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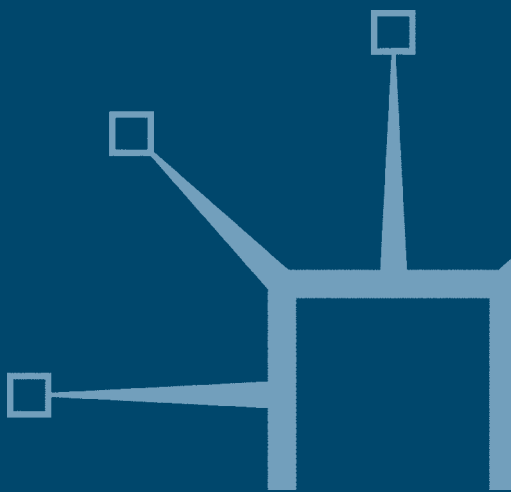
Korean Automotive Foreign Direct Investment in Europe

The Effects of Economic Integration on Motivations and Patterns of FDI and Industrial Location

Jae Hoon Hyun



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First published 2003 by
PALGRAVE MACMILLAN
Houndmills, Basingstoke, Hampshire RG21 6XS and
175 Fifth Avenue, New York, N.Y. 10010
Companies and representatives throughout the world

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ISBN 1–4039–1311–0

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources.

A catalogue record for this book is available from the British Library.

Library of Congress Cataloging in Publication Data
Hyun, Jae Hoon.
Korean automotive foreign direct investment in Europe : the effects of economic integration on motivations and patterns of FDI and industrial location / Jae Hoon Hyun.
p. cm.
Includes bibliographical references and index.
ISBN 1–4039–1311–0
1. Investments, Korean—Europe. 2. Automobile industry and trade—Europe—Foreign ownership. I. Title.

HG5492.H98 2003
338.8'8729222'095195—dc21

2003041430

10 9 8 7 6 5 4 3 2 1
12 11 10 09 08 07 06 05 04 03

Printed and bound in Great Britain by
Antony Rowe Ltd, Chippenham and Eastbourne

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Preface

This book examines Korean automotive FDI in Europe in the 1990s with particular reference to how economic integration has affected the motivations and patterns of FDI and industrial location.

The last decade witnessed remarkable growth of the Korean automobile industry in Europe. This rapid development in exports and sales triggered the requirement of local production. For local production in Europe, economic integration became a critical variable. Economic integration is known to have a number of effects on the international reallocation of value-added activities of multinational enterprises (UNCTC 1990; Yannopoulos 1990a; Dunning 1992).

This book addresses the three core issues of Korean automotive FDI and industrial location in Europe relating to the process of economic integration: (i) the motivations of FDI, (ii) the patterns of Korean FDI and (iii) the factors affecting the decisions of industrial location.

The findings of this study suggest that European integration is considered to be a threat to the Korean vehicle manufacturing companies. The motivations and patterns of Korean automotive FDI in Europe appear to be affected by this perception. It is also confirmed that strategic choices relating to FDI and locational decisions in Europe are significantly affected by the unique characteristics of the Korean automobile industry, which validates the extended framework of this book.

Concurrent with rapid reorganisation trends in the global automotive industry, Korea also started to be integrated into the global structure of the industry. In this process, the Korean vehicle manufacturers have inevitably suffered great hardship triggered by the crises of the industry in the end of the 1990s. This has been followed by radical restructuring on both the domestic and the global level. These turbulent changes have affected its European operations which has led to a highly insecure environment for people working for Korean motorcar manufacturing companies in Europe. I am very grateful to many organisations and individuals in Korea and Europe who have given their time and expertise in this difficult time.

Special thanks are due to Dr Harukiyo Hasegawa who continuously provided encouragement and insights, and members in Graduate-SEAS.

I owe a huge debt of love to my wife, Meeran and my sons, Andrew Sung-Kyung and David Sung-Ha for their endless support and trust. To the only wise God be glory forever through Jesus Christ.

Jae Hoon Hyun

List of Abbreviations

ACEA	Association des Constructeurs Européens d'Automobiles (European Automobile Manufacturers Association)
ADD	Anti-Dumping Duty
AMUE	Association for the Monetary Union of Europe
APEAL	Automotive Performance Execution and Layout Study
BEUC	Bureau Européen des Unions Consommateurs
BMW	Bayerischec Motor Werke
CBI	Confederation of British Industry
CBU	Complete Build Up
CEC	Commission of the European Communities
CEEC	Central and Eastern European Countries
CEFTA	Central European Free Trade Agreement
CIS	Confederation of Independent States
CKD	Complete Knock Down
COMECON	Council for Mutual Economic Assistance
DCE	Developing Country Endowment
DDC	Daewoo Data Communication
DG	Directorate General
DMC	Daewoo Motor Corporation
DMP	Daewoo Motor Polska (Poland)
DWTC	Daewoo Worthing Technical Centre
EC	European Community
ECB	European Central Bank
ECSC	European Coal and Steel Community
ECU	European Currency Unit
EFTA	European Free Trade Association
EIU	Economist Intelligence Unit
EMS	European Monetary System
EMU	Economic and Monetary Union
EU	European Union
EURATOM	European Atomic Energy Community
FDI	Foreign Direct Investment
FT	Financial Times
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Production
GM	General Motors

GSP	Generalised System of Preferences
HAOS	Hyundai Assan Otomotiv Sanayi
HMC	Hyundai Motor Corporation
HMEP	Hyundai Motor Europe Parts
HUM	Honda of the UK Manufacturing Ltd
IAD	International Automobile Design Consultancy
IMF	International Monetary Fund
IMVP	International Motor Vehicle Programme
IQS	Initial Quality Survey
JAMA	Japan Automobile Manufacturers Association
JV	Joint Venture
KAICA	Korea Auto Industries Co-operative Association
KAMA	Korean Automobile Manufacturers Association
KARI	Korea Automotive Research Institute
KD	Knock Down
KDI	Korea Development Institute
KIAERI	KMC Economic Research Institute
KIEP	Korea Institute for International Economic Policy
KMC	Kia Motor Corporation
LCV	Light Commercial Vehicle
M&A	Merger and Acquisition
MCV	Medium Commercial Vehicle
MITI	Ministry of International Trade and Industry
MNE	Multinational Enterprise
MPC	Multipurpose Commercial vehicle
NCC	National Consumer Council
NIC	Newly Industrialising Country
NIE	Newly Industrialised Economy
NOI	Net Outward direct Investment
NTA	National Type Approval
NTB	Non-Tariff Barrier
OECD	Organisation for Economic Co-operation and Development
OEM	Original Equipment Manufacturing
PTC	Polish Technical Centre
RDI	Reverse Direct Investment
RIA	Regional Integration Agreement
SAD	Single Administration Document
SEM	Single European Market
SI	Service Index
SSI	Sales Satisfaction Index
SKD	Semi-Knock Down

SMP	Single Market Programme
SOP	Start of Production
TEU	Treaty of European Union
UNCTC	United Nations Centre on Transnational Corporations
VAT	Value Added Tax
VDA	Verband der Automobil Industrie
VDI	Vehicle Dependability Index
VER	Voluntary Export Restriction
VM	Vehicle Manufacturer
VW	Volkswagen
WTO	World Trade Organisation
WVTA	Whole Vehicle Type Approval

1
Introduction

South Korean[1] vehicle manufacturers (VMs) in the European markets in the 1990s witnessed remarkable growth in exports and the establishment of local sales and production networks. More than 47 per cent of the Korean motor vehicles produced in Korea in 1998 headed for Europe.[2] European car markets account for the largest portion of Korean motor vehicles sold overseas by the end of the 1990s. Together with the increasing importance of European markets, local production also became an important issue for the Korean automobile industry in Europe.[3]

Economic integration is considered to be one of the important factors for any enterprises aiming at European markets. The creation and gradual expansion of the single market in Europe appear to be strategically important factors representing both opportunities and potential threats (Yue 1991: 356–7; Cherry 1996: 13–21). If the single market turns out to be 'open regionalism' with liberalised trade relations, the Korean VMs may benefit. However, they will have to confront immense difficulties if 'Fortress Europe' develops with rising protectionism against outsiders. On this basis, attention has been paid to FDI as a means of avoiding trade barriers and exploiting the opportunities of the integrated market. Indeed, Korean VMs started local production in Europe in the mid-1990s after signing several joint ventures (JV) in the Central and Eastern European Countries (CEECs) and Turkey in order to serve European markets.

The central question of this book is, then, how economic integration has affected motivations and patterns of FDI and locational decisions of Korean VMs in Europe. According to UNCTC (1990) and Yannopoulos (1990a), total stock and flows of FDI into an integrated region are to increase as a result of integration, whether they are motivated to defend

existing markets or to exploit opportunities. This linkage between economic integration and FDI inflows is described as a 'mutually reinforcing effect' of globalisation and regionalism (Dent 1997: 12).[4] Nevertheless, few attempts to clarify the interactive relations between globalisation and regionalism[5] have been made (Yannopoulos 1991b). Thus, this book maintains its main focus on placing economic integration as the central variable in the search for the determinants of Korean FDI and industrial location in Europe.

To a certain extent, the Korean automobile industry in Europe seems to be a unique case considering the nature of FDI and locational decisions. Previous studies of regional economic integration as a determinant for FDI are limited to the cases from developed countries in both theories and empirical cases.[6] This book distinguishes Korean enterprises from established multinational enterprises (MNEs) in order to examine whether they are also identified in the context of the globalisation of international production and economic regionalism.

The automobile industry is selected for the case analysis because (i) the effects of economic integration are more likely to be industry specific (Dunning and Gittelmann 1992c: 481–2; Dunning 1997b: 195) and (ii) the automobile industry is regarded as one of the most important industries in both Korea and Europe. The automobile industry in Korea was responsible for 29 per cent of total production in the manufacturing sector in 1998.[7] The vertical and horizontal links to other industries pan out to a significant extent and many parts of the national economy depend upon the success of this industry. The importance of the industry in Europe is as great as it is in Korea. The employment in the automobile sector represents 8.2 per cent of the total employment of the manufacturing industry. The added value of the automobile sector represents 9.3 per cent of the manufacturing sector worth up to USD 120 billion.[8] The market size of the motorcar sector represents around 30 per cent of the European total. The contribution of the automobile industry to the EU GDP is 1.61 per cent.[9] Above all, the automobile industry draws special attention as it provides a perfect instance for the examinations of the effects of economic integration. Issues such as the harmonisation of regulations and standards, tax convergence, and the control of state aid are all relevant to the industry (Smith and Venables 1990: 119).

Single market and the Korean automotive FDI

The motivations, patterns and characteristics of Korean automotive FDI and locational decisions in Europe are related to the effects of the

European economic integration. In order to identify the correlations between these variables, it is necessary to examine the following. Firstly, the significant measures and practices within the single market of the automobile industry have to be identified to find if the industry-specific effects of economic convergence may be applied to non-European companies by examining both scenarios of 'open regionalism' and 'Fortress Europe'. Secondly, the strategic reaction of Korean VMs in the context of economic integration and the globalisation process has to be clarified. Thirdly, the unique characteristics of Korean VMs, which are the basis of the endogenous factors affecting the decisions of FDI and industrial location in Europe, also have to be addressed.

In assessing the meaning of European integration to the Korean automobile industry and its strategic alternatives in the European markets, some fundamental research questions are raised.

- What are the motivations of the Korean automotive FDI relating to the SEM (single European market)? What are the patterns of the Korean automotive FDI in Europe? What are the patterns of industrial location in Europe? What are the particular reasons for locating peripheral regions in Europe, for instance, the CEECs? Are those related to the economic convergence in Europe?
- What are the implications for the SEM on the prospects of Korean trade relationship with the European Union (EU)? How would this affect the Korean automotive FDI flows?
- What are the endogenous determinants of FDI and locational decisions of the Korean automobile industry in Europe, and how can this be interpreted within the theoretical context?

In order to maintain a consistent logical thread, this book establishes a framework which will embrace the separate parts of the analyses from an integrated perspective. The framework for this study will be a synthesis of the dynamic mechanism of economic integration and the motivations of international production. The effects of economic integration on trade, FDI and industrial location with particular reference to the case of Korean VMs in Europe are focuses of this framework. A schematic illustration of the framework is presented in Figure 2.1.

The framework combines the suggestions of Yannopoulos and Dunning. Yannopoulos (1990a) provided a specific picture showing a particular relationship between FDI and regional economic integration while Dunning (1977, 1981a, 1991a) established a comprehensive model of the determinant for FDI. On this basis, the idea of economic integration

as a determinant for Korean automotive FDI has been conceived in three steps. Firstly, the assertion of Yannopoulos that economic integration holds implications for the motivations of FDI (Yannopoulos 1990a: 235–57, 1992: 329–48) is applied to the context of European automobile industry. Secondly, the factors and determinants of FDI according to the 'Eclectic Theory' are identified with particular reference to the Korean VMs. Thirdly, the possible effects of integration on the automobile industry have been deliberately related to each determinant of Korean automotive FDI and industrial location in Europe.

Methodology

The main question of this book – whether sudden moves and expansions of Korean VMs in Europe have been influenced by European economic integration – is likely to be answered by carrying out the following tasks: (i) analysing motivations and transformations of trade and FDI, (ii) examining industrial locations in the search for the geographical implications of European integration and (iii) reviewing corporate strategies in Europe. Firstly, the motivations and transformations of trade and FDI could provide insight into the importance of European markets and mechanism affecting international activities of non-European companies. Secondly, the industrial location of Korean VMs may be considered to be a practical case reflecting the effects of economic integration on the geographical diversion and concentration of industrial activities. Thirdly, corporate strategies in Europe in terms of R&D, service and marketing networks, and components supply system will directly show the effects of economic integration and strategic response within the European context.

The requirement of these tasks is to be met by conducting case studies and surveys. These surveys reveal the recognition of the managers in Korean motor vehicle manufacturing companies concerning European economic integration, while the case analysis at the company level also helps identify connections between economic integration and the specific activities of Korean VMs in Europe. Overall FDI inflows to the EU were higher during the years 1987–90 and this coincided with the period when the single market programme (SMP) was brought into effect. This implies that the cognisance of people in business about the economic consequences of integration may result in practical economic reactions (Thomsen and Woolcock 1993: 92–3). Hence, the survey of the awareness and perception of managers in Korean vehicle manufacturing companies relevant to European operations seems to be an

effective instrument in appraising the effects of economic integration on Korean automotive FDI and industrial location in Europe.

The survey was carried out in two different ways in order to provide comprehensive empirical evidence. Firstly, quantitative methods were employed by means of the statistical analysis of a survey questionnaire. The survey questionnaire was designed to be suitable for statistical analysis. The stylised economic effects of integration and possible impact on strategic decisions are suggested in order to assess the awareness and perception of managers from Korean VMs. A statistical computer software package was employed to seek out statistically significant values and correlation between variables. Secondly, a qualitative approach was also applied to supply complementary information which could not be articulated in a quantitative analysis. A series of interviews were performed with the managers from Korean VMs with European operations. The format of the questionnaire for interviews followed the basic form of a focused interview, which had the following characteristics. First, it was used with respondents known to have been involved in a particular area. Second, it refers to situations that have been analysed prior to the interview. Third, it proceeds on the basis of a guided interview specifying topics related to the research hypotheses, and finally, it focuses on the subjects' experiences regarding the situations under study.[10] Many critical findings derived from interviews are dissected in the analyses throughout the chapters in order to provide pertinent supports.

The policies and measures of the EU, and particularly the internal market programme on the automobile industry demonstrate the integration effects which were found through the literature survey. These are listed as independent variables in the questionnaire. It is assumed that these variables affect the European automobile industry, as well as the Korean VMs in the EU, in terms of trade, FDI and locational decisions.

Structure of the book

This book comprises eight chapters examining the Korean automotive FDI in Europe. The introduction chapter includes the background of the study, aims, research questions, methodology and the structure of the book. The second chapter is dedicated to theoretical considerations relating to the research subjects and includes a synthesis model of this study to apply to the case of Korean automotive FDI and industrial location in Europe.

The following three chapters focus on main research issues. Chapter 3 is an overview of the particular context of the subject which concentrates

mainly on European economic integration and its effects on the automobile industry. In this chapter, a brief history and a review of the main features of European integration are presented. Policies and measures of the SEM directly related to the automobile industry have been reviewed. This chapter finishes with the implications of these measures and their adaptability to non-European companies. Chapter 4 introduces an overview of the Korean automobile industry. This chapter explains the development and status of the Korean automobile industry, the unique characteristics of the industry which have direct implications for its internationalisation, and industrial restructuring following the 1997 economic crisis and its impact on strategic alternatives in Europe. Chapter 5 presents patterns, motivations and specific characteristics of Korean automotive FDI in Europe based on the consequences of the internal market measures under the Fortress Europe scenario and the dynamic effects of economic integration.

The rest of the book provides empirical analysis on the research issues. Chapter 6 is the case analysis of the European operations of two Korean motorcar manufacturing companies focusing on the motivations of FDI, locational decisions, and other activities in Europe. At the end of this chapter, a case study of the Japanese automobile industry in the 1980s is introduced, considering the restrictive barriers they experienced in Europe, and the implications for Korean VMs are addressed. The statistical analysis of the survey questionnaire is presented in Chapter 7. This chapter examines main research issues in the search for empirical evidence of integration effects as exogenous determinants for Korean FDI and industrial location in Europe.

The book finishes with the summary and conclusion in Chapter 8 which, firstly, summarises the analysis and discussions of previous chapters with a series of findings. Then, the results and findings are interpreted to provide implications for the research theme. In the final remarks, the limitations of this study and topics for further research are suggested.

2
Economic Integration as a Determinant of FDI

The international activities of Korean companies started in the 1980s. Korean FDI began to grow from this time. In the 1990s, FDI activities of Korean companies were distinctive in a few industries such as electronics and automotive industries. In particular, Korean vehicle manufacturing companies started to establish sales subsidiaries across Europe while a series of FDIs for local production were made in the CEECs.

Korean VMs' FDI decisions are determined by both pull and push factors. The transition of technological capacity, according to either the product life cycle model (Vernon 1966) or the leapfrogging caching-up pattern (Perez 1988; Hobday 1995), changes a company's specific advantages and this creates an endogenous motivation for FDI. Exogenous pull factors, such as changes in overseas business environment, are also important as determinants for FDI. This book considers the effects of economic integration as exogenous determinants for Korean automotive FDI in Europe.

Effects of economic integration

Static and dynamic effects of integration

The general economic effects of integration can be divided into static and dynamic effects. Both are closely related and comprise the essential elements of economic integration in the context of international production.

From the formative stage, economic integration in a region leads to both 'trade creation' between partner countries and 'trade diversion' from third countries to partner countries (Viner 1950). Economic consequences of elimination of internal tariffs and establishment of external common tariffs are a shift from less efficient and expensive domestic

products to a demand for cheap and efficient products from a partner country. The removal of barriers for intra-trade, such as non-tariff barriers (NTBs), testing, certification requirements and customs procedures will help to reduce overall costs (Pelkmans and Winters 1988). Reduced transactional costs would result in cheaper trading with the partner country compared to world market producers, though the partner country is potentially a less efficient and a higher cost producer than third countries. Trade will be diverted from efficient third countries to inefficient partner countries.

An additional static effect relates to the terms of trade. Petith (1977) states that as the trade bloc is established, its terms of trade may be improved over those of individual countries. This seems to be a result of the benefits generated from liberalising intra-group trade and discriminating against extra-group trade. Through these improved terms of trade, newly formed trade blocs may be able to claim lower supply prices to the world market through means such as trade restrictions or bargaining power. Thus, this provokes the smaller countries to participate aggressively in the process of economic integration which accounts for the phenomenon of the progression of integration with increased membership. It is suggested that benefits may come to the joining country at the expense of existing member countries when the union expands (Venables 1987).

Increased intra-trade and decreased external trade are coupled with potential protectionism against external entities as a region forms an exclusive economic area. These probably provoke passive reactions from non-member countries to avoid being excluded and acquire market presence.

The main idea of the dynamic effects of the integration is the reduced cost due to economies of scale and competition. Increased competition forces the company to lower costs to cope with new and potential competitors. The scope of the market is extended due to integration which enables a company to increase production on a major scale within the market. Consequently, the average costs of production are decreased (Balassa 1961). The dynamic effects of integration coincide with the static effects internally. When trade creation occurs, a country in the union that takes dominant power in the market will find a cheaper source of supply. A company that produces goods on a large scale, but serves a small, limited market, will benefit from integration since integration means the expansion of the market (Corden 1972).

Economies of scale is placed in the centre of the dynamic effect for the advantages of market integration and its effects on individual companies.

The size of a company may increase because the extensions of the market attract many companies to merge in order to benefit from collective market power in the extended common market (Molle 1994). This will facilitate efficient production and a company may have better negotiating power in terms of purchasing, selling and marketing. In the extended market, a company will experience production in greater quantity which will allow a company to learn more about efficiency and result in technical progress.[1] The consequences of economies of scale tend to pan out across the industry both vertically and horizontally. This is called 'the total efficiency effect' (Balassa 1961). Economies of scale and cost efficiency effects may positively influence intermediate producers, their suppliers and parts industries, through the whole economy. In addition, technical progress due to the competition with new, potential producers and needs for the new methods of production are likely to help economic growth together with an exchange of know-how in the enlarged market.

The effects of regional integration may also be categorised into primary or initial effect and secondary or consequential effects (Dunning 1992b: 474–504). Firstly, the primary or initial effect is expected as a consequence of the removal of tariff barriers. Supply side mainly benefits from this aspect of integration. Reduced costs due to the removal of tariff barriers enhance the competitive position of a supplier serving an existing market from a location inside and outside the integrated region. For the companies from non-member countries, this effect is decided by the level of external tariff and NTBs compared to those that member countries previously imposed. In terms of intra-trade barriers, their removal is considered to provide the same benefit to outside companies as those companies within the integrated region.

The secondary effects of integration stem from the restructuring of value added activities among countries, industrial sectors and companies within the integrated region. The dynamic dimension of integration may increase the growth rate of the integrated region. Production and transportation costs are likely to be reduced and will be followed by the increase of technical and scale efficiencies. Reduced costs will be passed to factory owners or consumers in the form of increased real income which will eventually encourage innovation and technological progress. This will eventually enhance the possibilities of further exploitation of the benefits from product and plant specialisation.

Impact on industrial restructuring

The dynamics of the integrated market may well be summarised as the economic growth effects which stem from increased market opportunities.

Consequently, in the search for the effective exploitation of opportunities, the structure of industries within the integrated regional economy is likely to be transformed.

The industrial transformation of economic activities is based on the substantial mechanism of the rationalisation and specialisation of industries as a reaction to integration. For instance, the EU will bring a better allocation of resources through specialisation and large-scale industrial production.[2] Rationalisation of industrial structure can bring an efficient use of resources through the reorganisation of economic activities. Relocation of economic activities is significant throughout the region because production and market are restructured in terms of both industry and geography. It is the immediate consequence of integration induced by the cost of supplying from various locations. This is because transfer costs saved by the removal of tariff barriers are likely to influence the locational decisions of companies. In addition, the simplification of the logistics mechanism within the region would enhance the market position of the local producers with price competitiveness.

