income, 1974–1986

	<i>Labour share (%)</i>	<i>% change</i>
1974	0.539	–
1975	0.536	–0.49
1976	0.512	–4.56
1977	0.508	–0.8
1978	0.516	1.69
1979	0.513	–0.69
1980	0.511	–0.28
1981	0.516	0.87
1982	0.54	4.66
1983	0.529	–1.94
1984	0.511	–3.43
1985	0.511	0.04
1986	0.505	–1.14

Notes: Underlying data from Vella (2014: 18), where the labour share is the ratio of 'Income from Employment' to 'Gross Value Added'

growing real minimum wages and declining real net exports, composed mainly of manufactures, is consistent with this possibility. The early 1980s global recession was a greater shock to capital owners than it was to labour owners.

In fact, the global crisis of the early 1980s did a lot more than alter the labour share of income. It shocked Malta's unemployment rate, taking it from 3.3 per cent in 1980 to 9.1 per cent in 1985, having peaked in 1984 at 9.4 per cent, which is the highest rate on record.²⁶⁹ The crisis tested the robustness of the economic institutions Malta built up since 1971—a test that those institutions failed.

NOTES

1. Holland, J., *Fortress Malta: An Island Under Siege, 1940–1943*, 2009, New York: Miramax Books.
2. Austin, D., *Malta and British Strategic Policy, 1925–1943*, London: Frank Cass, 2004, Ch. 5.
3. Busuttill, S., *An Overview of Malta's Economic Development*, in Mallia-Milanes, V. (ed.) *The British Colonial Experience 1800–1964: The Impact on Maltese Society*, Malta: Minerva, 1988.
4. E.M.L.B., *Malta Today: Political and Economic Problems*, *The World Today* 10(11), 1954, pp. 501–502.
5. Ritchie, L.A., *East of Malta, west of Suez, the official Admiralty account of the Mediterranean fleet, 1939–1943*, Boston: Little, Brown and Company, 1944, p. 42.
6. Hague, A., *The Allied Convoy System, 1939–1945: Its organization, defence and operation*, Naval Institute Press, 2000; Castillo, D., *The Maltese Cross: a strategic history of Malta*, Portsmouth, NH: Greenwood Publishing Group.
7. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.
8. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 186.
9. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 182.

10. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 182.
11. According to the UK National Health Service: <http://www.nhs.uk/chq/pages/1126.aspx?categoryid=51>.
12. Ross, C.C., Pavlides, S., and Ganado, J.M., *Mediterranean*, *Journal of Comparative Legislation and International Law* 31(1/2), 1949, p. 188.
13. Dobbie, S., *Grace Under Malta*, London: L. Drummond, 1944, p. 77.
14. Castillo, D., *The Santa Marija Convoy: Faith and Endurance in Wartime Malta, 1940–1942*, New York: Lexington Books, 2011, p. 135.
15. Busuttill, S., *Agriculture in Malta: A Historical Note*, in Busuttill S., Lerin, F., Mizzi, L. (eds.), *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, pp. 14–15.
16. Busuttill, S., *Agriculture in Malta: A Historical Note*, in Busuttill, S., Lerin, F., Mizzi, L. (eds.), *Malta: Food, agriculture, fisheries, and the environment*, Montpellier: CIHEAM, 1993, p. 16.
17. Central Bank of Malta, *Economics and Statistics—Prices, Inflation Rates measured by the Retail Price Index (base 1946=100)*: http://www.centralbankmalta.org/site/excel/statistics/inflation_rates_rpi.xls?20130910091950&revcount=128.
18. Calculated as ratio of merchandise import values in current US dollars to merchandise export values in current US dollars—from Malta to the world. Data from United Nations Conference on Trade and Development, Data Center—*International Trade in Goods and Services—Trade Trends—Values and Shares of Merchandise Exports and Imports*, annual, 1948–2014.
19. E.M.L.B., *Malta Today: Political and Economic Problems*, *The World Today* 10(11), 1954, pp. 501–502.
20. For a review of Elias Zammit's lecture, see: Brincat, M., *Thoughts on the Prehistory of Economic Development Planning in Malta—from the Woods Report to the First Development Plan*, *Proceedings of History Week 2003*, Malta Historical Society, pp. 57–74.
21. Holland, J., *Fortress Malta: An Island Under Siege, 1940–1943*, New York: Miramax Books, p. 417.
22. Austin, D., *Malta and British Strategic Policy, 1925–1943*, London: Frank Cass, 2004, p. 88.

23. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 23, footnote 63.
24. [Woods Report] United Kingdom, Colonial Office, *Report on the Finances of the Government of Malta*, 1946, London: HM Stationery Office.
25. House of Commons Debate, 24 January 1947, vol. 432, cc485–545.
26. See for example: House of Commons Debate, Malta (Reconstruction), 24 January 1947 vol. 432, cc485–545, p. 498; United Kingdom, *Defence Outline of Future Policy*, Cmd. 124, London: HM Stationery Office, 1957.
27. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 257.
28. House of Commons Debate, Africa, 29 July 1949, vol. 467, cc2827-916, p. 2833.
29. Schuster, G., *Interim Report on the Financial and Economic Structure of the Maltese Islands*, 1950, Malta: Government Printing Office.
30. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 28.
31. House of Commons Debate, Africa, 29 July 1949, vol. 467, cc2827-916, p. 2832.
32. House of Commons Debate, Malta (strikes), 13 October 1943, vol. 392, cc900-2W, p. 901W.
33. House of Commons Debate, Malta (Reconstruction), 24 January 1947 vol. 432, cc485-545, p. 498.
34. Holland, R.F., *European Decolonisation, 1918–1981: An Introductory Survey*, London: Macmillan, 1985, pp. 260–265.
35. Quoted in Smith, S.C., *Malta: Introduction*, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: Hm Stationery Office, 2006, p. xxxix.
36. Ballogh, T. and Seers, D., *The Economic Problems of Malta: An Interim Report*, 1955, Malta: Government Printing Office.
37. *Malta Round Table Conference 1955: Report*, Cmd. 9657, London: HM Stationery Office, 1955.
38. Holland, R.F., *European Decolonisation, 1918–1981: An Introductory Survey*, London: Macmillan, 1985, pp. 260–265.
39. Holland, R.F., *European Decolonisation, 1918–1981: An Introductory Survey*, London: Macmillan, 1985, p. 263.

40. Quoted in Smith, S.C., *Malta: Introduction*, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: Hm Stationery Office, 2006, p. xxxix.
41. United Kingdom, *Defence Outline of Future Policy*, Cmnd. 124, London: HM Stationery Office, 1957.
42. House of Commons Debate, H.M. Dockyard, Malta (Strikes), 11 February 1958, vol. 582, cc43-4W, p. 44w.
43. Briguglio, M. and Pace, R., *Malta*, in de Waele, J-M., Escalona, F., and Vieira, M. (eds.), *The Palgrave Handbook of Social Democracy in the European Union*, Basingstoke: Palgrave Macmillan, 2013, p. 270.
44. House of Commons Debate, *Malta Dockyard*, 30 July 1959 vol 610cc159-60W, p. 159W.
45. Holland, R.F., *European Decolonisation, 1918–1981: An Introductory Survey*, London: Macmillan, 1985, pp. 260–265.
46. Wall, P., *Malta and Britain: Origins of the Present Crisis*, *The Tablet*, 7 February 1959, p. 5.
47. *Malta*, Department of Information, *Development for the Maltese Islands 1959–1964*. Malta.
48. Reuters, *Malta's Royal Navy Dockyard Handed Over*, Reference: 2287/59, Valletta, Malta, 29 March 1959.
49. Reuters, *Malta's Royal Navy Dockyard Handed Over*, Reference: 2287/59, Valletta, Malta, 29 March 1959.
50. House of Commons Debate, *Malta Dockyard*, 14 February 1963, vol. 246, cc1071-6, p. 1071.
51. Reuters, *Malta's Royal Navy Dockyard Handed Over*, Reference: 2287/59, Valletta, Malta, 29 March 1959.
52. See: Smith, S.C., *Malta: Introduction*, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: Hm Stationery Office, 2006.
53. House of Lords Debate, *The Economic Development of Malta*, 29 July 1960 vol 225 cc981-3, p. 981.
54. Contributions to annual total real GDP growth calculated as growth rates by sector, multiplied by sectoral share of total real GDP.
55. Holland, R.F., *European Decolonisation, 1918–1981: An Introductory Survey*, London: Macmillan, 1985, p. 263.
56. Stolper, W., Hellberg, R., Callender, S., *Economic Adaption and Development in Malta*, United Nations, Commissioner for

- Technical Assistance, Department of Economic and Social Affairs, New York, 1964.
57. Stolper is most well known for his work with Paul Samuelson, ‘the father of modern economics’, for the Stolper–Samuelson theorem. The theorem posits that an increase in the relative price of a good will raise the return on the factor used most intensively in that good’s production, and a fall in returns on other factors. See: Stolper, W. and Samuelson, P., Protection and Real Wages, *Review of Economic Studies* 9(1), 58–73.
 58. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 266.
 59. Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1997, p. 676.
 60. Baer, W., *Import Substitution and Industrialization in Latin America: Experiences and Interpretations*, *Latin American Research Review* 7(1), 1972, 95–122.
 61. Karakoc, U., *Source of Economic Growth in Interwar Egypt and Turkey: Growth, Tariff Protection and the Role of Agriculture*, unpublished PhD dissertation, London School of Economics and Political Science, London, 2015.
 62. This example is based on Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1997, pp. 679–683.
 63. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 133.
 64. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 133.
 65. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 133.
 66. Azzopardi, R.M., *Social Policies in Malta*, Social Policies in Small States Series, London: Commonwealth Secretariat, 2011, p. 10.
 67. Stolper, W., Hellberg, R., Callender, S., *Economic Adaption and Development in Malta*, United Nations, Commissioner for Technical Assistance, Department of Economic and Social Affairs, New York, 1964, p. 2.
 68. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 134.
 69. From 1958 to 1959, real gross fixed capital formation dropped by 14 per cent, while real GDP dropped by 2.2 per cent. Data from

- Central Bank of Malta, Economics and Statistics—GNP constant 1973 prices, 1954–1997: http://www.centralbankmalta.org/site/excel/statistics/GNP_constant_1973_prices.xls?revcount=8437.
70. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 134.
 71. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 131.
 72. Data from Central Bank of Malta, Economics and Statistics—Tourist arrivals (1960–2003) (Annual): http://www.centralbank-malta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=2347.
 73. Data from Central Bank of Malta, Economics and Statistics—Tourist arrivals (1960–2003) (Annual): http://www.centralbank-malta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=2347.
 74. Ballogh, T. and Seers, D., *The Economic Problems of Malta: An Interim Report, 1955*, Malta: Government Printing Office.
 75. Lockhart, D., ‘We promise you a warm welcome’: tourism to Malta since the 1960s’, *GeoJournal* 41(2), 146.
 76. Data from Central Bank of Malta, Economics and Statistics—Tourist arrivals (1960–2003) (Annual): http://www.centralbank-malta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=2347.
 77. Population figure (304,300) from World Bank Databank, series: Population.
 78. Lockhart, D., ‘We promise you a warm welcome’: tourism to Malta since the 1960s’, *GeoJournal* 41(2), 146.
 79. Gross income from tourism from Lockhart, D., Ashton, S., *Tourism in Malta*, *Scottish Geographical Magazine* 107(1), 23. GDP data from Central Bank of Malta, Economics and Statistics—GNP constant 1973 prices, 1954–1997: http://www.central-bankmalta.org/site/excel/statistics/GNP_constant_1973_prices.xls?revcount=8437.
 80. Data from Central Bank of Malta, Economics and Statistics—Tourist arrivals (1960–2003) (Annual): http://www.centralbank-malta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=2347.

81. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 130.
82. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 91.
83. Zammit, E.L., *A Colonial Inheritance: Maltese Perceptions of Work, Power and Class Structure with Reference to the Labour Movement*, Malta University Press, 1984, p. 42, provides a number of dockyard workers for 1969 (as well as 1959 and earlier). His number of dockyard workers—at 5223—is slightly larger than the one I derived from Jones, H., *The Economic Transformation of Malta in the 1960s*, *Scottish Geographical Magazine* 87(2), 1971, p. 131,134. Zammit's figure gives manufacturing-excluding dockyard workers a 17 per cent share of total gainful employment compared to the 18 per cent quoted above.
84. Data from Federal Reserve Bank of St Louis FRED Economic Data. Series: 'All Employees: Manufacturing' and 'All Employees: Total nonfarm'.
85. Quoted in Jones, H., *Modern Emigration from Malta*, *Transactions of the Institute of British Geographers* 60, 1973, p. 106.
86. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 288.
87. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 288.
88. Jones, H., *Modern Emigration from Malta*, *Transactions of the Institute of British Geographers* 60, 1973, p. 107.
89. Jones, H., *Modern Emigration from Malta*, *Transactions of the Institute of British Geographers* 60, 1973, pp. 110–111.
90. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 9: 'Emigration was not the most desirable solution to Malta's problems. It meant a reduction in the supply of skills required for economic development and a s loss of the more venturesome and adaptable labour'. See also: Azzopardi, R.M., *Social Policies in Malta*, *Social Policies in Small States Series*, London: Commonwealth Secretariat, 2011, p. 62; and Attard, L., *The Safety Valve: A History of Maltese Migration from 1946*, Publishers Enterprises Group, Malta, 1997, p. 120.

91. Jones, H., Modern Emigration from Malta, *Transactions of the Institute of British Geographers* 60, 1973, p. 117.
92. Jones, H., Modern Emigration from Malta, *Transactions of the Institute of British Geographers* 60, 1973, p. 117.
93. See: Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: Hm Stationery Office, 2006.
94. Zammit, E.L., *A Colonial Inheritance: Maltese Perceptions of Work, Power and Class Structure with Reference to the Labour Movement*, Malta University Press, 1984, p. 42. Zammit's figure does not equal that derived from Jones, H., *The Economic Transformation of Malta in the 1960s*, *Scottish Geographical Magazine* 87(2), 1971, p. 131, 134, which is 3820 workers.
95. Sammut, J., *Currency in Malta*, Malta: Publisher Enterprises Group, , 2001.
96. House of Commons Debate, Devalued Foreign Currencies, 6 December 1967, vol. 755, cc329-30W, p. 330 W.
97. Central Bank of Malta, *Our History*: <http://www.centralbank-malta.org/our-history>.
98. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 268.
99. US Department of State, Bureau of European and Eurasian Affairs, National Bank Developments, unclassified cable, 13 December 1973, 12:32 (Thursday): https://www.wikileaks.org/plusd/cables/1973VALLET02461_b.html.
100. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 268.
101. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 268.
102. Central Bank of Malta, *Economics and Statistics—Monetary Statistics and Financial Markets*, Deposit Money Banks' loans outstanding by economic activity (Mar 1969–Dec 1992): http://www.centralbankmalta.org/site/excel/statistics/omfiloanekon-activity69to92_dmb.xls?revcount=1425.

103. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 268.
104. Global Financial Data, Malta Central Bank Refinancing Operations—IDMLTM, Monthly From Jan. 1969 To Dec 2007, Maltese Lira, per cent per annum, 2015.
105. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 269.
106. This is the per cent increase in the actual index (ratio scale). Central Bank of Malta, Economics and Statistics—Prices, Inflation Rates measured by the Retail Price Index (base 1946=100): http://www.centralbankmalta.org/site/excel/statistics/inflation_rates_rpi.xls?20130910091950&revcount=128.
107. Government of Malta, Housing (Decontrol) Ordinance, Chapter 158 Laws of Malta, 10 April 1959.
108. Mea, J., Customs Tariff in Malta since 1530, *Melita Historica*, 2(2), 1957, 88–94.
109. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 269.
110. Mea, J., Customs Tariff in Malta since 1530, *Melita Historica*, 2(2), 1957, 88–94.
111. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 269.
112. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 131; and Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 270.
113. Data from Central Bank of Malta, Economics and Statistics—Tourist arrivals (1960–2003) (Annual): http://www.centralbankmalta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=2347.
114. Data from Central Bank of Malta, Economics and Statistics—Tourist arrivals (1960–2003) (Annual): http://www.centralbankmalta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=2347.

115. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 140.
116. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 270.
117. Camilleri, D., A long-term analysis of housing affordability in Malta, *International Journal of Housing Markets and Analysis* 4(1), p. 33.
118. Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: Hm Stationery Office, 2006, p. xlviii.
119. Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 130.
120. Zammit, E.L., *A Colonial Inheritance: Maltese Perceptions of Work, Power and Class Structure with Reference to the Labour Movement*, Malta University Press, 1984, p. 42. Zammit's figure does not equal that derived from Jones, H., The Economic Transformation of Malta in the 1960s, *Scottish Geographical Magazine* 87(2), 1971, p. 131, 134, which is 3820 workers.
121. Quoted in Cox, R., *The Plight of Malta*, *The World Today* 19(6), 1963, p. 262.
122. Barbara Castle, minister for overseas development, quoted in Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: HM Stationery Office, 2006, p. lxi.
123. Sir John Martin, High Commissioner, and other Colonial Office officials quoted in Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: HM Stationery Office, 2006, p. lx-lxi.
124. Rudolf, U. and Berg, W., *Historical Dictionary of Malta*, Lanham: Scarecrow Press, 2010, p. 220.
125. Sir Alec Douglas-Home, foreign secretary, quoted in Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: HM Stationery Office, 2006, p. lxix.
126. Sir Alec Douglas-Home, foreign secretary, quoted in Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: HM Stationery Office, 2006, p. lxix.

127. D.W. Healey, Secretary of State for Defence, and M.M. Stewart, Secretary of State for Foreign Affairs, officials quoted in Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: HM Stationery Office, 2006, p. lxxviii.
128. Quoted in Smith, S.C., Malta: Introduction, in Smith, S.C. (ed.), *British Documents on the End of Empire*, Series B vol. 11, London: HM Stationery Office, 2006, p. lxx.
129. Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1997, p. 676.
130. Lino Spiteri, Labour MP from 1962 and Minister of Finance between 1981 and 1983, recently admitted the move towards import-substitution was a mistake, given Malta's small domestic economy: Spiteri, L., Spin, the name of the game, *The Sunday Times of Malta*, Sunday, 9 September 2012.
131. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 131.
132. *Laws of Malta*, Act No. XVII of 1972, 8th May 1972. The GDP number is from Central Bank of Malta, Gross National Product by category of expenditure at current market prices (1954–2003) (Annual), 29 August 2014: http://www.centralbankmalta.org/site/excel/statistics/GNP_current_market_prices_annual.xls?revcount=2272.
133. Data from Federal Reserve Bank of St Louis FRED Economic Data. Series: '10-Year Treasury Constant Maturity Rate'—expressed as annual averages of daily data.
134. Data from Federal Reserve Bank of St Louis FRED Economic Data. Series: 'Interest Rates, Government Securities, Treasury Bills for United Kingdom'—expressed as annual averages of daily data.
135. Quoted in Peregin, C., Director's death 'provoked' National Bank run—cables, *The Times of Malta*, Wednesday, April 2010, 2013.
136. In 1971, 1972, and 1976. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 277.
137. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 273.

138. The average annual ‘Net official development assistance and official aid received (constant 2012US\$)’ for 1964 to 1970 was 43 per cent greater than the average annual flows received between 1971 and 1987, and 24 per cent greater than the average annual flows received between 1971 and 1981. Data from World Bank Databank.
139. Central Bank of Malta, Economics and Statistics—Prices, Inflation Rates measured by the Retail Price Index (base 1946=100): http://www.centralbankmalta.org/site/excel/statistics/inflation_rates_rpi.xls?20130910091950&crevcount=128.
140. Calomiris, C. and Haber, S. *fragile by Design: The Political Origins of Banking Crises and Scarce Credit*, Princeton, NJ: Princeton University Press, 2014, Ch. 1.
141. Staff writer, Updated—Shareholders win second major National Bank court case, *The Times of Malta*, Thursday, 6 February 2014.
142. When a Council Administration took the bank over in 1973, the accounts it published showed that the National Bank’s liquidity position was in excess of the 25 per cent of its paid-up share capital as required by the Banking Act—28.6 per cent of its deposits were liquid cash, despite the drop in total deposits in early 1973. Lino Spiteri, the Central Bank governor, who thought the risks of the run were great enough to demand nationalization did not think them great enough to provide lender-of-last resort support. In his words, Prime Minister Mintoff did not feel the Central Bank ‘should risk own funds by acting as lender of the last resort unless there was adequate security’. See: Vella, M., Lino Spiteri on National Bank saga: ‘Not true Mintoff forced shareholders’ hand’, *Malta Today*, 27 April, 2012.
143. A near identical situation played out at more or less the same time in Mexico. See Calomiris, C. and Haber, S. *fragile by Design: The Political Origins of Banking Crises and Scarce Credit*, Princeton, NJ: Princeton University Press, 2014, Ch. 10–11.
144. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 273. Underlying GDP average of Lm81.9 million is from Central Bank of Malta, Gross National Product by category of expenditure at current market prices (1954–2003) (Annual), August 29, 2014:

- http://www.centralbankmalta.org/site/excel/statistics/GNP_current_market_prices_annual.xls?revcount=2272.
145. Underlying GDP from Central Bank of Malta, Gross National Product by category of expenditure at current market prices (1954–2003) (Annual), August 29, 2014: http://www.centralbankmalta.org/site/excel/statistics/GNP_current_market_prices_annual.xls?revcount=2272.
 146. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 273.
 147. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 273.
 148. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 273.
 149. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 290.
 150. Dowdall, J., The political economy of Malta, *The Round Table: The Commonwealth Journal of International Affairs*, 62:248, pp. 465–473; Azzopardi, R.M., *Social Policies in Malta*, Social Policies in Small States Series, London: Commonwealth Secretariat, 2011, p. 11; Borg, J., Dom meeting his match?, *The Sunday Times of Malta*, Sunday, 26 August 2012.
 151. Change is in expenditure from 1970 to 1971. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 277.
 152. Change is in revenue from 1970 to 1971. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 277.
 153. For some major transactions, see: Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, pp. 290–291, footnote 5.
 154. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 65.

155. From minutes of a meeting held at 10 Downing Street on the defence secretary travelling to Malta for discussions with Mintoff, attended by Heath, Douglas-Home, Barber, Carrington, Trend, Sir Philip Adams, and PJ Hudson, quoted in Smith, S.C., *British Documents on the End of Empire—Malta*, Series B V. 11, London: TSO, 2006, p. Lxx.
156. US Department of State, Embassy in Valletta, Executive Secretariat, Mintoff Letter to the Secretary, unclassified cable, 19 July 1976, 10:20 (Monday), pp. 1–4: https://wikileaks.org/plusd/cables/1976VALLET00835_b.html.
157. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 273.
158. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 125.
159. Spiteri, E.J., *Malta: From Colonial Dependency to Economic Viability*, Malta: Self-published, 2002, p. 112.
160. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 275.
161. Quoted in Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 275.
162. Central Bank of Malta, Economics and Statistics, Exchange Rates—Historic Exchange Rates, Historic Exchange Rates 1971 (as from 25 August)—1998: <http://www.centralbankmalta.org/file.aspx?f=301>.
163. Quoted in Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 275.
164. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 275, give a range of 3.5 per cent to 4.5 per cent. Global Financial Data, Malta 6-Month Deposit Rate—ICMLTM, annual averages, Maltese Lira, per cent per annum, 2015, gives a range of 4.5 to 5 per cent from 1977 to 1986.

165. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 276.
166. World Bank Databank, series: GDP per capita (current LCU).
167. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 276.
168. World Bank Databank, series: GDP per capita (current LCU).
169. World Bank Databank, series: GDP per capita (current LCU).
170. World Bank Databank, series: GDP per capita (current LCU).
171. US Department of State, Bureau of European and Eurasian Affairs, Malta: Quarterly Political/Economic Report, declassified cable, 1975 April 11, 08:15 (Friday), p. 3: https://wikileaks.org/plusd/cables/1975VALLET00378_b.html.
172. The Malta Independent, Court finds in favour of National Bank shareholders, Thursday, 9 January 2014: <http://www.independent.com.mt/articles/2014-01-09/news/court-finds-in-favour-of-national-bank-shareholders-3640623105/>.
173. US Department of State, Bureau of European and Eurasian Affairs, Mintoff Announces GoM Takeover of Barclays Bank, declassified cable, 26 March 26 1975, 15:45 (Wednesday): https://wikileaks.org/plusd/cables/1975VALLET00323_b.html.
174. US Department of State, Bureau of European and Eurasian Affairs, GoM buys 25 percent of Lombard Bank (Malta), Ltd., declassified cable, 25 April 1975, 00:00 (Friday): https://wikileaks.org/plusd/cables/1975VALLET00444_b.html.
175. Djankov, S., McLiesh, C., Shleifer, A., Private credit in 129 countries, *Journal of Financial Economics* 84(2), 2007, 299–329; and for an earlier and broader contribution, King, R. and Levine, R., Finance and Growth: Schumpeter Might be Right, *Quarterly Journal of Economics* 108(3), 1993, pp. 717–737.
176. World Bank Databank, series: ‘Net domestic credit (current LCU)’. Deflated using Central Bank of Malta, Economics and Statistics—Prices, Inflation Rates measured by the Retail Price Index (base 1946=100): http://www.centralbankmalta.org/site/excel/statistics/inflation_rates_rpi.xls?20130910091950&rcvcount=128.

177. GDP data from Central Bank of Malta, Economics and Statistics—GNP constant 1973 prices, 1954–1997: http://www.centralbankmalta.org/site/excel/statistics/GNP_constant_1973_prices.xls?revcount=8437. Population data from World Bank Databank, series: Population (total).
178. The correlation between GDP per capita growth and the World Bank Databank series ‘Domestic credit to private sector by banks (% of GDP)’ for the 1970 (when data begin) to 1986 period is very similar at -0.43 . The correlation with the *growth rate* of the latter series is even higher at -0.92 . Results are identical when using the series ‘Domestic credit to private sector (% of GDP)’.
179. A regression of the GDP per capita growth series on the credit growth series for the pre-1971 (post-1970) period yields: a coefficient of 0.04 (-0.16); a t-ratio with robust standard errors of 3.06 (-2.22), significant at the 5 per cent level; an R^2 of 0.18 (0.21); and an F -statistic of 9.4 (4.9), significant at the 5 per cent level.
180. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 276.
181. FDI inflows to the secondary and tertiary sector are negatively affected by, among other variables, financial depth and judicial independence: Walsh, J.P. and Yu, J., Determinants of Foreign Direct Investment: A Sectoral and Institutional Approach, IMF Working Paper, WP/10/187, July 2010, Washington DC.
182. World Bank Databank, series: Foreign direct investment, net inflows (% of GDP). Cypriot data starts in 1975.
183. ‘Among [recent incidents] have been almost-daily, but so far non-fatal, bombings of the homes and businesses of people associated with the Nationalist Party, the church, and the anti-Mintoff teachers’ union, which is on strike’: Aschanche, D., Church-Government Dispute May Wreck Malta, *The Victoria Advocate*, 24 November 1984, p. 6.
184. Calomiris, C. and Haber, S. *Fragile by Design: The Political Origins of Banking Crises and Scarce Credit*, Princeton, NJ: Princeton University Press, 2014, Ch. 10–11.
185. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative

- study. New York, NY: Oxford University Press, 1993, p. 277. GDP figure from World Bank Databank, series: GDP (current LCU).
186. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, pp. 277–278.
 187. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 278.
 188. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 278.
 189. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 278.
 190. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 278. The minister was Lorry Sant, Minister for Public Works, and General Workers Union metal workers section secretary.
 191. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 278.
 192. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 279.
 193. See: Aschauer, D., Does Public Capital Crowd out Private Sector?, *Journal of Monetary Economics* 24, 1989, 171–188; and Aschauer, D. Is public expenditure productive?, *Journal of Monetary Economics* 23(2), 1989, 177–200.
 194. Khan, M. and Kumar, M., Public and Private Investment and the Growth Process in Developing Countries, *Oxford Bulletin of Economics and Statistics* 59(1), 1997, pp. 69–88; and Barro, R., A Cross-Country Study of Growth, Saving, and Government, in Bernheim, D. and Shoven, J. (eds.) *National Saving and Economic Performance*, Chicago: University of Chicago Press, 1991, pp. 271–304.

195. Division taken from Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 279.
196. Division taken from Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 279.
197. Division taken from Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 279.
198. Exposition taken from Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1997, pp. 660–669.
199. Exposition taken from Ray, D., *Development Economics*, Princeton, NJ: Princeton University Press, 1997, pp. 660–669.
200. Krueger, A., The Political Economy of the Rent-Seeking Society, *American Economic Review* 64(3), 1974, pp. 291–303.
201. Central Bank of Malta, Economics and Statistics—Prices, Inflation Rates measured by the Retail Price Index (base 1946=100): http://www.centralbankmalta.org/site/excel/statistics/inflation_rates_rpi.xls?20130910091950&crevcount=128.
202. Central Bank of Malta, Economics and Statistics, Exchange Rates—Historic Exchange Rates, Historic Exchange Rates 1971 (as from 25 August)—1998: <http://www.centralbankmalta.org/file.aspx?f=301>.
203. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 281.
204. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 281.
205. Briguglio, M., Malta's Labour Party and the Politics of Hegemony, *Socialism and Democracy* 24(2), 2010, pp. 213–226.
206. Pareto, V., *Manual of Political Economy*, New York: A.M. Kelley, 1927, pp. 377–379.
207. One example is the Gauci business family, owners of Big Ben Ltd. Their business was underwear production at the Abanderado fac-

- tory in Malta: this was the country's only source of underpants. The capital accumulated through being the country's sole provider of underpants was used, post-protection, to move into the retail and construction sectors.
208. This is a pattern played out the world over. For example, see: Faal, E., *Currency Demand, the Underground Economy, and Tax Evasion: the Case of Guyana*, IMF Working Paper WP/03/7, 2003, pp. 1–30.
 209. Feige, E., *How big is the irregular economy*, *Challenge* 22, 1979, pp. 5–13, quoted in Faal, E., *Currency Demand, the Underground Economy, and Tax Evasion: the Case of Guyana*, IMF Working Paper WP/03/7, 2003, pp. 1–30.
 210. Chetcuti, K., *It's Time to Heal the Mintoff Scar*, *The Sunday Times of Malta*, Sunday, 25 March 2012.
 211. Editorial, *Economic Perplexities?*, *The Malta Independent* on Sunday, 23 September 2012.
 212. In non-historical work, it is sometimes possible to use anonymous surveys as a direct measure of concealed activity.
 213. Falzon, J., *The Money and Supply Process in Two Small Island States: Malta and Cyprus, 1960–1993*, in *Banking and Finance in Islands and Small States*, Bowe, M., Briguglio, L., and Dean, J. (eds.), London: Routledge, 1998, p. 232.
 214. Briguglio, L., *Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta*, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989.
 215. More formally, it is a linear time series regression of the ratio of currency to total monetary assets, the average (marginal) tax rate, tourist expenditure, the unemployment rate, and a time trend. All except the latter are expressed in logs. Briguglio, L., *Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta*, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989, p. 7.
 216. Briguglio, L., *Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta*, Paper presented at the International Conference on Applied Statistics organized by the

- Middle East Business and Economic Research Association, Cairo, Egypt, January 1989, p. 8.
217. Briguglio, L., Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989, p. 9.
 218. International Monetary Fund, Malta: 2003 Article IV Consultation-Staff Report, Washington, DC: IMF, 2003, p. 5.
 219. Cassar, A., An Index of the Underground Economy in Malta, Bank of Valletta Review, 23, Spring 2003, 44–62.
 220. Briguglio, L., Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989.
 221. Cassar, A., An Index of the Underground Economy in Malta, Bank of Valletta Review, 23, Spring 2003, Figure 2, p. 55.
 222. Briguglio, L., Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989.
 223. Briguglio, L., Factors Affecting the Ratio of Currency Demand to Total Monetary Assets in Malta, Paper presented at the International Conference on Applied Statistics organized by the Middle East Business and Economic Research Association, Cairo, Egypt, January 1989, p. 11.
 224. Estimates from 1999 to 2006: Schneider, F., *The Shadow Economy: An International Survey*, Cambridge: Cambridge University Press, 2013, p. 43. Estimates from 2003 to 2014 are provided by Schneider, F., Raczkowski, K., Mroz, B., *Shadow Economy and tax evasion in the EU*, *Journal of Money Laundering Control* 18(1), p. 45.
 225. Jones, H., *The Economic Transformation of Malta in the 1960s*, *Scottish Geographical Magazine* 87(2), 1971, p. 134.
 226. Government of Malta Development Plan for Malta 1973–1980, Supplement, 1977, p. 14, quoted in Vella, M. and Brigugliom L.,

- The Effect of Minimum Wage on Employment in Malta, University of Malta, 2014, p. 5.
227. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, pp. 281–282.
 228. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, p. 282.
 229. Vella, M. and Brigugliom L., The Effect of Minimum Wage on Employment in Malta, University of Malta, 2014, p. 6.
 230. Vella, M. and Brigugliom L., The Effect of Minimum Wage on Employment in Malta, University of Malta, 2014, pp. 1–26.
 231. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
 232. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
 233. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 283.
 234. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 282–283.
 235. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 282–283.
 236. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 276.
 237. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 283.
 238. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 284.

239. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 284.
240. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 284.
241. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 284.
242. Benefit payments from Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 284. GDP data from Central Bank of Malta, Economics and Statistics, Real Economy Indicators—GNP at Current Market Price Annual (1954–2003): http://www.centralbankmalta.org/site/excel/statistics/GNP_current_market_prices_annual.xls?revcount=2089.
243. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 284.
244. Result of 1980 nominal minimum wage in table 7.6, multiplied by the 52 weeks in a year.
245. Result of ‘Income from Employment & Professions’, divided by total population. Population data from World Bank Databank. Income data from Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Personal Income and Expenditure (1954–1989) (Annual): http://www.centralbankmalta.org/site/excel/statistics/personal_income_expenditure.xls?revcount=5820.
246. Malta Today, When Church and State collide, Wednesday, 8 April 2009: <http://archive.maltatoday.com.mt/2009/04/08/t4.html>.
247. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 285.
248. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 285.

249. Spiteri, E.J., Malta: From Colonial Dependency to Economic Viability, Malta: Self-published, 2002, p. 178.
250. Azzopardi, R.M., *Social Policies in Malta*, Social Policies in Small States Series, London: Commonwealth Secretariat, 2011, p. 50.
251. Spiteri, E.J., Malta: From Colonial Dependency to Economic Viability, Malta: Self-published, 2002, p. 178.
252. Spiteri, E.J., Malta: From Colonial Dependency to Economic Viability, Malta: Self-published, 2002, p. 178.
253. Spiteri, E.J., Malta: From Colonial Dependency to Economic Viability, Malta: Self-published, 2002, p. 178.
254. Austin, D. and Dahrendorf, R, The Destruction of the University of Malta, *Minerva* 19(1), 1981, p. 125.
255. Government of Malta, Draft Report on some Restructuring Implications in Tertiary Education of the Student Worker Concept, 1978, Valletta, Malta, quoted in Austin, D. and Dahrendorf, R, The Destruction of the University of Malta, *Minerva* 19(1), 1981, p. 128.
256. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 286.
257. Austin, D. and Dahrendorf, R, The Destruction of the University of Malta, *Minerva* 19(1), 1981, p. 128.
258. Austin, D. and Dahrendorf, R, The Destruction of the University of Malta, *Minerva* 19(1), 1981, p. 139.
259. Grimes, W., Ralf Dahrendorf, Sociologist, Dies at 80, *The New York Times*, June 22, 2009.
260. Austin, D. and Dahrendorf, R, The Destruction of the University of Malta, *Minerva* 19(1), 1981, p. 137.
261. Vassallo, H., and Mallia, M.J., The Church Schools issue in Malta, *Rivista di Studi Politici Internazionali*, 51(4), 1984, 563–579.
262. Austin, D. and Dahrendorf, R, The Destruction of the University of Malta, *Minerva* 19(1), 1981, p. 137.
263. World Bank Databank, series: Government expenditure on education, total (% of GDP).
264. World Bank Databank, series: Government expenditure on education, total (% of GDP).
265. Government of Malta Development Plan for Malta 1973–1980, Supplement, 1977, p. 14, quoted in Vella, M. and Brigugliom L.,

- The Effect of Minimum Wage on Employment in Malta, University of Malta, 2014, p. 5.
266. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Personal Income and Expenditure (1954–1989) (Annual): http://www.centralbankmalta.org/site/excel/statistics/personal_income_expenditure.xls?revcount=5820.
267. This is a Theil index, which is in part estimated based on a measured household inequality component, and in greater part a component of measured wage inequality within the manufacturing sector. For full details, see Galbraith, J.K. and Kun, H., University of Texas Inequality Project (UTIP), Estimating the Inequality of Household Incomes: A Statistical Approach to the Creation of a Dense and Consistent Global Data Set, A presentation prepared for the International Association for Research on Income and Wealth, Cork, Ireland, August 23, 2004: <http://utip.gov.utexas.edu/data/EHII.ppt>.
268. Gordon, R. and Dew-Becker, I., Controversies about the Rise of American Inequality: A Survey, National Bureau of Economic Research Working Paper No. 13,982, April 2008, p. 3.
269. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.

The Liberal Age, 1987–2008

MALTA'S LIBERAL TRANSITION: WHEN AND WHY?

Between 1987 and 2008, the Maltese economy sustained an average annual growth rate of 4.3 per cent in real terms. At this rate, an economy will double in size every 17 years. By 2008, Malta's economy was 2.4 times larger than what it was in 1987. Growth was negative in two particular years: in 2001, the year of the dot-com bubble, when it hit –1.5 per cent, and in 2004, the year Malta joined the EU, when it hit –0.5 per cent. But 2001 marked a downward level shift in growth to an average of 1.9 per cent. Malta's economic liberalization programme shaped this pattern of growth.

After 1987, the economic institutions that controlled the economy throughout the 1970s and most of the 1980s, based on state intervention, the dominance of the public sector, high tariffs on imports, and a dependence on foreign aid, were reversed. Starting in 1987, with the change of government from the socialist Labour Party to the economic liberal Nationalist Party, privatization, foreign direct investment, and the liberalization of product markets and the financial sector led to an increase in private enterprise and a larger share of services in national income.

Figure 5.1 shows Malta's real GDP growth rate alongside a weighted real GDP growth rate of a comparator group of countries: the nine European countries that liberalized their economies in anticipation of joining the EU in 2004 along with Malta.¹ Figure 5.1 raises two questions. First, does

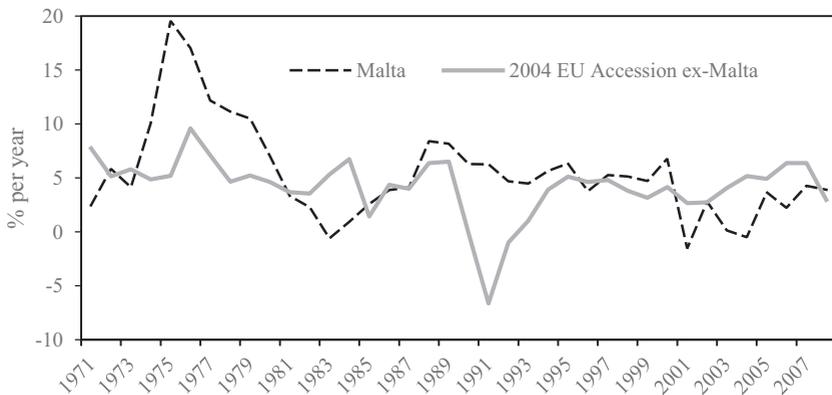


Fig. 5.1 Real GDP growth (%) in Malta and the other 2004 EU Accession countries. Notes: Underlying data from World Bank Databank, indicator: GDP growth (annual %). The 2004 EU Accession countries—Cyprus, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia, and Slovenia—are weighted according to their real GDP levels (GDP [constant 2005 US\$]). For 1971 to 1975, the group only includes Latvia. From 1976, it includes Cyprus and Latvia. In 1991, Poland, the Czech Republic, and Lithuania join. By 1996, the group includes all countries

1987 really mark a structural break in Malta's economic rather than political history? Second, why did growth slow down after 2001 compared to similar countries?

The outline of Malta's growth since 1987 is familiar to researchers, but debate remains around why and when a clear shift occurred in its growth path. Some researchers have implicitly linked post-1987 growth to the economic institutions established in the 1970s.² Others have argued that post-1987 growth is a result of contemporaneous changes in government policy.³ The sharp 19.5 per cent increase in real GDP in 1975 that can be seen clearly in Fig. 5.1 further complicates the search for a break or transition. The liberal post-1987 period appears to mark a period of more stable, but slower growth.

While the economy registered high growth rates before the post-1987 liberalization reforms, it can be argued that the growth rates of the 1970s were unsustainable. A look back at the years leading up to 1987 supports this view, and helps explain why Malta began liberalizing its economy after that point.

Between 1971 and 1979, real GDP grew at an average annual rate of 10.3 per cent.⁴ Real net exports accounted for a third of the 149 per cent increase in real GDP over this period.⁵ In spite of this, employment growth was sluggish. While discussing Table 4.9 in the previous chapter, we saw that the drive to boost manufacturing output and exports, while successful, was associated with a declining labour share of income. Manufacturing productivity reduced the need for labour, and so more of the newly generated income went to capital owners rather than to labourers. Unemployment increased from a low of 3.7 per cent in 1969 to 6 per cent in 1972.⁶ It averaged 5.4 per cent until 1974.⁷ Unemployment then fell to 2.7 per cent in 1979, as a result of the government's policy of recruiting people into state-funded employment.⁸ These policies recruited volunteers into labour corps to carry out public works. By 1977, membership of these corps reached 8000 or a third of public sector employment.⁹ This public sector expansion meant that by 1977 the labour corps, government services, and national defence sectors accounted for 29.7 per cent of *all* employment.¹⁰ Had the labour corps not been created, unemployment would have hit 11.7 per cent, rather than 4.5 per cent, by 1977.¹¹ This would have been Malta's highest unemployment rate on record.¹²

As can be seen in Fig. 5.1, starting in 1980 growth contracted sharply, turning negative in 1983. A simple growth-accounting exercise shows that declining net exports accounted for around two-thirds of the 4.5 percentage point drop in the real GDP growth rate from 1980 to 1985.¹³ This fall in net exports was primarily due to the 1980s global recession. Unemployment in the European Economic Community, Malta's main source of external demand, went from 5.8 to 11.2 per cent from 1980 to 1985.¹⁴ In Malta, the unemployment rate went from 3.3 per cent in 1980 to 9.4 per cent in 1984, the highest rate on record, dropping slightly to 9.1 per cent in 1985.¹⁵

An appropriate short-run policy response would have been to boost exports by weakening the exchange rate and lowering labour costs. The opposite was done. As a strong lira was needed to buy the imports that the domestic economy could not produce, Malta's real trade-weighted exchange rate actually increased by 4.2 per cent from 1980 to 1985 and its nominal trade-weighted exchange rate increased by 27.4 per cent.¹⁶ An overvalued currency also posed problems for the tourism sector, which saw annual arrivals decline by 34 per cent from 1980 to 1984.¹⁷ Trade unions, a source of political support for the Labour government, con-

tinued their bargaining for higher minimum wages, blocking the other remaining policy response. From 1974 to 1983, Malta's minimum wage was increased by 64 per cent in real terms and 199 per cent in nominal terms.¹⁸ Between 1980 and 1983 alone, the real increase was 11 per cent and nominal 31 per cent.¹⁹ From 1980 to 1983, Malta's unit labour costs—the ratio of compensation to output—increased by about 20 per cent, putting them far above European unit labour costs.²⁰ The strong lira, along with the rising minimum wage, 'were pricing Malta out of the world market'.²¹ One econometric study suggested that the global recession and Malta's loss of competitiveness accounted for 13.5 and 10.5 percentage points, respectively, of the 24 per cent decline in Maltese exports (below trend) between 1979 and 1982.²²

The mix of an external shock in the early 1980s, a strong currency, and rising wages created what Briguglio described as the worst economic downturn Malta faced in the 30 years since independence.²³ The crisis of the early 1980s was painful for Malta's economy and called into question the country's economic management.

The Move Away from Protectionism

Malta was one of many countries that pursued protectionist policies in the 1970s and 1980s and ran into external difficulties.²⁴ While the inward-oriented policies themselves were not the ultimate cause of these difficulties, the policies exacerbated the domestic impact of external shocks. That in all these countries external shocks spurred a move away from protectionism 'perhaps brings out the greatest practical failure of inward orientation, despite the laudable goals that often spurred such orientation'.²⁵

The problems with protectionist policies are related to the entrenchment of domestic interests, which use protection as a monopolistic right instead of a temporary measure to boost competitiveness—the infant-industry argument.²⁶ In the usual course of events, which Malta fits, exports are stifled by overvalued exchange rates while imports are not adequately replaced by domestic substitutes. Protectionism becomes a firewall for continued economic inefficiency. This situation is sustainable only as long as the external environment is robust and exports are growing, and as long as the international community lends or donates large amounts of money.

This was the situation in which Malta found itself before the 1980s global recession. In 1978 and 1979, real net exports accounted for 69 per cent and 57 per cent of real GDP growth, respectively.²⁷ Then, with the external demand shock, the fall in net exports from 1980 to 1981 alone shaved 4.8 percentage points off real GDP growth, that is, the entire fall in real GDP in the first year of the recession was due to a drop in net exports. At the same time, foreign aid became more important. In 1981, net foreign aid flows equalled 37 per cent of the 1980–1981 real GDP flow, 27 per cent for 1981–1982, and 174 per cent for 1982–1983,²⁸ meaning aid inflows were 74 per cent greater than total economic production in that period.