The impact on the manufacturing industry is critical since economies of scale are important for the scale-related industries in terms of production, FDI and marketing. The average size of the companies will increase as the industries are highly concentrated (Geroski and Jacquemin 1984). The sharp rise in the number of intra-takeovers and mergers means the transition to a new economic equilibrium as a consequence of the completion of the internal market.[3] From the early days, mergers amongst the companies in the EU were stimulated by the need to compete with external competitors through acquiring a sufficient size of operations.[4] The recent integration process regarding monetary union also was considered to have some effects on the concentration of manufacturing sectors (Molle 1994: 277).

Economic integration and FDI

Economic integration directly and indirectly affects factors which motivate international production. Dent suggested that there is practical linkage between economic integration and FDI inflows. He described it as the 'mutually reinforcing effect' (Dent 1997: 12). For instance, the static effect such as trade diversion which could reduce the volumes of exports will induce tariff jumping or export substituting investment. The dynamic effect of integration and economic growth may attract foreign companies who are eager to share or exploit the opportunities. In both cases, the numbers and amount of inward investment will

increase. This section aims to identify the confluence of economic integration and FDI.

Economic integration, trade and inward FDI

The United Nations Centre on Transnational Corporations (UNCTC) posed the view that a new environment stemming from the formation of regional economic integration may affect the level of FDI both into and within a region. Four types of strategies of MNEs are identified according to the economic consequences of integration. They are: (i) defensive export substituting investment, (ii) rationalisation investment, (iii) offensive export substituting investment and (iv) reorganisation investment (UNCTC 1990). Table 2.1 summarises the effects of economic integration on the trade and investment of MNEs.

The level of trade and investment is likely to be influenced by the four MNE strategies in line with the integration effects. This depends on a company's strategy whether the relations of trade and investment are substitute or complement. Firstly, in a case where there are either trade or non-trade barriers, FDI is likely to be made to avoid these barriers

Table 2.1 Trade and FDI effects of economic integration according to the MNEs' strategic responses

Macroeconomic effect of integration	Intraregional trade more attractive than extraregional trade	New configuration of locational advantages among members of the region	Cost reduction and efficiency gains	Market expansion, demand growth, and technical progress
MNEs' strategic response	Defensive export substituting investment	Reorganisation investment	Rationalisation investment	Offensive export substituting investment
Net trade effect	*Negative* as sales by locally based affiliates replace exports	*Neutral/positive* in case if plant and country specialisation is followed	*Neutral/positive* if plant and country specialisation is followed	*Negative/ neutral* if demand exceeds supply from new inward FDI
Net FDI effect	*Positive* for increased investment in locally based affiliates	*Neutral* for the region as a whole	*Positive* as MNEs increase sourcing in the region	*Positive* for increasing investment in locally based affiliates

Source: UNCTC (1990), p. 3.

and to protect existing export markets by means of local production. MNEs' strategy in this type of investment is defensive export substituting investment. This strategy is principally for the MNEs from outside countries because companies within a region obtain a free trade position. Thus, overall FDI flows are likely to be increased as a result of this strategy by MNEs.

Secondly, the level of FDI is likely to be affected as a result of efficiency gains from market integration. The creation of a larger market as a natural consequence of economic integration may result in economic efficiency by realising economies of scale. Increased FDI is expected by MNEs that are eager to exploit the efficiency generated within the market. This strategy is referred to as rationalised FDI. This type of FDI is made by companies from both outside and inside a region. An open market without barriers increases opportunities to enhance profitability by exploiting economies of scale.

Thirdly, FDI is likely to be increased by MNEs that wish to secure a market position. This is both to avoid the risks of an export only strategy in the new business environment and to gain the first-comer advantages within the integrated market. This type of investment strategy is named 'offensive export substituting investment' which is by nature contrary to a defensive type of investment. This case also results in increase of overall FDI both into the region from outside companies and within the region from companies from member countries.

Rationalisation and offensive strategies are different from defensive strategy in terms of characteristics. Once a company has adjusted to a new business environment, defensive investment will be sharply decreased after the short term, but offensive and rationalisation investments are likely to continue to occur over the long term. Increased levels of FDI in the region spur efficiency and income levels which attract more FDI into the region. In this sense, FDI increase by means of defensive investment strategy is static while rationalisation and offensive investments are dynamic. In both cases of static and dynamic effects, the aggregate level of FDI in stock and flow is raised within the region. Thus, investment creation effect can be found along with the integration effort as MNEs respond to the new business environment.

Fourthly, as internal barriers to capital flows between member countries are removed, realignment of capital distribution within the region is likely to occur. In this case, level of investment stock in the region may remain the same, but flows of cross-border investment increase. This is motivated by the activities of MNEs within the region to reorganise their structure across the region by means of specialisation of

their value-adding activities. This is referred to as 're-organisation investment' which may follow regional integration.

The perspective of Yannopoulos is very similar to that of UNCTC. Yannopoulos (1990a) assumed that the investment flow was affected by integration, as different integration measures on goods and factor markets affect companies both in member and third countries in different ways. For instance, liberalisation of goods and factor movement results in restructuring of economies within a region. Specialisation, reorganisation and rationalisation processes are included in the restructuring which comes with increasing intra-trade and the dynamic effects of integration. The intra-investment will occur through a process of optimisation of location and a company's corporate strategy. A company's advantages and integrated market conditions determine this type of intra-investment. In particular, the dynamic effect of integration has been suggested as the most important aspect of integration that will improve ownership-specific advantages of a company within the territory. Expanded market size will allow a company to realise economies of scale, and reduced costs will produce additional resources for R&D expenditures.

Notably, he stressed that inward FDI is a strategic response by MNEs to economic integration. As the counterpart to the integration effect, a particular MNE's strategic response will take the form of investment types. FDI types are likely to depend upon the market situation with respect to trade. An instance has been illustrated to show the relationship between trade and FDI. It assumes two economic models: that of a protectionist policy and that of a free trade for simplification. First, when a company has an ownership advantage and wants to utilise it through export, the company should evaluate the tariff set up as a trade barrier and calculate the comparative advantages such as production technology, exclusive patent, better management and entrepreneurial skill. If the former is greater than the latter, the market will be served by setting up a production facility within the trading bloc. This type of FDI substitutes for trade. Second, another type of FDI may occur under free trade market conditions, when production in another outside country is proved to be the optimum solution.

Yannopoulos (1990a) identified four types of investment as likely strategic responses of companies involved in international production matching static and dynamic effects of integration. His assertion is very similar to that of the UNCTC (1990) presented above. However, he made efforts to correspond the types of investment strategy of MNEs with the trade effects of integration (Table 2.2). The integration process is supposed

Table 2.2 Correspondence between the trade and FDI effects of economic integration schemes

Trade effects	Foreign direct investment effects
Trade creation	Reorganisation investment
Trade diversion	Defensive import substituting investment
Trade suppression	Defensive import substituting investment
Cost reduction effects	Rationalised or reorganisation investment
Productive efficiency gains	Rationalised investment
Market unification	Offensive import substituting investment
Growth enhancement	Offensive import substituting investment

Source: Yannopoulos (1990a), p. 252.

to directly influence the decisions of companies in terms of locational and organisational aspects. Through these effects companies examine the response of FDI to the economic consequences of economic integration.

The four different types of investment are suggested in co-ordination with trade effects: (i) defensive import substituting investment, (ii) offensive import substituting investment, (iii) reorganisation investment and (iv) rationalised investment.

Firstly, defensive import substituting investment is a response to the trade diversion effects of integration. Locational advantages will be enhanced by tariff realignment processes. Companies tend to start overseas production to maintain market share. The location of defensive import substituting investment is dependent upon the effects of integration. When the investment is motivated by the effect of trade diversion, a partner country attracts investment. On the other hand, the member country will host the investment if trade suppression appears attractive.

Secondly, reorganisation investment is expected when a company already has production facilities and is involved in production activities. Integration has an effect on trade creation and pressures companies to reallocate their production facilities in accordance with comparative advantages leading to favourable costs within the trading bloc. It does not increase FDI, but changes the geographical and industrial structure. This investment leads to an organisation with a few major centralised plants rather than small scattered production facilities all over the bloc.

Thirdly, rationalised investment will occur when the dynamic effects of integration are predominant. Average production cost is likely to be decreased in the medium and long term. Hence the integrated market

will turn out to be a better place for international sourcing. FDI has characteristics that tend to respond to international differences in production costs. Both rationalisation and reorganisation investments are complementary with trade. However, the former replaces inter-industry trade while the latter removes intra-industry trade.

Finally, offensive import substituting investment is caused by the advantages of growing demand and the opening up of a new market. Integration has positive macroeconomic effects which generate a rising rate of income, resulting in clear market growth. In addition, removal of market fragmentation also stimulates growth and opens up new opportunities with ownership and internalisation advantages. This growth enhancement and market augmentation might attract companies to employ FDI as a strategic response. It does not reduce trade but restricts trade expansion.

It is noted that the combined results of all the effects of integration enhance the locational advantages and affect the company's strategic choice (Yannopoulos 1990a). A company that is involved in international operations will seek the optimal location for production to generate maximum advantage within the organisation. This type of company usually produces highly specialised goods and services. Predominant market conditions or decisive locational determinants such as transport costs, taxes and incentives are the most important factors to be considered. A company will make FDI to exploit the advantages through the form of international production.

The review of the above theoretical framework is useful because the perspective of this study on the subject is in line with these theories. The analytical model which will be suggested in the later section is based on these perspectives relating to the effects of economic integration on the international production.

Empirical studies

Early empirical studies relating to the effects of economic integration on international production focused on FDI flows from US companies to the European Community (EC) region. The approaches of these studies estimated the effects of the Community through testing regressions relating to differences in FDI levels before and after formation of regional integration (Wallis 1968; D'Arge 1971; Schmitz and Bieri 1972).

There were a series of efforts to verify the thesis that the level of FDI is likely to be related to the size of the market and the rate of market growth (Scaperlanda and Mauer 1969, 1973; Schmitz and Bieri 1972; Lunn 1980). The results of these attempts indicate that FDI seems to be

closely related to the market size and the level of GNP. However, it cannot be clearly identified whether there is proportional propensity to short-term changes in the rate of GNP growth (UNCTC 1992: 33).

Scaperlanda and Mauer (1969) examined the ratio of US exports to the EC compared to the internal exports to test the effect of trade diversion and trade creation. This study attempted to diagnose the consequences on trade according to the implementation of tariff changes over time as a result of the formation of the EC. This test revealed that this ratio had been insignificant. However, a similar study carried out by Lunn (1980) showed that US exports to the EC divided by US exports to the world are negatively related with FDI flows. This indicates that the formation of the EC resulted in an increased volume of US FDI. The study of Scaperlanda and Balough (1983), which focused on the progressive dismantling of tariffs on intra-trade, also revealed significant relations between tariff reduction and US FDI.

Along with the formation of the EC, the economic consequences of its enlargement are considered by Blair (1987) who, firstly, tested the relations between the elimination of internal trade barriers and the direction of US FDI. The result indicates that the transition towards the formation of the EC diverted the flows of US FDI from the UK to the Community's member countries. He also tested the intermediate value between 1973 and 1977 when the UK became a member of the Community. He found that the position of the UK as a favourable location for inward investment was enhanced based on the result that US FDI flows to the UK increased after joining the Community.

It may be argued that the way in which economic integration affects international production cannot be said to be properly addressed in those empirical tests. Firstly, because the early studies in regard to the impact of integration on the activities of MNEs from third countries are limited to empirical case analysis focused on the flows of US FDI to the EC influenced by formation of the integrated market.[5] Secondly, there was significant controversy surrounding the results for being unaware of the appropriate linkage between theories of FDI and integration.

More recently, there have been some attempts to identify the effects of economic integration on international trade and investment flows.[6] However, they also appear to have limitations in particular aspects. Firstly, these attempts comprised econometric *ex post facto* research limited to a certain period. Secondly, the effectiveness of the analysis was reduced as these studies tried to embrace many industrial sectors. Thirdly, most of the studies focused on established MNEs, particularly from the US. Yannopoulos also noted in regard to the contradictory

finding of early empirical studies of regional integration and international production: (i) the quality of the available data limited to US direct investment, (ii) the choice of proxies to measure the trade discrimination and (iii) the weak linkage of theories of both international production and economic integration (Yannopoulos 1990a: 247).

This study attempts to complement the existing studies by adding an empirical case of the Korean automotive industry in Europe. The Korean automotive FDI in Europe seems to be better explained within an extended framework which is a synthesis of existing theories relating to the subject of this study. Before establishing a framework derived from theoretical review, the meaning of economic integration for the Korean FDI based on the theories and tentative observations is traced.

Effects on industrial location

To achieve the maximum utility of limited resources, companies arrange disparate strategies concerning specialisation, location of production and economies of scale. These concepts are closely related to the decision on industrial location. This section is based on the proposition that economic integration has significant implications for companies' decisions on industrial location for international production.

Table 2.3 summarises companies' locational choices under the different trade regimes. In the case of a protectionist trade regime, a company should be in each protected market to maintain existing market share. Integration by geographical and economic convergence may require

Table 2.3 Production and trade patterns of multinational, multiproduct companies under different trade regimes

Trade regime	Location of production units for each product	Dominant part of company
Free trade	One plant (usually home base)	Production and export
Protectionism	Numerous plants (one in each major national market)	National companies
Integration	Limited number of plants (at good locations)	Matrix of national and product organisations
Free internal market	One plant (optimal location)	International product divisions

Source: Molle (1994), p. 275.

different locational strategies. MNEs should place limited number of plants at the most appropriate location in each trading bloc to serve entire markets. If a company is located in the free internal market, only one plant is required to reach all markets within the internal market. For outside companies, the European integration implies 'integration' as a trading regime for which they have to formulate their strategies. Table 2.3 suggests that it is important to locate a production facility in one appropriate location within the territory in the case of free trade.

The formation of the EU initiated the optimal allocation of resources through specialisation and large-scale industrial production (Molle 1994). It is suggested that the US and Asian companies need a European production base with a greater concentration in fewer countries by companies with pan-European operations through inward investment. The critical locational factors that may influence this process are: (i) comparative attractions of different locations, (ii) the growth of the CEECs and (iii) the role of agencies and grants.[7] In particular, FDI inflows to the CEECs are attributed to potentially large domestic markets, proximity to Western European markets, low wages, low production costs, exploitation of natural resources and the privatisation of state-owned enterprises (UNCTC 1994: 15).

Closeness to the market indicates not only geographical proximity but also improved information exchange between market and companies. Information gathering and adapting to changes is quicker with a presence in the market. New competition in the market means an overall rise in market demand. Consumers often consider companies with local manufacturing as local companies. For instance, regarding public procurement, non-EU companies would experience difficulty gaining access to it, unless they had a local market presence (Welford and Prescott 1992). Thus, the issue is to select an appropriate location for local production.

Implications for Korean automotive FDI: opportunity or threat?

Interest in local production within the European market has increased among Korean VMs since the early 1990s. Local production activities in the European markets are less advanced compared to established global makes. There are no transplants within the EU market at the present time. However, it is expected that Korean VMs will deploy a strategy to serve the European market by establishing production facilities in the EU, because rapidly increasing exports to the EU market will reach their

limit and this will not be a viable strategy to serve the EU market in the long term.

Mcdermott (1995) suggested that Korean transplants will be established in Europe and these plants will be the result of an offensive proactive global expansion path, rather than the defensive and reactive route. Strategic decisions tend to be influenced by business circumstances. Relating to the European market, the major interest is whether the economic integration will turn out to be an exclusive trading bloc or maintain open regionalism. The changes of policy in the EU are more often perceived as threats rather than opportunities even if the Commission confirms that the EU will sustain openness to trade and FDI.

It is questionable whether an integrated Europe will provide threats or benefits to Korea and Korean companies to and within Europe. There is a debate relating to this issue among many Korean scholars. Whilst integration in Europe is viewed as being more of a threat than an opportunity in general, the perspective of the Korean managers in European subsidiaries and companies on integration is revealed through the survey of Nam and Slater (1997) (Table 2.4).

According to the survey results, over 95 per cent are aware of the potential of expanded European markets due to integration. Thirty-seven per cent answered that the completion of integration will be accomplished within ten years time. It is worth noting that more than half of the respondents view European integration as having negative effects on Korea. Only 16 per cent responded that an integrated Europe might provide opportunities and benefits. Thus, it seems necessary that Korean VMs should consider realignment of their strategic directions from an export drive to local production as far as their circumstances permit. Local production that would substitute for exports is the focus, as a feasible alternative corporate strategy to sustain market involvement.

Table 2.4 Positive and negative aspects of integration

Positive aspects	**Negative aspects**
Increased demand through market expansion and growth	High standardisation of quality and high level of local content
Favourable investment climate for foreign investors	Discriminatory trade policies towards non-member countries
	Increased competition intensity
	Rise of regionalism and protectionism

Source: Nam and Slater (1997), p. 45.

Table 2.5 is the matrix of decision-making of a company located outside the EU. This table helps understand the scope of strategic decisions of outside companies under the consequences of the different scenarios of economic integration. The scenarios of European integration are simplified to Fortress Europe (p_1) and open regionalism (p_2). It illustrates that small profits can be obtained from production in the home country while huge losses are expected in the case of Fortress Europe. In other words, profits from production located in the EU are expected to be above profits from production in the home country even in the case of p_1. In the case of Korean automobile manufacturers, the present stance in the European market is rather near to p_2 scenario. There had been no particular protectionist measures imposed by 1999, and any clear evidence that they will be introduced in the near future has not been found. Thus, the Korean automobile manufacturers have benefited only by producing in the home country and exporting to the European market.

It is true that direct export has been the primary means of approaching overseas markets. Since the Korean VMs started to export in 1975, rates have shown a constant increase. In particular, the rate of increase in exports to the European markets in the 1990s was unprecedented. However, discussions and results in the previous sections imply that export alone would not constitute a viable corporate strategy to cope with integration trends in Europe. In addition, increased exports at extraordinary rates will draw the unintended attention of interest groups

Table 2.5 A decision matrix of companies located in non-European Union countries: an example

	Probability	**Becoming a member**	**Non-member**	
			Fortress Europe	**Non-Fortress Europe**
		$1-p_1-p_2$	p_1	p_2
Decision	Production at home	100	–200	90
	Production in the Union	80	80	80

Note: In this simplified example, fictitious profits for different combinations of decision and Union membership scenario are given. Assuming for simplicity that the three outcomes in the table are equally probable, production at home gives an expected loss of 3.3 as compared to a profit of 80 for production inside the Union.
Source: Oxelheim and Gartner (1996), p. 46.[8]

which may attempt to influence regulations and legislation. Thus, the increasing trend of exports may not be continued in the medium and long term. Fear raised among other trading non-member partners that it would form an inaccessible trading bloc is increasing. The possibilities of the 'Fortress Europe' scenario may not be ruled out. Protectionist measures could be imposed on Korean motor car imports at any time. This view becomes more feasible for the Korean VMs in Europe in future.

A synthesis: the framework

In the previous sections, European economic integration was pointed out as a prominent phenomenon in political and economic terms, and its impacts on the trading relations with outsiders were found to be significant. Trade diversion takes place when efficient suppliers from outside are replaced by less efficient inside suppliers due to the removal of intra-tariff barriers. In addition it is a widespread fear among outsiders of the integrated market that any protectionist measures could harm their positions as trading partners.

To briefly reprise the theoretical context, regional integration may encourage intraregional investment as well as third country investment. Without the distinction of the development level of member countries, the expansion of boundaries through participation in regional integration may create large markets and improve growth prospects. These aspects of an integrated region may be considered as factors attracting FDI. In the context of the economic integration in Europe, market opportunities and growth through efficiency have become primary attractions for the MNEs who are interested in exploiting advantages across the national boundaries in Europe. Simultaneously, avoiding any potential threat of a decreasing market share due to the various trade barriers has also been of critical interest. These two major changes in business circumstances in Europe have influenced the strategic formation of companies in the region as well as outsider companies (Lee 1991: 261–3). For non-European companies, the strategic choice may be whether they should establish local production to be near to local markets in either case.

Non-EU companies would experience difficulties to gain access, unless they have a local market presence (Welford and Prescott 1992). Therefore, it is important how the Korean automobile industry approaches to this issue as an outsider. The competitive position of outsiders would be eroded by economic integration if a company were to stay outside

when an integrated area formed an exclusive trading bloc. Some analyses[9] confirm that a company might benefit if it locates inside the integrated region (Hirsch and Almor 1996). This seems particularly true for the Korean automobile industry in the European context.

From the above theoretical considerations and tentative observations, general notions have been found which can be applied to the effects of European economic integration on the prospects for trade, FDI and the locational decisions of Korean VMs as an outsider of integrated Europe. Based on this, a framework is formulated as a tool to explain the FDI and industrial location of the Korean automobile industry in Europe relating to the static and dynamic effects of integration. Figure 2.1 shows a simple schematic presentation of the research framework synthesising existing theoretical propositions. The structure of this study corresponds to the plots of discussion and examinations based on this diagram. This diagram also comprises and briefly shows research issues. The structure of this diagram is the confluence of international production and economic integration theories applied to the context of the Korean automobile industry in Europe.

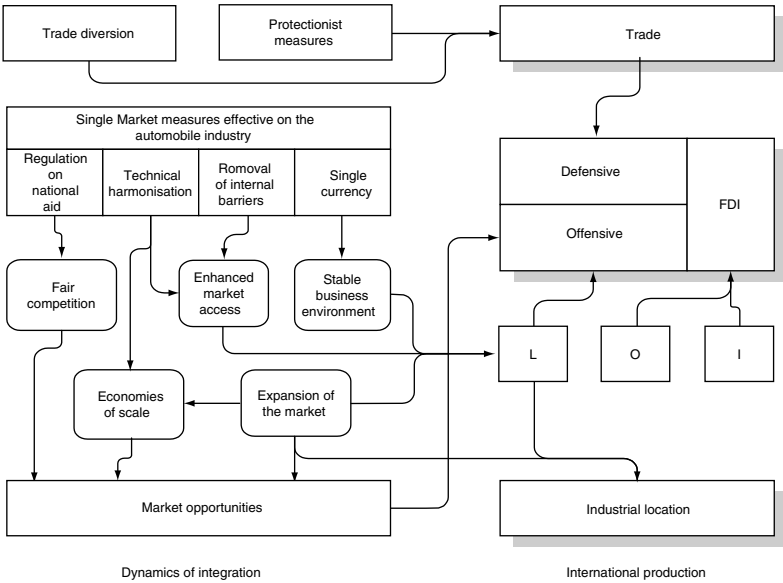

Figure 2.1 Diagram of international production associated with the static and dynamic effects of economic integration in the internal motorcar market

The right side of the diagram summarises the international production activities of MNE. Trade, FDI and industrial location are presented relating to the effects of integration. Firstly, the 'OLI theorem' is incorporated in this side of the diagram. 'L', 'O', 'I' in the diagram stand for location-specific, ownership-specific and internalisation advantages suggested in Dunning's 'Eclectic Theory'. Secondly, among various FDI types identified through the literature review of the effects of economic integration (UNCTC 1990; Yannopoulos 1990a), two types of FDI with which non-member countries are directly related are derived. These are defensive export substituting and rationalisation-offensive export substituting investments. Defensive export substituting investment is a response to the trade diversion effects and possible protectionist measures of common external policy.

The left side of the diagram comprises the static and dynamic effects of economic integration with the particular reference to the automobile industry. Firstly, various protectionist measures such as anti-dumping duties (ADD), quantitative restrictions, and reciprocity issues as a result of a closed regionalism scenario are considered in the search for the effects on FDI decisions. Secondly, policies relevant to the automobile industry adopted by the ruling authorities are used to observe if the dynamics of integration effects may be similarly applied to the industry. The process by which rationalisation and market opportunities may be related to the locational advantages which could influence FDI and locational decisions is applied to the framework.

Five propositions are presented below in order to establish practical guideline for the further discussion of research issues. The propositions are based on the assumption that there are static and dynamic effects of economic integration which may result in both threats and opportunities. Questions regarding the validity of assertions and theories of whether European economic integration may bring positive or negative effects are not considered to be the subject of this study.

Proposition I

Assuming a 'Fortress Europe' scenario, trade diversion and other protectionist measures in the medium and long term may lead to reduced volumes of motorcar imports from Korea. This will motivate Korean manufacturers to invest in the market in 'defensive' mode to defend existing market share.

Trade creation and diversion (Viner 1950) increased intra-trade thanks to the removal of NTBs (Pelkmans and Winters 1988), and the terms of trade effect together with trade restrictions seem to have had a negative

effect on the trade of external countries with member countries (Petith 1977). Korean automotive FDI seems to have been motivated by the negative effects of integration on trade.

The defensive import substituting investment is a response to the trade diversion effect of integration (Yannopoulos 1990a). Perceived potential protectionist measures for imports in the external policy of the EU are also considered to be decisive factors. This uncertainty in the policy side increases the risks in trade relations, and FDI is employed as a hedge against uncertain external policy.

Unfavourable consequences of economic integration could decrease the trade volumes of Korean motorcars imported by the EU owing to trade diversion effect and possible protectionist measures will lead Korean VMs to invest defensively to maintain market share.

Proposition II

Increased opportunities resulting from market integration in Europe, in particular single market measures affecting the automobile industry, are available not only to domestic producers but also to non-European entrants including Korean VMs.

This proposition is based on some discussions on the locational dimension of economic integration influenced by the policies of a governing body. The dynamics of economic integration are known to provide a number of economic opportunities within the integrated region. As an exogenous dimension of integration, economic growth in the integrated region could have spillover effects on non-member countries (Kreinin 1975). This may be similarly applicable to the relationship between integration policies on the automobile industry, and the FDI and industrial location of Korean VMs as entrants from non-member countries.

According to the studies concerning the impact of the SMP,[10] a number of measures related to the economic policy of the EU would have affected industries both inside and outside of the EU. Some of the policies and measures are closely related to the automobile industry. Firstly, technical harmonisation within the EU has the most prevailing effects on the industry in that it will remove barriers which hamper internal trade and help save R&D and national adjusting costs. Secondly, the removal of border formalities enables companies to involve in effective international production by saving the transportation and communication costs resulting from formalities and delay. Thirdly, regulations on state aid will formulate a fairer business environment for the companies from non-member countries. Finally, fiscal integration

would also provide the economic entities within the integrated area with a more stable economic environment as it reduces risks which come from cross-border transactions. The formation of EMU will be completed in the foreseeable future and will enable companies to reduce uncertainties which are naturally derived from international transactions with different currencies.

These dynamic changes in the European market are closely related with the location-specific advantages of an area. It is alleged that economic integration increases locational advantages (Yannopoulos 1990a). The strategy of Korean VMs seems to have been affected by locational advantages as a result of the combined effects of integration.

Proposition III

Increased location-specific advantages in Europe have induced Korean automotive FDI in the 'offensive' mode in order to exploit opportunities as well as rationalise value-adding activities.

One of the critical factors affecting Korean VMs engaging in overseas operations in Europe seems to be increased opportunities within the market. The dynamic effects of integration mainly due to economies of scale and increased competition induce efficiency within the region (Balassa 1961).

The removal of physical, technical and fiscal barriers stimulates growth and opens up new opportunities which also result in investment creation effects. The liberalisation of goods and factor movement leads to an extended market which enables companies to accomplish economies of scale and to reduce costs. This will result in the restructuring of economies by specialisation, reorganisation and rationalisation processes according to the dynamic effects of integration. Economic integration also has positive macroeconomic effects which generate rising income rates, resulting in clear market growth. This growth enhancement and market augmentation might attract companies to employ FDI as a strategic response. Inward FDI as a company's strategic response seems to be critically affected by these dynamics of economic integration and would occur through a process of advantage exploitation and the optimisation of location.

Offensive import substituting investment is also caused by the advantages of growing demand and the opening up of new markets. The expanded market size of the EU and homogenised customers in the market are resulted from integration and dynamic growth.

Among suggested positive elements, some are considered to be practical aspects of the dynamics of European economic integration in the case of the automobile industry, such as decreased R&D cost, fair competition, enhanced market access, market enlargement and a stable business environment.

Proposition IV
In some cases, the FDI and locational decisions of Korean VMs in the EU are affected by other factors resulting from their unique characteristics which are not directly related to economic integration.

This proposition focuses on the other aspect of the study which cannot explain some of the motivations of FDI and locational decisions of Korean VMs in the EU with the framework of the effects of integration on international production.

Ownership-specific advantages which should be exclusively available are critical conditions for effective competition with indigenous companies. There are particular advantages for emerging MNE from less developed countries compared to established MNE due to reasons derived from the company's own and country-specific differences. They have strengths in some dimensions differentiated from established MNEs. For instance, small scale, multipurposed and labour intensive production enables a company to accomplish a low product price since it is an important factor which embodies competitiveness in the world market (Wells 1981). Low cost advantages and appropriate technology are suggested as the ownership advantages of Korean companies engaged in manufacturing FDI.

The international markets are highly diversified and there are always narrow niches for the products in which emerging MNEs can specialise. In fact, the gaps can be observed when production with old technology is not suitable for the developed countries with cutting edge technology (Lall 1983). This sort of gap might be filled by emerging MNEs from less developed economies who are strengthened by relatively low labour costs and large diversified conglomerates with easy access to resources.[11]

Oligopoly competition among rival companies may be a motivation for FDI from MNEs from less developed countries. Hymer (1960) observed that the FDI activities of some concentrated industries are more vital compared to that at other industries. The automobile industry is suggested as one of the examples. Caves (1974a, b) pointed out that domestic oligopoly competition is similar to that of international competition between rival companies. Considering that domestic competition between

conglomerates has affected the development of the automobile industry in Korea, this seems partially relevant to explain Korean FDI in Europe. Jeon (1992) identified this as a critical factor in Korean manufacturing companies' investment in developed countries (Jeon 1992: 527–41). In the case of the Korean automobile industry, reaction to domestic rivals establishing plants in Europe seems a significant factor for overseas activities.[12]

Different motivations for Korean FDI are resources sought, engineering related investment, setting up of subsystems for exports, serving local markets and technology sought (Jo 1981).

Proposition V

The locational decisions of Korean VMs are concentrated in peripheral regions and this is affected by the potential of the region in relation to the market integration.

Wells (1983) suggested that FDI from less developed economies may be motivated in order to access a third market by acquiring production bases in neighbouring countries. This fits developing country FDI to developing country. This suggestion is, to a certain extent, applicable to the case of Korean automotive FDI. Most of the major Korean VM FDI in Europe has been concentrated in the CEECs. The present status of a number of the CEECs' free trade relationship with the EU and the prospect that the CEECs will be included in the EU in the near future are considered to be a crucial factor for the decisions on industrial location. If this is the case, the intrinsic intention of Korean FDI in the CEECs is to obtain access to the EU markets.

The location of Korean FDI in the CEECs can be understood by considering a *quid pro quo* approach to reduce the threat of protection before the actual protection (Bhagwati 1987). Similar to usual cases of FDI from less developed economies, the intrinsic characteristic of Korean FDI in Europe can be characterised as defensive in its nature. However, no actual restriction had been imposed on the Korean motorcar imports by the end of the 1990s. Therefore, the locational decision of the Korean automotive FDI seems to be a comparatively advanced type of strategy as it may prevent future trade restrictions.

Another criterion affecting locational decisions, is likely to stem from how strenuously a member state participates in the formation of the EU. This assumption is based on empirical tests and observations concerning the FDI decisions of external companies to the EU.[13] In general, industrial location is likely to be affected by the status of membership

within the EU. Thus, Korean VMs will select more integrated areas rather than the countries with weak connections to the EU to exploit comparative advantages derived from economic integration. In particular, the UK has become a less likely place for Korean FDI due to the UK's politically and emotionally awkward relationship with the EU. In contrast, major production facilities in the CEECs show that the prospective potential of the region relating to the EU is a critical factor.

Apart from integration related factors, lower labour costs and local market potential are considered to be important factors. In addition, occasional FDI in the developed states in the EU is likely to be motivated by the need to acquire advanced technology to meet local demand in the long term and efficiency through competition.

Conclusions

Relevant theories have been reviewed in this chapter in order to establish a framework to explain the particular case of the Korean automobile industry in Europe. The integration effects are likely to be significant to outsiders as much as member states. Economic integration within Europe is not progressing as planned. A number of issues in many critical areas have been identified that need to be addressed to complete economic integration; these include erection of European wide standards, currency convergence, centralisation of monetary policy, regional development and agricultural issues. Meanwhile, substantial impact on the European economy is found in the reaction of the MNEs from outsiders. In the case of 'Fortress Europe' or 'open regionalism', consequences are likely to be 'increased inward FDI'. Several measures in commercial, competition and external policies are suspected to be leading towards this consequence.

It is identified that there is a lack of consideration of MNE and FDI from less developed countries in the framework of the effect of economic integration and the international production. In order to complement this insufficiency, this book added specific considerations in regard to MNE and FDI from less developed countries and applied them to the comprehensive analytical framework. Therefore the particular framework of this study, which is a synthesis of existing theories of separate subjects, may improve the theoretical perspective on the case of Korean FDI in Europe.

The strength of MNE from less developed countries seems to stem from their differences from developed countries' MNEs. Small scale, labour intensive and modified technology comprise their peculiarities

which provide advantages in terms of international production. These types of advantage are likely to be exploited in developing countries. Thus, most of FDI from less developed economies is concentrated in developing countries. The case of Korean automotive FDI can be viewed from this perspective since most FDI is concentrated in the peripheral region in Europe, namely the CEECs.

However, recent years have witnessed critical changes relating to MNE from less developed economies. Some of them have successfully developed their particular ownership advantages, differentiated from the usual peculiarities. In line with this, the rise of FDI from less developed economies, not only to developing countries but also to developed economies, is considered to be the usual phenomenon in a more complex and globalised world economy. Thus, FDI of MNEs from less developed economies may be explained in a rather contingent context. On this basis, Korean automotive FDI in Europe should be understood in a comprehensive perspective of the exogenous dimension of European economic integration and the endogenous changing paradigm of the Korean economy.

3

The Institutional Development of the European Union and the Automobile Industry

Recent years have seen substantial international restructuring within the automobile industry in Europe. This restructuring has been influenced by European economic integration. This chapter outlines the institutional development of the EU with particular reference to the specific instruments of economic integration and various measures affecting the automobile industry. Another focus of this chapter is the economic consequences of integration on external entities. Based on evidence suggested in this chapter, it is conceivable that the SEM is becoming less accessible to companies from outside the region. Various rules and regulations could be interpreted as barriers. Together with dynamic effects within the internal market which might generate opportunities for outsiders, this adverse effect requires external entrants to tune their corporate strategies in Europe.

This chapter considers several issues within the above context. Firstly, the structure of the European automobile industry is briefly reviewed to continue further discussion regarding structural transition stemming from economic changes in the market. Secondly, internal market policies concerning the automobile industry are listed and their effects on the industry are introduced. Thirdly, the external economic consequences of European integration and their implications for companies from non-member countries are appraised, focusing on the discriminatory practices of the EU.

These considerations are necessary steps for further discussion because of economic and industrial changes in Europe. The impact of economic integration on the automobile industry of member and non-member countries has significant implications for the activities of Korean VMs in Europe.

European economic integration and the automobile industry

An EC white paper adopted in 1985 aimed to remove various barriers from internal markets. Subsequently, the practical realisation of internal market became possible by adopting the Single European Act of 1987. The Maastricht Treaty gave birth to SMP which enabled measures to remove tariffs and national quotas, and ensured free movement of capital and services from 1993. The economic consequences of SMP have been expected to have remarkable impact on the European economy.[1] In particular, implications for the automobile industry seem to be more significant than for any other industrial sector. The completion of the internal market by means of implementing relevant measures and policies has been the main catalyst for the structural adjustment of the automobile industry. Salvatori (1991) suggested that the restructuring of the European automobile industry has been influenced by the SMP and the 1992 programme. The fiscal and technical harmonisation and removal of various trade restrictions coupled with macroeconomic changes induced international industrial concentration within the automobile industry in Europe.

This section concentrates on the structure of the European automobile industry and the effects of integration on it. The dynamic mechanism of integration, including further expansion towards the CEECs, in particular affecting the automobile industry in Europe, is evaluated.

The overview of the European automobile industry

The EU automotive market comprises 15 member states and contributes more than 40 per cent of world trade. The total population in this market is higher than in any other major automotive market.[2] The automobile industry in the EU employs 1.8 million people in manufacturing and components supply, and a similar number in distribution and the after market. In the worldwide motor vehicle market, the EU-15 accounted for 33.6 per cent of sales and 35.4 per cent of production in 1995. The economic consequences of integration on this sector are particularly related to the EU region. In addition, the importance of the CEECs in this region as a result of integration is likely to have significant implications for the Korean VMs in Europe. The later part of this section is devoted to consider this region. European automotive markets have been both the largest consumer of vehicles and the largest producing region for automobiles.[3]

The VMs in Europe can be divided into volume producers and high performance specialists. In 1990, three out of the nine largest European

manufacturing companies were automobile companies. From 1960 to 1990, five volume producers – Volkswagen, Peugeot, Renault, Fiat and former Leyland – and two US companies – Ford and General Motors (GM) – dominated the European automobile vehicle market by 76 per cent and 90 per cent in 1963 and 1993 respectively. In 1999, there were six major mass producers.[4] European indigenous manufacturers attempted to shape their structure as a mass national producer by uniting several companies. Volkswagen in Germany embraces Rolls Royce, Audi and SEAT. The Fiat group in Italy comprises Fiat, Lancia and Alpha Romeo while, in France, PSA has Peugeot and Citroen in its group. High performance specialists such as Daimler–Benz and BMW occupied the rest of the market.

Automobile production in the EU has increased after the downturn in the early 1990s. In 1997, total production including that of commercial vehicles recorded over 15 million units, which is a 4 per cent increase compared to 1996.[5] In terms of demand, the EU market has grown steadily in the 1990s except for 1993. Demand for passenger cars in 1993 marked a steep drop in sales in most markets (Table 3.1). The structural weakness of the European automobile industry was considered to be responsible for this.

It is important to figure out the weakness of the automotive industry in Europe in order to understand how deeply economic integration may affect the industry. The automobile industry in Europe has several distinctive features clearly related to the weakness of the industry. They are (i) national manufacturers dominating each major market, (ii) the fragile structure of component industry, (iii) the traditional problem of overcapacity which provoked recent rationalisation trends and (iv) price discrimination across national markets in Europe. The structural weaknesses of the European automobile industry inevitably triggered industrial restructuring, and economic integration seemed to have contributed as a catalyst at this point.

Table 3.1 New passenger car registrations in Western Europe (% change)

Country	91/90	92/91	93/92	94/93	95/94	96/95	97/96	98/97
EC (12)	0.0	1.1	–17.0	5.9	0.5	6.0	5.0	6.8
EU (15)	0.6	0.8	–16.9	6.0	0.4	6.3	4.9	7.1
Total*	0.7	0.6	–16.6	6.1	0.8	6.4	4.8	7.0

* Total figures include changes in EFTA countries (A, SF, S, N, CH).
Source: Various sources.

The most important and distinctive feature of the European automobile industry is that there is a national dominant producer in each member country (Hild 1991).[6] Automobile manufacturers in Europe tend to have large domestic distribution infrastructures, and a preference for locally produced cars still plays a significant role in some markets. In addition, the state–industry relationship also has been strongly related. During the 1970s, which saw a period of unstable labour relationships within the automobile industry and the first 'oil crisis', not only the competitiveness of the industry but also the demand for its products dramatically decreased. This resulted in national aid for less competitive domestic manufacturers and left the European automobile industry vulnerable in the competitive world automobile market in the 1980s.[7]

Many suggested that the subsidy policy of the Commission should be altered, not to provide resources for the expansion of production, but to aid the reorganisation of the industry. This was based on the fact that European manufacturers are responsible for 27 per cent of the overcapacity in world automobile production.[8] In addition, the industry was hit by recession in the beginning of the 1990s. The production level in 1993 was below the 1986 level. This recession in motor vehicle sales has accelerated the implementation of long-term strategies to respond to global trends affecting the industry.

There have been a number of attempts at the industry level to deal with overcapacity. The objectives were pursued by increasing productivity by way of closing down factories, decreasing employment levels on the one hand and the rationalisation of parts supply system on the other (Park 1993: 45–6). In addition, the emergence of the SEM encouraged European companies to move away from classic mass production and forced a greater degree of corporate rationalisation (Rawlinson and Wells 1992). The trend to international concentration by way of M&A or strategic alliance was clearly evident in the European automobile industry from the late 1980s and the early 1990s. Vehicle manufacturers in Europe adopt pan-European strategies exploiting the strengths of specific countries and expanding their presence in the major markets through new investments, JVs and alliances.[9] Ever fiercer competition due to overcapacity and liberalised world trade has been pointed to as the reason behind this. As product and development costs increase, partnerships and alliances are regarded as providing the most cost-effective method of developing a competitive product portfolio and reducing dependence on domestic markets.

The structural weakness of the European automobile industry may also be found in the automotive component industry. The number of

European automobile component suppliers is nearly 3000 and total employment is recorded at 1 million people. There are two particular aspects of the European component supply industry. They are (i) most suppliers are small- and medium-sized companies and (ii) automobile manufacturers are heavily reliant on the domestic suppliers. The average size for companies is about 270 people, but 64 per cent of these companies employ less than 100 persons. Only 4 per cent of the companies account for 50 per cent of total employment. This is essentially due to the nationally based nature of parts procurement. Although intra-EU trade grew to extremely high levels in the 1990s, most VMs continue to source largely from their domestic suppliers.[10]

The changing environment in the automobile markets has, however, affected the component industry in the EU. A number of companies could not meet standards in the area of R&D investment, management rationalisation and the introduction of the lean production system required by the manufacturers. As a consequence of increased international competition, the component industry in the EU has transformed its production process and industrial structures. Since the beginning of the 1990s, the number of suppliers for each manufacturer has shown decreasing trend.[11]

Lastly, it is evident that the prices of motor vehicles in Europe vary from country to country. The price variance of motor vehicles in the European market approaches 36 per cent among Euro zone countries, and 61 per cent between Euro zone and non-Euro zone countries.[12] The VMs deploy different pricing policies for different countries. According to the various reports and analyses, there were several factors attributable to the price discrimination among member states.[13] They are (i) tax differences which are alleged to have affected pre-tax prices, (ii) price elasticity of demand and (iii) industrial concentration which resulted in implicit collusion between companies in response to cost and exchange rate changes. This practice of price discrimination is known to have led to welfare loss for certain European customers (Murfin 1987: 187–8).

It has been expected that the differences in final prices across the member states would be reduced as a result of economic integration. The price competition among the local producers will be accelerated according to the progress of integration. Hence, the market prices of motor vehicles are likely to converge. The introduction of the single currency made it difficult to continue to put different prices on the same item in the geographically dispersed markets in Europe. As a consequence, different pricing would no longer be viable, as the price structure in the market becomes clearer for customers who would

willingly cross borders to purchase cars. The rationale is based on the measures of integration such as removal of trade barriers, harmonisation of tax regimes and less distorted flows of information (CEC 1996c). It is not only the price structure of the European motorcar markets which is affected by the progress of economic integration. It appears that the whole structure of the European automobile industry has been affected by economic convergence in Europe. The next section deals with the dimension of the automobile industry relating to the effects of economic integration.

Impact on industrial restructuring

Industrial restructuring is likely to occur within the intrinsic dynamics of economic integration. As integration proceeds, the forms of the internal market continuously change; free trade agreement, customs union, common market, monetary union and finally complete economic political union. Changes in the economic environment are expected to transform the structure of the automobile industry according to the progress of economic integration. It is necessary to understand how economic integration in Europe influences the automobile industry and delivers changes in it. Based on the theoretical consideration in the previous chapter, rationalisation and specialisation by means of reorganisation are applied as an engine for the changes as the dynamics behind the industrial transformations in connection with practical instances are considered.

For the automobile industry, the connection between economic convergence and the industrial restructuring in Europe may be illustrated under the four headings. Firstly, rationalisation of the automobile industry has been realised. Most of the automobile manufacturers in Europe have announced rationalisation plans for their pan-European production. For instance, the integration of production platforms seems to be one of the critical instances of rationalisation. The rationalisation of the European automobile manufacturers is mainly to acquire cost reduction effects by sharing their production platforms.[14] Rationalisation by reducing the number of existing platforms has been possible in the context of an expanded market, pan-European sourcing, enhanced logistics and homogenised customers' preferences, which are all considered to be consequences of economic integration.

Secondly, specialisation of production activities within the region is also an important aspect. Motor VMs in the EU have announced the reorganisation of their production plants. Their plans comprise the closures and rearranging of production sites.[15] This was distinctive in

the case of the international trade in the automobile component industry. In the case of the Ford Escort model, its parts are provided by factories scattered in 12 different countries, including the US, Canada and even Japan.

Thirdly, international concentration of the European automobile industry started as the business environment in Europe put pressure on the automobile industry to reform its structure. This necessity was, to a certain extent, met by the economic consequences of the integration. Overcapacity and fierce competition in the automobile industry led to huge mergers among the established producers. From the 1960s to the 1980s, the concentration pattern of the automobile industry in Europe remained nation-centred. The structure of the European automobile industry started to change as mergers and acquisitions among the automobile producers in Europe took place. During this period, Volkswagen acquired Auto Union and British Leyland; Fiat acquired Alpha Romeo and Lancia; Citroen acquired Panhard and Peugeot.[16] More recently, Ford acquired the passenger vehicle part of Volvo in 1999. This included the production line in Sweden with 28,000 employees and the right to use the Volvo brand on passenger cars, mini vans, sports cars and light commercial vehicles. Ford expects to increase sales in both the US and European markets where market share is around 10 per cent.[17] The Daimler–Chrysler case shows another clear picture of international concentration. As a result of this merger both parties could effectively strengthen their position in each other's markets. For instance, the sales proportion of Benz was inclined toward Europe by 66 per cent while that of Chrysler was almost negligible in Europe.[18] This merger was recorded as the largest in the manufacturing sector which produced a trans atlantic automobile company with USD 80.2 billion of capital, 412,000 of employees and a turnover of USD 131 billion.

There are industry-specific consequences which would lead to industrial restructuring according to the results of the execution of policies and measures regarding economic integration. The deregulatory measures of the internal market will remove the national barriers that are likely to create the aforementioned nationalistic buying behaviour. According to single market studies, there is a small measurable effect on the automobile vehicle markets within the region (CEC 1996c: 35–8). The analysis of intra-EU trade shows that market access has been enhanced in terms of models available to consumers and the number of manufacturers in a national market. The market strength among mass producers has been increased, which has resulted in market concentration. While a marketing network in the

EU is being developed, the level of prices has not much been affected by the SMP.