The 1980s global recession can be interpreted as an exogenous shock that tested the robustness of Malta's pre-1987 economic institutions. That GDP contracted so sharply and unemployment increased so rapidly indicate those institutions were not robust. It is likely that this shock and the Labour government's economic policy response, at least in part, cost it the 1981 general election in terms of an absolute majority of votes but, crucially, not in terms of seats.²⁹

Moderating its stance somewhat, the post-1981 Labour government switched its emphasis from emergency employment-type policies to encouraging private sector employment, primarily through the wage-price freeze of 1983. It also offered currency discounts to tour operators to revive tourism, which increased tourist arrivals.³⁰

The ebb towards slightly more liberal policy, along with the European recovery and major capital expenditure projects that saw the government running large budget deficits, took real GDP growth back into positive territory. However, unemployment remained high for most of the recovery—an average rate of 8.8 per cent between 1983 and 1986³¹—and real per capita GDP growth was positive but flat, averaging 0.47 per cent from 1983 to 1986.³²

While unemployment improved by 1987, dropping to 4.9 per cent,³³ the Nationalist Party was still voted into government in the general elections of that same year based on its 'commitment to *laissez-faire* and to the minimisation of government interference in the country's economic life'.³⁴ A large part of this involved reactivating Malta's application for EU membership. Like the many economies whose inward-oriented policies exacerbated external shocks in the 1970s and 1980s, Malta was about to start a period of deep structural reform.

Structural Reform

Malta's relationship with the European Community, as it was then known, goes back to 1970, when it signed an 'Association Agreement' that was to evolve into a customs union. The Labour government of 1971–1987 put aside this plan because a move towards a customs union, in which Malta would lose the ability to set tariffs on European Community goods, conflicted with its infant-industry policies. Upon election in 1987, the Nationalist government moved towards EU membership, formally applying in 1990. Around this time, the economic reform and liberalization debate became intrinsically linked to the EU membership debate.

The case for economic reform in Malta was recently summarized by the European Commission, one of the architects of the reform programme.³⁵ First, echoing the 1959 *Development Plan for the Maltese Islands* and continuing a thread that runs through Malta's economic history, the Commission argued that Malta's economy needs to be open as it is small and has no natural resources apart from its labour force. Second, the Maltese economy had been synchronized with the EU economy since the mid-1970s. Lastly, most of its trade partners were already EU members. In sum, by removing customs duties, and capital and exchange rate controls for its main economic partners, the Commission argued that EU membership would increase Malta's capital inflows (including European Community funding), bilateral trade, and provide 'stability' to its economy and 'direction' to its economic policy.³⁶

The stress in the case for reform on the liberalization of trade, and on encouraging foreign capital flows, has clear political implications for the restricted role of the state in achieving economic growth. The Labour Party argued in a 1990 report that EU membership would mean a loss of independence and sovereignty, increased inflation due to higher food prices, adverse effects of increased competition on Maltese industry, an inflow of foreigners who would take Maltese jobs and buy up Maltese assets, and that rising costs would deter foreign direct investment.³⁷ More recently, some who see the need for continued state involvement in the economy have argued that the move towards 'deeper integration with the European mainland' was itself a matter of 'political inclination' as 'economic relationships were not limited by such borders'.³⁸

The main bone of contention was the domestic market-oriented structure of Maltese industry that built up throughout the 1970s. EU membership would entail a substantial and painful adjustment for Maltese

industry, but such an adjustment would be necessary anyway if the sector was to compete in world markets. An additional source of debate was the state's control of all utilities, the airline and shipping line, the dry docks and shipyards, along with banks and insurance companies, broadcasting, telecommunications, and many factories and hotels. This level of state control—around 40 per cent of GDP and 46 per cent of the labour force in 1988³⁹—did not comply with European Community rules on state aid.

Why is lifting industrial protection so difficult? We saw in the previous chapter that the argument for protection rests on the infant-industry argument. This is when a monopolistic industry is protected by a tariff. This industry must decide whether to cut costs gradually and become internationally competitive. The government observes whether the industry has cut costs to a satisfactory degree, and then decides whether to dismantle the tariff that protects the industry. Figure 5.2 summarizes the competing preferences of the government and industry in the form of a game tree.⁴⁰ There are four regimes to consider. These four regimes are at the game tree's terminal nodes: (1) a free-trade regime where the industry cuts costs and is competitive on the global market, (2) a protected regime with low costs where protection is unnecessary for the industry's survival, (3) a free-trade regime with high industry cost where the industry is not competitive and the product is imported, and (4) a protected regime with high costs where the industry is protected from international competition and supplies the domestic market.

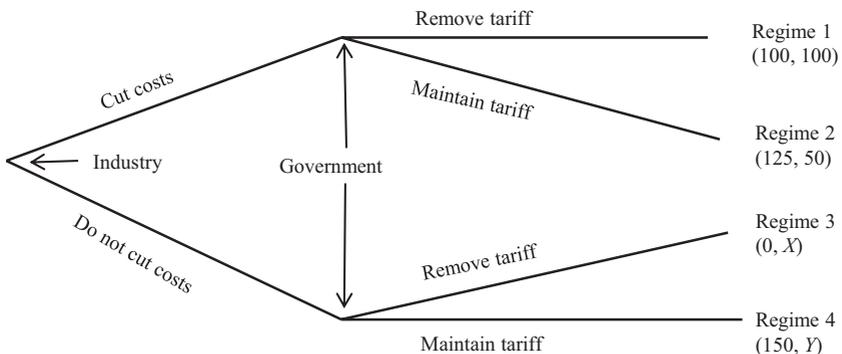


Fig. 5.2 The industrial protection game. Notes: Adapted from Ray, D., *Development Economics*, Princeton University Press, 1997, p. 769

Suppose that the game starts with the government granting protection to the industry for some specified period. During this period, the industry has to decide whether to lower costs or to maintain them at the currently uncompetitive level. After the industry decides on this matter, the government must decide whether to withdraw protection. After the government decides, one of the four regimes comes into being. Each regime has a payoff to the game's two players: the industry and government. The payoffs are in parentheses: the first entry is the payoff to the industry and the second entry is the payoff to the government.

Let us start with the industry's preferences. As cutting costs involves some expenditure of resources and firing personnel with vested interests, the industry would most like to *not* cut costs *and* retain full protection. This is regime (4): it gives the industry a payoff of 150. What the industry would least like to do is cut costs and have protection lifted. This is regime 3: it gives the industry a payoff of zero. A better option for the industry would be cutting costs and maintaining protection. This is regime (3): it gives the industry a payoff of 125. Finally, cutting costs, and so becoming competitive, and then removing protection results in regime (1), which gives a payoff of 100. This is below the payoff of staying uncompetitive and protected—regime (4).

For the government, regime (1) is clearly preferred to all other regimes. In regime (1), the industry is competitive and free trade brings gains to consumers without negative side effects. In regime (2), the industry has no need for protection, even though they would want it, and so the government knows the industry can survive without protection and will withdraw protection. This gives the government a payoff of 100 in regime (1) and 50 in regime (2). But it is unclear whether the government prefers regime (3) to regime (4) or *vice versa*, as both have high costs. Regime (4) gives protectionist gains to the industry while regime (3) in effect gets rid of the industry altogether. Given this, the industry will lobby for regime (4) and the government is likely to grant it. Conversely, regime (3) is preferred to regime (4) by consumers of the industry's product, as they can buy it for less from the world market. The government's final preference over these two regimes will be some amalgam of these two sets of competing interests. The associated payoffs are labelled X and \mathcal{Y} on Fig. 5.2: although they are both less than 100, their relative sizes are what determine the success or failure of protectionist policy.

While the industry's strategy simply involves cutting or not cutting costs, the government's strategy is more complex. Its decision is conditional on the industry's two courses of action. Yet given the infant-industry argument rests on the government's credible commitment to remove protection, regardless of the industry's actions, the industry faces a payoff of 100 if it cuts costs and zero if does not. This implies that industry will cut costs, and so the government will remove the tariff. The question is: is this strategy, or the government's commitment, credible?

When the industry does not cut costs, the government's strategy of removing protection is credible if $X > Y$. That is, it is only credible if consumer interests are more important than producer interests in shaping government policy. The industry knows that the government will punish its poor performance: it is in the government's *ex post* interest to punish the industry in this case. What if $Y > X$? This would mean that producer interests, or the interests of the industry's workforce, are more important in shaping government policy. This would eliminate the credibility of the remove-tariff-regardless strategy because it does not constitute a best response. In this case, the government cannot get the infant industry to cut costs and become competitive.

While in an easier position than the former communist states represented in Fig. 5.1, Malta clearly faced many obstacles on its long road to a liberal market economy. The vested interests that grew up around trade controls and internal regulations throughout preceding decades were considerable, making the government's ability to remove protection seem weak. However, as the government was strongly committed to EU membership, its policy preference favoured consumers rather than producers. That is, although not ideal, it was a case of $X > Y$ as import tariffs on European goods are not allowed for member states. In the end, the strong vested interests that built up around Maltese industry and their workers, and the election of an anti-EU membership Labour government from 1996 to 1998, made for a gradual rather than explosive pace of liberalization.

In its pessimistic opinion on Malta's 1990 formal application for membership, the European Commission wrote in 1993 that,

[t]he reforms ... require ... a root-and-branch overhaul of the entire regulatory and operational framework of the Maltese economy ... to enable its economy to take advantage of all the opportunities provided by accession.⁴¹

Six years later, the Commission was slightly more optimistic. It wrote,

*Malta will need to build up a track record in the establishment of a stable and sound macroeconomic environment and implementation of reform and liberalisation. ... Malta should be able to address these issues in an appropriate way and hence become successfully integrated with the European economy.*⁴²

In its 2000 update, the Commission concluded that ‘Malta is a functioning market economy and should be able to cope with competitive pressure and market forces within the Union’.⁴³ How did the Maltese economy get to this point?

Malta’s reforms matched the standard structural adjustment programmes promoted by multilateral institutions like the International Monetary Fund the world over, often after recoveries from external shocks made worse by protectionism.⁴⁴ The standard elements—import liberalization, export (or exchange rate) liberalization, and fiscal and monetary discipline—all formed part of Malta’s programme.

Starting with import liberalization, during 1992 and 1993, the authorities had mostly dismantled the state bulk-buying and price stabilization scheme for imports of commodity goods. The system of price controls, which was used to regulate maximum profit margins, was eased substantially as early as 1988–1989. The government loosely monitored retail prices on the grounds of consumer protection. In 1994, the parliament passed the Competition Act (Chap. 379 of Laws of Malta) to regulate anti-trust activities. This piece of legislation also created an Office of Fair Competition and a Commission for Fair Trading, both independent bodies responsible for overseeing competition and eventually phasing out price controls. In 1996, a Consumer Affairs Act (Chap. 378 of Laws of Malta) was passed to strengthen consumer protection. As for trade barriers, most quotas had been eliminated by 1995. Import licencing requirements were simplified and tariff rates were reduced, although high tariffs remained on a number of imported goods for a while longer. In 2003, a year before membership, a five-year plan to open up to international competition was concluded with the removal of import levies on industrial products. The final section of this chapter provides more detail on these reforms, but a quick overview is helpful here.

In terms of exports, the government emphasized an active promotion of investment in high value-added export-oriented manufacturing.

This industrial policy was consistent with its exchange rate liberalization policy. The MDC was tasked with administering a programme of investment incentives, primarily aimed at foreign investors. The incentives included low interest rate loans for investments in manufacturing plants and equipment, tax holidays, rent-subsidized government-built factories, and training grants. The MDC expanded in 1993, partnering with Hambro European Ventures Ltd to set up the venture capital 'Malta Development Fund'. The Fund made equity investments in projects like Mosta Technopark, an industrial estate targeted at high technology electronics products. The 1988 Industrial Development Act was amended to encourage the growth of the services sector. The tourism sector in particular was promoted, with a view to it becoming a major driver of growth, as was the financial sector. Significant deregulation occurred in the financial sector. Between 1993 and 1995, the government overhauled banking legislation, privatized a commercial bank, expanded the stock market, and partially deregulated interest rates. The Banking Act of 1994 (Chap. 371) liberalized credit institutions' capital adequacy and large exposure requirements.

In the area of fiscal and monetary discipline, Parliament approved the Central Bank Act in 1994, which empowered the Central Bank to make monetary policy with more autonomy, though not full independence. Starting in 2000, the government began liberalizing exchange rate controls with the aim of removing all controls on capital movements by EU accession, and monetary union membership in 2008. In 2002, the Central Bank's regulatory and supervisory role was shifted to the new Malta Financial Services Authority. In the area of privatization, between 1993 and 1995 alone some 66 publicly owned enterprises were sold off or liquidated.⁴⁵ In 2000 a privatization unit was set up to oversee the liberalization of sectors that were previously monopolies. The fiscal deficit was brought down from over 10 per cent in the mid-1990s to 6.5 per cent of GDP in 2002.⁴⁶ The reduction was achieved through tax increases, including the introduction of VAT in 1995 (and re-introduction in 1998), designed to offset losses from import tariff revenue, privatization, and improved revenue collection through the Tax Compliance Unit. Still, public debt increased over the course of the period due to public sector wage increases, capital expenditure projects, and higher expenditures on social programmes.

Growth After the Transition

All told, real GDP growth jumped from 4.1 per cent in 1987 to 8.4 per cent the following year. It then averaged 5.7 per cent until 2000, and then 1.9 per cent until 2008. Briguglio, writing in 1995, attributed this growth to the ‘process of liberalisation introduced by the Nationalist government since 1987’⁴⁷— a view shared by the International Monetary Fund for later years.⁴⁸

Why should liberalization lead to higher aggregate levels of economic activity?⁴⁹ The focus here is on the goods market. While this market can be easily compared to the tradable-services sector (e.g., software which can be produced and consumed in different economies), the final section of this chapter makes the liberalization case more clearly for the whole services sector. The general case for liberalization is based on comparative advantage in production and trade.

As Ray writes, ‘a natural way to think about international trade is that it permits an expansion of the production possibility set’.⁵⁰ The production possibility set is the maximum level of output an economy can achieve using a set of limited resources. The economy faces trade-offs in how many resources it can put into the production of two or more goods while trying to maximize total output. In standard trade theory, a good can be transformed into another good in two ways. First, domestic transformation: inputs are taken from one good and applied to the production of another good. This is what happens in a closed economy. Second, international transformation: one good is exported in exchange for the import of another. A practical example helps.⁵¹

Suppose there are two countries that make up the world economy: Malta (M) and South (S). Suppose that only two goods are produced: chocolates and rice. Both M and S are capable of producing both goods. Suppose further that labour is the only factor of production, and that M and S are endowed with 600 units of labour. M 's production technologies enable it to produce one bar of chocolate with 10 units of labour, and one sack of rice with 15 units of labour. S can manage one bar of chocolate with 40 units of labour and one a sack of rice with 20 units of labour.

Even if M is less efficient relative to S in the production of chocolate as well as rice, the two countries will still trade with one another. Figure 5.3 shows the production possibility frontiers of both countries as straight lines. M can produce 60 bars of chocolate if all its resources are used in the production of chocolate, and it can produce 40 sacks of rice if all

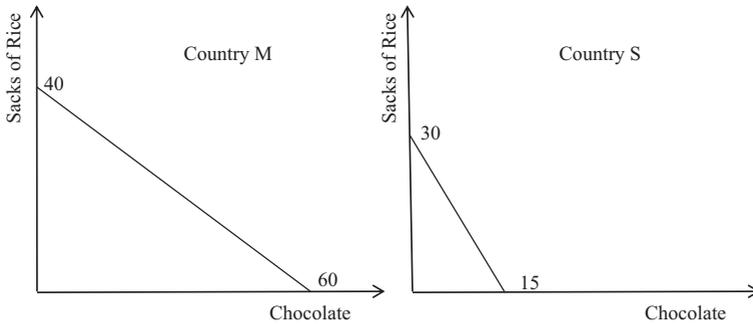


Fig. 5.3 Production possibility frontiers. Notes: Adapted from Rey (1998: 628)

its resources are used in the production of rice. By moving labour from one sector the other, all combinations along the line that joins these two extremes can be produced too. The same goes for *S*.

Suppose the two countries are blocked from trading with one another. They will each have to produce all their domestic demands for chocolate and rice. Going by their production technologies, the price of chocolate relative to that of rice in *M* will be 10:15 or $2/3$. That is, a chocolate bar in *M* will cost two-thirds as much as a sack of rice. If the relative price were any other ratio, say $1/2$, then labour resources would be shifted entirely from one sector to the other. The shift would go from the sector that is cheaper to the sector that is more expensive relative the $2/3$ ratio.

If both goods are consumed in each country (as in the closed economies example in Fig. 5.3), the relative price of chocolate in *M* must be $2/3$, and this same relative price in *S* must be 40:40 or 2. If *M* and *S* open up to trade, the closed-economy relative prices cannot prevail in the world economy. Under free trade, only one common relative price must be established. There are three possible international prices: (1) a price below the closed-economy level of $2/3$ for *M*, (2) a price above the closed-economy ratio for *S* that is 2, and (3) a price between $2/3$ and 2.

The first two possibilities can be ruled out easily. First, if the international price, p^* , is less than $2/3$, then no one will produce chocolate. If no one produces chocolate, then there is no supply for the market demand of chocolate, which cannot occur in equilibrium. The same argument applies to the second possibility.

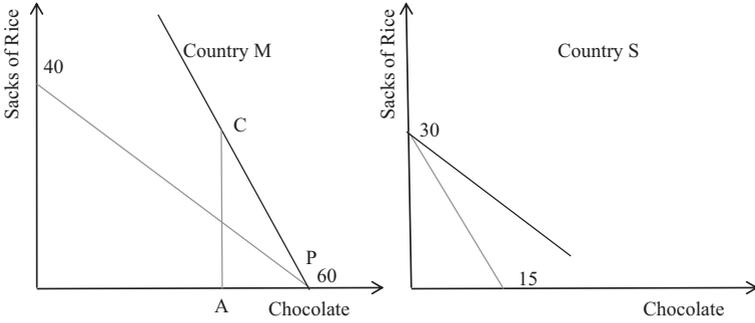


Fig. 5.4 International trade. Notes: Adapted from Rey (1998: 629)

This leaves the third possibility: a price that settles between the two closed-economy prices in *M* and *S*. Figure 5.4 shows the equilibrium. *S* will produce only chocolate: this extreme production point is marked as *P*. Chocolate in *S* can now be ‘transformed’ into rice through a better ‘possibility frontier’ than the country had as a closed economy. This is the international trade frontier. As the relative international price of chocolate is less than the closed-economy ratio of 2, this frontier allows a higher consumption of both goods in country *M* than in a closed economy. Point *C* shows a likely mix of consumption. Crucially, this point could not have been achieved by *M* as a closed economy, as it lies beyond its domestic production possibility frontier. The difference between *P* and *C* is composed of exports and imports. Figure 5.4 shows that *M* exports *AP* chocolate bars and imports *AC* sacks of rice. The same argument holds for *S*.

The quantitative dimensions of Maltese growth are in fact similar to those for the comparator group of countries in Fig. 5.1. Like Malta, these countries were emerging from state-interventionist economies and moving towards more liberal economies, motivated by the prospect of EU membership. Malta’s growth rate was on average one percentage point higher than the comparator group, which reflects the deeper structural reforms needed for EU accession in former communist countries like Latvia or the Czech Republic. However, Fig. 5.1 also shows us that from 2001 onwards Malta’s growth trend drops to a level lower than this group of accession countries. There are two broad reasons for this slow down.

First, two external shocks occurred around 2001 that adversely affected Malta’s economy. The bursting of the technology (‘dot-com’) bubble after its peak in early 2000 was associated with a drop in demand for

semi-conductors, the production of which occupied a dominant position in Malta's industrial sector. In fact, a single producer in the electronics sector accounted for more than half of the industry's total output and exports.⁵² The second shock was the '9/11' terrorist attack in the United States. The following geopolitical uncertainty depressed world travel and tourism, another major part of the Maltese economy. The number of tourist arrivals in Malta dropped by 7.3 per cent from 2000 to 2003.⁵³

Second, these two external shocks were exacerbated by domestic structural weaknesses on the supply side. In 2001, a declining trend in Malta's competitiveness became evident.⁵⁴ The faster pace of world trade liberalization along with the rise of emerging economies like China, home to lower labour costs and more abundant labour supplies, challenged Malta's traditional sectors. Its exporters found it increasingly difficult to compete in markets where success depended on low prices. Its real exchange rate consistently appreciated by around nine per cent between 2001 and 2004 against a group of 34 industrial countries.⁵⁵ This appreciation suggests there was a rise in unit labour costs which in Malta's case, where exporters are price-takers on the global market, is critical as exporters would see their margins being squeezed with increasing unit labour costs. Between 1990 and 2006, real wage growth was, in fact, faster than labour productivity growth.⁵⁶ As we will see in the following section, this divergence of wages from productivity is partly due to an increase in the relative demand for skilled over unskilled workers, as the economy moved away from labour-intensive low-value-added manufacturing. Some wage moderation occurred between 2001 and 2006, but the need to address the wage-productivity divergence remained. This called for 'reforms aimed at enhancing human capital and raising labour market participation as well as those that foster business innovation and improve the business environment'.⁵⁷

The liberalization programme, which encouraged greater private sector consumption and job creation, generated aggregate growth up to 2001. After this point, it became clear that the emphasis needed to move towards the supply side. Ensuring growth in a global economy that included competitors like China called for a switch from medium- to high-technology activities, which, in turn, require high levels of tertiary education. In addition to strengthening labour productivity, improving human capital allows redundant workers to move quickly into new jobs, facilitating the shift to higher-value-added production. This is an important facility for economies undergoing structural change like Malta's during this post-

1987 period. Unfortunately, Malta's performance in generating human capital trailed behind the EU average due to inefficiencies in the education sector and past investments in education.⁵⁸ Consequently, not only did Malta's competitiveness decline, and with it aggregate growth, but the reform programme also created 'losers'. Liberalization always creates losers—previously protected firms being the most obvious case—as it is difficult to divide the losses associated with structural reform equitably while allowing a market economy. As such, while liberalization tends to create overall gains from trade, the distribution of those gains may be unequal within countries. Inequality is heightened when liberalization programmes are not complemented with policies that provided sufficient growth in human capital. We now turn to the distributional consequences of Malta's liberalization.