From the supply side perspective, the execution of the SMP has been expected to satisfy the requirement for structural adjustment in the automobile industry. As far as production is concerned, the production costs have not noticeably been affected.[19] Large cost saving effects were identified in R&D sectors by means of technical harmonisation. Cross border mobility of work forces in the industry has increased though this has been slow. However, labour flexibility on the shop floor has been significantly increased. Both strategic and structural investment by the industry in peripheral regions in the EU and non-EU regions have been influenced by SMP with a prevailing trend to strategic alliances.

Further expansion towards the CEECs

Last decade witnessed the rapid transition of the CEECs from a centrally controlled economy to a market economy open to liberal world trade and capital flow. Attention to these countries has been paid by Western European countries as their economic activities are more and more integrated with the CEECs. In 1991, association agreements based on bilateral trade and economic co-operation agreements were established between the EU and Poland, the former Czechoslovakia and Hungary. Romania and Bulgaria were also included in extended agreements later. The agreements cover a ten-year transition to mutual free trade. This is viewed as a prerequisite to a wider EU through development of trade and co-operative relations. The progress of the negotiation, which started in 1998 with the CEECs, indicates that some CEECs will be accepted as member states of the EU in the foreseeable future.

There was a clear indication of this in 'Agenda 2000' which the EU presented in 1995. It announced two clear objectives of the Commission. One is the strengthening of the Union and the other is preparing for enlargement. In practice, negotiations for entry started in 1998 with Hungary, Poland, Estonia, the Czech Republic and Slovenia.[20] The interest groups within the EU recognise the progressive and organised integration of the CEECs into the EU as an important economic and political matter.[21] In terms of the political economic aspect, the accession of the CEECs is considered to be a vital issue as this ensures the irreversibility of political and economic transformation and increases regional security (Gower 1995: 4–5). However, the negative perspectives on this issue are also prevailing. The failure or less-than-expected success of economic transformation programme in the CEECs means that economic convergence may be an unlikely event. The figures of

GDP show significant differences of economic status between the EU and the CEECs.[22] This indicates that the financial burden for existing EU members after integration would be enormous. In particular, larger countries with relatively less economic development are much less likely to be incorporated in the enlargement plan (Kearns 1996: 78–82).

Despite negative aspects of the future relationship with the EU, existing trade and FDI are remarkable. The CEECs are known to have the potential to attract foreign investors for a number of reasons. Firstly, many CEECs are middle-income economies with substantial domestic markets and a considerable industrial base and rich in natural resources. Secondly, they possess abundant human resources with relatively low labour costs.[23] Thirdly, they are geographically proximate to the EU markets. These attributes tend to provide motivations for MNEs to set up affiliate networks in the region (UNCTC 1994: xx–xxi). The CEECs also became the important destination of the EU-outward FDI. Between 1990 and 1995, total stock of FDI from the major seven countries in the EU to three Eastern European countries, namely, Czech Republic, Hungary and Poland recorded more than 58 per cent of total inward FDI. As a benefit in return, economic recovery has been accelerated due to the establishment of linkages with Western Europe by means of the MNEs' involvement in some key industries.

Major trading partners with the CEECs are also corresponding to main investors. The trading relationship between the EU and countries in this region has been rapidly improved since both regions signed 'Europe Agreement'. More than 5.5 per cent of total EU exports headed for the CEECs in 1994. The CEECs markets are relatively important for Germany and Italy as their exports to the region recorded 10 per cent and 7.8 per cent respectively which are far higher than average. These figures show increasing trends. Besides the prospect that the CEECs are expected to be included in the EU within the foreseeable future, these countries are already forming the Central European Free Trade Area (CEFTA), which bestows similar opportunities as the EU. The agreement includes the following countries: Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia.[24] Without trade barriers, production facilities within one of these countries may become a centre of outreach to adjacent markets in other countries.

European motor VMs seem to be aware of the potential of this region. Some particular mergers and acquisitions within Europe and automotive industry are considered to be in line with this. This trend in the industry provoked international specialisation simultaneously. Vast amounts of production were shifted to peripheral areas within or

adjacent to the EU such as Spain, Portugal and the CEECs. Thus, further extension of integrated region in Europe poses a critical challenge for the European automobile industry, as it provides opportunities for cost reduction by means of the specialisation of production activities. The following section explores further dimension of policy issues which are likely to result in immediate effects on the industry.

Implications of SEM for the automobile industry

There are a number of integration policies and measures affecting the automobile industry both directly and indirectly. Some of them are considered to have profound implications for the automobile industry. For instance, the removal of visible and invisible barriers to internal trade promotes the competitiveness of the automobile industry by means of enhancing the accessibility to markets for all competitors within the market. Removal of barriers also means markets expanded in size, which increase the capacity for companies to reduce unit cost by realising scale economies. The establishment of business alliance within the industry becomes easier and this facilitates innovation through research by the sharing of high development costs.

This section places its focus on the SMP including a number of relevant key measures for the automobile industry. SMP has positively affected the automobile vehicle industry in Europe which was in the middle of turbulent changes such as globalisation of competition, changing production methods and deep recession. It stimulated restructuring within the industry itself and provided market opportunities. Regulated national and local aid for the industry has been strictly surveyed by the ruling body of the EU, as is the increased competition within the industry due to liberalisation measures and strong competition from overseas. SMP has facilitated equal terms for new entrants from outside to compete with indigenous companies, which resulted in a more severe competitive environment in the market. The competitive environment stimulated makers to produce at low production costs and to provide differentiated products and enhanced customer services at lower prices. Consequently, it is customers who enjoy the benefits derived from increased choices at lower prices, enhanced safety and lower emissions.

The policies and measures can be divided into horizontal and sector-specific according to the way they affect the industry. Firstly, horizontal measures relate to legislation imposed to help remove the distortions created by different regulations for all industrial sectors. Among these

measures, this study selected (i) the abolition of internal trade barriers, (ii) regulations on state aid and (iii) EMU as a result of the Treaty on European Union. Secondly, the sector-specific measures relate to legislation directly imposed on the automobile sector. Technical harmonisation is a sector-specific measure which focuses on differences in automobile sector legislation. Other measures such as the block exemption of Article 85 of the Treaty of Rome, and European-wide air pollution standards are not considered as SMP measures, but they directly affect the industry.

Abolition of frontier formalities

The removal of trade barriers ensures the free movement of production resources and enhances internal trade. It is a precondition to accomplish a balanced development of economic activities, sustainable economic growth and even social cohesion in the region. This measure enhances the competitiveness of companies within the internal market as it removes the distortions created by frontier formalities. Legislation related to this measure is: 'Regulation (EEC) No 3648/91' and 'Regulation (EEC) No 717/91' regarding use of Single Administrative Document (SAD), and subsequently the abolition of border controls.

In 1989, the SAD was introduced, and simplified a massive amount of administrative processes around border control and formalities. Completion of a single market even abolished the SAD and customs checks at the borders of all member states. In January 1993, all customs and fiscal controls at internal Union borders were removed. Instead, transitional EC VAT and Intrastat systems were introduced. The latter is a statistical programme and the former is a temporary VAT system where transactions are taxed at the point of origin in a member state and VAT is levied at destination.[25] In addition, liberalisation of road haulage quotas and restrictions facilitated the mobility of products across borders. Intra-EU shipments will be less complicated, and uncertainty dramatically decreased when delivery times are shortened. The intra-distribution logistic network would also be strengthened and eventually contribute pan-European logistic services.

It is difficult to quantify the benefits of the abolition of frontier formalities. However, according to a report on the single market effect, the abolition of the requirement to submit customs documentation and customs formalities during cross-border trade movement enables traders to save ECU 5 billion annually, equivalent to 0.7 per cent of total intra-EU trade. Cost savings mainly arise from the removal of customs documentation. Over 60 million customs forms have been removed, which

is equivalent to an 85 per cent decrease in the amount of community transit movement. In addition, the elimination of border delays has an additional saving effect of 400 million ECU (CEC 1996d). A CBI report suggested that a lorry travelling to Italy could save 40 pounds in cost and a day in time. The new VAT and excise duty regime has eliminated the need for 60 million tax forms (CBI 1995: 17–18). A survey conducted by CEC revealed that the cost of switching over to a new VAT and statistical declaration procedure is unlikely to be significant. Among 230 sample companies, the cost was less than 15,000 ECU in over 50 per cent of them and more than 70 per cent of companies had less than ECU 25,000. A third of the sample companies repaid switch over set-up cost in 3 months and 50 per cent recovered in 1 year. However, compliance costs for cross-border transactions are five or six times more than for domestic transactions because tax representatives are required. Thus, more than 70 per cent of companies preferred the definitive VAT system which is origin based (CEC 1996a).

In summary, the abolition of customs and fiscal frontier formalities and liberalisation of cross-border transport positively influence the intra-market traders. This measure will also facilitate market accessibility. Considering that the impact of the abolition of border formalities is greater for multinationals or larger companies than small and medium ones, cross-border liberalisation will have more significant effects on the automobile industry than any other industries.

Technical harmonisation

> The commission is also supporting the automobile industry's efforts to bring about international harmonisation of technical regulations.
>
> Bulletin EU 7-8-1996, Industrial policy

Among several elements of the industrial policy that act as the catalysts for industrial adjustment within the region, legislation for product standards clearly enhances the economies of scale and opportunities for greater specialisation.[26] It is noted that standards promote competitiveness by lowering costs for producers, shaping customer preferences for products by their familiarity and enabling the emergence of new markets (CEC 1991). In addition, standardisation of production should reduce costs and harmonisation of testing may permit easy access to community-wide markets (Smith and Venables 1990).[27]

Technical barriers significantly affect pre-production, production, and sales and marketing, which are almost all the areas of business activity. Additional costs to meet the national specifications for product design,

reorganise production systems, repackage and retest products are alleged to add 10 per cent to average production costs. A survey concerning the measures in the SMP for harmonisation of technical barriers shows that 35–50 per cent of business sectors voted for the measures that benefit their business. In particular, over 50 per cent of large companies positively agree to further technical harmonisation. Motor vehicle products are particularly sensitive to technical barriers (Lundberg 1990).[28]

Technical barriers were recognised as the most prevalent impediment for intra-EU trade (CEC 1996a). This point is also raised in 'the Cecchini Report' which raised questions regarding trade hindrances (Cecchini *et al.* 1988). According to the report, administrative barriers, and national standards and regulations are revealed as the first and second greatest trade barriers within the Community respectively. In 1985, in excess of 100,000 national technical specifications were in existence in the EU. The highly fragmented characteristics of the EU market were attributed to the differences of technical specifications among the member states and played a role as a major impediment to trade. When a national law was changed to modify a specification of a product, producers in the partner country would be burdened with the additional cost of adopting or retesting the products to take export opportunities. Increased production costs erode competition in general, and chances for entry into the market decrease. It is reported that 76 per cent of intra-EU trade is related to technical specifications. In addition, 21 per cent of trade is sector regulated by technical barriers. This implies that cross border trade and competition in the region are hindered by technical barriers (CEC 1996b). The trade impediment impact is clear in the case when adjustment should be made according to the partner country's specifications for packaging and labelling, registration in the industries such as pharmaceuticals, automobile vehicles, and chemicals and food stuffs. Conformity assessments such as proof, acceptable to product health and safety inspections, are the main sources of costs (CEC 1996a).

The technical barriers are considered to have the most important incidence as a barrier for the motor vehicle manufacturing industry compared to other industries.[29] Motoring is an essential part of life in modern society. Hence, an enormous and sophisticated infrastructure is in place for daily services such as fuel, parts and tests. Even though manufacturer and model of motor vehicle are different, major elements should be cognate. In relation to this, the harmonisation of technical regulations seems to be substantial for the industry. Thus, in the integrated single market, technical harmonisation is, to a large extent, essential for free circulation of products, because products traded in the

EU are subject to specification regulations, standards and tests with which they must comply.

Over 20 years, EC directives and standards for motor vehicles were developed together with the use of legislation. It was 1992 when the directives for the standards of motor vehicle were concluded. The last three of the 45 directives laying down rules for vehicle design were adopted in June 1992. These rules facilitated agreement of the EU type-approval procedure for passenger cars named Whole Vehicle Type Approval (WVTA, 70/156/EC, amended by 92/53/EC), replacing national regulations with community-wide standards. This means that once a vehicle received type-approval in one country, it could be circulated in any other member state within the EU. There are no technical barriers that exist to refuse entry into the EU as long as the vehicles comply with the WVTA. Forty-five rules were listed as mandatory for manufacturers from 1 January 1996.[30] The vehicle roadworthiness tests were introduced in order to meet the type-approval criteria. The full type-approval system for new and existing passenger cars formally replaced national procedures in January 1998.

Notably, in the past, national level technical requirements acted as another considerable barrier incurring costs for re-engineering and testing to local specifications. While 41 categories of harmonisation directives were agreed, three further directives were left disapproved until 1989. These concern weights and dimensions, tyres, and windscreens and seem to be comparatively simple to obtain agreement on. This had been viewed as a protectionist strategy to exclude external manufacturers. Protectionist strategies of some member states were therefore no longer valid, since the WVTA has come into effect.

Technical harmonisation seems to benefit the VMs by reducing the production and R&D costs, and by enhancing market access. The move from separate national systems to a single harmonised pan-EU type-approval system for authorising sales led to savings of up to ECU 30 million per model, which is equivalent to 10 per cent of model development for manufacturers. According to an individual study as a part of the single market review, cost saving in R&D is significant as a result of WVTA. Direct cost savings amount to approximately ECU one million per new model and indirect savings are probably greater (CEC 1996c).

Regulations on national aid[31]

State aid for maintaining companies that should be unsustainable under normal competitive circumstances in a market is likely to distort fair

competition in the market. On the basis of Article 93 of the Treaty of Rome, regulations on state aid stated that apart from community objectives, no national aid programmes should be allowed. The purpose of these measures is to ensure that removal of barriers to trade is not negated by member states protecting their industries through unjustified subsidies or other forms of support which distort fair competition. In fact, since this programme was adopted, state subsidies to the shipbuilding and steel industry have been disappearing and fitter industries have emerged as a consequence.

Industrial policy of the EU holds securing a competitive environment as an essential task. Along with the strict control on industrial concentration, financial support by public authorities is subject to the greatest vigilance.[32] Notably, the SMP and state aid seem completely incompatible in a market without barriers for transactions across national borders and with the free movement of goods and services. It is suggested that the integration process may maintain competitiveness across the market, which will lead companies to search for greater efficiency. In open and efficient markets, national governments may deploy protective measures for domestic industries by providing aid to enable inefficient companies to survive. The Commission has recognised this aspect of state aid, which will erode the overall competitiveness of the economy.

The future viability of the European industry will be determined firstly by its competitiveness and dynamism in the internal market. Over-reliance on state aid undermines competitiveness of the community's car manufacturing by hindering the economically healthy influence of market forces (CEC 1989). Since the automobile industry is regarded as a critical sector by member states, subsidies to ailing national automobile industries have prevailed throughout the major automobile producing states in the EU. Hence, state involvement in the industry is not a new phenomenon. Automobile manufacturers in Europe have benefited from state aid in the form of debt write-offs, and regional assistance for a considerable time. These resulted in an unfair environment for competition and to a certain extent, prohibited restructuring of the industry.

Surveillance by the Commission of state aid to the automobile industry was introduced in 1989 on the basis of Article 93(1). Member states should not grant state aid to the automobile vehicle sector without prior notification to and approval by the Commission according to Article 93(3) of the EC Treaty (CEC 1989). Under the revised framework which came into force in 1996, aid projects which exceed ECU 17 million are subject to prior notification (CEC 1995). The objective of the

measure is not only to ensure full transparency of any national aid to the industry, but also to impose effective discipline over grants to ensure fair competition in the automobile industry.[33] In short, regulated state aid to the industry would produce fair competition for both indigenous and foreign companies within the EU and help restructure the industry.

The single currency

The conclusive stage of economic integration is economic and monetary union in which microeconomics and monetary policies are altogether exercised according to one central rule. This includes two economic aspects: one is economic union and the other is monetary union. The integration of the markets implies the taking away of barriers to the movement of products and production factors such as goods, services, labour and capital. Policy integration is all about the setting up of common policies over the member nations and relations toward external non-member countries. In particular, economic union is the status of integration with a level of co-ordinating common policies in both internal and external dimensions, whilst monetary union integrates the currencies of member states. In other words, economic union is a common market which includes a high degree of co-ordination or even unification of the most important areas of economic policy. In monetary union, currencies are linked through fixed exchange rates, fully convertible, or one common currency circulated with free capital movement. In terms of policy, macroeconomic monetary policies are adopted in common by the central control (Molle 1994).

The first effective attempt to stabilise exchange rate fluctuation was the 'Snake' in 1972 and later the European Monetary System (EMS) was introduced in 1979. The ECU has been adopted as a mechanism to set stable exchange rates in Europe. It reflects all currencies of the member states and shows the financial identity of the EU. There have been subsequent efforts to realise MU in Europe by producing several proposals. In 1969 the heads of the member governments gathered in Hague and agreed in principle to EMU. As a result of the summit, 'the Werner report' was produced. The report set an ambitious objective to complete the system by 1980. However, disorder and difficulties in the mid-1970s made realisation of the plan impossible. As a modified or intermediate mean, EMS was launched in 1979 and was successfully implemented.

The proposal for EMU was signed by heads of the governments under the Delors committee. It was adopted in Maastricht on December 1991,

gave birth to the Treaty of European Union (TEU), and was amended in 1993. According to the treaty, the single currency and economic policy were to be introduced by the beginning of 1997, but this was delayed because the member countries were unable to meet the economic convergence criteria.[34] An EU summit was held in Madrid to revise the timetable for the EMU in 1995. Entry countries were to be decided and it was agreed to establish the European Central Bank (ECB) by 1998. Exchange rates between the ECU and the member countries' currencies were fixed in 1999, and a common currency policy was to be enforced by the ECB at the same time. Monetary integration is irreversible under the condition of a unified currency unit. Protective measures on the part of national governments to reverse economic integration would be impossible since economic policies are decided by the ECB. Eventually, the single currency came into circulation by 2002. Progress to monetary union was interrupted by two crises which occurred in 1992 and 1993. The UK and Italy had to exit the Exchange Rate Mechanism (ERM) due to the exchange rate fluctuation followed by the widened band of ERM from ±2.25 to ±15 per cent. These instances were used to support the criticism that member countries were not ready for monetary union. Nevertheless, the EU is moving to some form of monetary union (Scott 1995).[35]

Monetary union aims to smooth out trade and investment flows among member states and eventually contribute to efficient resource allocation which results in welfare gains in general. To achieve this aim, stabilisation to absorb any forms of shocks from internal and external forces to the economy is regarded as a first step. With the progression of integration, scope for a national government to use independent national policies narrows, while the stabilisation of market increases. This has been one of the major hindrances to monetary union. As the flow of goods and capital increases in the form of trade and investment, the interdependence in the EU gradually has grown and inevitably influenced states' economies. Due to differences between national and regional interest, policy co-ordination became a critical factor for success. It is suggested that co-operation between partner countries produces better results for all, because the policy of one country effects the variables making up another country's welfare function (Fisher 1987). In particular, the free movement of capital boosted by technological infrastructure enables massive capital flows among international financial markets instantly. As a consequence, policy co-ordination between partner countries became an immediate task for co-operation to avoid negative shocks to an economy.

The introduction of the single currency benefits the establishment and confirmation of the single market, which may consequently provide a more stable business environment for the automobile industry. This can be accomplished by means of two consequences resulting from the aspects of the MU: reduced transaction costs and elimination of the risks of exchange rate fluctuations.

Firstly, the single currency eliminates the transaction costs. Transaction costs, which stem from the multicurrencies in one market, are known to be 1 per cent of total GDP of the EU. According to a study on the costs of the multicurrency system, the costs resulting from the system can be divided into different types of transactions. These are inter-bank trade that is spread between buy and sell rates of the bank, non-bank cross-border transactions separated into current account and capital account, costs of foreign exchange trade in coins and notes, and hedging costs for intra-EU exchange transactions and company internal costs for managing multiple currencies. In 1995, inter-bank trade costs were ECU 12.4 billion compared to ECU 8.7 billion in 1986. The costs of current account transactions including additional costs such as credit cards, cash and traveller's cheques reached ECU 12.6 billion and ECU 6.9 billion with capital account. Hedging costs for forward markets were ECU 8.5 billion. Cash transactions which come with high commission costs were ECU 7.95 billion. Thus the overall cost of exchange transactions in 1995 was ECU 57.2 billion which is equivalent to 0.95 per cent of the GDP of the EU.

Secondly, the exchange risk could be considerably reduced across the areas of trade, investment and any other forms of transactions concerning currency transactions. To achieve stable exchange rates is the foremost purpose of monetary union, creating stable connections for the markets in terms of trade and investment. This means either fixing exchange rates among member states or the adoption of a single currency. The inflation rates should be aligned because the level of exchange rates and that of inflation rates are known to be moving simultaneously. Current account balance, public sector balance and interest rates are used as measures for inflation rates. Once the exchange rate is fixed, the inflation rates of member states should adjust to a balance. A single currency also means single interest rates in the market which will result in investment growth. In this better environment for investment, resources in the market can be optimally allocated. Enhanced efficiency in the use of resources would be followed by the effect of decreased production costs. Competitiveness in the market is to be simultaneously enhanced. It is

assumed that the price discrimination in the market will be faded out as the transparency of price becomes clearer. Competition in the market is also stimulated by improved price structure. The ideology of 'one market, one money' is fully realised as all the functions of the single market are smoothed by the introduction of the single currency.

Single currency affects the European automobile industry in various ways. Price competition would be intensified because price differentiation in different national markets would not be possible when prices can be clearly compared among member states. In addition, the fluctuations or risks of foreign exchange are expected to be eliminated and will be followed by the rationalisation of logistics and the parts supply system. The European VMs spread the source for their parts purchasing through a number of member states to minimise risks resulting from exchange fluctuation by way of matching the turnover of each member state. Assuming that there are no more exchange risks, the manufacturers would be able to concentrate their purchasing on the low cost suppliers to reduce the spending on parts.

Other measures

Block exemption is the exceptional clause of Article 85 of competition policy which entitles manufacturers to appoint dealers for exclusive sales contracts.[36] After it was established in 1985, dealers and customer interest groups complained, which led to an amendment in 1995.[37] It enabled dealers to be more independent from manufacturers. This amendment lasted until July 2002. It is expected that the next amendment would grant dealers further independence to operate without restrictions or intervention from manufacturers. This expectation seems to be supported by the series of decisions made by the Commission on the illegal behaviour of the European automobile manufacturers who suppress overseas retail to particular countries.[38]

The origin of the problem stems from the price differences of cars among European countries. Manufacturers are able to put different prices on different national markets by control over the dealers. In practice, the difference in the pre-tax price of some models between the most expensive and the cheapest countries in the EU is 51 per cent. These price differences are alleged to be due to the price policy of the manufacturers as well as the different tax regimes in each country, and customer preferences. For instance, tax pressure leads to low net prices in Denmark when companies are forced to reduce pre-tax prices in

a country with a heavy tax burden on car purchasing (Murfin 1987). In Greece and Belgium, low prices are responsible for high penetration of foreign cars. Price alignment by the national manufacturers together with a market differentiated by left-hand driving leads to high prices in the UK. The analysis of Gual (1993) revealed that differences in taxes, import restraints such as quotas, Voluntary Export Restrictions (VER) and a preference for domestic cars were important determinants of price differences in the EU.[39]

It is expected that the price differences will be reduced in the near future. The Commission tries to terminate price discrimination between countries by favouring the possibility of parallel imports (Bureau Européen des Unions de Consommateurs (BEUC) 1989, Rule 123/85). Abolition or amendment of the existing block exemption would intensify the competition among manufacturers and dealers compounded by Japanese automobile imports. EMU has introduced the single currency which has facilitated comparability of the same product from different countries and also reduced the risk of exchange fluctuations. Intensified competition and the single currency could be the reasons behind price convergence throughout the EU.

Technical specification, measures to provide for free circulation within the market, also embodied high levels of protection for the environment. Emission standards for new cars have been considered to be one of the critical measures relating to this dimension.[40]

Passenger car traffic is known to account for 12 per cent of total carbon dioxide emissions in the EU. The growth of road transport emissions was 9 per cent between 1990 and 1997. Unburned hydrocarbons, carbon monoxide and oxides were controlled by EC legislation dating from the 1970s. The significant changes in emission standards were enforced by the 'Luxembourg Agreement' in 1985 and resulted in 88/76/EEC which made for the requirement of three-way catalyst systems. Euro I and II standards subsequently came into force in 1993 and 1996 respectively.

The EU committed to stabilise carbon dioxide emissions by the year 2000 to the 1990 levels at the 1992 Rio Summit. The Kyoto conference on climate change held in 1997 resulted in more stringent standards which became applicable from the year 2000. The aim of the EU on emissions from cars is to reach an average carbon dioxide emission figure of 120 g per kilometre for new cars by 2005. However, this target was strongly opposed by European VMs for the technical unfeasibility of this aim. Subsequently, ACEA suggested modified target of 140 g per kilometre by 2008 and this has been accepted by the EU in October 1998.

External consequences of SEM

The perception of non-European enterprises which affects the strategic decision-making process for EU markets seems to be influenced by economic integration. There is a tendency that market access of non-European companies to the European markets has depended upon economic conditions and relations between the countries they originate from and the target countries in the EU. For instance, the UK has always been a favoured location for US companies, in trade and investment relationships. The socio-economic condition in Europe was suitably-coupled with the strategies of the US companies that were involved in markets through financial investment.[41] In the case of Korean VMs, an answer to the question whether changed business circumstances stemming from economic integration are affecting strategic choices, seems to depend on the relative economic conditions of the countries involved. Regardless of specific circumstances, to what extent is single European market relevant to the activities of non-European companies?

Assuming that an integrated market provides opportunities by homogeneous demand and efficient supply, the question should be raised whether these would be available for non-European companies also. Immediate advantages resulting from the economic integration are likely to be exploited by local companies. The abolition of NTBs will raise even higher entry barriers against outsiders. The rationale is that acquired benefits of scale economies as a consequence of the creation of a single market may raise local companies to competitive contenders in global trade. This may adversely affect non-European companies (Kreinin and Plummer 1992: 1357). As a contrary argument, the absence of a discriminatory measure, which will lead to a less fragmented EU market may positively be extended to foreign companies. It is asserted that this would give rise to significant external trade and investment creation.[42]

It is questionable if the European integration is going to end up with an exclusive trading bloc or an open market. According to explicit policies, European markets are accessible to non-European companies. The EU aims to promote the right conditions for businesses and establish a competitive environment in the internal market.[43] Nevertheless, complete openness to non-European companies while indigenous companies are in trouble is unlikely to be plausible. The effects of economic integration, therefore, seem to be dependent upon the attitude and policies of the EU towards outsider companies. The following section considers possible development of the European economic integration.

In particular, a negative aspect of non-European companies which might affect trade prospects is briefly introduced.

Open regionalism vs Fortress Europe

There seems to be two contrary stances of the EU in terms of industrial relationship with non-member countries. Some declining industries are protected while full competition is promoted for emerging and strategically important industries (Cherry 2001: 120). This contrary attitude created some degree of confusion between 'Fortress Europe' and open Europe.

An integrated market in the form of open regionalism bestows the positive implication for external entrants. The motive for European economic integration was initiated from the overall consensus that governments could perpetuate inefficiency and reduce living standards for their nation by protecting domestic industries and creating barriers to competition from other EU based companies. Protectionist measures are supposed to be constrained under the competition and industrial policies.[44] European industrial policy advocated openness of the internal market towards companies from third-world countries, aiming to promote the right conditions for businesses and establish a competitive environment in the internal market (CEC 1991). Openness to international trade and precluding the defensive measures used to protect domestic producers comprise the main part of this policy.[45] The logic is that the removal of third-world country quotas and similar measures will expose the national markets to international competition and will increase the competitiveness of European industries.

In contrast to this, empirical evidence indicates that the external responses of the integrated Europe to non-European based companies and countries are rather restrictive. It is conceivable that complete openness to non-European companies, while indigenous companies are in trouble, is unlikely to be realised. This is because the source of competitiveness of non-European companies is usually based on low labour costs, an abundance of resources, and government supports, which could significantly distort the competitive environment. The more rigid rules of the EU are likely to override the openness, as the market presence of efficient non-Europe-based companies in Europe is perceived. Based on the immediate reaction displayed by some non-European companies in order to avoid barriers, it was viewed that economic integration was perceived by outsider companies as a threat rather than as an opportunity (Oxelheim and Gartner 1996: 51). According to the survey of Nam and Slater (1997), Europe is perceived as a difficult target market for Korean

companies. Among the drawbacks of trading in and with Europe, some are related to the theme of 'Fortress Europe' such as high tariff rates, anti-dumping, quotas, and Generalised System of Preferences (GSP) suspension, limitation of business activities of foreign companies and discriminatory policies towards foreign companies, and high local content (Nam and Slater 1997: 44).

Table 3.2 is a simple assumption regarding the applicability of the market opportunities resulting from the dynamics of economic integration to European and non-European companies under the different scenarios of economic integration. It is suggested that technical harmonisation, regulations on national subsidies and the abolition of residual national barriers for internal trade have enhanced the positive business environment for non-European companies as well as indigenous companies (Kreinin 1991).[46] Furthermore, EMU is expected to benefit outsider companies by means of the exchange rate stability and more transparent price structures.[47] Most of the opportunities suggested above may be applicable to the European companies geographically located in the region in both scenarios of 'Fortress Europe' and open regionalism. Non-European companies serving markets from outside may have restricted access to opportunities. This seems to provide additional justification for FDI in either scenario of European economic integration.

It is also questionable whether these opportunities will be similarly available for non-European companies actually located within the integrated region like indigenous companies. The more non-European companies might deploy FDI, if market opportunities are equally available for them. A number of studies have suggested that the dynamic effects of efficiency and growth are equally beneficial for the external

Table 3.2 Applicability of market opportunities

	European companies		**Non-European companies**	
	Fortress Europe	**Open regionalism**	**Fortress Europe**	**Open regionalism**
Economies of scale	O	Δ	X	X
Market access	O	O	X	O
Enlarged market	O	Δ	X	O
Fair competition	O	O	X	Δ
Enhanced stability	O	O	Δ	Δ

Notes: O – opportunities applicable; Δ – opportunities partially applicable; X – opportunities not applicable.

companies within the integrated market. Welford and Prescott (1992: 8) mentioned:

> The encroachment on the EU by foreign companies, supported to an extent by the Commission's external trade policies which have restricted imports and have promoted direct investment, provide an equal opportunity for global multinationals, regardless of their country of origin, to benefit from the potential gains offered by the Single Market.

Referring to Table 3.2, all the advantages are available for European companies. Hence, these advantages are likely to be valid for non-European companies as they locate within the integrated market depending upon the degree of localisation. This may be supported by the suggestion of Yannopoulos (1992) that the elimination of NTBs to trade in the internal market will bring advantages in favour of the companies inside the internal market. The positive effect of the elimination of NTBs in the internal market is likely to be conveyed to member countries rather than non-members. In particular, the reduction in trading costs resulting from the abolition of NTBs will be larger for traders from the internal market. Companies from outside, serving the internal market through exports are likely to be discriminated against as their competitive advantages are eroded.[48] This triggers impending requirements for companies from non-member countries to locate within the integrated region.

The following section attempts to trace the possible economic consequences of economic integration for non-European companies. In particular, it focuses on the negative aspects of economic integration for outsider companies, namely the scenario of 'Fortress Europe', and its effects on international value-adding activities.

SEM related trade issues

The formation of single market in Europe has triggered diverted trade flows from outside and discriminatory practices against non-European companies (Kreinin and Plummer 1992).[49] There are significant discriminative elements in the EU trade policy in the regional dimension. They are different tariff treatment, the selective use of safeguards and grey-area arrangements, and the different levels of economic co-operation (Koopman and Scharrer 1991).

Protectionism is known to be harmful for domestic industry as it works only for short-term mitigation and provides very little help to solve

long-term adaptation problems. It is suggested that any attempts to protect a region or part of a supply chain through import quotas and other restraints on trade will eventually fail (Maxton and Wromald 1995: 149). This seems to be similarly applicable to the automobile industry in Europe. Berg pointed out that the automobile industry in the EU should be aware of the threat of protectionism, which inhibits the promotion of international competitiveness (Berg 1993: 121–46). Nevertheless, there are a number of countries that favour protection in the EU.

The Commission may decide to maintain open trading relations with other countries and regions, but it has to work for the benefit of member states eventually which preferred protectionism to protect specific industrial sectors. Imposing VER against Japanese motorcar imports was a clear instance. The European automobile industry promptly required restrictive measures against motorcar imports from third countries, primarily aiming at Japanese imports.

In regard to protectionism, some evident measures are found in many industrial sectors which are known to have profound effects on trading relations with outside countries to the EU. They are ADD, rules of origin, quantitative restrictions and reciprocity.

Firstly, anti-dumping rules are applied to the exporting of goods at prices below the cost of production. At the same time the prices which are lower than those in other markets, particularly the domestic markets are subject to accusation. Under the GATT rules, the Commission has authority to impose restrictions on foreign companies to raise its price or pay import duties on its goods against a company selling goods either below the price charged in the domestic market or below the cost of production.[50]

The fundamental purpose of using anti-dumping rules is to prevent the distortion of competition in the market by foreign companies. However, the width of applications based on the above rule provides the Commission with the scope to use it for various other purposes. Approximately 100 dumping accusations are levelled against non-EU companies every year. It has been argued that the significant amount of anti-dumping accusations reflects the lack of competitiveness of European companies rather than abuse by foreign companies (Colchester and Buchan 1990: 202).

In addition, there is scope to misuse this rule because there are various reasons why a company cannot standardise prices in different markets. The rules for determining the existence of dumping are different prices being charged in different markets and exports, with some of

them being sold below the cost of production plus a reasonable mark-up. The competitive conditions in markets are, however, different. Input costs and price elasticity of demand are different in each market which results in different prices. Intra-company trade between divisions of MNEs also distorts the uniform assessment of prices. It is likely to be difficult to settle a fair price under the complicated business functions arising from horizontal and vertical integration. Overstating source country production prices and understating EU prices are pointed out as evidence that the rules were used for protectionist measures rather than promotion of fair competition (Welford and Prescott 1992: 438). This problem is evident in the case of the automobile industry because calculating prices for high value commodities such as motor vehicles is complicated. These differentiated products tend to include the research, marketing, advertising and promotion expenditure in the costs. The anti-dumping rules of GATT were developed concerning commodity products and seem as inappropriate to clarify the problems of calculating prices for differentiated products that usually include the aforementioned factors.[51] There is the inclination in the EU to calculate costs differently between importing and domestic companies. Incoming goods tend to have more overheads deducted but only direct costs related to selling expenses are calculated in the domestic costs.

Newly Industrialised Economies (NIEs) are particularly vulnerable to anti-dumping rules. NIEs have their competitive advantages in low price resulting from low production costs. It is the export market where they can exploit their advantages. In many cases, these types of export are defined as 'unfair' pricing and dumping in the export markets.

Secondly, a decisive influence on the external distribution of the benefits of completing the internal market is considered to be the application of its country of origin rules.[52] It is a complicated issue to apply certain legislations to the import of goods due to the matter of the origin of the goods.[53] Deciding that a certain good is of the origin of a certain nation because it comes from that country may lead to misjudgement.

The EU's definition of origin was known as being the place where the good underwent its last major transformation.[54] Since this definition may lead to misinterpretation that could cause trade disputes, more specific rules have been made on an industry by industry basis, and these particular rules include provision of local content, that is the amount of component input sourced from local manufacturers. For instance, radios, TVs and VCRs are considered European where between 34 and 45 per cent of their value is added in the EU. In the case of

motorcars, between 60 and 80 per cent of the ex-works invoice price is required and it was subjected to VERs between 1989 and 1999. Low-tariff access for cars made in EFTA countries must have 60 per cent EFTA content, while figures of up to 90 per cent were suggested for considering Japanese cars made in Europe as being European in origin.

From the Commission's point of view, imposition of tariffs and other protectionist measures would hasten FDI and promote the economic development of depressed regions. The effects on the region seem to be positive in terms of employment, technology transfer, and education and training. However, setting up a screwdriver plant is considered to be a way avoiding tariffs which may harm local companies. This is a basis for applying legislation on certain industries with regard to the extent of local content. For a company using FDI only to circumvent the trade barriers, this measure could be an impediment to market access. It is worth noting that the other side of the effect of the rule is that it might reinforce the competitiveness of foreign companies as they gain a strong basis in the local market.

Thirdly, voluntary agreement has been introduced as a popular protectionist method in trading among developed countries. Under the GATT rules, it is legitimate for a country to adjust tariff to protect a certain industry as long as she compensates a partner country with other measures. It is permitted for member states to refuse to import a specific good from another member state which is circulated freely elsewhere.[55] The importing country may request the exporting country to agree to quota restrictions against certain goods instead of raising tariff. This is particularly effective when the level of tariff is already low in developed countries or this method is expected to be unproductive to acquire the desired results. A bilateral agreement is usually made when the exporting country recognises that unilateral restrictions would be imposed on the current level of imports. This method is frequently used because it is not categorised as a unilateral protectionist measure under GATT rules.

Voluntary agreement protects local companies against efficient foreign companies and ensures higher earnings compared to a situation without this protectionist measure. In particular, VER is the major type of voluntary agreement. It is alleged that VER is negatively affecting local consumers as well as producers, compared to tariff manipulation. Raising tariffs is simply forcing import prices up and deters imports, but VER affects the price indirectly by reducing the level of supply. As a result, lack of competition in the local market leaves local companies inefficient and leads to misallocation of resources by imposing restrictions on low-cost foreign producers.

Lastly, reciprocity has been an integral part of the contemplated external effects of the 1992 programme since the 1985 White Paper (CEC 1985).[56] The EU declared an open regionalism promoting a free market stance towards trading partners. At the same time, duality in trading relations is also emphasised. External trade policy clearly presents the determination of the Commission to make sure that freedom of access to the EU affords reciprocal access of the EU to foreign countries.

Multilateral trade has been promoted when bilateral trade distorts world trade relations by way of preferential agreements. Within the context of reciprocal trade, bilateralism is likely to be fostered. Overall reciprocity is the GATT-based concept found in multilateral negotiations, resulting in a mutually beneficial balance of concessions. The EU has distinguished the use of reciprocity from the negotiation relating to the condition of market access. The Commission has not acknowledged that the use of sectoral reciprocity would appear illegal in trade (O'Cleireacain 1991). Consequently, the principle of reciprocity has drawn more protectionist suspicion. It is worth noting that this indicates discrimination against any other countries which fail to provide reciprocal access. Free market access accompanied with emphasising reciprocal trading relations would mean excluding a particular country or industrial sector from liberal access to the market. The EC's position on reciprocity was clarified in the revised banking directive reciprocity clause, which provides for sanctions against countries not providing the same 'effective market access', as is provided by the EC.

Conclusions

European economic integration has become a prominent economic phenomenon in the changing context of the global economy. Both at the macro- and microeconomic levels, companies from within and outside the integrated region have been affected significantly. The automobile industry is one of the clearer cases of this. Static and dynamic effects of economic integration are known to have remarkably influenced the structure of the industry. This has been explained in a number of instances where a border-less internal market may facilitate economies of scale by means of specialisation and rationalisation of the production and distribution functions of companies within the region.

Together with general economic consequences of economic integration, this chapter placed particular emphasis on several measures which directly affect the industry such as (i) regulations on state aid, (ii) technical harmonisation, (iii) removal of internal barriers and (iv) introduction

of a single currency. These are considered to be important factors for VMs making a decision to locate within the integrated markets.

From the perspective of companies from outside, the economic consequences of European integration may not always be positive. It might be an opportunity as well as a threat for non-European entrants. In terms of trade, the EU seems rather protective towards foreign companies. As a consequence, economic integration is likely to lead non-European companies directly and indirectly to investment to acquire opportunities within the markets, as well as to avert risks resulting from trade barriers.

4

An Introduction to the Korean Automobile Industry

The Korean automobile industry in the 1990s carries significant importance for the Korean economy as a whole. The automobile industry showed unprecedent development through the mid-1990s until it reached critical crises in 1997. It was the largest industry in the manufacturing sector and recorded won 17,745 billion (USD 20.9 billion) of total sales in 1994. The automobile component industry ranked fifth with sales of won 9367 billion (USD 11.02 billion) in the same year.[1] It is also considered an important industry since many other substantial industries with various vertical and horizontal links depend on it; Steel, ceramics, chemicals, electronics, machinery and textiles are some examples.[2] In addition, the automobile manufacturing industry recorded 22.8 per cent of total GDP and 16.9 per cent of total employment of the manufacturing industry in 1994. Subcontractors and affiliated industries comprise a significantly large portion of the whole economy.[3] The contribution of the industry to national exports is also remarkable. Total exports of the automobile industry recorded 978,450 units and USD 9.4 billion in 1995. This represents 7.5 per cent of total exports.

This chapter starts with the development and internationalisation process of the industry in a historical perspective followed by an introduction to the status of the industry in the 1990s. The specific characteristics of the industry are presented because this provides a basic foundation for understanding the international dimensions of the Korean automobile industry. Lastly, the recent transition and restructuring of the industry are traced and their consequences on the internationalisation of the Korean automobile industry are considered with particular reference to the strategic alternative in Europe.

Types of development

The economic status of a country is highly dependent upon a number of critical industrial sectors such as electronics, chemicals, heavy industry and high technology industries. Attention should be given to the automobile industry since it includes most aspects of the above critical sectors of industry. The automobile industry seems to be important as it can be regarded as the engine of a nation's economic development. The success of the related industrial sectors is dependent on that of the automobile industry. The automobile industry and its development has been considered highly important, both by manufacturers themselves and those running the national economy in general. For this reason, a number of countries are eager to develop their own automobile industry. However, not every country has been successful in fostering the industry. This is likely to be true, in particular, when it comes to developing countries. The Korean automobile industry seems to be the only successful case among those of developing countries in establishing an indigenous automobile industry in the world automobile industry where established MNEs take dominant oligopoly positions. In 1995, the Korean automobile industry ranked Korea as the fifth largest motor vehicle production country. The number of registered motor vehicles had exceeded 10 million units by 1997.

This section focuses on the factors that may have contributed to the success of the Korean automobile industry in the 1990s. To find these, the development of the Korean automobile industry has been considered in chronological order. This historical review of the Korean automobile industry provides a number of implications regarding its success achieved in spite of the relatively disadvantageous position as a latecomer.

There are several criteria which decide the development of a country's automobile industry. The independence of manufacturers, global competitiveness in a niche market, degree of government intervention, the characteristics of the industrial policy and the size of the domestic market seem to be the criteria which define the types of development. In addition to these, geographical proximity to major export markets, infrastructure and labour relationships may also be included. Among these variables, degree of independence and competitiveness are suggested to be the most critical factors that decide the characteristics of the development type of the industry in a country (Lee 1994). The variables that defined the development type are strongly influenced by government policies towards the industry. The independent type of

development is identified in the countries which generated their own makes with high levels of technology and the former colonial countries which rejected imports and inflow of foreign capital. To some extent, the former case tends to focus on the overseas market to exploit the companies' advantages, but the latter mainly relies on the domestic market. Other types are influenced by the MNEs and overseas capital from the early development stages of the industry. However, the types are characterised during the development process later on.

Based on these variables, four different categories have been suggested regarding a development model for the automobile industry (Figure 4.1). According to this model, the development of the Korean automobile industry seems to be identified as different from other countries and manufacturers within. The countries in type III have failed to expand to overseas markets and to enhance their competitiveness. It is worth noting that countries categorised as type II and III were influenced in part by major VMs' global strategy. The categorisations do not remain permanent and a country's type can change as economies and sectors mature.

The Korean automobile industry is in type IV, which is independent and relying on its domestic market. It is a possible scenario that the industry could move to type I, only if development continues with stable growth in quality as well as competitiveness. On the other hand,

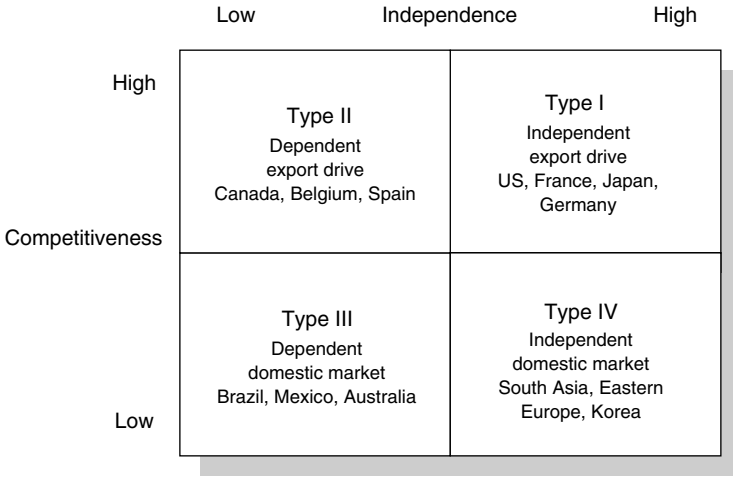

Figure 4.1 The development types of motor vehicle production countries
Source: Cho, S. J. (1994), p. 14.

it could fall into type III, with a loss in competitiveness and independence.[4] Thus, this seems to be an important period for the Korean automobile industry. Sustainable development of the industry in terms of both independence and competitiveness is the essential factor for the Korean automobile industry since it is situated at a critical juncture of its overall development. In this context, it is necessary to review previous developments and the internationalisation efforts of the Korean automobile industry to give a more detailed picture of its current position in the global automobile industry.

Overview of the industry

The early stage in the development of the Korean automobile industry started in 1962 and coincided with the first national economic development plan. The specialities of this stage were no more than the assembly of knock down (KD) models with a lower level of technology, which heavily relied on Japanese VMs from the outset. By means of a technological alliance with Nissan, Saenara was established in 1962 but closed down in 1963. The Kia Industry Co., which produced a truck named the T-1500, and Hadonghwan Motors, which produced buses, had been established by this time. According to government plan, Shinjin Motors – that would be succeeded by DMC – was allowed to assemble cars whilst 75 parts-manufacturing companies were serialised. Shinjin Motors took over Saenara Motors and started complete knock down (CKD) assembly and produced the 'Corona' in alliance with Toyota. The localisation rate reached 21 per cent in 1966.

Between 1967 and 1971, the government carried out its second national economic development plan. Hyundai and Asia Motors joined the Korean automobile industry during this time. Hyundai produced the 'Cortina' in 1968 in alliance with Ford. Asia Motors allied with Fiat and produced the 'Fiat 124'. As overall Korean economic performance became distinguished in the world economy with the successful execution of the national economic development plan, the automobile industry also showed rapid development between 1972 and 1976. The heavy and chemical industries especially were prioritised after 1973 by the government. The automobile industry was one of the important industries supported by those government policies.