INEQUALITY AND WELFARE

Economic growth since 1987 until the 2001 global crisis saw real per capita GDP rising at the average annual rate of 4.8 per cent. It then slowed to around 1.8 per cent after the crisis until 2008. Figure 5.5 shows Malta's per capita GDP in 2005 dollars: it went from \$7946 in 1987 to \$16,180 in 2008. From an international perspective, Malta's per capita GDP, in PPP terms, went from 67 per cent of the EU's level in 1990 to

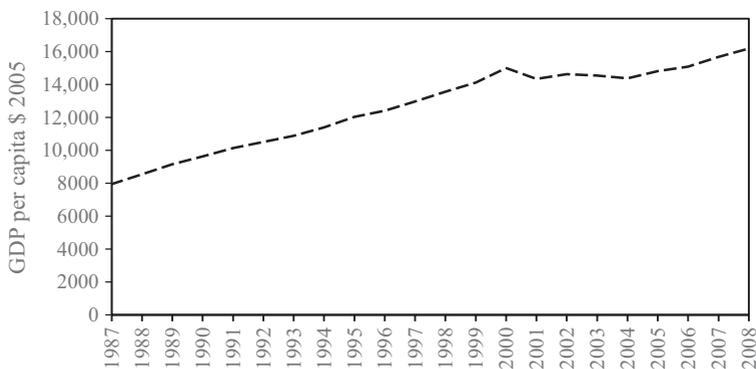


Fig. 5.5 Real GDP per capita, 1987–2008. Notes: Data from World Bank Databank, indicator: GDP per capita (constant 2005 US\$)

80 per cent in 2008; for the Euro area the numbers are 59 per cent to 73 per cent, respectively.⁵⁹

It is clear that economic growth during the liberal age has had a beneficial effect on aggregate levels of income for Malta's population, and that it has narrowed international inequalities, but there has been some concern about how this increase in national income has been distributed *within* the country.⁶⁰

Think back to the standard trade theory where there is only one factor of production, labour, and so no distinction between overall gains and the distribution of those gains. This does not hold when we add other factors of production.⁶¹ Let us return to the previous example of countries *M* and *S*, and their chocolate and rice. Say *S* produced chocolate bars and imported rice, and that chocolate production is more capital-intensive than rice production. *S* is endowed with more capital than labour and the opposite is true for *M*. If *S* opens up to trade with *M*, and the economy begins producing more chocolate, the following sequence will play out.

First, with a profitable international price in chocolate production, *S* will expand chocolate production and contract rice production. Second, to produce chocolate *S* will demand more capital and labour. These inputs will be released from the rice sector as it contracts. Third, the rice sector will release labour and capital in 'wrong' proportions relative to the needs of the chocolate sector, as it is more capital-intensive. More specifically, the rice sector will release a higher proportion of labour to capital than the proportion needed in the chocolate sector. Fourth, while the imbalance can be fixed if both chocolate and rice production became more labour-intensive, as the former will soak up excess labour releases and the latter will reduce the excess labour release, the fix is only possible if (1) wages fall relative to goods prices and (2) interest rates on capital rise relative to goods prices. In short, in this sequence, labourers take a hit by opening up *S* to trade while capital owners gain.

For Malta, the theory predicts something quite different. As with most developing economies that liberalized in the 1970s and 1980s, Malta had more labour relative to capital. Given this relative factor endowment, it should specialize in the production of labour-intensive goods or services and away from capital-intensive ones. In fact, Malta was reforming its economic structure from low-wage, capital-intensive production, particularly in manufacturing, to high-wage, less capital-intensive production, particularly with tourism—a labour-intensive sector.⁶²

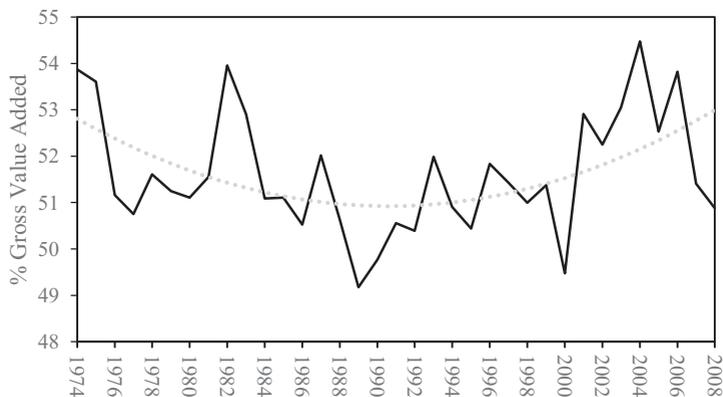


Fig. 5.6 The labour share of national income, 1974–2008. Notes: Underlying data from Vella (2014: 18), where the labour share is the ratio of ‘Income from Employment’ to ‘Gross Value Added’

Do we see these patterns in the historical data? We can look again at the labour share for answers. If labour really is ‘winning’, then we should observe a rising labour share, as labour rather than capital owners would earn most income. Figure 5.6 shows the labour share reached its lowest point, 49 per cent, two years after the reforms began. After this, cyclical fluctuations aside, it began a secular rise to 51 per cent, which was its average level from 1974 to 1986 as we saw in the previous chapter.

A rising labour share does not necessarily imply labour was gaining uniformly. It is possible that growth in the labour share was accounted for by the growth in wages for high-skilled workers alone. This would be consistent with Malta’s policy goal to shift from low-skilled, low-wage production to high-skilled, high-wage production. Further, if this structural change creates a large enough increase in the relative demand for skilled over unskilled workers so that it outpaces the supply of those skilled workers, then real wages will grow faster than productivity due to a growing ‘skill premium’.⁶³ Consistent with this, one study found that of the 0.09 average annual growth in the labour share between 1990 and 2006, real wage growth accounted for 1.83 percentage points and labour productivity accounted for -1.74 percentage points.⁶⁴

Figure 5.7 shows the evolution of Malta’s household income inequality index for the 1987–2008 period. As the index is in part estimated based on a measured household inequality component, and in greater part a

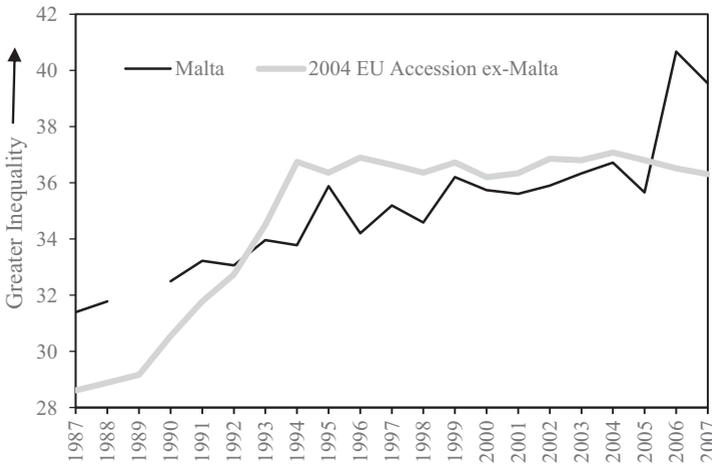


Fig. 5.7 Household income inequality index, 1987–2007. Notes: Data from Galbraith and Kun (2004). Household inequality index is a Theil index, where larger values indicate greater inequality. The 2004 EU Accession ex-Malta series is the unweighted index for Cyprus, the Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia, and Slovenia. Index values are unavailable for a number of years across these states

component of measured wage inequality within the manufacturing sector, it is a useful measure of the overall demand for higher skills. Recall that in Malta's case it is the capital-intensive sector—manufacturing—that releases labour for other sectors. The index increased by 25 per cent from 1987 to 2007, following a similar path to the accession countries and consistent with a stronger relative demand for skilled labour.

While liberalization boosted overall real per capita GDP growth, and increased the labour share of income, the gains from liberalization mostly accrued to those with higher skills. This latter group of workers was able to command a 'skill premium' as the demands for their labour increased faster than their supply.

The supply of skilled workers depends on education. This is why Goldin and Katz referred to the supply of educated workers and the demand for skilled labour, mainly brought about by technological advance in their case, as a 'race'.⁶⁵ If the demand for skilled labour outstrips supply, that is if education is losing the race, the result is income inequality.

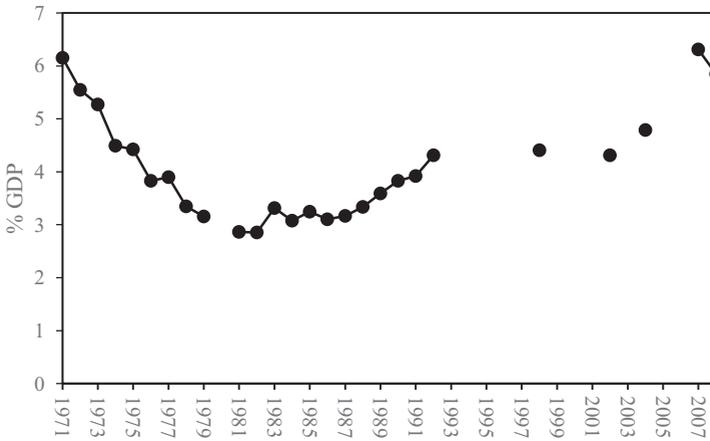


Fig. 5.8 Government expenditure on education, 1971–2008. Notes: Data from World Bank Databank, indicator: Government expenditure on education, total (% of GDP)

As we saw in Fig. 4.10 in the previous chapter, government expenditure on education declined precipitously between 1971 and 1982. It then stabilized at a low level of around 3.1 per cent of GDP and 20.1 per cent of total expenditure until 1986. Expenditure climbed back up to 4.3 per cent of GDP (26.4 per cent of total expenditure) by 1992, five years into the liberal age. Figure 5.8 shows that while data for later years are patchy, expenditure on education returned to its 1971 level by 2008. An increase in the percentage of the labour force with a tertiary education, from 7.5 per cent in 2000 to 17.1 per cent in 2008, shows this expenditure had some effect.⁶⁶ Still, in light of the household inequality displayed in Fig. 5.7, this investment in education may have been a case of too little too late: the demand for skilled labour increased a long time earlier. The education of that labour was needed a long time earlier, too.

There is more to welfare than relative income levels, however. The United Nation’s Human Development Index (HDI) is a popular measure of human development that goes beyond income alone.⁶⁷ The HDI summarizes a country’s average achievement in terms of health, education, and income. It does this by taking the geometric mean of normalized indices for those three dimensions. The health dimension is assessed using life expectancy at birth, normalized against a minimum value of 20 years and

maximum of 85 years. The education dimension is assessed through an average of the mean years of schooling for adults aged 25 (minimum of 0 and maximum of 15 years), and the expected years of schooling for children of school-entering age (minimum of 0 and maximum of 18 years). For income, the HDI uses PPP GNI (Gross National Income) per capita (minimum of \$100—a subsistence level of income—and maximum of \$75,000).

Malta's HDI grew at an annual compound growth rate of 0.36 per cent between 1980 and 1990, 0.53 per cent between 1990 and 2000, and 0.57 per cent between 2000 and 2013.⁶⁸ This growth in human development saw the HDI, which ranges from 0 to 1, increase from 0.704 in 1980, to 0.770 in 2000, and 0.809 in 2008.⁶⁹ The HDI is by construction an internationally comparative measure, and in this regard Malta also fared well. In 1980, Malta ranked 25th out of a sample of 124 countries, when the bottom country was Niger and top country the United States.⁷⁰ In 2008, it ranked 41st out of a sample of 175 countries, when the bottom country was again Niger and top country Norway.⁷¹ In each benchmark year between 1980 and 2008, Malta was classified as a country with 'very high human development'.⁷²

The evidence so far points to rising aggregate living standards, particularly with income, but growing household inequality. To be sure that liberalization is behind the growth in these measures, we need to know what was happening to Malta's trade and capital flows—the variables on which liberalization operates directly. This is what we turn to next.

GLOBALIZATION AND LIBERALIZATION

Did Malta really become a more open economy? An indicator that will help us answer this question is the trade ratio, or what is sometimes called 'openness': exports plus imports divided by GDP, expressed as a percentage.⁷³ The ratio is a broad measure of how important international transactions are compared to domestic ones.

Figure 5.9 shows that Malta's trade ratio has never dropped below 100 per cent. This is typical of small open economies. Malta's trade ratio went from 138 per cent in 1986 to 177 per cent in 2008. That is, the trade ratio grew on average by 1.8 percentage points every year. This is a high ratio compared to similar European countries: Cyprus' ratio went from 79 per cent in 1986 to 106 per cent in 2008,⁷⁴ while Ireland's went from 68 per cent to 157 per cent, respectively.⁷⁵ Malta is less open by this measure compared to Singapore, whose ratio went from 199 per cent in 1986 to

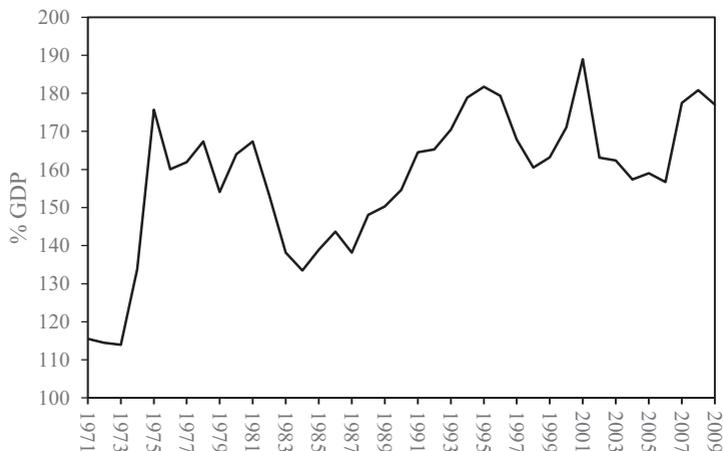


Fig. 5.9 Trade ratio, 1986–2008. Notes: Trade ratio is the ratio of imports of goods and services plus exports of goods and services to GDP. Underlying data from World Bank Databank, indicators: GDP (current US\$), exports of goods and services (current US\$), and imports of goods and services (current US\$)

433 per cent in 2008,⁷⁶ or Hong Kong, whose ratio went from 126 per cent to 394 per cent.⁷⁷ Much of the growth in Malta's ratio occurred between 1986 and 1994, at the average annual rate of 3.5 per cent, before the interruptions from the instability surrounding the 1996 and 1998 changes in government, and the 2001 global crash.

While a broadly useful measure of international versus domestic transactions, a high trade ratio does not necessarily indicate low barriers to trade. More than anything, the trade ratio measures domestic economic size and integration into international markets rather than trade policy orientation. This is brought out in Fig. 5.9 for the 1971–1986 period—a period marked by restrictive trade policy, but one where the trade ratio boomed. This led Alfred Sant, Labour Prime Minister from 1996 to 1998, to argue in an interview dated September 2009 that ‘on the point of liberalisation and privatisation, the irony has been this: since 1987, the openness of the Maltese economy to the outside world measured in GDP terms has decreased not increased’.⁷⁸ Sant seems to have been referring to the trade ratio. Yet the boom in the trade ratio was driven by rapid manufacturing export expansion, which accelerated faster than GDP growth.

In other words, one part of the numerator—exports—was growing much faster than the denominator—GDP.⁷⁹ Meanwhile, high tariffs and quotas restricted imports. It is difficult to take this situation as representative of an ‘open’ economy. Indeed, trade is affected by many variables besides trade policy: distance to markets, levels of economic development, and the state of the global economy, for example. If Malta’s structural reform programme was really bringing down trade barriers, then we should see its applied tariff rate come down over the course of the period.

We can look at effectively applied tariff rates as an alternative indicator of openness. According to data from the United Nations Conference on Trade and Development (UNCTAD), Malta’s simple average effectively applied tariff rate on manufactured goods went from 8.9 per cent in 1997, when the data began, to 6.9 per cent in 2003, the last data point.⁸⁰ For machinery and transport equipment, we see a slightly sharper decline from nine to 5.5 per cent.⁸¹ After weighting tariffs by import shares, a different picture emerges. The tariff decline for manufactured goods is from 9.3 to 6 per cent, and that for machinery and transport equipment is 10.9 to 5.6 per cent.⁸²

While we do not have data covering other product categories, or stretching earlier back than 1987 and further forward than 2003, these average tariff rates indicate that Malta was moving to openness. This move was required for EU membership.

Composition of Exports

The composition of Maltese trade also changed. The move away from merchandise exports to services exports was slow. This was partly due to the gradual pace of structural reform and partly due to the government’s policy of promoting export-led manufacturing. In 1986, manufactures accounted for 94 per cent of all merchandise exports; by 1994 the proportion peaked at 98 per cent, averaging 97 per cent until 2000, after which it contracted sharply and dropped to 88 per cent in 2008.⁸³

These trends are mirrored in the ratio of services exports to merchandise exports, which can be seen in Fig. 5.10. The ratio was close to one in 1987, but merchandise exports became increasingly important in Malta’s export basket until around 2000, when the ratio troughed at 0.45. This, however, marked the point at which merchandise exports began their decline in importance. As Fig. 5.10 shows, services grew continuously relative to merchandise exports from 2001 to 2008, reaching a ratio of

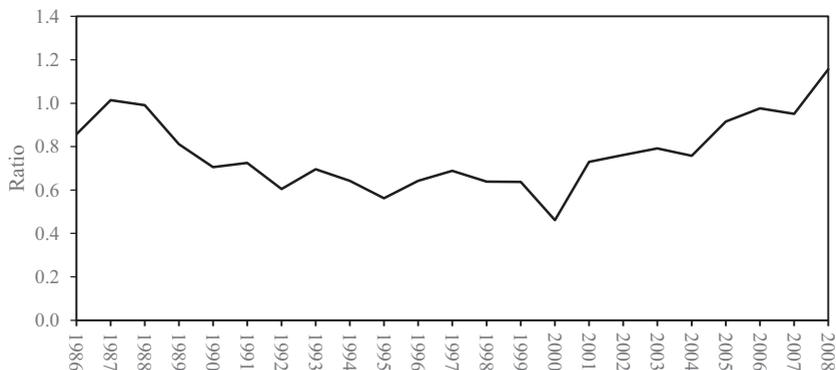


Fig. 5.10 Ratio of services exports to merchandise exports, 1986–2008. Notes: Services exports derived by subtracting merchandise exports from the ‘Exports of Goods and Services’. All Data from the World Bank Databank, indicators: Exports of goods and services (current US\$) and merchandise exports (current US\$)

1.25 by the end of the period. The services sector accounted for a greater of national income than the industrial and agricultural sectors combined by 1997.⁸⁴

Figure 5.10 is not simply about structural change, but about how the composition of an economy’s export basket changes after it liberalizes its economy. The gradual move towards services exports fits with Malta’s high labour to capital ratio. Liberalization drew resources away from capital-intensive to labour-intensive production, but this move happened *within* as well as between sectors. While merchandise exports were more important than services exports until late in the period, the composition of merchandise exports was itself changing: merchandise exports became more labour-intensive.

We can see this in the exports of tobacco, and electrical and electronic goods. One study found that the ‘tobacco products’ industry has a labour intensity—a firm’s wage to revenue ratio—that is equivalent to only 24 per cent of the ‘electrical and electronic equipment’ industry’s labour intensity.⁸⁵ In 1996, the ratio of Malta’s electrical equipment exports to its tobacco exports was 3.3, that is, it exported \$3.30 of electrical equipment for every \$1 of tobacco products.⁸⁶ By 2003, the ratio increased slowly to 4.6. In 2004, the year Malta joined the EU and saw the sharpest reduction in its trade barriers, the ratio jumped to 12, and increased to 24 by 2008.

Similar change occurred within the services sector. Receipts from international tourism accounted for 28 per cent of all services exports in 1990.⁸⁷ Clearly this was an important part of the economy, and promoting it was an important part of government policy. The sector, however, is characterized by the International Labour Organization as having ‘low wages and low levels of skill requirements’.⁸⁸ On account of these low wages, despite demanding a large volume of labour, tourism’s labour intensity—recall this is the ratio of wages to revenue—is only marginally higher than, say, the manufacture of food products.⁸⁹

We know from the discussion around Fig. 5.7 that wage inequality was rising due to a growing relative demand for skilled over unskilled labour, as the government moved the economy towards high-skilled, high-wage production. Given this relative demand was not coming from tourism—a low-skilled, low-wage sector—we should expect a move away from tourism and towards a higher-skilled services sector during this period. Figure 5.11 shows that this was happening. Around 1999–2000, when the government began liberalizing exchange rate and capital controls, and soon after it began deregulating the financial sector, a relative shift away from tourism’s share of services exports, and towards a greater share of insurance, financial, and ‘other business’ services, occurred.⁹⁰ In 1990, the latter group accounted for around five per cent of all services exports; by 2008, it accounted for 23 per cent of all services exports, which was five percentage points higher than tourism’s share at that point.

Liberalization did not just change Malta’s level of aggregate output, but also the composition of its output, in ways predicted by standard trade theory given its initially high labour to capital ratio. This ratio, along with the liberalization of the financial sector, was associated with one more important feature of this period: growth in FDI and Malta’s income convergence on the EU.

Foreign Direct Investment

Capital tends to flow to where its returns are highest unless restricted by capital controls. Returns are higher in economies with initially low levels of capital relative to labour, like 1980s Malta, as there is room there for capital accumulation and productivity-enhancing technological upgrading.⁹¹ This is why initially poorer, capital-scarce countries tend to grow faster than richer countries, conditional on a stable institutional context.⁹²

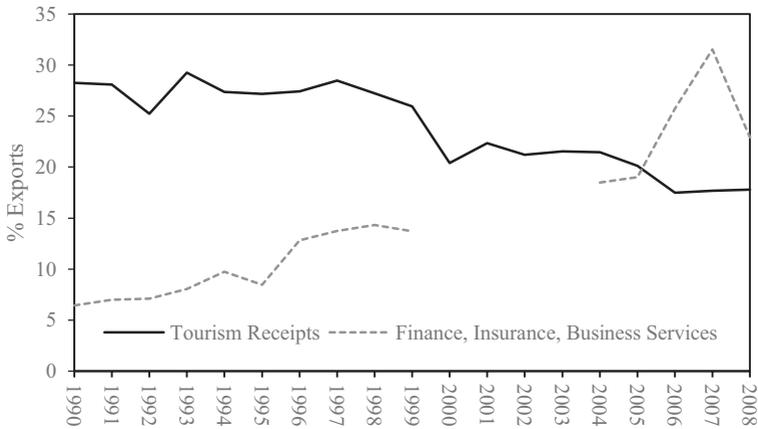


Fig. 5.11 From tourism to finance exports, 1990–2008. Notes: Data for ‘Finance, Insurance, Business services’ from UN Conference on Trade and Development, Data Center, table, ‘Services (BPM5): Exports and imports by service-category, value, shares and growth, annual, 1980–2013’. Category names: ‘Financial Services’, ‘Insurance’, and ‘Other business services’. For 1990–1994, tourism receipts data are from Blake, A., *The Impact of Tourism in Malta*, Report for the Malta Tourism Authority, University of Nottingham, 2003, p. 12. For 1995 onwards, the data are from the World Bank Databank, series: International tourism, receipts (current US\$). All data were converted into current dollars. Services exports data are also from the World Bank Databank, series: Service exports (current US\$)

Countless studies have shown that EU accession plays an important role in attracting FDI inflows across a number of countries.⁹³ The effect works its way through reducing costs to a large market, enabling economies of scale and high returns on investment in host countries, and increasing competition. Perhaps most important is the ‘credibility-enhancing mechanism: a domestic liberal regime obtains an extra credibility when a country becomes party of the agreement with a highly developed partner’.⁹⁴ One econometric analysis of FDI inflows into the 2004 EU accession countries concluded that,

[t]he process of economic liberalization in the new accession countries, as well as the anticipation of the effects of their adhesion to the EU, have promoted a considerable increase in inward FDI flows into these economies during the 1990s.⁹⁵

Malta was no exception to this story. Figure 5.12 shows two pieces of evidence that are consistent with standard growth theory on capital flows and income convergence. The broken line shows Malta's FDI inflows as a percentage of its GDP, and the unbroken line shows Malta's per capita GDP level as a percentage of the EU level, both in PPP. Between 1990 and 2000, FDI inflows went from 1.8 per cent of GDP to 14.3 per cent of GDP, and Malta's per capita GDP level went from 65 per cent to 79 per cent of the EU level. The convergence process was interrupted around the 1996 and 1998 general elections.