Similar to the development process of other industries, there were efforts for the development of an independent indigenous model under their own brand name (Porter 1990: 471).[5] According to the government plan, each manufacturer started a project to develop an indigenous

model. By this time, the manufacturers had lined up in a new formation. *Shinjin* Motors allied with GM when it finished the alliance with Toyota and established GMK, which was taken over by DMC in 1978. KMC took over Asia Motors. However, cars produced by the two manufacturers were still KD models which the government allowed to be produced only until the companies gathered sufficient assembly techniques through experience. One condition was that each company produced an indigenous model with 95 per cent local content by 1975. HMC failed to join with Ford after several attempts in 1973, and started to develop an indigenous model. The 'Pony', the first indigenous model was produced in 1976 designed by Ital. The engine and gearbox were produced in technological alliance with Mitsubishi. Even though HMC could not achieve the objective set by the government, the rate of local content reached 85 per cent. In 1977, the market share of the 'Pony' reached 54.1 per cent and overwhelmingly surpassed that of GMK.

Having developed its own model, the Korean automobile industry moved to the next stage of preparation for mass production. Total production reached 200,000 units in 1979. However, the economic environment was unfavourable for the industry at that time. World economic depression, excessive investments and production capacity, followed by decreased operation rates and increased inventories in addition to political unrest consequently led to a regression. The Korean Government forced the industry to restructure. Only HMC and *Saehan* were allowed to produce passenger cars, while the production of small- and medium-sized commercial vehicles was allocated to KMC exclusively. The production capacity in 1980 and 1981 fell to 120,000 units after this government intervention. Whereas, local content rate reached over 90 per cent in this period and established the base for mass production, which became a foundation for economies of scale. Enforced specialisation of production by the government intervention in 1980 made mass production possible through economies of scale. The manufacturers who had a monopoly on the industry were able to produce one or two models in the long term without competition. HMC and KMC completely integrated their production plants. Process and production technologies were also improved dramatically. The basis for export was established from these developments.

The Korean automobile industry was developed and expanded in terms of both quality and production capacity in the 1980s. By establishing the basis for mass production, it began to play a role in the structure of the international division of labour in the 1980s. HMC developed the 'Pony Excel' in 1985 and equipped its factory with 300,000 units

capacity. The number of cars exported in 1986 reached 203,000 units. Daewoo started to produce the 'Lemans' in 1985 and acquired 170,000 units production capacity. KMC produced the 'Pride' at a capacity of 120,000 units. The major difference among the VMs was that HMC exported under its own brand whereas Daewoo and KMC exported by original equipment manufacturing (OEM). The government ban on industrial specialisation was lifted in 1987 and the VMs were set free to produce any type of vehicle. Rivalry among domestic manufacturers started from this time with product differentiation and deployment of marketing strategies. Coinciding with the increase in exports, there was also a strong trend of increase in domestic demand as the national economy recovered. This was inevitably followed by mass production which led to 'motorisation' of the country. The growth in domestic demand recorded a 46 per cent increase in 1989 over the previous year. Total domestic cars sold in 1991 recorded 1.1 million units. This increased domestic demand stemmed from wage increases and the overall enhanced domestic economy. In addition, differentiated products and marketing strategies stimulated the customers and induced demand for cars.

Due to its success in increasing export volumes in diversified overseas markets, the Korean automobile industry achieved fifth place of production as it exported around 1 million units in 1995. However, unprecedented competition in the global automobile markets and requirements in the level of appropriate quality, trade barriers and pressure on opening the domestic market, may hamper further increases in exports. As a consequence, the industry has been urged to initiate overseas production as a corporate strategy in the medium and long term. Also, in terms of the development process of the industry, expansion towards overseas markets in the form of local production seems to be the inevitable choice.

The overseas production of Korean VMs in various forms[6] was scattered in 27 different countries with a maximum capacity of 2.8 million by 1998.[7] However, overseas production activities of the Korean VMs were limited to KD assembly in an attempt to overcome trade barriers, particularly among third world markets. The saturation of the domestic market on the one hand and increasing trade barriers in partner countries or regions on the other may induce a strenuous environment for direct exports in the foreseeable future.

By the end of 1990s, there were six manufacturers in the Korean automobile industry. Acquisition of Ssangyong by DMC was followed by the HMC merging with KMC in 1998, and Renault–Samsung emerged as

a result of international bids. These six brands are controlled by two domestic companies and one foreign company. Total production reached almost 3 million units by 1997 until the Korean economy experienced enormous crisis at the end of 1997. Despite the crisis, exports kept increasing and the figure reached over 1.5 million units by 1999 (Table 4.1).

1998 was the worst year in the whole development history of the Korean automobile industry. According to the sales figures by manufacturers between 1998 and 1999, the clear improvement and recovery can be identified in major VMs. In particular, the total passenger car sales of KMC in 1999 recorded around 260 per cent increases compared to the previous year.

Export in the 1990s showed very clear increase in trend. Market diversification strategy after experiencing difficulties in the US market by the end of 1980s was, to a certain extent, successful and the European market became the most important export target for the Korean VMs. Europe absorbed around 48 per cent of total exports while exports to other markets was stagnated or decreased. The KD exports show continuous increase for all manufacturers. This increase is meaningful as an initial stage of overseas production. In particular, the economic development of China and the recovery of Asian economies from the crisis shed light on the future possibilities of increased KD exports.

Total capacity of the Korean automobile industry increased rapidly in the 1990s due to the manufacturers' drive in investing in production facilities. Partially resulting from intense domestic competition and the need for acquiring economies of scale, most of the investments were

Table 4.1 Production, domestic sales and export, 1990–99 (unit)

	Production	Changes (%)	Domestic	Export
1990	1,270,118	–	954,277	296,254
1991	1,455,392	14.5	1,104,184	342,372
1992	1,689,727	16.1	1,268,374	417,708
1993	1,985,560	17.5	1,435,967	574,779
1994	2,262,231	13.9	1,555,602	692,123
1995	2,526,400	11.6	1,555,902	978,688
1996	2,812,714	11.3	1,644,132	1,210,157
1997	2,818,275	0.2	1,512,935	1,316,891
1998	1,960,620	−30.4	780,263	1,362,164
1999	2,843,114	44.9	1,273,029	1,509,660

Note: KD production and exports are excluded.
Source: KAMA, Automotive Statistics Yearbook, 1991–2000.

concentrated in facilities and automation. By the end of 1990s, total capacity was over 4 million units.

One of the important catalysts of the rapid development in the 1990s is attributable to increases in domestic demand on motorcars. This has been coupled with the economic growth. Continued improvement of the economic performance and increased income level boosted motorcar sales, and by 1997, total registered cars exceeded 10 million units which is equivalent to 165 cars per 1000 people. Increased production capacity and saturated domestic market are considered to be important push factors for export.

The total number of the motor vehicle component suppliers was over 1000 by 1999. It is worth noting that around 97 per cent of companies are small- and medium-sized companies. More than 78 per cent of suppliers are directly related to VMs and there are few second and third tier suppliers. This seems to comprise the weakness of the automotive industry in general as their fate was totally dependent on VMs. During the subsequent automotive crisis at the end of 1990s, many small and medium size component suppliers became bankrupt, immediately after the crisis of VMs.

Characteristics of the industry

The Korean automobile industry may be distinguished by a number of points resulting from its unique development process. Among many differences, the characteristics of *Chaebol* and governance structure, government's role as catalyst for its rapid development, high dependence on overseas market and the unique path of technological development may be mentioned. This specific technological development path is closely related to competitiveness which enables Korean VMs to catch-up with established manufacturers in a short period of time.

Chaebol and governance structure

The specific characteristics of the manufacturers have played a role in the successful development of the first indigenous model (Hong 1995). The VMs were and are arms of the huge industrial conglomerates usually referred to as *Chaebol*. This type of business group is found in many countries. However, Korean industrial groupings are known to be especially large. In addition, they seem to possess particular characteristics which differentiates them from ordinary industrial groups. In particular (i) ownership concentration and (ii) market power concentration are

suggested as prominent features of Korean *Chaebols* (Ungson *et al*. 1997: 64–73).

Firstly, family-oriented ownership of *Chaebol* is found to be higher than that of non-*Chaebol*. For instance, most of the subsidiary companies of Hyundai are at least 50 per cent owned by the founder and his family or by other companies controlled by the founder. Other major Korean companies also show a similar pattern of ownership structure.

Secondly, market concentration was influenced by the government aiming to establish larger companies in order to increase profit levels and reduce default risks and costs. The government fostered the *Chaebol* intentionally to use them as primary vehicles for implementing its policies. In turn, the *Chaebol* benefited from government subsidies, protection against import competition and monopoly rights (McDermott and Young 1990: 36–7). In addition, paternalistic management style of *Chaebol* facilitated a rapid decision-making system accompanied by the determined intention of top managers to develop automobile subsidiaries. Thus, an initial huge investment in the development of the first indigenous model was possible through the financial capability of the *Chaebol*, supported by the government.

The successful development of the indigenous model that resulted from this characteristic of the Korean automobile industry denoted the possibility of independence for the industry and a critical strategic change for the manufacturers from KD assembly and import substitution to export drive with domestic models. Together with the rapid increase in the heavy industries and chemical sectors, and political inducement, the ambitious strategy of the manufacturers made a series of successes in the early stages of development.

Role of the government

Government interventions in the industry were crucial at each stage of development and created a distinctive aspect of the industry. In the formative years of the industry, localisation of production and the exploitation of economies of scale were promoted by the government leadership aimed at protecting domestic industries. A localisation drive directed the '*Chadongch'a Kongop Poho Pop*' (*The automobile industry protection act*) in 1962. The import of foreign vehicles and parts was prohibited until December 1967, and the rapid establishment of factories to produce compact cars for the public was planned. The government announced the '*Chadongch'a Kongop Chonghap Yuksong Kyehoek*' (*The automobile industry fostering plan*) in August 1964, and the '*Chadongch'a Kongop Yuksong Kibon Kyehoek*' (*The foundation plan for fostering the*

automobile industry) in 1969. These plans are considered as being representative of the strong intention of the government to support the industry.

Important change in government policy towards the industry was made when the government announced another supportive plan for the automobile industry in 1974. This was the '*Changgi Chadongch'a Kongop Chinhung Kyehoek*' (*The long-term plan for promotion of the automobile industry*). The focus of the strategy was moved from import substitution to an export drive. The background of this plan takes its origin from the problems of KD assembly.[8] This plan aimed to achieve 95 per cent local content by 1975 and to satisfy the total demand with this indigenous model. Eighty per cent would be compact cars and 20 per cent medium- or large-sized cars. In addition, the target was set to achieve 50,000 units of production annually and to divide assembly between manufacturers and parts suppliers so that the industry could be organised in the form of horizontal divisions.

Total production reached 200,000 units in 1979, but the emergence of unfavourable economic conditions led to world economic regression and Korea was also affected. The regression of the industry resulted in further government intervention in 1980 – the '*Chunghwahak Kongop T'uja Hamnihwa Choch'i*' (*Investment rationalisation measures for the heavy industry sectors*). Concentrated and exclusive investments in the heavy industries were made after these measures were announced (Cho 1993: 123). As a part of these measures, '*Chadongch'a Kongop T'onghap Choch'i*' (*Measures for integration of the automobile industry*) were announced. These measures were mainly focused on enforced specialisation of the industry. Firstly, only HMC and *Saehan* were allowed to produce passenger cars, while the production of small- and medium-sized commercial vehicles was allocated to KMC exclusively. The figures in 1980 and 1981 fell to 120,000 units after this government intervention. Whereas, local content rate reached over 90 per cent in this period and established the base for mass production, which became the foundation for economies of scale. The government intervention in 1980 was eventually lifted in 1987. However, it resulted in the specialisation of production which created economies of scale and a basis for success in exports. Table 4.2 summarises the instances of government intervention and shows its relationship with production and export performance.

In summary, in the early stage of the Korean automobile industry, the government initiated and sustained the industry with high levels of protection and development policies. This aspect of development is not limited to the Korean automobile industry. It is suggested that the rapid

Table 4.2 Development stages of the Korean automobile industry in relation to government policies

Stage	Year	Policies	Makers	Production	Export
1 (1960s)	1962	*Chadongch'a Kongop Poho Pop*	KMC	1,777	
	1964	*Chadongch'a Kongop*			
	1965	*Chonghap Yuksong*	Asia		
	1966	*Kyehoek*	Shinjin	3,000	
	1967		HMC		
2 (1970s)	1974	*Changgi Chadongch'a*	GMK		
	1975	*Kongop Chinhuung*		37,000	31
	1976	*Kyehoek*	Saehan		1,341
	1977			85,210	9,036
	1979			204,316	31,486
3 (1980s)	1981	*Chadongch'a Kongop*		133,084	26,283
	1984	*T'onghap Choch'I*		265,180	52,291
	1986			601,111	306,369
	1987			979,209	546,310
	1988		Ssangyong	1,082,581	575,723
4 (1990s)	1992		Samsung	1,728,266	456,044
	1995			2,628,835	1,083,039
	1996			3,010,963	1,412,274

Source: Various sources edited by the author.

development of companies in Korea stems from the strong initiation of the government by means of policy (Sin 1985: 88–91). In many cases, the intervention of government in the industry permitted inefficient producers to survive. However, due to the primacy of economies of scale, government interceding in the early stage of development is regarded as inevitable (Abrenica 1998). This characteristic of Korean companies is considered as a highly important factor resulting in the peculiarities in overseas markets.

Dependence on overseas markets

Korea had to depend on overseas markets for its economic success. The rapid development of the automobile industry is attributable to the success in overseas markets. Rapid increase in exports in the mid-1980s contributed hugely to the continuous success in the 1990s. This success was based on the changing context of the world automobile industry and produced a unique environment for the Korean manufacturers who perceived this change as a positive movement and reacted successfully.

By establishing the basis for mass production, it began to play a role in the structure of the international division of labour in the 1980s.

The MNEs' strategy in the 1980s could be summarised as a 'world car strategy'. When the demand for compact and subcompact cars increased due to two oil crises in the 1970s, MNEs deployed their world car strategy to absorb the excessive demand through the international division of labour (Cho 1993: 67–9). For example, the demand for compact cars in the US increased by 26 per cent which is equivalent to 2.74 million units. Japanese compact car exports to the US were banned by VERs which resulted in exporting a mere 1.19 million units. Thus the maximum number of Japanese cars which could be sold in the US market was 1.72 million units, including 0.53 million locally produced units. Consequently, there was a lack of supply of around 1 million motorcars. Price competitiveness achieved by low labour costs and economies of scale, as well as the relatively reliable quality of the Korean cars made them able to meet the requirements of the MNEs and filled the shortfall. The economies of scale and independence, which followed active interaction in the changing circumstances, played an important role in the success of the Korean automobile industry, and led the surge in exports in the 1980s.

Total annual exports recorded 546,000 units and Korea was the tenth largest automobile producer country in 1987. However, producing a limited number of models in large quantities could not maintain the success of the Korean automobile industry. Exports decreased by 38.2 per cent in 1989 and the trend was continued until 1990. The reasons behind this decrease were high financial costs, increasing labour costs and low labour productivity. These resulted in high export prices, relatively low quality and poor marketing initiatives, and inadequate after sales service. It was necessary that the industry should be strengthened by appropriate competition.

The present status of the internationalisation of the Korean automobile industry may be defined as the era of export expansion and the early stage of overseas production. In spite of overcapacity in the world motor market, net exports have increased, which is partly attributable to the strong yen and the diversification strategy of overseas markets. From their experience of a dramatic decrease in exports in the late 1980s, Korean manufacturers became agile in their internationalisation efforts.

These took the forms of diversification of export markets, the enhancement of quality and initiation of overseas production. To some extent, its market diversification was successful in terms of export volume

within a relatively short period. The Korean automobile industry has depended on exports to North America, Canada and developing countries such as those in South America and South Asia. However, recent years have witnessed successful expansion of the Korean automobile industry to European markets. It is believed that the Korean automobile industry should start local production to reduce the danger of depressions in exports (Chung 1998). In fact, many VMs in the world, who are ranked in the top class by capacity and quality, seem to produce more motorcar products by international production.

Four factors are identified which have contributed to expansion of the Korean VMs' overseas production activities. Firstly, the cost of labour has increased sharply since the beginning of the 1990s. Low labour costs domestically were one of the most important elements that helped achieve rapid growth in the 1980s. Secondly, the intensified domestic market competition among VMs raised interest among car manufacturers in the overseas motor market where the level of competition was relatively low. This seems particularly important because the oligopoly behaviour of MNEs is also suitably applicable to the Korean VMs in the overseas markets. Thirdly, the saturation of the domestic market was accompanied by a decrease in domestic sales, putting further pressure on the industry. Finally, as the Korean automobile industry reached fifth place in automobile production capacity, the acquisition of high technology became an important element in stabilising Korea's place in the competitive world automotive market. For instance, all major Korean VMs had already established overseas R&D centres in those developed countries from where advanced automobile designing and production technology can be acquired. For these reasons, importance of overseas markets and technology for the sustainable development of the Korean automobile industry is ever increasing.

Leapfrogging – technological catching-up

The Korean automobile industry reached the level of product design capability in less than 40 years since the industry actually formed. Compared to the established automotive industry in developed countries, this speed of technological development is considered to be unprecedent. Lee and Lim identified the development of the Korean automobile industry as stage-skipping catching-up (Lee and Lim 2001: 459–83). The development path of the Korean automobile industry showed that it skipped some important processes in the standard development path and saved huge amount of time. This unique technological development is consistent with the so-called 'leapfrogging'.[9]

The characteristics of the automobile industry have been regarded as scale-intensive and less science-based (Pavitt 1984). On this basis, an enormous amount of concentrated R&D investment was made in order to meet the clear and less risky target compared to some other industries such as electronics, which rely upon technological innovation for their development and have more frequent innovations. Together with this factor, the path-skipping development was possible by importing advanced technology from overseas sources which are relatively open in the global automotive industry. Table 4.3 shows the characteristics of imported technology according to the development of the technology of the Korean automobile industry.

There is a clear tendency of swift shifting to higher level technology within short periods of time by importing them, and increasing technological capacity to compete with established manufacturers. For instance, the path skipping catching up is prominent in the case of the development of indigenous engine models. Instead of following standard development processes by focusing on the carburetor-based engine, a new

Table 4.3 The characteristics of imported technology, 1962–92

	1962–74	**1975–81**	**1982–90**	**1991–92**
	SKD production	CKD production, developing indigenous model and mass production	Expanding new products line ups, exports	Development of engine, CKD export
Local contents rate	21	30	85	97
Origin	Internal/ external	External	External	External/ internal
Technology type				
Assembly*	11	5	1	1
Production†	6	15	29	7
Design‡	2	15	55	13
New	–	1	8	3
Total	19	36	92	24

*KD assembly and the installation and maintenance of production facilities; †enhancing local contents, local production of components, product modification, increasing productivity; ‡designing components and production process, products design.
Source: Hyun (1996: 66–72).

electronic injection-based engine was designed and this enabled the Korean automobile industry to reduce the technological gap with established manufacturers (Kim 1994).

Successful technological independence is considered to be the critical element for the sustainable development of the Korean automobile industry in terms of long-term prospects. Despite its importance, R&D investment has been treated as secondary, following the concentrated investment on production facilities in the 1990s. R&D investments in 1998 and 1999 recorded 40.5 per cent and 40.2 per cent respectively. However, these increased figures resulted from rapidly decreased investments in facilities after the economic crisis. The amount of R&D investment is more or less similar to the average figure. As a consequence, the quality of Korean cars, in general, is regarded as lagging behind that of other established competitors, which could significantly erode overall competitiveness in the long term. The productivity of Korean VMs recorded 28.2 man-hours in 1993 while that of Japanese manufacturers was 16.2 man-hours in the same year.[10] The result of new car development performance and initial quality surveys (IQS) shows the overall performance and quality of Korean VMs, and their products appear to be less competitive than established manufacturers from US, Europe and Japan.[11]

An industry in transition

In the 1990s, the business environment of the Korean automobile industry changed in many aspects. The challenging context of the global automobile industry and recent economic crises in Korea dramatically changed the map of the Korean automobile industry. Following the KMC crisis, Hyundai took over KMC through a long and difficult bidding process in 1998. Daewoo acquired Ssangyong Motors but itself had to face a financial crash in 1999. Samsung Motors was taken over by Renault, and HMC entered a strategic alliance with Daimler–Chrysler. These turbulent changes in the Korean automobile industry clearly showed that the industry could not proceed with the old development model but would require epochal transformation.

Challenges from both inside and outside, which have accelerated the restructuring and reorganisation process of the Korean automobile industry, are likely to have significant implications for the globalisation of the Korean automobile industry. In particular, expansion towards overseas markets is likely to be restricted by the domestic economic and industrial environment. In this section, the reasons for the crisis and

restructuring of the industry, and the possible effects on globalisation of the Korean automobile industry, are reviewed with particular reference to the strategic alternatives in Europe.

To understand the intrinsic background of impending challenge and subsequent reorganisation of the industry, it is necessary to consider the internal and external industry-specific conditions. Internal factors are likely to comprise the saturated domestic market accompanied with the excessive production capacity of manufacturers, an infirm financial structure and the weak structure of component suppliers. Along with internal crisis, the external economic environment has also been unfavourable for the Korean automobile industry. Ever-fiercer competition in the overseas markets, and alliances between established VMs by means of merger and acquisition (M&A) to secure advantageous positions over competitors have resulted in a difficult situation for the Korean automobile industry, in overseas markets.

Specific industrial conditions

Specific domestic situations for the industry have been identified as factors attributable to the turbulent changes and consequent reorganisation. Firstly, the supply and demand disparity in motor vehicles within the domestic market appears to have reached a problematic level. Domestic growth has shown a snail-like pace in increase since 1995. Close observation of the sales trends indicates that replacement purchases are predominant compared to first-time purchases. This means that the domestic market has reached a mature stage. The number of registered motor vehicles recorded over 10 million units in 1997. This figure is double the amount in 1992. Rapid increase in car ownership in Korea has resulted in reduced increase rates in domestic sales. In addition, the domestic market in 1998 was extremely sluggish due to the 1997 economic crisis. Figure 4.2 indicates the immediate impacts of the economic recession on decreased demand in the domestic market.

Secondly, the financial condition of the Korean VMs is known to have reached a dangerous level. In 1997, the average debt ratio of the Korean VMs recorded 639 per cent. This debt rate is far higher than other established VMs.[12] In fact, the ratio in the 1990s continued to be between 400 and 500 per cent. This high debt ratio stems from the concentrated investment made since the end of the 1980s. This implies that there had been huge investments in production facilities to increase capacity. However, contrary to this, the rates of operation have been lower than the standard level which is 80 per cent, excluding 1996. Therefore, the burden of interest expenses of Korean VMs has been

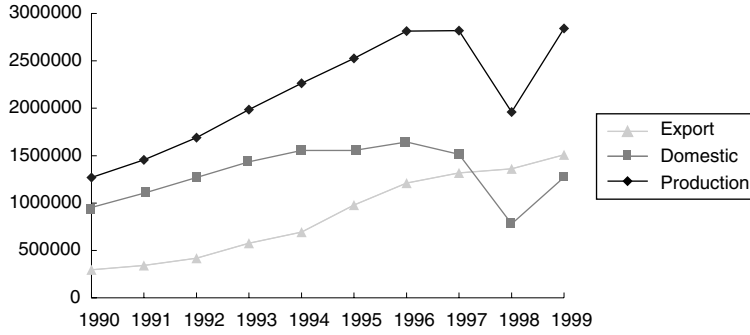

Figure 4.2 Domestic and overseas sales of the Korean VMs
Source: Various sources.

high. Total interest expenses were won 1528 billion and the ratio of the interest expenses was 6.4 per cent. Consequently, an over-abundance of liabilities and interest expenses has adversely affected the profitability of the Korean automobile industry (Table 4.4).

The Korean automobile industry has maintained satisfactory levels of profitability in terms of gross profit. However, the figures are dramatically changed for ordinary profit. They show negative figures in the 1990s, with the exception of the years from 1994 to 1996, due to high interest expenses deducted from operating profits. This high dependence on debts has continued since the 1980s, when the Korean automobile industry recorded rapid growth rates. Most of the investments in production facilities to accomplish economies of scale have relied on liabilities. This resulted in a vicious circle that led to high interest expenses and low profitability.

Table 4.4 Profitability of the Korean automobile industry (%)

	1991	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Gross profit/sales	13.6	12.4	13.5	15.5	15.5	16.5	16.5	16.8	–
Operating profit/sales	3.35	3.56	3.89	5.34	5.82	6.78	5.85	–5.44	–
Ordinary profit/sales	–0.50	–0.17	–0.67	0.20	0.41	0.80	–2.33	–21.7	–
Net profit/sales	–0.51	–0.33	–0.41	–0.11	0.20	–0.01	–2.80	–44.3	–5.98

Source: Various sources.

Thirdly, the manufacturers and supplier systems in the Korean automobile industry are known to have resulted in a rigid structure. The component supply system is a single-tiered system which means that automobile component companies are connected directly with VMs. For instance, among 780 component suppliers in direct contract relations with VMs, the range of employment levels is from over 700 to less than five employees.[13] This system seems comparatively dangerous to both supplier and manufacturers due to the slim buffer that makes it difficult to absorb possible pending dangers such as bankruptcy, and inventory shortage that can influence total assembly procedure. A diversified and multi-tiered supply system is known to be more stable for the industry as a whole. Nevertheless, restructuring of the component supply system is unlikely to be easy, because the foundation of the problem lies in the attitude of the supply companies which tend to secure their place by connecting themselves to VMs.[14] This specific condition is particularly related to the low productivity of the industry in general.

In terms of external conditions, unprecedented competition in the global automotive markets has created a difficult situation for the Korean automobile industry, considering that the expansion towards overseas markets is inevitable due to domestic conditions. There is a tendency of increasing competition in the development of a low price compact car as a reaction to environmental regulations and to increasing demands in emerging markets.[15] The implication of these trends on the Korean automobile industry seems significant because it has a competitive edge in the low price compact car segment. This means that the niche market for the Korean automobile industry will become smaller.

An ever-fiercer competitive environment in the global automobile industry has precipitated mergers and alliances among global VMs in order to minimise development and production costs. It is suggested that the global competition in the automobile industry shapes the trends influencing market structure and production (Abrenica 1998: 12–26). In particular, the broadening co-operation among competing global VMs and the move towards regional integration of production seem to be the prevailing aspects. Co-operation among established VMs by means of M&A may have adversely affected the Korean automotive industry. This trend has left Korean VMs vulnerable in the international markets as they are relatively small compared to major producers. Hence, Korean VMs have been forced to reorganise by means of strategic alliances – this has become clear since the end of the 1990s. The recent take-overs and strategic alliances with the established VMs in the Korean automobile industry may be explained in this context.

In short, both internal and external conditions have created a milieu which is unfavourable for the Korean automobile industry. Overcapacity and intensified competition are likely to give Korean VMs considerable difficulties in both domestic and overseas markets. In particular, the 1997 economic crisis, which occurred concurrently with the KMC crisis, was the critical event causing the rapid transformation and reorganisation of the Korean automobile industry.

Crisis and restructuring

The automobile industry, as a clear example within the category of the Korean economic development model, has faced difficulties besides having a troublesome financial status. A number of intrinsic problems within the industry were pointed out, which led to reluctant but radical restructuring and reorganisation.[16]

The transition of the Korean automobile industry in the early stage could be generalised by two dominant aspects. They are, firstly, a structural realignment by means of M&A as well as a business exchange between *Chaebols*, and secondly, an internal rationalisation to improve a troubled financial structure. Exchanges of business units between *Chaebols* were expected to facilitate the changes of strategic directions from business diversification and market concentration to business concentration and market diversification. However, as far as the automobile industry is concerned, this has been unsuccessfully implemented.

HMC merged with KMC, and Daewoo acquired Ssangyong Motors. By that time, it was a likely scenario that HMC merges KMC and Asia Motors and DMC acquiring Samsung Motors. Despite a number of efforts at internal rationalisation, the collapse of Samsung Motors and the emergence of the Daewoo crisis left the restructuring unfinished by 1999. In 2000, the reorganisation of the Korean automobile industry had been driven by the Renault takeover of Samsung Motors and the international bid for DMC. In addition, HMC have entered a strategic alliance with Daimler–Chrysler in making a subcompact car for the global motorcar market. The structural transformation and reorganisation may be understood by considering two main crises within the industry in the late 1990s, which triggered profound changes in the map of the Korean automobile industry.

In October 1999, Hyundai made successful bids to acquire the troubled KMC and Asia Motors. Hyundai acquired 51 per cent of KMC shares with management control. As a result, the capacity of HMC became 2.85 million units per annum while domestic market share rose to 68 per cent.

KMC was the second largest automobile manufacturer in Korea and ranked eighth among Korean business groups in terms of total assets until the company encountered the problem of its huge debts. Since the 1980s, the expansion and diversification strategies of the group has been significant. This was considered to be necessary for KMC to compete with the other highly diversified *Chaebols*. The diversification strategy was applied to various industries such as construction, finance, trading and the specialised steel industry. Inevitably, immense investments followed which imposed a huge financial burden in the 1990s. Profitability and the circulation of financial resources across the group became stringent as a number of subsidiaries failed to make profits as a result of excessive and, to a certain extent, unreasonable investments. Cross subsidiary financing within the business group, which is now ruled illegal, created a domino effect on other profitable subsidiaries, causing problems for them as well.

The collapse of Hanbo in early 1997 alerted financial institutions to the risks of unstable *Chaebols*. The second tier financial institutions started to collect short-term loans from KMC between April and June in 1997. The accumulated financial infirmity of KMC was publicised when KMC was not able to pay debts of won 10,500 billion in the same year. KMC's creditor banks announced '*Pudo Yuyae Hyopyak*' which allowed temporary relief from bankruptcy for two months. As this two-month grace period for debt payments was set to expire, KMC sought court mediation, which would halt all debt payments and allow the company to maintain management control. However, the result was court protection for the main units of KMC including KMC, Asia Motors and KMC Steel. Kisan, its construction subsidiary, filed for court receivership. The KMC crisis became a more difficult problem to solve as a rumour arose relating to a conspiracy according to which Samsung had intentionally set up this crisis to take over KMC for Samsung Motors, its fledgling car manufacturing subsidiary.

Along with KMC and Hanbo, Sammi and Jinro, two other major *Chaebols* collapsed in 1997. It is alleged that these incidents provoked the financial turmoil that forced Korea to seek a USD 57 billion rescue loan from the International Monetary Fund (IMF). This economic crisis across the country made it impossible to provide finance for KMC to maintain an independent revival plan. In addition, KMC's plan to make a contract *ad libitum* with Ford failed as this was strongly opposed by the government and other *Chaebols*. Consequently, it was decided that KMC should be sold through an international auction in June 1997.

Four companies, Hyundai, Daewoo, Samsung and Ford, participated in the auction. The first and second auctions turned out to be a failure as companies were not able to meet basic criteria as they asked for a write-off of debts which was unacceptable to creditor banks. In the third round of bids, Ford was not considered to be a contender as it suggested a price per share of won 1000, where it should have been a minimum of won 5000. Samsung gave up its bid, as there were strong objections within the board of its company. Hyundai emerged as the winning company with higher points than Daewoo in the proviso of exports, employment and financial security.

It was expected that the Korean automobile industry would be aligned under two major manufacturers, as Daewoo would have acquired Samsung by the time Hyundai had won the KMC auction. However, this was not realised as Daewoo encountered a crisis of its own. It is alleged that maturity of short-term liabilities provoked the financial crisis in Daewoo in 1999. However, the more intrinsic problem resulting from expansion by means of over-investment based on the huge liabilities of the group seems to have created this situation. For instance, the debt ratio of DMC recorded 679 per cent, as the company had to pay interest expenses of more than 40 per cent of operational profits by 1997. In addition, following the financial turmoil across the country, languid domestic sales and increased inventory undermined foreign investors' confidence and worsened the financial status of the company.

A plan was drawn up to improve the financial structure of Daewoo. According to the report published by the Korean Industrial Bank, the ongoing value of DMC was won 7300 billion while the liquidation value was won 5500 billion. Total loans from creditors worth won 8800 billion were converted to capital and convertible bonds. Refunding of the principal was postponed to 2004. Additional funds worth won 900 billion and USD 2.35 billion were injected. As a next step, it was planned to sell DMC through an international auction. GM, Ford, Daimler–Chrysler, Fiat and Hyundai applied to participate in the auction. Ford, which came up with a USD 6.93 billion non-binding offer, was given exclusive rights to negotiate but it withdrew during due diligence. GM has started renewed negotiations on the acquisition of DMC. The negotiation process and due diligence before a final decision is made, is expected to take a few months and will put more financial pressure on DMC and its creditors.

There were contrasting views relating to the future of DMC. It was suggested that DMC should remain independent because of the

importance of the automobile industry to the country's overall economy. In contrast, there were some suggestions that DMC should be disposed off to increase long-term international competitiveness as a part of the rationalisation efforts of the Korean automobile industry. However, it is apparent that the structure and the status of the Korean automobile industry have been dramatically transformed due to this critical crisis.

Internal and external economic conditions provoked a painful situation for the Korean automobile industry in the late 1990s, which ended up with a number of crises. These crises, accompanied by financial turmoil, revealed intrinsic problems in the industry as well as the country's economy in general. There are several economic consequences for the automobile industry as a result of these consecutive crises.

Firstly, the internal restructuring process is likely to be accelerated together with reduced risks of overdose of industrial policy, weak corporate governance and corruption. The automobile industry in Korea has been through a restructuring process and has been concentrated into a small number of manufacturers. Consequently, this may enhance competitiveness by means of their oligopoly positions in the domestic markets and provide opportunities for achieving economies of scale. However, the ongoing process of restructuring may impose abrupt risks for the Korean automobile industry, if it proves unsuccessful.

Secondly, overseas alignment gains in importance during the process of restructuring. Compared to established global VMs, the Korean VMs are relatively small. Hence, it is a difficult option for them to sustain their independence, which has been regarded as the most important attribute of the Korean automobile industry. In other cases, forming partnerships with major manufacturers seems to include the risk that the Korean automobile industry will be degraded to regional motorcar suppliers of the established makes. It is worth noting that the overseas production facilities and recognition as an international maker with R&D capacity appear to be important factors for the future of the Korean automobile industry, whether it keeps its independence or not. The overseas production of Korean VMs is (i) to absorb excessive production capacity and to reduce risks of production concentration in order to sustain its independence and (ii) not to be confined as a regional supplier when it is realigned in the subsystem of the global automobile industry.

Thirdly, in spite of the importance of overseas production, the overseas expansion of the Korean automobile industry is likely to be strictly limited. This is due to the lack of overall resources resulting from

changes in the business environment and industrial restructuring.[17] Nevertheless, it is expected that the Korean automobile industry may be reluctant to abandon its scope for overseas production. In particular, considering the importance of the European markets, the internationalisation of the Korean VMs in Europe is expected to continue, even if this is subject to the availability of financial resources. The following section examines several strategic alternatives for the Korean automobile industry in Europe reflecting the economic constraints.

The impact on strategic alternatives in Europe

The European markets have become important in terms of both market diversification and internationalisation. Exports to Europe have been dramatically increased since 1993 and show a continuing upward trend. In 1998, more than 47 per cent of total Korean car exports headed for Europe. Together with this, the importance of the European market is gradually increasing for the Korean automobile industry. The market share of Korean motorcars in 1997 reached 2.7 per cent. This figure is a 3.5 per cent increase compared to the previous year. By the end of 1999, market share of Korean motorcars had risen to over 3 per cent.

According to these figures, the activities of the Korean automobile industry in Europe have been least affected by the domestic crises. Indeed, the role of exports became particularly important for the industry since the demand in the domestic market has dramatically shrunk. However, ever-fierce competition and potential protectionist measures in the European motorcar market resulted in direct exports becoming a less viable alternative for the Korean automobile industry. Thus, it is expected that strategic alternatives such as green field investment and strategic alliances for local production will be pursued.

Considering the industrial crisis and its consequences as restraints on the activities of the Korean automobile industry in Europe, it is necessary to identify their effects on strategic choices in the context of a changing business environment.

Four strategic alternatives for Korean VMs in Europe are identified depending on two variables, independence in management control and deployment costs for the execution of the chosen strategy (Figure 4.3).

It is suggested that one of the prevailing trends in the automobile industry is the new regional focus of production. Along with the regionalism trend, the thrust to locate production close to the market to meet the requirements of trade regimes and local contentment seems prominent.[18] Warner (1997) asserted that this trend is also encouraged by

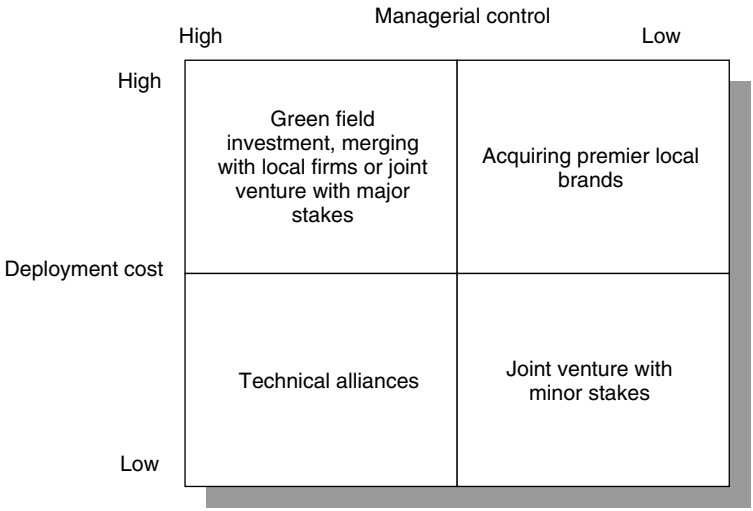

Figure 4.3 The strategic choice model of Korean VMs in Europe

buoyancy in currency exchanges and the logistical difficulties of transporting completed vehicles.

The EU has attracted massive inflows of FDI. In particular, it has attracted over 50 per cent of worldwide flows of FDI in 1992 (CEC 1996a). As the location advantages of the EU in the automobile industry sector have been enhanced along with potential protectionist measures excluding outsiders, it seems to draw more attention to the need for FDI in the local market. In order to fulfil this strategic requirement, it is widely expected that Korean companies may consider FDI in the region. According to the interview results, Korean VMs are considering particular FDI in this region and it has been mentioned that they are waiting for the appropriate time. Nevertheless, the further expansion, by means of establishing local production, is likely to be significantly limited due to domestic economic conditions. This seems to be the case because of the particular characteristics of the Korean FDI.

FDI by East Asian companies may be defined as 'border investment' which means extensive use of their domestic business strategy to the familiar business environment (Jung 1999: 272–5). Previous FDI in the Korean automobile industry in Europe may be categorised as border investment in defensive mode. By utilising inexpensive land and labour in lesser-developed countries, necessary restructuring to meet the global

competition has been avoided. The crisis in the late 1990s forced the Korean automobile industry to make necessary restructuring and left this type of investment as a less feasible strategic option.

The growing number of alliances in the corporate tie-ups and JVs mainly stems from overcapacity in the global automobile industry. These alliances are in order to avoid the duplication of investment as the participating bodies seek to establish their market share. The diffusion of innovations is also accelerated by these alliances (Munkirs 1993). It is suggested that major VMs tend to seek to forge partnerships with emerging economies by shifting production of standardised products (Yang 1995: 191–2). The Korean automobile industry may fit into this framework of the global automobile industry. In addition, co-operative oligopoly among established automobile manufacturers is currently prevailing in the global automobile industry. Major M&As have been occurring since the mid-1980s and the trend shows acceleration in the 1990s.

M&A seems to be the result of these changes and a reaction in industry sectors. In particular, the pressure of competition is likely to lead to industrial shifts by means of M&As. The competition within the market stimulates the restructuring of industry sectors. Strong competition in the local market will enable a company to rationalise its global operation achieving growth through investment. Standardisation programmes, the liberalisation of government procurement policy, and the reform of EU import quotas will increase intra- and extra-European competition and lead to an increase in the specialisation and integration of a company's European activities by means of M&As. In Europe, the merging of Korean VMs with existing local companies has been preferred to green-field investment. This strategy was used in the expansion in the CEECs in the 1990s.[19] Managerial experience of purchasing and running infirm companies was the basis of this strategy.

Despite prevailing trends in the global automobile industry and the experience of Korean VMs, the extensive use of M&A as one of the strategic choices in Europe may be a difficult option because of the tight financial status at home. Merging with local companies usually requires significant financial commitment and is accompanied by higher risks. Companies that are subject to merger usually suffer from a lack of financial resources or even debts. Companies merging with local companies carry the burden of immense costs and an obscure future. However, as briefly shown above, on a number of occasions, FDI of this type can be found in the case of the Korean automobile industry in the CEECs. The fact that infirm financial structure of Korean VMs is

partially stemming from the aggressive investments may justify the assumption that further FDI may not be feasible.

Together with the trend to M&A in the global automobile industry, technical alliances seem to be becoming a prevailing phenomenon.[20] This shows the prominent need to reduce costs through mutual development and sharing components.[21] Technical alliances are made for various reasons. First, they are used as a tool to avoid becoming prey for M&A. It is suggested that the Japanese VMs focus on small and medium technical alliances to grasp influential positions in the global motorcar market, as they dislike the idea of being merged. Secondly, a strategic alliance, by means of sharing technology, may be facilitated as a result of trade restrictions in the local markets. The imposition of trade restrictions might still lead to 'barrier-circumventing' investments being made. Based on this, it is suggested that new trade-network links between Korea and EU companies would be developed through the collaborative relationship arising from a strategic alliance (Dent 1998: 366–389).

The financial constraints of the industry due to the 1997 financial crisis and the requirement of industrial restructuring have forced companies to seek strategic alliances (Yoo 2000). In line with this, a technical alliance is likely to be one of the most viable strategic choices for the Korean VMs. As Dicken (1992) mentioned, size is the main difference between multinational companies from developed and developing countries. Multinational companies from developing countries usually have a limited number of overseas affiliates and also have limited geographical spheres of operation. Hence, a strategic alliance could be a viable strategic option for the Korean VMs in Europe because of a lack of resources and a need for technology transfer. In the case of Korean companies under a strategic alliance, they tend to prefer to maintain major ownership in order to exploit more easily their own competitive advantages and to enable quick decision-making.[22]

Each scenario of the strategy model is likely to have its merits and demerits. Firstly, acquiring premier local brands may have an effect on the enhancement of the brand image. Considering that Korean motorcars suffer from a negative perception, it may provide an opportunity to rectify that brand image. For instance, Ssangyong acquired Panther, a sports car manufacturing brand in the UK. However, this did not significantly affect the brand image of the company in Europe. This strategic choice might end up as a costly project with small benefit, since brands affordable in Europe may have less significant influence.

Secondly, forming a JV with a local maker with minor equities may seem attractive for a Korean automobile industry pushed for financial resources. Nevertheless, the lack of ownership may provide less scope for exploiting the managerial attributes of the Korean VMs. In practice, Korean companies in Europe prefer to have major stakes, together with ownership. The KIET survey shows that the competitive advantages of the Korean companies are likely to be acquired by means of major ownership. This is based on the importance of quick decision-making owing to the structure of the decision-making process of Korean companies.

Thirdly, technical alliances with local makers are likely to provide a number of advantages. These require less financial commitment while there are opportunities to acquire advanced technologies to meet local requirements. In particular, independence may be sustained, as it does not affect the governance structure of a company. However, the overall effectiveness of this strategic alternative seems relatively limited, compared to other choices.

Finally, aggressive and comparatively larger size FDI projects such as green field investments, merging with local companies and JVs acquiring major stakes, secure a margin for management and have significant effects in the local markets. The constraint is the availability of financial resources to carry out this type of costly project.

In sum, independence is a relatively important factor for the Korean VMs, reflecting their development process. Thus, any strategic alternatives would be of interest to Korean VMs, as long as they secure managerial control. However, the situation of the Korean automobile industry at the end of the 1990s has made it difficult to commit large amounts of financial resources. Technical alliance seems to be the most feasible method to access local markets and technology simultaneously without losing management control and having to make a huge financial contribution. However, the effectiveness of this choice is questionable.

Conclusions

The Korean automobile industry has developed at an unprecedented rate which is unusual for an industry from an NIE. The success of Korean VMs in developing and exporting their own models is based on their independence. However, the Korean automobile industry had to confront huge difficulties at the end of its rapid development. The saturation of the domestic market, accompanied by ever-fiercer competition in overseas markets, and structural problems in both the component supply system and financial status, forced a restructuring of the industry

at the end of the 1990s. The economic crisis in 1997 decisively affected the old structure of the Korean automobile industry, as a number of critical events occurred between 1997 and 1999.

These changes in the business environment are found to have critical implications on the strategic decisions of the Korean VMs in Europe. Among suggested strategic alternatives, a technical alliance with established VMs is likely to be the most feasible option for Korean VMs, considering the importance of independence and financial availability.

The case of the Korean automobile industry in trouble shows, a rather contrary perspective against the conventional belief, that problems and structural transition may be converted into an opportunity for internationalisation. Difficulties in the domestic market can be interpreted as a motivation to expand to overseas markets, to generate new demands, and appropriate strategic choice may facilitate further opportunities to enhance technological capacity. In addition, restructuring and reorganisation processes can be used as a critical opportunity to enhance competitiveness by means of increased productivity and organisational efficiency.

5

Korean Automotive FDI in Europe: Patterns, Motivations and Characteristics

The accumulation of Korean automotive FDI in Europe is insignificant compared to other established VMs from US and Japan. However, present market involvement by means of export and the growth of the Korean automobile industry in Europe have been remarkable. The share of Korean vehicle exports to Europe rose around five times over the period between 1990 and 1997.[1] As a part of its diversification and globalisation processes, the accumulated technology of the European automobile industry and the huge scale of the European motorcar markets have been attractive factors for the Korean VMs. Together with rapidly increased market share in Europe, local production has been considered to be a pending task for the Korean VMs.

Recent years have witnessed some unique characteristics of Korean automotive FDI and local production compared to those of established MNEs from developed economies. In line with empirical evidence suggested in the later chapters, Korean FDI was triggered by defensive motivation rather than aggressive opportunity exploiting motivation. In terms of business location in Europe, Korean VMs tend to locate in peripheral regions for production, and developed regions for sales and R&D. In regard to the propositions of this study, these particular FDI and locational decisions are considered to have a cause and effect relationship with the economic integration in Europe. As regional economies are exclusively converged, potential barriers, opportunities stemming from dynamics of internal market and further expansion of the EU towards extended membership are all likely to have been influential factors.