A dramatic reversal in FDI inflows occurred at the time of the 2001 global crisis, when Malta's convergence on the EU also subsided. FDI reached its pre-crisis level around 2005, but convergence never quite recovered. The convergence slowdown is due to slower growth in Malta, as we saw in the discussion around Fig. 5.1. Until 2001, FDI inflows were driving income convergence as they were complemented with growth-enhancing demand-side reforms. The discussion around Fig. 5.1 showed us that after 2001 world trade liberalization coupled with competition from low-wage economies like China provided a challenge for Malta's traditional export firms. These firms were important drivers of Malta's convergence on the EU up to 2001. Further convergence in this new

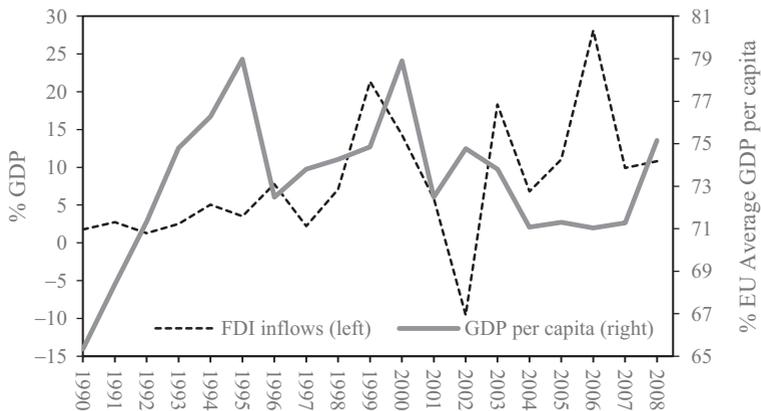


Fig. 5.12 Foreign direct investment, 1900–2008. Notes: FDI data from UN Conference on Development and Trade, Data Center, table, ‘Inward and outward foreign direct investment flows, annual, 1970–2013’. GDP data from IMF World Economic Outlook, April 2014

environment required moving into higher-skilled production, which in turn required improvements in human capital. This could not be achieved with FDI alone.

FDI inflows needed to be complemented with human capital accumulation in order to generate growth and convergence in the post-2001 period. Technological upgrading has little effect on productivity when human capital is not also upgraded. This was the approach followed by other small open economies like Singapore, where ‘high quality industry-gear training centres were set up by the State jointly with transnational corporations for specialised worker training’.⁹⁶ This gave Singapore a competitive edge over other countries in attracting FDI inflows. Malta’s policymakers were not as proactive. The first substantive policy response to the FDI growth divergence came in 2001 with the revised Business Promotion Act, which aimed to redirect financial incentive from the traditional 1960s–1970s export-oriented activity towards high value-added ones.⁹⁷ The second response came in 2003 with the Malta Enterprise Act, which provided for a corporation, named Malta Enterprise, charged with attracting and managing FDI projects.⁹⁸

Privatization, Public Sector, and Public Services Reform

To get a sense of the need for reform in the public service, consider the conclusions of the Public Service Reform Commission (PSRC) review, commissioned by the government in 1988:

[The public service] is caught in the throes of a prolonged crisis of morale; appears to lack a sense of mission; lacks effective leadership; is hindered by an organizational culture inimical to change; and is burdened by difficult experiences. Its relations with politicians and the public are marred by mutual mistrust and misunderstanding. Its prestige has declined tangibly: it presents an image of neglect or indifference to its members, to prospective recruits, to its customers. ... There seems to be little understanding of management concepts, and such management talent as has been retained is dissipated in ‘crisis management’ arising from the predominance of short-term considerations.⁹⁹

Complicating matters, a large body of public enterprises and parastatal companies was created mostly between 1971 and 1987 to manufacture and distribute goods and services or, more simply, ‘with the aim of

ensuring vital economic sectors were kept under [state] control'.¹⁰⁰ Up until 1999, the state had 100 per cent shareholdings in: Enemalta (utilities), the Housing Authority, the Malta Drydocks, the Malta Development Corporation, the Water Services Corporation, the Maritime Authority, the Planning Authority, the Public Transport Authority, Public Broadcasting Services Ltd, and the Employment and Training Corporation.¹⁰¹ On an annual basis, these public enterprises cost the government some 4.5 per cent of GDP in subsidies and transfers, while contributing little to revenues—less than 0.5 per cent of GDP in 1998.¹⁰² Parastatal companies, in which the government has at least a 50 per cent shareholding, were equally prominent. Until 1999, Malta had 28 parastatal companies, ranging across a variety of sectors: an airline, casino operations, banking, ship-building, printing, postal services, concrete manufacturing, and antennae manufacturing. As of 1999, the sum of the state's investment in these companies equalled 2.8 per cent of GDP.¹⁰³ Their total nominal value equalled 3.9 per cent of GDP.¹⁰⁴

A number of administrative reforms were implemented in the public service, but failed to make any substantial changes in terms of staffing, decentralization, and cost-efficiency by 1995—the very objectives highlighted by the 1988 PSRC.¹⁰⁵ Consequently, the reform emphasis was shifted more clearly to privatization. The International Monetary Fund and the European Commission had long advised that privatization of public enterprises was necessary to bring in the fiscal deficit, release labour into the more productive private sector, and to comply with EU rules on state aid.¹⁰⁶ Yet heeding this advice was not easy in practice:

*privatisation of public sector enterprises implied heavy job losses. Most of these enterprises had been the object of political patronage under every government and each administration had unashamedly added to their workforces in exchange for votes.*¹⁰⁷

Structural reforms are difficult enough, but in the case of Malta's public sector they were complicated by a reluctance to 'fire voters'.

In an attempt to expedite the process, the government set up a Privatisation Unit in 2000, after publishing in 1999 a white paper titled 'Privatisation: A Strategy for the Future' in which it made public its privatization strategy. The paper claimed that between 1988 and 1996, when the Labour Party was voted into government until 1998, the government had in fact already privatized 22 small companies, but some argued that

these “privatizations” were more cases of conversion into government-owned and run agencies.¹⁰⁸ It is difficult to keep track of the privatization programme’s progress, as no systematic data on it are freely available. In a 2009 reply to a parliamentary question, the then Minister of Finance revealed that since 1987 Nationalist governments had privatized 16 companies, which does not fit with the white paper number.¹⁰⁹ Neither does the list of companies given include the 1999 sale of Mid-Med Bank, Malta’s then largest bank, to HSBC. In a 2005 report, the Maltese authorities told the International Monetary Fund that ‘the privatisation process would be largely concluded by mid-2006’.¹¹⁰ At that point, eight major public enterprises remained on the government’s books: Bank of Valletta, a major commercial bank, Maltacom, the communications provider, Interprint, a printer, Sea Malta, Tug Malta, Malta International Airport, Middle Sea insurers, Air Malta’s hotels and Air Malta itself.¹¹¹

One way of measuring the privatization programme’s progress is to look at one of its outcome measures: public sector employment. As the International Monetary Fund advised, privatization is needed to release labour from the public to more productive private sector.¹¹² If the programme was successful, the proportion of public sector employment in total employment should have declined. Unfortunately, things are not so straightforward here either. Official reports at times report total public sector employment, sometimes public sector employment excluding public enterprises and parastatal companies, and sometimes government services (including defence, healthcare, etc.) alone.

The unbroken line in Fig. 5.13 shows employment in the government services as a proportion of the total labour force. This includes public sector employment in government departments, the airport company, and armed forces (including the Revenue Security Corps branch). The broken line adds onto the latter series public sector employment in all public sector enterprises and in all parastatal companies. There is quite clearly a large level difference between the two series. Employment in public enterprises and parastatal companies is on average 13 percentage points higher, as a proportion of the total labour force, than employment in government services alone. In terms of trend, the two series are similar: both rise gradually until 1993, and both decline gradually until the end of the period. Especially for the pre-1993 period, these trends in public sector employment do not fit the 1999 white paper’s claims that privatization had already begun in earnest between 1988 and 1996. For the post-1997 period, when privatization was given a new impetus with the

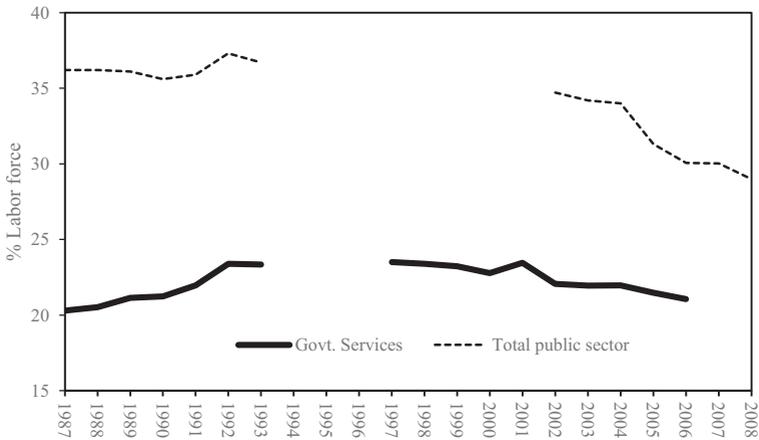


Fig. 5.13 Employment in the public sector and government services, 1987–2008. Notes: Data from 1987 to 1993 from IMF (1995: 83), ‘Malta- Recent Economic Developments’. Remaining years from Central Bank of Malta Annual Reports. In the latter, Govt. Services is number employed in government services or departments, and Total Public Sector is the latter plus employment in public majority companies and independent statutory bodies (Central Bank of Malta 1998: 32; 2000: 26; 2002: 26; 2004: 34; 2006: 36; 2008: 42)

1999 white paper and 2000 Privatisation Unit, total public sector employment dropped from 35 per cent in 2002 to 29 per cent in 2008. A three percentage point drop occurred in from 2004 to 2005 alone, when Malta joined the EU.

Despite the aims of the privatization programme, the public sector’s share of economic activity has held up well. By 2008, the public sector still accounted for 29 per cent of total employment. Malta’s level of public sector employment is high compared to its fellow 2004 EU accession countries. The International Labour Organization’s harmonized numbers for the mid- to late-1990s show Malta’s public sector employment share was 37.6 per cent, compared to Cyprus’ 16.5 per cent, Latvia’s 34.1 per cent, or the Czech Republic’s 23.4 per cent.¹¹³

According to Pirotta, three factors slowed the pace of Malta’s privatization programme: ‘time, a lack of financial resources, and a socio-political environment that is largely hostile to rapid wholesale change’.¹¹⁴ The third point may be overstated, as such change did occur in other parts of the

economy, notably when protective tariffs around the industrial sector were disbanded in preparation for EU membership. More of the blame is likely to rest with ‘time’—restructuring a public sector built up over generations in a period from 1987 to 2004 is difficult—and ‘financial resources’. An International Monetary Fund study showed that ‘separating’ a worker from the public sector in 1990s’ Europe cost an average of \$14,012 per worker, in terms of severance payments, pensions, and safety nets, while savings took a number of years to break-even.¹¹⁵ For the sake of comparison, Malta’s per capita GDP averaged \$8847 in the 1990s.¹¹⁶ There is also a role for the politicization of the public sector, which for a long time was used as a vehicle for political patronage.¹¹⁷ It is difficult for a government to exchange public sector and public enterprise appointments for votes in one term and restructure the public sector at the cost of job losses in its next term.

The privatization of the dockyard brings together the above issues. From 1975 to 1997, a council elected directly by dockyard workers managed what was then known as the Malta Drydocks, which only made a profit in nine years until 2010.¹¹⁸ Its shipbuilding arm, Malta Shipbuilding, only made a profit in the first two years of its 22-year existence—1982 and 1983.¹¹⁹ Meanwhile, the dockyards under the Labour government in 1987 added some 10,000 workers to its payroll in the weeks before the general election of that year.¹²⁰ The strategy failed—at least temporarily. Labour lost the election, but was reelected in 1996. That same year it commissioned the Appledore Report, which suggested that workers who are underemployed should be sent home on ‘basic pay’.¹²¹ The Report’s conclusions were difficult reading for a Labour government so dependent on support from dockyard workers. Rather than implement the reforms, the Labour government assumed direct management of the dockyards in 1997.¹²² No progress was made on the issue before the 1998 general election when the Nationalist Party was returned to government. In 2003, Malta Drydocks and Malta Shipbuilding were dissolved and replaced by the newly established Malta Shipyards.¹²³ The dockyards’ workforce was reduced to 1700 workers from 2600 workers—with the excess workers being transferred to government departments and local councils.¹²⁴ In the 40 years running up to 2010, the government spent an estimated €1 billion on supporting the dockyards.¹²⁵ This expenditure took the form of operating aid, training grants, capital subsidies, and, especially in later years, early retirement schemes. However, as agreed in Malta’s EU accession talks, direct state subsidies to the dockyards had to end by 2008—the

year the government announced its plans to privatize the dockyards. In 2010, the Maltese parliament approved the dockyards privatization plans, and in June of that year the Italian company Palumbo, which operated two smaller yards in Messina and Naples, formally took over the dockyards (the government retained ownership of the land). Palumbo committed itself to invest €32 million in the dockyards, and to initially employ 100 workers with a view to expansion.¹²⁶ It was reported that by 2009 the government had already paid ‘golden handshakes’ to 1567 of the entire dockyards workforce, some 96 per cent of all its workers,¹²⁷ leaving the 100 or so workers for Palumbo. After this restructuring, the dockyards, under Palumbo’s management, finally turned a profit in 2012 and 2013: €2.96 million and €1.57 million, respectively.¹²⁸

STRUCTURAL CHANGE

The structure of Maltese growth since 1987 did not follow the same trajectory as other seemingly similar states. In Cyprus’ experience, for example, the services sector already accounted for 60 per cent of GDP by 1975, while industry and agriculture’s share of GDP was in secular decline until 2008.¹²⁹ This represents the general experience of most European countries, where the industrial sector delivers sustained economic growth, while agriculture declines, and industry is eventually overtaken by the services sector around the mid-twentieth century.

In contrast, Fig. 5.14 shows services initially accounted for a reasonably large share of Malta’s GDP in 1971 (41 per cent), but the sector was then sidelined in favour of heavy industrialization. Industry’s share of GDP actually *increased* between 1970 and 1976 from 52 per cent to 67 per cent of GDP, in line with the government’s import-substitution industrialization policies. It was not until 1992 that services reached the share of GDP it had in 1971. Another four years after it reached this point, services’ share of GDP finally surpassed that of industry—by 0.22 percentage points. The 1995–2000 transition period, out of industry and into services, coincides with many important reforms to both sectors, which we will examine below. The unusual thing about Malta’s experience is the persistent importance of the industrial sector. This feature bears more in common with the Latin American late-industrialisers, like Argentina, which also pursued import-substitution industrialization policies well into the 1970s. Even compared to Argentina, however, Malta’s de-industrialization appears to have been delayed. By 1978, when Malta’s

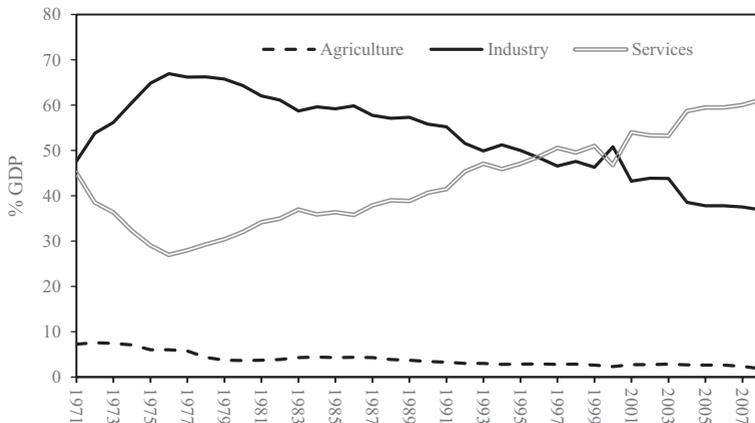


Fig. 5.14 Structural change, 1971–2008. Notes: All data from World Bank Databank, indicators: Agriculture, value added (% of GDP); Industry, value added (% of GDP); and Services, and, so on value added (% of GDP)

industrial sector still accounted for 2.3 times more of its GDP than its services sector, Argentina's services' share in GDP had surpassed that of industry.¹³⁰

The agricultural sector followed the general European path of decline over the course of the period. However, as can be seen in Table 5.1, its share of employment declined very slowly, actually increasing in both relative and absolute terms around 2000 to 2003. A similar pattern can be

Table 5.1 Sectoral employment, 1997–2008

<i>% labour force</i>	<i>1997–2000</i>	<i>2001–2004</i>	<i>2005–2008</i>
Agriculture	1.9	2.4	1.9
Industry	31.5	30.5	27.5
Services	66.6	67.2	70.5
Numbers			
Agriculture	2631	3380	2950
Industry	43,802	45,380	42,200
Services	92,434	98,140	108,450
Labour force	138,867	146,900	153,600

Notes: Data for 1997 to 2000 from Central Bank of Malta Annual Reports (1998: 32; 2000; 26). Remaining data from International Labour Organization, ILOSTAT, table 'Employment by sex and economic activity'

seen in industry's share of employment. Although its value-added share of GDP contracted sharply from the 1990s onwards, its share of employment dropped by a comparatively smaller degree, from 32 to 26 per cent between 1997 and 2008. The services sector, which led output growth from 1996 onwards, saw its employment share increase from 67 to 73 per cent between 1997 and 2008. This six percentage point increase matches the six percentage point drop in industry's share of employment over the period, implying few new opportunities were created in agriculture.

Agriculture

Agriculture's value-added share of GDP went from 4.3 per cent in 1987 to 1.8 per cent in 2008. Its share of GDP was more volatile than that of services or industry during this period.¹³¹ Despite this decline and volatility, its share of total employment has held up well, and the absolute number of people working in agriculture remained mostly flat between 1997 and 2008.

Neither did the composition of agricultural output change much. The real gross production of cereals ('crops harvested for dry grain only')¹³² accounted for a flat 5 per cent of total agricultural gross production between 1987 and 2008.¹³³ For the other two broad categories of Malta's output, livestock ('Animals such as cattle and sheep which are kept on the holding or otherwise for agricultural production') and crops ('production from the field or orchard and gardens'),¹³⁴ we do see some change. Around 1997, the share of the real gross production value of livestock consistently surpassed that of crops, accounting for 51 per cent of production against crops' 45 per cent.¹³⁵ This partly reflects an overall change in food consumption patterns away from cereals, to higher value-added livestock-related agricultural products like cheese and meat.¹³⁶

Limited improvement can be observed in agricultural productivity. The Food and Agricultural Organization's (FAO's) net per capita production indices show an average annual growth of 0.9 per cent for the agricultural sector from 1987 to 2008; 3.7 per cent for cereals; 1.3 per cent for crops; and 0.7 per cent for livestock.¹³⁷

Technological upgrading within the sector enabled this limited productivity growth. From 1970 to 2000, the amount of irrigated land more than doubled, increasing from 625 ha to 1509 ha, making agriculture the primary consumer of water in Malta.¹³⁸ Irrigation raises output and yields by allowing more intensive cultivation of agricultural land. It also

necessitates the use of chemical or natural fertilizers. Between 2002 and 2008, Malta consumed an average of around 600 tonnes of nitrogen fertilizer nutrients per year, and about half that amount of potash and phosphate fertilizers.¹³⁹

Aggregate statistics may overstate productivity, however. Maltese farmers are not accurately accounting for their water consumption, meaning that the costs on which they are basing their projections for profit and crop viability, and so the net production indices themselves, are inflated.¹⁴⁰ As such, Delia finds that when water costs are properly accounted for a number of crops grown in Malta become uncompetitive ‘within a liberalized trade environment’.¹⁴¹

The environment Delia has in mind is defined by EU agricultural policies on agricultural subsidies, particularly the Water Framework Directive, which requires member states to use water-pricing policies by 2010 that incentivize the more efficient use of water. A move towards this new policy environment may in part explain the shift towards the production of higher value-added agricultural goods, like livestock, as the ‘real’ price of water made certain crops uncompetitive.

Researchers tend to agree that agriculture’s slow productivity growth and declining share of GDP is largely down to it being uncompetitive. For the 50-year period up to Malta’s EU accession,

*Maltese agricultural activity survived as a result of a series of protective measures aimed at encouraging production by ensuring a regular income flow to local farmers and animal breeders through a system of price guarantees and quota restrictions on imports.*¹⁴²

There were few incentives for farmers to upgrade their plant and produce, and the sector remained focused on the domestic market, where domestic supply was almost entirely consumed domestically. As such, in anticipation of Malta’s ‘affiliation with the EC [European Community]’, a 1992 FAO report called for a more ‘optimal allocation of domestic resources’ along the lines of ‘comparative advantage in terms of agricultural and rural development’.¹⁴³ This advice was not heeded. A 1999 report from the International Monetary Fund noted that small enterprises in the agricultural sector will have difficulty competing on an equal footing with EU competitors, and that ‘Malta’s agricultural policy measures are not in line with EU legislation and the general role played by the State in the production and marketing of agricultural produce under the Common

Agricultural Policy'.¹⁴⁴ A year later, in its 2000 report on Malta's progress towards EU accession, the European Commission noted that Malta planned to dismantle all levies on European Community imports by 2003, 'except for agricultural products'.¹⁴⁵ It also noted that '[t]he state continues to play an important role in agriculture and there has been little recent progress in preparing the sector for the common agricultural policy'.¹⁴⁶

A number of constraints indicate that agriculture reached a dead end in the twenty-first century. First, the potential to expand cultivated land is limited. Malta's agricultural land as a percentage of its total land area dropped from 56 per cent in 1961 to 40 per cent in 1994, and then to around 28 per cent in 1998 where it remained until 2008.¹⁴⁷ Second, its share of employment held up well between 1997 and 2008, but as a sector it has not created any new opportunities for surplus labour from industry, which was all absorbed by the services sector. The farming population is also ageing rapidly, with few young farmers forthcoming: in 2004, only 19.7 per cent of farmers were under 40 while 27.7 per cent were over 60 years old.¹⁴⁸ Third, it is highly dependent on water and fertilizer inputs, which poses both a financial and environmental constraint.¹⁴⁹ Finally, and perhaps most problematically, the CAP (Common Agricultural Policy) became more and more market-oriented with a series of reforms between 1999 and 2007, while Maltese agricultural policy, encouraged by EU funds, is more concerned with 'rural development' and 'sustainability', seemingly resigned to the idea that the sector cannot compete in an open environment.

Industry

Until the late 1980s, Maltese industry was heavily protected by a system of quantitative import controls, where every imported product was subject to either product-specific import licencing requirements or the state monopoly bulk-buying scheme. With the implementation of the Local Manufactures Promotion Act of 1989 (Chapter 336 Laws of Malta), the government gradually replaced quantitative import controls with tariffs and import levies. Tariffs are generally seen as preferable over quantitative controls since tariffs raise revenue for the government, through customs duties, while quantitative controls generate surplus only for the firm that has an import licence. While the government may charge fees for a licence, the licenced firm still has monopoly pricing power. By the end of 1991, only 40 per cent of all products previously covered by import-licencing controls remained protected under the licence system.¹⁵⁰ The number of

import-licence-protected products was reduced again in 1993, with an amendment to the Local Manufacturing Promotion Act.

Despite these reforms, the level of protection remained high until 1995. Import quantity controls were simply replaced by high import levies on 229 named commodities.¹⁵¹ At this point, tariffs on EU goods ranged between 15 per cent and 130 per cent, most lying around the 40 per cent mark.¹⁵² For non-EU goods, the range was 25 to 140 per cent.¹⁵³ Value-added tax (VAT) of 15 per cent was introduced in January 1995 as a long-term replacement of revenue lost from custom duties on EU imports. Between 1997 and 2003, however, Malta's effectively applied tariff rate on all manufactured goods, weighted by import shares, went from 9.3 to 6 per cent.¹⁵⁴ With EU accession in 2004, tariffs on EU goods were necessarily removed.

Aside from import management, the government actively promoted investment in export-oriented manufacturing. It did this through liberalizing exchange rate controls, allowing a weaker currency to boost exports, and by providing low interest rate loans for equipment, land, and training. These policies had different effects on production across the industrial sector.

For example, the textiles, footwear, and clothing industries, which accounted for 19 per cent of manufacturing valued-added and 23 per cent of manufacturing employment in 1995, saw their value-added share *decline* during liberalization.¹⁵⁵ However, their export orientation increased, with 87 per cent of their sales going overseas in 1993, compared with 81 per cent in 1987.¹⁵⁶ The machinery sector benefitted from foreign investment, particularly in the electronics industry, which has long been dominated by a single firm—SGS Thomson Micro-electronics (later STMicroelectronics). This industry is almost totally export-oriented. Other industries that managed to compete in a more open environment were the chemical, paper, and printing industries, which together represented a large share of total manufacturing sales and employment. Between 1987 and 1993, total sales for the chemical industry nearly doubled and exports trebled.¹⁵⁷

Structural reform was slower in government-owned or run enterprises, like shipbuilding and ship repair. Both public enterprises 'made, persistent large trading losses throughout the 1980s', and remained heavily dependent on government subsidies for their survival until their privatization after 2009.¹⁵⁸ These industries were singled out by the European Commission's 2003 report on Malta's accession progress:

Malta's industrial strategy essentially complies with the concepts and principles of EC [European Community] industrial policy, i.e. it is market-based, stable and predictable. ... The restructuring process is ongoing and Malta has to implement the shipbuilding sector restructuring plan.¹⁵⁹

Industrial restructuring resulted in lower sales and lower employment in industries that came under increasingly intense foreign competition.¹⁶⁰ That we observe an overall 13.5 per cent drop in the absolute number of employees in industry from 2000 to 2008 indicates there was some degree of unpreparedness for foreign competition across the board. Over this same period, real value-added per worker *declined* at the average annual rate of 0.06 per cent.¹⁶¹ Looking at the number of manufacturing establishments can give us a clearer picture of what was happening within the sector.

From 2000 to 2008, the total number of manufacturing establishments dropped by 602, from 3730 to 3128, but there were big differences between industries.¹⁶² The printing and publishing industry lost 25 establishments, which roughly corresponds to the average industry-level drop. Furniture manufacturing lost 312 establishments, while the electrical machinery and apparatus industry did not experience any change. The 'other transport equipment' industry experienced an increase of 13 establishments.

These changes reflect the move to higher value-added manufacturing, and the inability of previously protected firms to compete in an open environment. There are two more things to note here. First, competition had an effect even *within* industries: the number of establishments in the radio, television, and communication equipment industry dropped by 13 per cent, as the real output per establishment increased by 1.15 per cent from 2000 to 2008, implying modest productivity gains. Second, while higher value-added exports took a larger share of Malta's export basket, most of this shift was accounted for by a high concentration in semi-conductors, making exports highly sensitive to specific external demand fluctuations. The demand for semi-conductors alone, in fact, explained most of Malta's variation in total manufacturing exports between 2006 and 2009.¹⁶³

In summary, industrial restructuring inevitably resulted in job losses in the industrial sector and a smaller share of industrial value-added in the economy. Given the degree of protection afforded to the sector pre-EU membership, it was unlikely that much of Malta's manufacturing activity would survive post-EU membership. Despite the efforts of policymakers

to continue providing some support to the sector and prevent a spike in total unemployment, it was ‘the emergence of higher-value-added service activities [that] mitigated the adverse effects of continued restructuring in the manufacturing sector’.¹⁶⁴ Between 1987 and 2002, when much of the restructuring was taking place, total unemployment ranged between 4.1 and 5.8 per cent, with a standard deviation of 0.5 per cent.¹⁶⁵ At the same time, social security spending also increased, including large outlays on pensions and early retirement schemes.¹⁶⁶

Services

The clearest change in Malta’s economy during this period was the growth of the services sector. We have already seen in Fig. 5.14 that its share of GDP went from 38 per cent in 1987 to 61 per cent in 2008. By 2008, the sector accounted for over 70 per cent of all employment. Malta’s transition to a services-based economy happened late compared to other economies: in 1975, services accounted for 59 per cent of Cyprus’ GDP compared to 29 per cent in Malta.¹⁶⁷ By 2008, the respective figures were 78 and 61 per cent. This structural change was enabled by the liberalization of the services sector.

Liberalization has the same effect on many services as it does on goods. For example, software produced in Malta can be exported to a consumer in another country. There are many other services, however, like telecommunications and transport, where production and consumption are domestically simultaneous—these services can be called ‘non-tradables’. For non-tradables, the location of production (capital and labour) must be near the consumer. This further implies that when services are protected, both foreign and domestic suppliers are blocked out. Liberalizing services can therefore ‘lead to enhanced competition from both domestic and foreign suppliers’.¹⁶⁸ Unless foreign supply simply substitutes for domestic supply, increased foreign participation generates more competitive activity and a larger scale of activity.

One econometric study found that ‘countries with fully open telecom and financial services sectors grow up to 1.5 percentage points faster than other countries’.¹⁶⁹ An efficient and well-regulated financial sector allows for the efficient transformation of savings into investment. It ensures that resources are invested where returns are highest. There are also benefits from wider financial product variety, and better risk sharing across the economy.¹⁷⁰ More efficient telecommunications are also important, as

they are a crucial intermediate input in all activities and enable the dissemination of knowledge and technology.

The expansion of Malta's services was broadly based, but two subsectors stand out and deserve attention: tourism and finance. Tourism was an important part of the economy before 1987, but went through a period of sharp decline after 1981. In the mid-1980s, tourism planning was based on short-term measures. After its 1987 election, the Nationalist government commissioned consultants, Horwath and Horwath, to prepare a tourism plan that provides a long-term strategy to improve the sector's prospects. Released in 1990, the Tourism Master Plan recommended 'market diversification and greater emphasis on quality forms of tourism activity'.¹⁷¹ It also recommended promoting more off-peak arrivals, and fewer lower-cost package arrivals in summer.

In terms of diversification away from British tourists, the plan worked well. German arrivals increased from 57,000 in 1985 to 188,000 (16.8 per cent of all arrivals) in 1995.¹⁷² Later marketing efforts targeted Italy, France, and the Netherlands, and later Scandinavia as AirMalta, the national airline, expanded its network to these countries.

The government also invested heavily in infrastructure to support tourism. Reverse-osmosis plants were built to provide greater volumes of drinking water, and a programme of major road construction to ease traffic congestion in the main urban areas was initiated. The airport got a new international terminal, and Gozo got a heliport in 1996. New esplanades were built in Marsascala and St Julian's, and also at Sliema where land was reclaimed from the sea. Historic public buildings in Valletta received repair and were put under conservation programmes.

All told, the number of international tourist arrivals went from 745,900 in 1987 to 1,266,600 by 2002.¹⁷³ The average annual rate of growth in arrivals was 2.7 per cent.¹⁷⁴ Owing to its labour-intensive nature, the tourism sector accounted for some 6 per cent of total employment in 1993, leaving aside its associated downstream employment.¹⁷⁵ In 1998, tourism's employment share rose to 6.7 per cent, and rose again to 7 per cent by 2008.¹⁷⁶

To meet the demand of the tourism industry, a specialist college, the Institute of Tourism Studies, was created in 1987, and construction activity also increased. A number of new hotels were built in Gozo, and older ones were refurbished in Sliema and St Julian's. In line with the Plan's recommendations to attract higher value-added tourists, investment was targeted at four- and five-star hotels.

Tourism also boosted foreign exchange earnings, which from 1987 to 1993 grew at an average rate of more than 16 per cent per year.¹⁷⁷ While exchange rates were still under government control for most of the period, being pegged to a basket of trade-weighted currencies, the authorities provided exchange rate subsidies to British package tour operators—somewhat anomalously with the goal to attract higher value-added tourists. This system was established during 1983 crisis period, when the value of the pound deteriorated rapidly against the overvalued lira, and a measure to encourage British tourist arrivals was needed. Guaranteed exchange rates were set each year for the summer and winter tourist seasons. The summer rate was eliminated after the 1995 season, but the winter rate was kept on until 1997. Even before these dates, the subsidy, paid out of Central Bank profits, was gradually phased out, costing 0.5 per cent of GDP in 1986, 1 per cent in 1989, and 0.3 per cent in 1993.¹⁷⁸ The liberalization of exchange rate controls was driven by EU accession and plans for eventual monetary union accession. Malta adopted the euro as its currency in 2008. As most of the country's tourist arrivals came from the EU, the European Commission in 1999 argued 'With the disappearance of exchange rate costs, Malta's attractiveness as a tourist destination will increase'.¹⁷⁹

The share of tourism's value-added in GDP was 21 per cent in 1990, at the launch of the Plan, but dropped to 16 per cent by 2008.¹⁸⁰ Despite all the policy efforts, much of Malta's tourist accommodation, save from the major hotel chains, was still in need of upgrading by the turn of the century. Seasonality also remained a problem, although the later period saw more of an emphasis on conference and cultural and heritage activities. The sector is also highly sensitive to conditions in tourists' origin countries, something that is stressed in the Central Bank of Malta's Annual Reports between 1998 and 2008. Partly due to these vulnerabilities, and partly due to the policy of promoting higher-skilled, higher value-added services through the liberalization of other subsectors, the tourism sector lost out in relative importance to the financial services industry.

While tourism went into relative decline, bank assets as a percentage of GDP went from 164.2 per cent in 1995 to 233.7 per cent in 2001.¹⁸¹ In 2008, the ratio hit 773 per cent of GDP.¹⁸² Domestic credit from banks to the private sector went from 56 per cent of GDP in 1987, to 86 per cent in 1995, and 124 per cent of GDP in 2008.¹⁸³ As Pullicino and Saliba wrote, '[f]inancial liberalization and privatization fundamentally transformed the Maltese financial system during the 1990s'.¹⁸⁴ Important changes included gradually removing restrictions on bank interest rates, the relaxation of

capital controls, and bringing regulations in line with EU financial sector regulatory frameworks. By 2002, banks were almost entirely privatized, non-bank intermediaries had flourished, and the domestic financial market deepened.

Banks became the main type of financial institution. By 2001, 18 banks were licenced to operate in or from Malta: five deposit money banks catering to the domestic market, and 13 catering to non-residents in foreign currency.¹⁸⁵ The number of banks rose to 23 by September of 2008.¹⁸⁶ The banking sector was highly concentrated: two large banks accounted for around 90 per cent of all deposits and loans in 2001, with another two small institutions collecting the rest.¹⁸⁷ The total assets of deposit money banks amount to €9.2bn in 2001,¹⁸⁸ rising to €15.1bn in 2003, and €36.3bn in 2008.¹⁸⁹ These numbers point to a high level of financial intermediation in the Maltese economy, but depository banks are giving way to alternative sources of finance. As capital account controls were eased, syndicated loans from international banking groups became a larger source of banks' funding.

Most of the banking system was nationalized during the 1970s, but by 2001 around 90 per cent of the share capital of deposit money banks was held by private shareholders.¹⁹⁰ Three banks were privatized between 1994 and 1999, one of the major deposit banks being sold to HSBC. At the end of 2008, however, the government remained the main shareholder in the Bank of Valletta, one of the two major deposit banks, with a 25 per cent shareholding, despite plans for it to be privatized by 2002.¹⁹¹ Despite not being a majority shareholder in the Bank of Valletta, the government retains the right to appoint the Bank's chairman and through that position retains meaningful control of the Bank. This has, over the years, led to accusations of government interference in the Bank's operations.¹⁹²

As for international banks, starting in 1994, policy shifted away from promoting Malta as an offshore centre and towards 'fostering Malta as an international financial centre of repute'.¹⁹³ As such, offshore financial institutions were phased out after that point. No new offshore banks were allowed to register after 1996, and pre-1996 banking licences granted under the Malta Financial Services Centre Act, which enable offshore activity, expired in 2004. Deposits held by non-residents in international banks went from €8.7bn in 2003 to €26.9bn in 2008.¹⁹⁴

Exchange rate controls were eased substantially during the 1990s. By 2001, most current account restrictions had been removed. Capital account liberalization was mostly completed by 2002, except for short-

term capital flows and secondary-home purchases by non-residents, which phased out more gradually, leading up to accession due to their potentially destabilizing effects on Malta's small economy.

Malta's interbank foreign exchange market was liberalized in 1995. After this, banks were allowed to keep open positions, as long as they squared with the Central Bank's authorized prudential limits. The Central Bank committed itself to buy or sell spot foreign exchange to provide liquidity to the deposit money banks. This also instilled confidence in the sustainability of the Maltese lira exchange rate peg.

Around 2001, the lira was pegged to a trade-weighted basket of currencies, where the euro took a 56 per cent weight, US dollar 22 per cent, and pound sterling 22 per cent.¹⁹⁵ Gradually, the euro took a 100 per cent weight. In April 2005, Malta joined the Exchange Rate Mechanism II (ERM II), with the euro set to 0.4293 lira, allowing for a plus or minus 15 per cent fluctuation band.¹⁹⁶ In January 2008, Malta joined the European Monetary Union: the lira was converted at its fixed ERM II exchange rate.

Perhaps more than any other reform in the financial sector, capital account liberalization subjected the domestic financial sector 'to the full impact of globalization and external competition'.¹⁹⁷ Volatile capital flows were a concern, but the coefficient of variation on FDI inflows as a percentage of GDP between 1990 and 2003 is 1.25 compared to 0.57 between 2004 and 2008.¹⁹⁸ A robust regulatory framework—including new minimum reserve requirements and access to EU credit facilities—in line with EU directives appears to have limited some of the risk.

Until 2001, regulation and supervision of the financial sector rested with three authorities. The Central Bank of Malta supervised banks and some non-bank financial institutions. The Malta Financial Service Centre, set up in 1994, supervised offshore banks, insurance companies, and investment services firms. The Malta Stock Exchange, set up in 2002, regulated the listed securities market. In 2002, the Central Bank's regulatory and supervisory role was shifted to the Malta Financial Services Centre, while the Bank retained responsibility for the overall stability of the financial system. This allowed it to focus more closely on monetary policy.

Parliament approved the Central Bank Act in 1994, which gave the Central Bank more autonomy in the conduct of its monetary policy, but not full independence. The 2003 Central Bank of Malta Act (CAP. 204) guaranteed the independence of the Central Bank, but once the capital account liberalization was fully completed and Malta joined the European

monetary union, the Central Bank could only affect interest rates, the main instrument of monetary policy, through its share in the European Central Bank.

In terms of capital markets, the preference for government bonds over corporate bonds did not change. The market capitalization of the former went from 22.2 per cent of GDP in 1995 to 52.1 per cent in 2001, while the market capitalization of corporate bonds went from 1.8 per cent to 6.6 per cent. More change occurred in the equity market.¹⁹⁹ Trading on the Malta Stock Exchange began in January 2002. The Exchange widened the range of financial products for Maltese savers and broadened the sources of investment for borrowing companies. Overall market capitalization of all listed securities rose fourfold between 1995 and 2000, reaching 111 per cent of GDP.²⁰⁰ This was partly driven by an increase in the number of listings, but more due to a higher average value of the listings. These changes, however, mark improvements from a low base. A persistently low turnover as a proportion of market capitalization, in comparison to international standards, points to a thin and illiquid market.

As Pullicino and Saliba predicted in 2002, financial liberalization and increasing exposure to globalization has increased the intensity of competition within Malta's financial sector.²⁰¹ Bonello, governor of the Central Bank of Malta between 1999 and 2008, noted that these changes to some extent mirrored those abroad.²⁰² The globalization of finance, as we now know in retrospect, had role to play in the 2007–2008 global financial crisis. How did the Central Bank of Malta prepare deal with the crisis?

As with other central banks in the European monetary union, the Central Bank of Malta participated in the European Central Bank's deliberations on monetary policy and liquidity provision. It carried out regular monitoring of the financial system, and of the domestic payment and securities settlement systems, in line with its financial stability mandate. A Domestic Standing Group was set up in 2007, composed of senior representatives from the Central Bank, the Malta Financial Services Authority, and the Ministry of Finance, to improve communication between the authorities responsible for Malta's economic and financial stability. Meanwhile, the government raised the guarantee provided on bank deposits to €100,000.

Inevitably for a small and open economy, with a large and liberalized financial sector, Malta was hit by the crisis: its real GDP growth rate dropped from 3.3 per cent in 2008 to –2.4 per cent in 2009.²⁰³ However, that Malta did not go down an even more finance-intensive

development path, as Cyprus did, spared it some pain. Malta's GDP growth jumped back 3.5 per cent in 2010, averaging 2.9 per cent until 2014. Cyprus, in contrast, averaged a post-2009 growth rate of -1.7 per cent.

NOTES

1. The countries: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia.
2. Azzopardi, R.M., *Social Policies in Malta*, Social Policies in Small States Series, London: Commonwealth Secretariat, 2011.
3. Briguglio, L., The Economy of a Small Island State, Malta, 1960–1993, *Mediterranean World* 14, 1995, 105–120.
4. World Bank Databank, series: GDP growth (annual %).
5. Simple growth accounting, where share of increase is calculated as real net exports percentage change from 1971 to 1979, multiplied by real net exports share in 1971 real GDP. World Bank Databank data.
6. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
7. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
8. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 283.
9. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 282–3.
10. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 282–3.
11. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY: Oxford University Press, 1993, 282–3.

12. The highest unemployment rate on record is 9.4 per cent in 1984: Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
13. The drop in the real GDP growth rate between 1980 and 1985 was 4.5 percentage points. In growth accounting, the growth rates of each GDP component is weighted by its share in GDP. The weighted growth rate thus represents each component's contribution to GDP growth or decline. All data are from the World Bank's Databank, and are in constant 2005 dollars.
14. Fitoussi, J.P. and Phelps, E.S., Causes of the 1980s Slump in Europe, Brookings Papers in Economic Activity, 16(2), 1986, 487.
15. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
16. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 106.
17. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Tourism: http://www.centralbankmalta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=4404.
18. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY : Oxford University Press, 1993, 282.
19. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth : five small open economies*. A World Bank comparative study. New York, NY : Oxford University Press, 1993, 282.
20. Central Bank of Malta, Structural Changes in the Maltese Economy, Article published in the Annual Report 2014, p. 75.
21. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY : Oxford University Press, 1993, 272.
22. Scicluna, E., Export Competitiveness and the Maltese Economy, Malta: Federation of Industries, 1984.
23. Briguglio, L., The Economy of a Small Island State, Malta, 1960–1993, *Mediterranean World* 14, 1995, 108.

24. Argentina, Brazil, and Mexico in the 1970/80s Latin American crisis are the classic cases.
25. Ray, D. *Development Economics*, Princeton, NJ: Princeton, 1998, 685.
26. Ray, D. *Development Economics*, Princeton, NJ: Princeton, 1998.
27. Standard growth accounting, based on World Bank Databank sources.
28. World Bank Databank data. Net foreign aid and development assistance deflated using 2005 GDP deflator. Real GDP flows are flows in 2005 dollars from one year to the next.
29. The Nationalist party won 50.9 per cent of votes against Labour's 49.1 per cent. Labour won 34 seats against the Nationalist's 31. More of the dissatisfaction lay in a series of human rights violations, catalogued in Rossi, E., *Malta on the brink: from western democracy to Libyan satellite*, London: Alliance, for Institute for European Defence & Strategic Studies, 1986.
30. Findlay, R. and Wellisz, S., *The political economy of poverty, equity, and growth: five small open economies*. A World Bank comparative study. New York, NY : Oxford University Press, 1993, 272.
31. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
32. World Bank Databank, series: GDP per capita (constant 2005 US\$).
33. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
34. Fenech, D., The 1987 Maltese Election: Between Europe and the Mediterranean, *West European Politics* 11:1, 134.
35. European Commission, DG DEVCO, Economic Reforms (Transition to a Market-Based Economy), 2013: http://ec.europa.eu/europeaid/economic-reforms-transition-market-based-economy_en.
36. European Commission, DG DEVCO, Economic Reforms (Transition to a Market-Based Economy), 2013: http://ec.europa.eu/europeaid/economic-reforms-transition-market-based-economy_en.

37. Malta Labour Party, *Malta and the EEC: Economic and Social Aspects*, Valletta: Information Department, 1990.
38. Azzopardi, R.M., *Social Policies in Malta*, Social Policies in Small States Series, London: Commonwealth Secretariat, 2011, 16. Azzopardi writes that FDI was not limited to European countries, but does not provide any evidence of this.
39. Redmond, J., Cyprus, Malta and the European Community: Accession, Association or Partnership?, *Paper presented at the European Community Studies Association Conference*, Washington, 27–29 May, 1993, 12.
40. This borrows from Ray, D., *Development Economics*, Princeton University Press, 1997, pp. 769–71.
41. European Commission (1993). ‘Opinion on Malta’s Application for Membership’, *Bulletin of the European Communities*, Supplement 4 of 1993, 13.
42. European Commission, Regular Report on Malta’s Progress Towards Accession, Brussels, 13 November 2001, SEC(2001) 1751, 17.
43. European Commission, Regular Report on Malta’s Progress Towards Accession, Brussels, 13 November 2001, SEC(2001) 1751, 17.
44. The International Monetary Fund consulted with the Maltese authorities on a number of occasions, and produced various reports: <http://www.imf.org/external/country/mlt/index.htm>.
45. International Monetary Fund, *Malta—Recent Economic Developments*, Washington DC: IMF, 1995, p. 4.
46. International Monetary Fund, *Malta—Article IV Consultation*, Washington DC: IMF, 2003, p. 11.
47. Briguglio, L., *The Economy of a Small Island State*, Malta, 1960–1993, *Mediterranean World* 14, 1995, 108–9.
48. International Monetary Fund, *Malta—Article IV Consultation*, Washington DC: IMF, 2008, p. 3.
49. This example is based on goods liberalization. For empirical evidence on the gains from liberalizing services, see: Matto, A., Rathindran, R., and Subramanina, A., *Measuring Services Trade Liberalisation and Its Impact on Economic Growth: An Illustration*, World Bank Policy Research Working Paper No. WP 2655, 2001. For empirical evidence on the overall gains from liberalization reforms see: Sachs, J., Warner, A., Aslund, A., and

- Fischer, S., Economic Reform and the Process of Global Integration, *Brookings Papers on Economic Activity*, 1, 1995, 1–118. For a theoretical case, see: Krueger, A., Why Trade Liberalisation is Good for Growth, *The Economic Journal*, 108(450), 1998, 1513–1522.
50. Ray, D. *Development Economics*, Princeton, NJ: Princeton, 1998, 647.
 51. This example draws on the exposition in Ray, D. *Development Economics*, Princeton, NJ: Princeton, 1998, 627–630.
 52. Ebejer, I., Malta's growth predicament: from frontrunner to laggard...and back?, *ECFIN Country Focus III(14)*, 2006, p. 4.
 53. Central Bank of Malta, Real Economy Indicator—Tourist arrivals (1960–2003) (Annual), Online: http://www.centralbankmalta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=5664. Accessed: 7 January 2016.
 54. Ebejer, I., Malta's growth predicament: from frontrunner to laggard ... and back?, *ECFIN Country Focus III(14)*, 2006, p. 5.
 55. Ebejer, I., Malta's growth predicament: from frontrunner to laggard ... and back?, *ECFIN Country Focus III(14)*, 2006, p. 5.
 56. European Commission. 2008. The Labour Income Share in the European Union, *Employment in Europe 2007*, Brussels, European Commission, ch.5, 245.
 57. Ebejer, I., Malta's growth predicament: from frontrunner to laggard ... and back?, *ECFIN Country Focus III(14)*, 2006, p. 5.
 58. Ebejer, I., Malta's growth predicament: from frontrunner to laggard ... and back?, *ECFIN Country Focus III(14)*, 2006, p. 6.
 59. World Bank Databank, series: GDP per capita, PPP (constant 2011 international dollars).
 60. Fenech, D., The 1987 Maltese Election: Between Europe and the Mediterranean, *West European Politics* 11:1, 134.
 61. This example draws on the exposition in Ray, D. *Development Economics*, Princeton, NJ: Princeton, 1998, 648–649.
 62. Central Bank of Malta, Structural Changes in the Maltese Economy, Article published in the Annual Report 2014, pp. 72–76.
 63. This happened during Latin America's liberalization. See: Perry, G. and Olarreaga, M., Trade Liberalisation, Inequality and Poverty Reduction in Latin America, in Bourguignon, F. and Pleskovic, B. (eds.) *Annual World Bank Conference on Development Economics*

- Regional 2007: Beyond Transition, 2007, Washington DC: World Bank, pp. 103–140.
64. European Commission. 2008. The Labour Income Share in the European Union, Employment in Europe 2007, Brussels, European Commission, ch.5, 245.
 65. Goldin, C. and Katz, L., The Race Between Education and Technology, 2010, Cambridge, MA: Harvard University Press.
 66. World Bank Databank, series: Labor force with tertiary education (% of total).
 67. For more information on its calculation and use, see: <http://hdr.undp.org/en/content/human-development-index-hdi>.
 68. See:<http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>.
 69. See:<http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>.
 70. See:<http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>.
 71. See:<http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>.
 72. See:<http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>.
 73. St Louis Federal Reserve call this measure ‘openness’: <https://research.stlouisfed.org/fred2/categories/33105>.
 74. Cyprus data from St Louis Federal Reserve data: <https://research.stlouisfed.org/fred2/series/OPENRPCYA156NUPN>.
 75. Ireland data from St Louis Federal Reserve data: <https://research.stlouisfed.org/fred2/series/OPENRPIEA156NUPN>.
 76. Singapore data from St Louis Federal Reserve data: <https://research.stlouisfed.org/fred2/series/OPENRPSGA156NUPN>.
 77. Hong Kong data from St Louis Federal Reserve data: <https://research.stlouisfed.org/fred2/series/OPENRPHKA156NUPN>.
 78. Sant, A., Malta’s Political and Economic Development post-1987: A Convergence of Strategies?—A Background Interview with a British Academic Researcher, online: <http://www.alfredsant.org/pages/dassingle.asp?id=239>. Accessed 10 February 2016.
 79. Exports of goods and services grew by 888 per cent from 1971 to 1986 while GDP grew by 542 per cent. Both series in current dollars. World Bank Databank, series: GDP (current US\$) and Exports of goods and services (current US\$).

80. United Nations Conference on Trade and Development, UNCTADSTAT—Most favoured nation rate (MFN rate) and effectively applied rate, annual, 1988–2012, where the ‘origin’ is the ‘world’ and ‘duty type’ is ‘effectively applied rate’.
81. United Nations Conference on Trade and Development, UNCTADSTAT—Most favoured nation rate (MFN rate) and effectively applied rate, annual, 1988–2012, where the ‘origin’ is the ‘world’ and ‘duty type’ is ‘effectively applied rate’.
82. United Nations Conference on Trade and Development, UNCTADSTAT—Most favoured nation rate (MFN rate) and effectively applied rate, annual, 1988–2012, where the ‘origin’ is the ‘world’ and ‘duty type’ is ‘effectively applied rate’.
83. World Bank Databank, series: Manufactures exports (% of merchandise exports).
84. Central Bank of Malta, Structural Changes in the Maltese Economy, Article published in the Annual Report 2014.
85. Placios, M., Labor Intensity, Risk, and Return, Vanderbilt Owen Graduate School of Management Research Paper No. 2024365, p. 47.
86. Data from UNCTAD Data Center. Electrical equipment refers to the sum of ‘Electric power machinery, and parts thereof’ and ‘Apparatus for electrical circuits; board, panels’ exports to the rest of the world. Tobacco products refer to the sum of ‘Tobacco, unmanufactured; tobacco refuse’ and ‘Tobacco, manufactured’ exports to the rest of the world. All data are in current dollars.
87. From 1990 to 1994, tourism receipts data are from Blake, A., *The Impact of Tourism in Malta*, Report for the Malta Tourism Authority, University of Nottingham, 2003, p. 12. For 1995 onwards, the data are from the World Bank Databank, series: International tourism, receipts (current US\$). All data were converted into current dollars. Services exports data are also from the World Bank Databank, series: Exports of goods and services (current US\$).
88. See: <http://www.ilo.org/global/industries-and-sectors/hotels-catering-tourism/lang--en/index.htm>.
89. ‘Food and kindred products’ versus ‘Hotels and lodging places’ in Placios, M., Labor Intensity, Risk, and Return, Vanderbilt Owen Graduate School of Management Research Paper No. 2024365, pp. 47–48.

90. Data are from the UNCTAD Data Center. The definition for ‘other business services’ is ‘Includes merchanting and other trade-related services; operational leasing services; and miscellaneous business, professional and technical services (legal, advertising, consulting, accounting, R&D, etc.)’.
91. Barro, R.J., Mankiw, N.G., and Sala-i-Martin, X., *Capital Mobility in Neoclassical Models of Growth*, *American Economic Review* 85(1), 1995, pp. 103–115.
92. See: Sachs, J., Warner, A., Aslund, A., and Fischer, S., *Economic Reform and the Process of Global Integration*, *Brookings Papers on Economic Activity*, 1, 1995, 1–118; or Sala-i-Martin, X., *The World Distribution of Income: Falling Poverty and ... Convergence, Period*, *Quarterly Journal of Economics* 121(2), 2006, pp. 351–397.
93. Alguacil, M., Cuadros, A., and Orts, V., *EU Enlargement and Inward FDI*, *Review of Development Economics* 12(3), 2004, pp. 594–604; Bevan, A. and Estrin, S., *The determinants of foreign direct investment into European transition economies*, *Journal of Comparative Economics* 32(4), 2004, 775–787; Janicki, H., and Wannava, P., *Determinants of foreign direct investment: empirical evidence from EU accession candidates*, *Applied Economics* 36(5), 2004, 505–509; Kaminski, B., *How Accession to the European Union Has Affected External Trade and Foreign Direct Investment in Central European Economies*, *World Bank Policy Research Working Paper No. 2578*, 2001, 1–43.
94. Kaminski, B., *How Accession to the European Union Has Affected External Trade and Foreign Direct Investment in Central European Economies*, *World Bank Policy Research Working Paper No. 2578*, 2001, p. 27.
95. Alguacil, M., Cuadros, A., and Orts, V., *EU Enlargement and Inward FDI*, *Review of Development Economics* 12(3), p. 602.
96. Montfort, K., *Easing the Way for Foreign Direct Investment*, *Bank of Valletta Review* 26, Autumn 2002, p. 67.
97. *The Business Promotion Act*, Chapter 325 of the Laws of Malta.
98. *Malta Enterprise Act—Chapter 463 of the Laws of Malta*.
99. Quoted in in Polidano, C., *Country Report—Public Service Reform in Malta, 1988–1995: Lessons to be Learned*, *Governance* 9(4), 1996, p. 464.

100. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, p. 7.
101. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, p. 8.
102. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, pp. 8–9.
103. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, p. 8. GDP number from Central Bank of Malta, Economics & Statistics—Real Economy Indicators, ‘Gross National Product by category of expenditure at current market prices (1954–2003) (Annual)’.
104. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, p. 8. GDP number from Central Bank of Malta, Economics & Statistics—Real Economy Indicators, ‘Gross National Product by category of expenditure at current market prices (1954–2003) (Annual)’.
105. For an assessment see: Polidano, C., Country Report—Public Service Reform in Malta, 1988–1995: Lessons to be Learned, *Governance* 9(4), 1996, pp. 459–480.
106. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, p. 6; European Commission (1993). ‘Opinion on Malta’s Application for Membership’, *Bulletin of the European Communities*, Supplement 4 of 1993.
107. Pirotta, G., Public Enterprise Implications of Malta’s Entry into the European Union, *Asia Pacific Journal of Public Administration* 27(2), p. 207.
108. Pirotta, G., A Farewell to Paternalism through Public Enterprise? Privatisation in the Small Island State of Malta, *International Review of Public Administration* 6(1), p. 41.
109. The companies: Maltapost, Malta International Airport, Maltaco, Freeport Terminals Ltd, Go, Tug Malta, Oil Tanking, Med Power Electric Ltd, Medelec Switchgear Ltd, Mediterranean Film Studios, Quality Shoes, Żrar Ltd, Beltilhażna Containers Ltd, Mqabba Marbles, Leisure Clothing, Air Supplies Ltd and MP Clothing. See: *The Times of Malta*, 16 companies privatised, Tuesday, 19 May 2009.
110. International Monetary Fund, Malta: 2005 Article IV Consultation: Staff Report; Staff Statement; Public Information

- Notice on the Executive Board Discussion; and Statement by the Executive Director for Malta, 2005, p. 18.
111. International Monetary Fund, Malta: 2005 Article IV Consultation: Staff Report; Staff Statement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Malta, 2005, p. 18.
 112. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999.
 113. Hammouya, M., Statistics on Public Sector Employment: Methodology, Structures and Trends, International Labour Organisation Sectoral Activities Programme, Bureau of Statistics Working Paper SAP 2.85/WP.144, 1999, p. 12.
 114. Pirotta, G., A Farewell to Paternalism through Public Enterprise? Privatisation in the Small Island State of Malta, *International Review of Public Administration* 6(1), p. 47.
 115. Haltiwanger, J. and Singh, M., Cross-Country Evidence on Public Sector Retrenchment, *The World Bank Economic Review* 13(1), p. 33.
 116. World Bank Databank, 1990s-average of series: GDP per capita (current US\$).
 117. Polidano, C., Country Report—Public Service Reform in Malta, 1988–1995: Lessons to be Learned, *Governance* 9(4), 1996; and Pirotta, G., Public Enterprise Implications of Malta’s Entry into the European Union, *Asia Pacific Journal of Public Administration* 27(2), p. 207.
 118. Staff Writer, Parliament starts final chapter of dockyard privatisation—Opposition says contract ‘shameful’, *The Times of Malta*, Wednesday, May 12, 2010.
 119. Staff Writer, Parliament starts final chapter of dockyard privatisation—Opposition says contract ‘shameful’, *The Times of Malta*, Wednesday, May 12, 2010.
 120. Staff Writer, Parliament: Privatisation Approved, *The Malta Independent*, Thursday May 20, 2010.
 121. Fenech, N., Dockyard workers ‘may be sent home on basic pay’, *The Times of Malta*, Friday, 26 September 2003.
 122. Staff Writer, Updated: Government to start dockyard privatisation process, *The Times of Malta*, Wednesday, 18 June 2008.
 123. Staff Writer, Updated: Government to start dockyard privatisation process, *The Times of Malta*, Wednesday, 18 June 2008.

124. Staff Writer, Updated: Government to start dockyard privatisation process, *The Times of Malta*, Wednesday, 18 June 2008.
125. Staff Writer, Updated: Government to start dockyard privatisation process, *The Times of Malta*, Wednesday, 18 June 2008.
126. Staff Writer, Palumbo priority to restore Malta dockyard credibility, *The Times of Malta*, Thursday, 3 June 2010.
127. Vella, M., Revealed: Dockyard Privatisation in Serious Trouble, *MaltaToday on Sunday*, Sunday, 22 February 2009.
128. Macdonald, V., Palumbo reports profit, nearly doubles turnover, *The Times of Malta*, Thursday, 12 February 2015.
129. World Bank Data Bank, series: Agriculture, value added (% of GDP), Industry, value added (% of GDP), Services, etc., value added (% of GDP).
130. World Bank Data Bank, series: Agriculture, value added (% of GDP), Industry, value added (% of GDP), Services, etc., value added (% of GDP).
131. Measured as the coefficient of variation (standard deviation over mean) for the value-added shares from 1987 to 2008. Same data as in Figure 8.13.
132. Definition from The Food and Agricultural Organization (FAO): <http://www.fao.org/es/faodef/fdef01e.htm>.
133. Food and Agricultural Organization (FAO), FAOSTAT—Production—Value of Agricultural Production, Gross Production Value (constant 2004–2006 million US\$).
134. The Food and Agricultural Organization (FAO) glossary is at: <http://faostat.fao.org/site/375/default.aspx>.
135. Food and Agricultural Organization (FAO), FAOSTAT—Production—Value of Agricultural Production, Gross Production Value (constant 2004–2006 million US\$).
136. Tessier, S. and Gerber, M., Factors determining the nutrition transition in two Mediterranean islands: Sardinia and Malta, *Public Health Nutrition* 8(8), 2005, 1286–1292.
137. Food and Agricultural Organization (FAO), FAOSTAT—Production—Value of Agricultural Production, Net per capita Production Index Number (2004–2006 = 100). Numbers rebased so that 1987 = 100.
138. Delia, E.P., The Economic Relevance of Agriculture for Malta's Economy, APS Bank Occasional Paper 5, 2005, pp. 15–6.

139. Food and Agricultural organization (FAO), FAOSTAT—Resource Statistics—Fertilizers, 2013.
140. Delia, E.P., The Economic Relevance of Agriculture for Malta's Economy, APS Bank Occasional Paper 5, 2005, pp. 15–6.
141. Delia, E.P., The Economic Relevance of Agriculture for Malta's Economy, APS Bank Occasional Paper 5, 2005, p. 18.
142. Attard, G. and Meli, A., Malta—Agriculture, Fishery, Food and Sustainable rural Development, CIHEAM Country Profile, 2008, pp. 301–8.
143. Quoted in FAO, Selected Issues in Agricultural Policy Analysis in the Near East, Rome: FAO, 1995, p. 103.
144. International Monetary Fund, Malta—Selected Issues and Statistical Appendix, 1999, p. 49.
145. European Commission, 2000 Regular Report from the Commission on Malta's Progress towards Accession, 8 November 2000, p. 7.
146. European Commission, 2000 Regular Report from the Commission on Malta's Progress towards Accession, 8 November 2000, p. 24.
147. World Bank Databank, series: Agricultural land (% of land area).
148. Malta Ministry for Rural Affairs and the Environment, Rural Development Department, The Rural Development Plan for Malta, 2004–2006, June 2004, p. 23.
149. Meli, A., Overview of agricultural land use in Malta, in Busuttil, S., Lerin, F., Mizzi, L. (eds.), Malta: Food, agriculture, fisheries, and the environment, Montpellier: CIHEAM, 1993, 71–75.
150. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 52.
151. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 53.
152. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 53.
153. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 53.
154. United Nations Conference on Trade and Development, UNCTADSTAT—Most favoured nation rate (MFN rate) and effectively applied rate, annual, 1988–2012, where the “origin” is the “world” and “duty type” is “effectively applied rate.”

155. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 6.
156. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 6.
157. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 6.
158. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 7.
159. European Commission, Comprehensive monitoring report on Malta's preparations for membership 2003, SEC (2003) 1206 final, 5 November 2003, p. 36.
160. International Monetary Fund, Malta—Article IV Consultation, Washington DC: IMF, 2005.
161. Derived using the industrial employment figures in Table 8.2, and the World Bank Databank series: Industry, value added (% of GDP) and GDP (constant 2005 US\$).
162. Data from United Nations Industrial Development Organization (UNIDO), Selected Dataset: INDSTAT 2 2015, ISIC Revision 3, 2-digit, where country is Malta and variables are 'Establishments' and 'Output', the latter in US dollars, which was deflated using the World Bank Databank GDP deflator (2005 base).
163. International Monetary Fund, Malta—Article IV Consultation, Washington DC: IMF, 2009, p. 5.
164. International Monetary Fund, Malta—Article IV Consultation, Washington DC: IMF, 2007, p. 5.
165. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Labour Market Statistics: http://www.centralbank-malta.org/site/excel/statistics/labour_market_indicators_annual.xls?revcount=1795.
166. International Monetary Fund, Malta—Recent Economic Developments, Washington DC: IMF, 1995, p. 59.
167. World Bank Databank, series: Services, etc., value added (% of GDP).
168. Matto, A., Rathindran, R., and Subramanina, A., Measuring Services Trade Liberalisation and Its Impact on Economic Growth: An Illustration, World Bank Policy Research Working Paper No. WP 2655, 2001, p. 6.
169. Matto, A., Rathindran, R., and Subramanina, A., Measuring Services Trade Liberalisation and Its Impact on Economic

- Growth: An Illustration, World Bank Policy Research Working Paper No. WP 2655, 2001, p. 3.
170. See Shiller, R., *Finance and the Good Society*, Princeton, NJ: Princeton University Press, 2012.
 171. Lockhart, D.G., ‘We promise you a warm welcome: tourism to Malta since the 1960s’, *GeoJournal* 41(2), p. 147.
 172. Lockhart, D.G., ‘We promise you a warm welcome: tourism to Malta since the 1960s’, *GeoJournal* 41(2), p. 147.
 173. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Tourism: http://www.centralbankmalta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=602.
 174. Central Bank of Malta, Economics and Statistics, Real Economy Indicators—Tourism: http://www.centralbankmalta.org/site/excel/statistics/tourist_arrivals_annual.xls?revcount=602.
 175. International Monetary Fund, *Malta—Recent Economic Developments*, Washington DC: IMF, 1995, p. 7.
 176. Data from Central Bank of Malta, Annual Report, 1998, p. 32, where sector is ‘Hotels and catering’ and Central Bank of Malta, Annual Report, 2008, p. 42, where sector is ‘Hotels and restaurants’.
 177. International Monetary Fund, *Malta—Recent Economic Developments*, Washington DC: IMF, 1995, p. 7.
 178. International Monetary Fund, *Malta—Recent Economic Developments*, Washington DC: IMF, 1995, p. 48.
 179. European Commission, Economic and Financial Affairs, *Benefits of the Euro for Malta*, May 1999, p. 2.
 180. For 1990 to 1994, tourism receipts data are from Blake, A., *The Impact of Tourism in Malta*, Report for the Malta Tourism Authority, University of Nottingham, 2003, p. 12. For 1995 onwards, the data are from the World Bank Databank, series: International tourism, receipts (current US\$). The GDP data are from the World Bank Databank, series: GDP (current US\$).
 181. Pullicino, D.A. and Saliba, R.G., *The Financial Sector in Malta: Structure, Performance, and Trends*, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 154.
 182. Bank assets number from Central Bank of Malta, *Quarterly Review 2008 Q4*, Valletta, 2008, p. 52. GDP number from World Bank Databank, series: GDP (current LCU).

183. World Bank Databank, series: Domestic credit to private sector by banks (% of GDP).
184. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 153.
185. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 153.
186. Bank assets number from Central Bank of Malta, *Quarterly Review 2008 Q4*, Valletta, 2008, p. 52.
187. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 153.
188. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 154.
189. Central Bank of Malta, *Statistics—Monetary, banking and financial markets, Deposits held with other monetary financial institutions by currency*: <http://www.centralbankmalta.org/site/excel/statistics/omfidepcurrency.xls?revcount=6813>.
190. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 155.
191. International Monetary Fund, *Malta—Article IV Consultation*, Washington DC: IMF, 2008, p. 16.
192. Staff writer, *BoV refute allegations of government interference*, *The Sunday Times of Malta*, Sunday, 20 June 2004.
193. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 155.
194. Central Bank of Malta, *Statistics—Monetary, banking and financial markets, Deposits held with other monetary financial*

- institutions by currency: <http://www.centralbankmalta.org/site/excel/statistics/omfidepcurrency.xls?revcount=6813>.
195. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 156.
 196. European Union, Communique, Brussels, 29 April 2005: http://ec.europa.eu/economy_finance/publications/publication_6218_en.pdf.
 197. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 167.
 198. United Nations Conference on Trade and Development, UNCTADSTAT—Inward and outward foreign direct investment flows, annual, 1970–2013.
 199. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 162.
 200. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 161.
 201. Pullicino, D.A. and Saliba, R.G., The Financial Sector in Malta: Structure, Performance, and Trends, in Thimann, C. (ed.), *Financial Sectors in EU Accession Countries*, Frankfurt: European Central Bank, July 2002, p. 168.
 202. Bonello, M.C., Financial Crisis Impact on the Maltese Economy, Speech by Mr Michael C. Bonello, Governor of the Central bank of Malta, at the annual dinner of the Malta Institute of Financial Services, St Julian's Malta, 5 December 2008.
 203. International Monetary Fund, World Economic Outlook Database, April 2015, series: Gross domestic product, constant prices.

Final Remarks

ECONOMIC INSTITUTIONS IN CONTEMPORARY MALTA

The economic liberalization process that started, in earnest, in the early 1990s overhauled many of the country's economic institutions, but the state and its enterprises and agencies still retain a prominent place in the economy. In 2014, the public sector accounted for 26.9 per cent of total employment,¹ compared to 17.7 per cent in the United Kingdom.² Growth in public sector employment accounted for 34.7 per cent of the growth in total employment from 2013 to 2014.³ At the same time, general government consumption as a share of GDP grew from 19.3 per cent to 19.9 per cent.⁴ This is 1.9 percentage points higher than the share in 1995,⁵ but on average the government's share in the economy has held steady over the past two decades.

The size of the government's share in the economy alone brings all other economic actors into dealings with the state's apparatus. It is, however, the prevalence of both political and bureaucratic corruption—violation of law by public officials for political and private gain—that has made those dealings close and intimate. Typically, corruption takes the shape that it did under colonialism—clientelism and patronage⁶—but sometimes it is also a case of public officials abusing their position for private gain.⁷ Government interventions take the form of providing discriminatory benefits for interest groups capable of swaying general elections,⁸ awarding preferential access to resources for businessmen and business groups,⁹ and

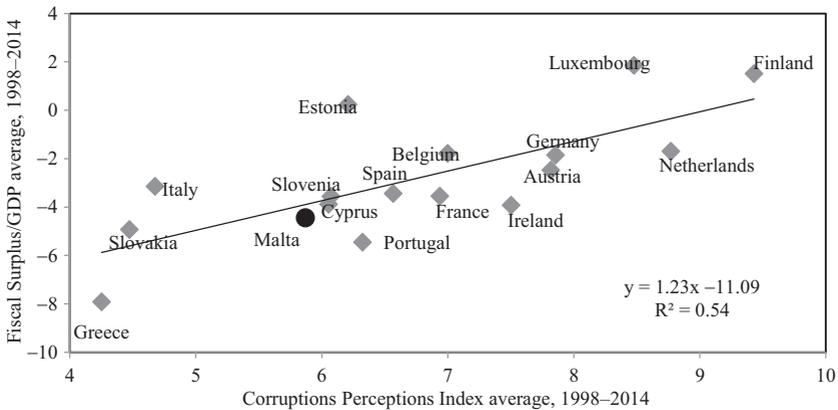


Fig. 6.1 Fiscal Surplus/GDP ratio and corruption perceptions index in the euro zone, 1998–2014. Notes: Malta is the black circle. This is an updated version of Figure 1 in Achury, C., C. Koulovatianos and J. Tsoukalas (2015), ‘Political Economics of External Sovereign Defaults’, Center for Financial Studies, Frankfurt, Working Paper, No. 508, and SSRN Working Paper No. 2631418. It uses data from 1998 to 2014 rather than from 1996 to 2010. Corruptions Perceptions Index data start in 2003 for Cyprus, 2004 for Malta, and 2002 for Slovenia. The Index ranges from 0 (highest perceptions of corruption) to 10 (lowest). Data from Transparency International, Corruptions Perceptions Index (CPI)—Data Files, Online: <http://data.okfn.org/data/core/corruption-perceptions-index>, Accessed: 8 January 2016. Final three years reordered on 1 to 10 scale. Data for fiscal surplus/GDP ratio from Eurostat, Data—Database—Government Finance Statistics—General Government deficit/surplus—% GDP (tec00127), 2016. The trend line is linear and its equation is in the graph area

providing public sector employment for loyal party supporters and family members.¹⁰

Figure 6.1 shows evidence of these government interventions on a broad level. The figure shows the correlation between EU members’ fiscal surplus-to-GDP ratio—clientelism and patronage require large fiscal expenditures relative to economic size—and their perceptions of corruption index. The correlation is positive and significant, at 0.74, implying that the more people perceive corruption in their country, the higher the government’s fiscal expenditure (or the lower its surplus). Malta is in the bottom-left quadrant, showing the fourth highest level of corruption perceptions and the fourth-lowest fiscal-surplus-GDP ratio.

In some cases, such extensive government interventions occur due to the absence of adequate market institutions and legislative frameworks, yet Malta, nominally at least, has these institutions.¹¹ In Malta, extensive government interventions occur because trust in those institutions is weak, which further fuels corruption. A European Commission Eurobarometer survey conducted in 2013 found that 69 per cent of respondents in Malta either ‘totally agree’ or ‘tend to agree’ with the statement that ‘[t]here is corruption in the national public institutions’ in Malta.¹²

Table 6.1 provides some more detail. It compares the percentage of EU-27 and Maltese respondents answering in the affirmative to the question ‘[i]n [our country], do you think that the giving and taking of bribes and the abuse of power for personal gain are widespread among any of the following?’ for the public sector functions in which percentages from Malta are higher or equal to those in the EU-27. For ‘officials awarding public tenders’, the percentages are equal and, at 45 per cent, high. The largest difference is for ‘the courts (tribunals)’, with Malta a full 25 percentage points ahead of the EU-27. In this area, it is not just the difference that is large, but Malta’s absolute level, at 48 per cent. Another Eurobarometer survey—‘Justice in the EU’—shows that only 45 per cent of Maltese citizens ‘tend to trust’ the Maltese justice system.¹³ The second largest difference in Table 6.1 is for ‘officials issuing building permits’,

Table 6.1 Perceptions of corruption in different public services in Malta and the EU, 2013

<i>Widespread corruption in public services?</i>	<i>EU-27</i>	<i>Malta</i>	<i>Difference</i>
	<i>% Affirmative responses</i>		
Officials awarding public tenders	45	45	0
Officials issuing building permits	43	53	10
Police, customs	36	37	1
Officials issuing business permits	33	35	2
Tax authorities	24	30	6
The courts (tribunals)	23	48	25
Public prosecution service	19	20	1
Private companies	38	21	-17

Notes: Answers in the affirmative to the question ‘[i]n [our country], do you think that the giving and taking of bribes and the abuse of power for personal gain are widespread among any of the following?’ From European Commission, Eurobarometer 79.1—Results for Malta, 2013, p. 2, Online http://ec.europa.eu/public_opinion/archives/ebs/ebs_397_fact_mt_en.pdf. Accessed: 3 January 2016

with Malta ten percentage points ahead of the EU-27. Third in line is ‘tax authorities’, where Malta is six percentage points ahead. The final row of Table 6.1 shows the answers for ‘private companies’. Here respondents in Malta are a full 17 percentage points below the EU-27. Compared to the EU-27, then, people in Malta have much more trust in private companies than they do in important public sector functions and areas.

This is not to say that corruption has not extended to Malta’s private sector. Illegal acts for profit and mutual advantage play an important part in some of the economy’s business activities.¹⁴ Estimates show that between 1999 and 2014, the size of Malta’s shadow economy went from the equivalent to 27.5 per cent of official GDP to 24 per cent in 2014, varying little in between.¹⁵ This ranks Malta in the same league as Eastern European states like Poland (23.5 per cent) and Slovenia (23.5 per cent), Southern European ones like Cyprus (25.7 per cent) and Greece (23.3 per cent), but considerably above states like the United Kingdom (9.6 per cent), Spain (18.5 per cent), and Sweden (13.6 per cent).¹⁶

Extensive official constraints that shaped economic activity in the 1970s and 1980s, as we saw in the previous two chapters, provided many opportunities for alliances between state officials, privileged groups, and state functionaries: for example, the dockyards and banking sector. While the economic liberalization programme starting in the 1990s rolled back this extensive state apparatus, individual politicians retained their power to dispense economic benefits to individuals and businesses in return for votes and contributions for their services.¹⁷ These practices continued despite the rhetoric of economic liberalization and EU standards of governance. Before 2015, for example, donations to political parties and electoral campaigns could be made without restriction irrespective of the amount.¹⁸ Party expenditure was unlimited.¹⁹ In 2015, parliament passed a law that empowered the Electoral Commission to regulate party financing. That this law was passed shows the political importance of curbing corrupt practices between political parties, governments, and the private sector, but that the Commission is composed entirely of representatives from the parties that it is meant to regulate highlights the ongoing tension in this area.

The standard indices indicate that favours and interventions run throughout the Maltese economy. The conservative Washington, D.C.-based Heritage Foundation’s *Index of Economic Freedom*, which measures a country’s rule of law, government limits, regulatory efficiency, and market openness,²⁰ ranks Malta in 58th place out of 178 countries as of

2015, putting the country just above Mexico and just below Romania.²¹ Looking only at the ‘Business Freedom’ component, a ‘measure of the ability to start, operate, and close a business that represents the overall burden of regulation as well as the efficiency of government in the regulatory process’,²² Malta’s rank drops to 106th place. Malta was ranked 43rd out of the 175 countries in the 2014 *Transparency International Corruption Perception Index* of public sector corruption, its index score having dropped in the two previous years.²³ This puts Malta some distance below southern European states like Cyprus (31st place) and Spain (37th place), but above eastern European ones like Hungary (47th place) and the Czech Republic (53rd place).²⁴ Bureaucratic procedures and a lack of trust in the legal system make Malta seem like a difficult place to do business, according to the World Bank’s *Doing Business Survey*. The 2015 *Survey* ranked Malta in 80th place out of 189 countries.²⁵ In terms of ‘starting a business’—‘all procedures officially required, or commonly done in practice, for an entrepreneur to start up and formally operate an industrial or commercial business, as well as the time and cost to complete these procedures and the paid-in minimum capital requirement’²⁶—Malta’s ranking drops to 132nd, just above Togo and below the Seychelles.²⁷

Liberalization reforms of the 1990s were about stimulating economic growth as much as they were about solving the entrenched economic and political problems of the 1970s and 1980s. Politicians seeking to maintain support from socially and politically dominant groups, while also meeting the demands of upwardly mobile groups, complicated this balancing act. The stimulus provided by the economic reforms found a much stronger response among some groups rather than with others. The previous chapter showed us a growing income gap between low- and high-skilled workers, for example, as structural change took Malta way from manufacturing and tourism and towards finance. Meanwhile, the sum of government expenditure on contributory and non-contributory benefits grew, in real terms, by 183 per cent from 1991 to 2014.²⁸

Political systems also required adaptation to the new circumstances brought about by liberalization. The persistent ability of government institutions to allocate certain important economic resources—fuel for transport and electricity, for example—has prevented the emergence of effective market mechanisms in the economy.²⁹ In some areas, liberalization and economic growth have strained the operations of Malta’s public institutions. The Malta Environment and Planning Authority (MEPA), the national agency responsible for land use planning and environmental

regulation, established in 2001, has come under consistent fire for the way in which it allocates land for commercial and residential development; it was singled out in the European Commission's 2014 anti-corruption report on Malta.³⁰

In some areas, liberalization provided economic opportunities for previously disadvantaged social groups. The expansion of remote gaming ('iGaming') ever since 2004, when Malta became the first EU-member state to enact comprehensive legislation favouring the industry, particularly in terms of taxation relief, is illustrative. By 2008, Malta registered 500 online gaming licences whose companies' share of revenue from gambling amounted to 7.8 per cent of GDP in that year—11 times higher than the EU average.³¹ By 2014, the number of licences companies dropped to 420, but the industry's share of GDP reached 11 per cent and its number of employees hit 7000.³² The gaming sector demands highly qualified personnel,³³ but also provides many opportunities for low- to medium-skilled workers like customer service agents and live dealers,³⁴ who had no previous links to the industry.

A broader effect of the increase in private-sector business activity, and the spread of opportunities for new firms and entrepreneurs, is a spirit of aspiration and ambition. With the withdrawal of state agencies from the management of business and allocation decisions, private firms have stepped in to supply a pent-up consumption boom. Malta's gross national savings rate as a percentage of GDP—gross disposable income less final consumption expenditure over GDP—went from 45.7 per cent in 1987 to 21.3 per cent in 2013.³⁵ The International Monetary Fund projects that the figure will hit 20.6 per cent by 2015.³⁶ The organizational structure of Maltese firms, particularly in retail and distribution and property businesses,³⁷ is still one of family firms based on extended kinship. While new organizational structures have emerged, and new expat firms entered the market, family firms with roots in the colonial era persist despite the external stimuli of the past two decades. Family connections in business settings are usually explained as a network of trust that emerges in environments where the formal institutional structures are weak, that is, where property rights are perceived to be weak, where legal process are perceived to be opaque, and where there is limited confidence in institutionalized sanctions and contracts between businesses. Family connections, which tend to reduce transaction costs and informational asymmetries, make for an institutional foundation on which collaborative business relationships can be built. Some of these family-owned

conglomerates have grown large enough to influence public policy, with many of their leaders finding themselves on the boards of prominent public enterprises.³⁸ It remains to be seen whether the dominance of diversified family groups will persist as an institutional framework for the Maltese corporate sector in an environment of increasingly intense foreign competition.

The most important institutional issue in Malta's future economic development is whether economic growth will be 'inclusive'.³⁹ That is, whether the continued liberalization programme will provide opportunity to all Maltese citizens rather than only those with social and political clout and those who entered the reform era ready with a strong basis for success. Both Nationalist and Labour Party government policies have over the past few years stressed social and economic upward mobility and equality of opportunity rather than redistribution. This has made it increasingly important to address deep-rooted structural issues raised in the previous chapter, like education and human capital formation, and those raised in this conclusion, like trust in public institutions, clientelism, and perceptions of corruption. Inclusive development requires a social and cultural commitment, and not just public sector reform and economic liberalization.

NOTES

1. Calculated from figures in Central Bank of Malta, Annual Report 2014, Table 3.8, p. 54. Online: <http://www.centralbankmalta.org/file.aspx?f=11185>.
2. United Kingdom Office of National Statistics, Labour Market, People in Work, Employment, Employment Type, Public Sector Employment, Data, Table 5: <http://www.ons.gov.uk/ons/rel/pse/public-sector-employment/q3-2015/rft-table-1.xls>.
3. Calculated from figures in Central Bank of Malta, Annual Report 2014, Table 3.8, p. 54. Online: <http://www.centralbankmalta.org/file.aspx?f=11185>.
4. Central Bank of Malta, Real Economy Indicators, Gross Domestic Product, Gross National Income and Expenditure Components (at current market prices): http://www.centralbankmalta.org/site/excel/statistics/gdp_current_2000.xls?20130910091950&rcvcount=7931.

5. Central Bank of Malta, Real Economy Indicators, Gross Domestic Product, Gross National Income and Expenditure Components (at current market prices): http://www.centralbankmalta.org/site/excel/statistics/gdp_current_2000.xls?20130910091950&rcount=7931.
6. Among others, Baldacchino writes that in Malta since 2004 ‘Patronage, favouritism and clientelism are widely but discretely practised’ in Baldacchino, G., Pangs of nascent nationalism from the nationless state? Euro coins and undocumented migrants in Malta since 2004, *Nations and Nationalism* 15(1), 2009, p. 153. See also: Mitchell, J., Corruption and Clientelism in a ‘Systemless System’: The Europeanization of Maltese Political Culture, *South European Society and Politics* 7(1), 2002, pp. 43–62. For the colonial period, see Pirotta, G., *The Maltese Public Service 1800–1940: The Administrative Politics of a Micro-State*, Malta: Mireva, 1996.
7. Staff writer, Tancred Tabone had deposited \$1 million in Jersey offshore trust set up by HSBC Switzerland, the Malta Independent, 13 February 2015; Camilleri, N., ‘If I had known what Tancred Tabone was up to I would have sent him to jail’— [Prime Minister] Lawrence Gonzi, *The Malta Independent*, 9 February 2015.
8. Mizzi, D., Muscat toasts ‘historic’ Labour victory, refutes correlation with hunting vote, *MaltaToday*, 18 April 2015; Editorial, The new force to reckon with, *The Times of Malta*, 27 April 2015.
9. Staff writer, Government to rent public land to American University of Malta on the cheap, *The Malta Independent* on Sunday, 30 August 2015; Staff writer, Luqa Lidl: Previous owner was not allowed to develop site due to aircraft danger, *The Malta Independent*, 13 September 2014.
10. Borg, J. The 18-year-old director of new government security company is nephew of Chris Cardona’s chief of staff, *The Malta Independent*, 25 June 2015; Camilleri, I., Labour hands out 64 jobs on ‘position of trust’ basis—Dog handler among the political appointments made since the election, *The Times of Malta*, 11 March 2015; Vella, M., Public Sector Jobs: where is the increase?, *MaltaToday*, November 17, 2014.

11. This is a major issue in India, for example: Tomlinson, B., *The Economy of Modern India: From 1860 to the Twenty-First Century*, Cambridge: Cambridge University Press, 2013, pp. 223–225.
12. Question: ‘Please tell me whether you agree or disagree with each of the following?’ Answers: ‘Totally agree’ (23 per cent) and ‘Tend to agree’ (46 per cent). From European Commission, Eurobarometer 79.1—Results for Malta, 2013, p. 1, Accessed: 3 January 2016: http://ec.europa.eu/public_opinion/archives/ebs/ebs_397_fact_mt_en.pdf.
13. European Commission, Flash Eurobarometer 385—Justice in the EU, Report, 2013, p. 14. Accessed 26 June 2016: http://ec.europa.eu/public_opinion/flash/fl_385_en.pdf.
14. Lindsay, D., World’s largest online poker operation in €300 million tax evasion through Malta, *The Malta Independent*, 12 March 2015.
15. Estimates from 1999 to 2006: Schneider, F., *The Shadow Economy: An International Survey*, Cambridge: Cambridge University Press, 2013, p. 43. Estimates from 2003 to 2014 are provided by Schneider, F., Raczkowski, K., Mroz, B., *Shadow Economy and tax evasion in the EU*, *Journal of Money Laundering Control* 18(1), p. 45.
16. Estimates for 2014, provided by Schneider, F., Raczkowski, K., Mroz, B., *Shadow Economy and tax evasion in the EU*, *Journal of Money Laundering Control* 18(1), p. 45.
17. European Commission, Annex 18—Malta—to the EU Anti-Corruption Report, Brussels, 3.2.2014, COM(2014) 38 final. In 2015, the Maltese media reported that one of the country’s largest developers, Sandro Chetcuti, who is also the president of the Malta Developers Association, was a volunteer for the party voted into government in 2013, and that ‘he has helped [the party] out in fund-raising activities’. In 2015, he was reported to have said ‘Without being partisan, I must admit that this administration understood clearly the need and the importance of the building industry’. First quote: Dalli, M., ‘Sandro Chetcuti is Labour volunteer’, says party CEO, *MaltaToday*, 27 January 2014. Second quote: Staff writer, *Make hay while the sun shines—MDA* [Malta

- Developers Association] president tells developers, *The Times of Malta*, 2 November 2015.
18. European Commission, Annex 18—Malta—to the EU Anti-Corruption Report, Brussels, 3.2.2014, COM(2014) 38 final, pp. 4–5.
 19. European Commission, Annex 18—Malta—to the EU Anti-Corruption Report, Brussels, 3.2.2014, COM(2014) 38 final, pp. 4–5.
 20. The index is based on ten quantitative and qualitative factors, grouped into four categories: Rule of Law, Limited Government, Regulatory Efficiency, and Open Markets. See: <http://www.heritage.org/index/about>.
 21. This is the ‘World Rank’: http://www.heritage.org/index/excel/2015/index2015_data.xls.
 22. See: <http://www.heritage.org/index/regulatory-efficiency>.
 23. Transparency International Corruption Perception Index, data: <http://www.transparency.org/cpi2014/results#myAnchor1>.
 24. Transparency International Corruption Perception Index, data: <http://www.transparency.org/cpi2014/results#myAnchor1>.
 25. World Bank Ease of Doing Business 2015 Survey: <http://www.doingbusiness.org/rankings>.
 26. World Bank Ease of Doing Business: <http://www.doingbusiness.org/methodology/starting-a-business>.
 27. World Bank Ease of Doing Business 2015 Survey: <http://www.doingbusiness.org/rankings>.
 28. Government expenditure on social security: sum of contributory benefits (pensions, industrial injury benefits, unemployment, sickness, maternity, orphan benefits) and non-contributory benefits (child allowance, old age pension, family bonus, parental allowance). Both series from the National Statistics Office Stat DB: <http://nso.gov.mt/statdb/start>. Deflated using annual Retail Price Index with 1946 base year: https://nso.gov.mt/en/nso/Selected_Indicators/Retail_Price_Index/Pages/Index-of-Inflation.aspx.
 29. The Malta Chamber of Commerce, Enterprise and Industry, Press Release: Malta Chamber urges Government to lower fuel, utility prices, 30 January 2015, Valletta, Malta.

30. European Commission, Annex 18—Malta—to the EU Anti-Corruption Report, Brussels, 3.2.2014, COM(2014) 38 final, pp. 8–9.
31. European Commission, Commission Staff Working Paper, accompanying document to the Green Paper on online gambling in the Internal Market, Brussels, 24.3.2011, SEC(2011) 321 final, P. 9.
32. Macdonald, V., ‘Future-proofing’ our gaming sector, The Times of Malta, 9 January 2014.
33. Malta’s Inland Revenue service, for example, offers tax break for ‘highly qualified persons’ with a view to meeting demand for gaming and financial services: <https://ird.gov.mt/taxguides/qualifiedpersons.aspx>.
34. In short, these are jobs that do not require any education beyond compulsory schooling or much or any previous experience.
35. The International Monetary Fund, World Economic Outlook Database, October 2015 update, series: Gross national savings.
36. The International Monetary Fund, World Economic Outlook Database, October 2015 update, series: Gross national savings.
37. For example, the highly-diversified Mizzi Organisation, Alf Gera & Sons (pharmaceutical distribution), the Gasan Group (automotive, insurance and finance), and the Tumas [Fenech] Group (property).
38. Balzan, J., Joe Gasan appointed on Air Malta board, MaltaToday, 14 April 2013; Debono, J., From Baku to Portomaso: The makings of Labour’s energy plan, MaltaToday, 17 October 2013.
39. The World Bank defines inclusive growth as ‘growth that is high and sustained (a crucial condition for poverty reduction); broad-based across sectors and inclusive of a large part of the country’s labor force (issues of structural transformation and economic diversification thus take center-stage); and characterized by equality of opportunity in terms of access to markets and resources’. See: International Monetary Fund, Jobs and Growth: Analytical and Operational Considerations for the Fund, March 14, 2013, Washington, D.C., U.S.A, pp. 24–31.

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