The main focus of this chapter is Korean automotive FDI in Europe, in terms of (i) the locational patterns, particularly focusing on the

production facilities in the CEECs, sales outlets and R&D facilities in the UK, (ii) the motivations of FDI in Europe classified by barriers to circumvent and opportunities to exploit and (iii) general characteristics of FDI according to the relevant motivations. Prior to this, a general overview of Korean automotive FDI in the world, their patterns and other characteristics are briefly reviewed.

Overview of Korean automotive FDI

Korean automotive FDI for the purpose of local production has rapidly increased in the 1990s and three major Korean VMs acquired 30 overseas production facilities across 27 countries by 1996. Internal and external business environments for the Korean automobile industry in the 1990s were dramatically changed together with severe global competition, increased threats from potential trade barriers, and structural problems of mature domestic markets and overcapacity. The mixture of these factors triggered internationalisation strategy in the beginning of the 1990s by means of FDI and local production.

In line with this, the internationalisation process of Korean VMs is distinguished from established companies which provided different motivations for FDI. The Korean automobile industry started as a regional partner of established makers, receiving technology and providing OEM products. Independent export was accompanied with overseas KD assembly and local production via FDI almost simultaneously. This unique and fast development in internationalisation is based on some factors that affect the motivations of Korean automotive FDI. The motivations of Korean FDI in general are to utilise lower wages, to avoid trade barriers and to acquire advanced technology. The urgent needs of internationalisation stemming from increased capacity and growing importance of global networking motivated Korean VMs to engage in overseas production. Table 5.1 summarises the status of overseas production by 1996 when the Korean automobile industry showed the most desirable performance.

The most active company in overseas production was DMC. The FDI patterns of DMC have focused on JV and M&A as a primary strategy to acquire existing local companies including management controls. The size of FDI was comparatively larger than that of rival companies. The location of FDI was focused on Russia and the CEECs. In the case of KMC, the pattern of most of its overseas production is identified in KD assembly rather than in FDI. The location of production is concentrated in the Asian region. HMC started FDI and overseas production prior to

Table 5.1 Overseas production status of Korean VMs, 1996

	Country	Facilities	Models	Capacity	Mode	Stakes (%)
HMC	9	9	5	88,500	KD/JV	21
KMC	8	8	4	151,500	KD	–
DMC	10	13	6	617,500	KD/JV	30–88.3
Total	27	30	15	857,250	–	–

Source: Various sources.

other companies. However, the company focused on relatively small KD assemblies after the failure of its first project in Canada. Recently, the FDI strategy has been shifted to active mode with a number of new sizeable projects such as the establishments of Indian and Turkish plants. Until recently, the location of FDI and local production focused on the Asian region.

Compared to Japanese FDI and overseas production focusing on developed countries, in particular North America, the location of Korean automotive FDI is concentrated in developing countries. In the target countries of Korean VMs such as India, Poland, Romania, Turkey and Indonesia, the market interventions of established companies are comparatively limited, which provides less competitive business environment for Korean companies (Table 5.2). The 'first-comer advantages' are prominent in some countries. In addition, many target countries are considered to be emerging markets in terms of a shifting pattern of global demand and supply structure.

The specific characteristics of Korean VMs play an important role in their internationalisation. The *Chaebol* structure which comprises many diversified subsidiaries across major overseas markets provided enormous advantages. In terms of local finance, marketing and trade administration, accumulated experience in overseas markets of trading subsidiaries helped to minimise costs and errors. This is particularly true for HMC and DMC. In the case of KMC, the overseas marketing capacity was comparatively limited because of less-diversified company's structure and its long history as an OEM supplier to Ford and Mazda.

Since the mid-1990s, there were major shifts from small KD, and developing countries focused FDI to mid- and large-size FDI by means of M&A and JV. This type of FDI seems to have some advantages as it provides management control which is required by the Korean VMs in

Table 5.2 FDI (including KD plants) patterns and location of Korean VMs by 1997

			HMC	KMC	DMC
Ownership Pattern	100 %		2	–	–
	JV	Majority	1	1	8
		50:50	1	3	
		Minority	1	2	2
	KD Assembly		(7)	(9)	(1)
FDI Pattern	Greenfield		6	3	3
	JV or Merger		1	1	8
Location	North America/ Western Europe		(1)	(1)	
	Russia/Eastern Europe		(1)	(1)	5 (1)
	Asia		6 (2)	3 (6)	6
	Latin America		(1)	1 (1)	
	Africa		1 (2)		

Note: Figures in ( ) indicate number of KD assembly facilities without actual investment.
Source: KIAERI (1997), First quarter, p. 50.

order to apply standardised domestic management and products. From this point of view, the degree of globalisation and localisation seems to be low. The establishment of global network is regarded as an important task for the Korean automobile industry in order to enhance overall competitiveness by means of effective resource allocation. Thus, it is expected that future FDI is likely to focus on the establishment of global networks in terms of production, R&D, sales and information rather than on simple transplants.

Location patterns of FDI in Europe

Only a few countries in the EU would constitute attractive local production sites for Korean investors in terms of cost factors. According to the survey of Nam and Slater (1997), a favourable investment climate regarding infrastructure and government incentives is suggested as the most important factor in selecting investment location in Europe. A survey shows government incentives, geographical environment, common language, infrastructure, and the size of markets are factors affecting the locational decisions of Korean companies investing in the EU (Lee 1994).

Classical variables such as revenue, demand, means of communication, production costs and incentives have been the major reasons why the peripheral regions are chosen as proper locations.[2] However, in regard to the locations in the CEECs, the expansion of the EU towards this region seems to be one of the important determinants. The opportunities for technology transfer might provide justification for the advancement of Korean companies into this region. R&D localisation is likely to be one of the main motivations for the Korean automobile companies to meet local demand in the long term and acquire advanced technology efficiency through competition.

The following sections are devoted to identifying the particular locational pattern of Korean automotive FDI in Europe. The main focus of discussion is based on the assumption of this study that the locational decisions of the Korean VMs in Europe are influenced by the potential of target location with respect to market integration rather than present opportunities and threats.

Production – the CEECs

Countries that joined the EC late, compared to some initial member states, are viewed as gateways to the rest of the Community with particular advantages of easy market access and low production costs (Yue 1991: 351).[3] These advantages are likely to be applied to the case of the Korean automobile sector FDI to the CEECs. It is suggested that serving EU market from non-EU plant may comprise suitable medium-term strategy for the Korean automobile industry (McDermott 1995: 45).

In the late 1980s, political liberalisation in the CEECs ignited the investments of the major VMs, in search of new markets and low-cost production locations. Under the central planning system, the automobile industry had been left largely underdeveloped. This socio-political condition together with limited technological capacity led to the industry being taken over by the established VMs (Swain 1992). Newly elected local governments welcomed the investment decisions of major VMs. For instance, concentrated investments by VW in Skoda in the Czech Republic clearly represented the interest of western manufacturers towards Eastern Europe. VW initially acquired 31 per cent of Skoda in 1991. The accumulated shares increased to 70 per cent with total investment recorded at DM 1.4 billion by 1995.[4]

Location for Korean automotive FDI in the 1990s in terms of production facilities was focused on the CEECs. HMC, for instance, engaged in local production from 1997 in Poland by signing a partnership agreement with Sobieslaw Zasada Centrum with a five-year plan for a project

worth a total of USD 120 million. In Turkey, HAOS was established in 1997 by a JV with Kibal Group. In Romania, HMC and Dacia entered into an agreement in early 1998 to build subcompact cars.[5] DMC was also producing motor vehicles in Poland much earlier than HMC by setting up DMP in 1995 and DW-FSO Motor Corp. in 1996. Local production was initiated in Romania in 1996 by RODAE Automobile SA in 1994, as AVIA was established in the Czech Republic.[6]

The locational implication of the CEECs for the Korean automobile industry relating to European integration may be summarised into two headings. Firstly, the motorcar market in the EU may also be served by the established production facilities in the CEECs after or even before they officially join. Korean companies seemed to invest initially in the CEECs to exploit lower level of labour cost and market potential. However, the target of this strategy expands to the motorcar markets in the EU facilitated by the probable EU membership of the CEECs according to the enlargement policy of the EU. Establishing production facilities within the EU to serve local markets is regarded as a difficult alternative because of the requirement of higher financial commitment and severe competition from established indigenous VMs. In addition, a number of free trade agreements between the EU and the CEECs increased the scope of possibilities of serving the EU markets from the CEECs.

Secondly, locating in the CEECs would lead to positive effects given not only locational advantages but also the reduced uncertainty of operating within the integrated market. This is intended to be achieved by the mitigation created by the time lag until the countries in Central and Eastern Europe are included in the EU. European economic integration in some areas is in question. There are incessant debates on issues such as financial and Monetary Union (MU), regional adjustment, and agricultural policy. These areas are problematic and may create confusion in the economic system as a whole. It is expected that MU will be completed and executed by 2002 and the CEECs will be joining at later dates. This may provide a critical opportunity to observe whether the economic system of the EU works appropriately.

In short, recently liberalised CEECs are targeted by many established VMs in Europe. The economic potential of these countries is considered to be immense. These countries as potential markets and production centres seem to be meaningful to the Korean automobile industry in relation to European economic integration. In particular, the prospect that some of the CEECs are being considered for inclusion in the EU in the near future seems to have positive locational implications.

R&D – the EU

A clear tendency may be found in the mode of industrial location of the Korean VMs. They tend to choose locations according to the attributes of the region in which they invest. Focus has been given to the acquirement of advanced technology when they choose investment locations in Western European countries. In terms of FDI in production facilities, most of the investments are concentrated in the peripheral regions in Europe, namely, the CEECs and Turkey. These countries tend to provide cheaper labour costs which is considered to be a critical element for production. As discussed above, these countries are not in the EU but their geographical location is in proximity to the EU. In addition, many of them have arrangements for free trade with the EU.

Amongst many other factors influencing the industrial location of the Korean VMs in Western Europe, there are some contemporary factors concerning FDI and industrial locations. In particular, the focus is given to the location issues of Korean companies in the EU in the matters of technology transfer. The location of FDI, aiming at technology transfer, has been in Germany and the UK.

HMC established its R&D subsidiary in 1992 in Germany. DMC also opened a technical centre in Germany in 1995 following the establishment of its main technical centre in Europe, in the UK, in 1994 (Table 5.3). Traditionally, Korean automobile companies have had a close relationship with Germany, since this country is renowned for sophisticated automobile technology. In the case of the UK, a remarkable amount of FDI in R&D centres has been directed to this country. Daewoo

Table 5.3 R&D centres in the EU

R&D centres	Established	Engineers	R&D scope
HME R&D centre (HMC)	1992	–	European design studio Product planing Homologation Product evaluation and testing
Worthing technical centre (DMC)	1994	850	Styling, design and platform development
German technical centre (DMC)	1995	100	Power train development

Source: Various sources.

Worthing Technical Centre (DWTC) located in the UK is considered to be the most prominent feature of the R&D strategy of DMC in Europe. The product line-ups of DMC were largely dependent upon GM models even after independence from GM in 1992. The development of an independent model was a prominent task for DMC. DWTC was established in January 1994. During the restructuring of IAD (International Automobile Design Consultancy), an independent motor vehicle design house, its assets based in Worthing were liquidated by the new owner, the Mayflower Corporation. Daewoo purchased the IAD Worthing facility in 1994. Daewoo invested over GBP 50 million to develop and build the complex as a prototype and vehicle test facility.[7] This event has provided DMC with immediate capacity for styling, engineering design, prototyping and testing. In particular, the requirement for design capability to meet the preference of local consumers has been fulfilled. This centre became a core part of a pan-European R&D and production network. For instance, a recent project, namely LD-100, focused on developing a van which was designed by DWTC and was to be manufactured in both the Polish and the UK plants in JV with LDV.

These locations are geographically remote from the existing production sites in Europe. The establishment of a global network which connects dispersed production sites seems to have influenced the selection of production sites. Particularly if the motivation for FDI is to acquire advanced technology, it is not necessary to have R&D facilities adjacent to production sites because different sites can be connected by computerised networks.

EMU membership – UK case

The UK has been the most preferred location for the Korean companies when they invest in Europe. Table 5.4 shows the major four European countries that are selected as favoured industrial locations. This result supports the above assertion that the attributions of countries may provide different motivations for FDI and locational decisions. For instance, well-established infrastructure in Germany, the geographic location of France and low labour costs in Spain may be explained in a similar context. In the case of the UK, the English language, capital availability and quality of labour comprise its attributes which coincide with the motivations for industrial location of the Korean companies in Europe. London has its position as a financial centre in the EU. The UK has been considered as a gateway to the European market for its geographical location and membership of the EU.

The survey of McDermott (1995) also shows that language, quality of labour and proximity to the market are considered to be factors

Table 5.4 Favoured countries for FDI in Europe

Countries	Reasons	Rank (3.0)
UK	Language, easier access to financing, high productivity, incentives such as grants	2.8
Germany	Well-established infrastructure, biggest market in Europe, geographical advantages to Eastern Europe	2.7
France	Favourable investment incentives, good location in Europe	2.5
Spain	Low wage, high growth market potential	2.5

Source: Nam and Slater (1997), p. 43.

favouring the UK for the location of production plant. Many established electronic companies such as Samsung, Daewoo, LG and Hyundai have already invested in this country and many other FDI plans are under process. In fact, more than 33 per cent of the Korean FDIs in Europe are concentrated in the UK. Consecutive announcements of FDI decisions by Korean electronics companies in the UK were made following 1995. Korean FDI in the UK has reached USD 6.75 billion which accounts for around 65 per cent of total Korean FDI in the EU.[8]

A decision of the UK relating to the participation in the EMU could influence the future FDI and locational desirability. For instance, the flow of inward investment in the UK decreased by around 15 per cent between 1958 and 1973 when the UK was outside the EC. Approximately 40 per cent of the total inward investment in Europe was directed to the UK consistently before and after this period. This instance shows that membership of the EU and inward investment flows seem to have a functional relation. Industrial location decisions of foreign companies will be affected by the status of membership of host countries within the EU. In January 1997, a crucial debate on the impact of EMU on the inward investment in the UK was triggered by the remarks of Mr Hiroshi Okuda, president of Toyota. He indicated that the company might have to shift its European investment strategy from the UK to continental Europe if the UK stays out of EMU.[9] Subsequent investment in Lens, northern France, with a USD 1.6 billion project emphasised his remark. Under the present circumstance of the UK not being a member of EMU, her entire marketing efforts may be wasted when risk related to foreign exchange increases. The CBI (1995) suggested that membership of the EU has helped the UK attract inward investment.[10]

Korean companies are concerned about Britain's schedule for joining the MU. It seems certain that the Korean companies investing in Britain would prefer EMU membership.[11] It may be argued that Korean VMs may select countries more integrated to the EU than countries with weak connections based on the above instances and evidence. This is mainly for the exploitation of advantages. However, this has not been categorically reiterated by foreign investors as few investors raised concerns about EMU.[12] As a matter of fact, this assertion may not be true because much of the FDI of Korean companies from other industries towards Europe has been concentrated in the UK. As a consequence, the Korean companies located in this country have to run the risk of exchange fluctuations. It is likely that other factors suggested in the previous discussions relating to the locational attractions of the UK seem to outweigh this factor.

In contrast, it seems to have a positive meaning to some extent from the opposite point of view. Staying out of the EMU for a while left room for government and civil servants to spend resources freely to some extent. Government deficit and tax are still in the hands of the government. This implies that there will be extra incentives available for Korean companies investing in the UK. However, this is just a temporary phenomenon which will last as long as the UK stays out of EMU, even though there are some possibilities that the UK's peripheral regions will still be allocated within centrally controlled regional adjustment funds.

The following discussion focuses on both negative and positive aspects of economic integration affecting the motivations of Korean automotive FDI in Europe as exogenous factors. Firstly, the rather dismal trend and the expected protectionism in the European market provide critical implications for the strategic decisions of the Korean automobile industry. Secondly, increased opportunities stemming from various internal market measures, which are likely to be available for non-European companies in the case of open regionalism, also endow important implications. These implications are clearly related with the establishment of local production and sales networks in Europe in order to avoid negative consequences of economic integration, as well as to exploit opportunities by means of FDI.

Motivations of FDI – circumventing the barriers

As a region becomes an integrated economic bloc, the newly set common tariff level affects the trade within member countries as well as with

non-member countries. Above all, tariff realignment influences trade relations with non-member countries. In addition, NTB is regarded as one of the most important methods to exclude the threatening imports from non-member countries. In Europe, it is NTB which raises the fear that the EU forms a 'Fortress Europe'.

The closer trading relations between Korea and the EU would offer benefits to both parties, but the partnership remains underdeveloped.[13] Even before the full cultivation of potential trading relations, possible trade conflicts and reciprocity have been raised as critical issues in many industrial sectors, including the automobile industry. According to the survey of Nam and Slater (1997), Korean companies seem to have perceived Europe as a difficult trading partner compared to other regions. Around 53 per cent of Korean managers responded that trade barriers were higher than other regions.[14] The primary concerns of Korea regarding trade with the EU are related to the trade barriers imposed on the import of Korean goods to the EU markets, while the trade barriers in Korea against automobile imports are the major concern of their counterparts in the EU.[15]

In this context, overall trade volume is expected to be decreased. McDermott (1995) concluded that export as a long-term strategy to serve European market is inappropriate due to rising production costs and the prospect of protectionism.[16] Trade diversion and protectionist measures that could possibly be imposed on Korean motorcar imports, are suggested as relevant factors which might motivate the Korean automotive FDI in Europe. In the following two sections, the issues regarding automobile trade with the EU relating to the motivation of FDI are discussed.

Trade diversion

When trade barriers among member countries are reduced or removed, one effect is 'trade diversion' whereby imports from countries outside a bloc are replaced by internal trade. On establishing a common market, an import tariff is imposed that is lower than the tariff of each member country before integration or the tariff among the member countries is abolished. The import will be diverted from efficient non-member countries to less efficient member countries within the territory (Viner 1950).

According to the past trading experience of Korea with the EC, trade flows are, to a certain extent, influenced by economic integration enhancing intra-trade performance namely, 'trade creation'. Over the period 1989–92, Korea–EU trade flows were changed in accordance with trade

diversion assumption.[17] This is attributable to preparatory activities for the internal market programme that stimulated intra-EU trade (Dent 1998: 372–7).[18] However, since the 1990s, the European imports of Korean motorcars have been increasing dramatically at unprecedented rates. The market share of Korean motorcars reached 2 per cent in 1996 and over 3 per cent by 1999, in the Western European markets. This seems to be in contrast to the assumption of trade diversion that the volume of trade should be reduced as it is diverted to intra-trade. This can be explained in that there have been other factors which have had greater impact on the trade flows from Korea to the EU.

Trade diversion is unlikely to be the case for the Korean automobile industry. This suggestion can be supported by the following practical evidence. First, even though intra-trade in the manufacturing sector increased by 20–30 per cent between 1991 and 1994, it has not been at the expense of exporters from the non-member countries of the EU. Nevertheless, extra-EU trade increased by 2.5 per cent in that period in the manufacturing sector (CEC 1996b). This suggests that, far from curbing it, third-country penetration of the EU market has grown together with a steady improvement in market access in the process of the SMP (CEC 1997). Second, the trade diversion effect, even though it exists, does not seem to be considerable in the case of the automobile industry. This seems to be due to the characteristics of the motor vehicle markets in Europe. The European motor vehicle markets are, to a great extent, segmented by national markets. The monopolistic behaviour of some producers, exchange rate fluctuation, the market condition of each country and different tax regimes have resulted in a spectrum of price differences among member states. As a consequence, a rapid increase of intra-trade within the national markets has not happened and is unlikely to be facilitated in the foreseeable future.

Contrary to the assumption of trade diversion, increase in the imports of Korean motor vehicles, particularly passenger cars, was unprecedented. It is likely that this trend will last for a number of years to come based on the suggested reasons above. The growth of the Korean automobile industry in Europe is illustrated in Table 5.5.

The significance of the growth rate is unlikely to be worth noting, because the trade volume of cars between Korea and the EU was negligible until the early 1990s. A strong Japanese currency during the early 1990s helped the Korean companies to compete with the same range of Japanese cars which had lost price competitiveness. The efforts of the Korean producers to increase overseas sales with aggressive FDI in marketing is another factor. Surging demand for subcompact cars in Europe

Table 5.5 Sales and market share of Korean motorcars in Europe

	Sales (units)	Growth rate (%)	Market share (%)
1990	18,335	3.2	0.1
1991	41,023	123.7	0.3
1992	81,819	99.4	0.6
1993	92,747	13.4	0.8
1994	105,419	13.7	0.9
1995	183,806	68.5	1.5
1996	253,609	38.0	2.0
1997	288,446	13.7	2.2
1998	382,914	32.8	2.7

Source: KAMA, Automotive Statistics Yearbook, 1991–99.

induced a rapid increase in sales of comparatively low-priced Korean motorcars (Kim 1996).

In regard to the future of the Korean motorcar trade with Europe, trade diversion is expected to be relevant. Trade flows may be diverted because of not only established common tariffs but also NTB which has significant implications for imports from non-member countries. The rapid increase of imports of Korean motorcars has provoked nationalistic European motor vehicle producers to urge the European governments to react against it. Protectionist measures which were suggested in the previous chapter may have equivalent effects to the setting up of a common tariff. In addition, other external factors such as yen depreciation and enhanced productivity in the European automobile industry may eclipse the advantages of Korean motorcars in the European markets, which could divert trade flows. Trade diversion is most likely to occur when the dynamics of integration remove the difficulties of cross-border purchase of motor vehicles which will promote intra-trade. In short, trade diversion which might result in decreased trade volume for the Korean automobile industry is unlikely to occur in the near future. However, it is expected that protectionist measures which have equivalent effects to the setting up of discriminative tariffs against non-European companies will pose significant challenge.

Protectionism

Protectionism is suggested as an inappropriate solution for the European automobile industry to adjust to the problem it faces. This is because low levels of productivity and poor quality performance followed by

protectionist measures would rather diminish the performance of suppliers and result in higher prices (Berg 1993: 145).[19] As noted in the previous chapter, the industrial policy of the EU explicitly indicates that the community's approach has been open to outsiders, according to the historical ties it has with the rest of the world and its role in international trade (CEC 1991: 18). However, it also noted that this approach requires the respect of trading partners, claiming the principle of the balance between rights and obligations. In other words, the markets of the trading partner should open as much as those in the EU. The commission indicated that a failure to respect this principle would lead to renewed protectionist pressures (CEC 1991).

In 1995, the EU introduced the graduation mechanism to its GSP scheme resulting from its disadvantageous position to trade flows from East Asian Newly Industrialising Countries (NICs) including Korea.[20] In 1998, the GSP privileges of Korea towards the EU were removed in a number of sectors. Automobiles sector was included in the list together with plastics and rubber, leather and fur skins, textiles, clothing, footwear, steel, electro-mechanical equipment and other miscellaneous products.[21] In addition, the possibilities of imposing protectionist measures on the Korean motor vehicle imports are ever increasing. A number of reports relating to the automobile sector in the EU indicated that rapid and aggressive expansion of the Korean automobile industry to the European market may threaten the indigenous industry. More recently, ACEA predicted that the Asian producers would hasten to the market as a consequence of the economic crisis in the region.

The decisive features that could provoke protectionist measures of the EU against the import of Korean motor vehicles are already suggested, relating to the specific character of European automobile industry. They may be summarised under two headings. Firstly, the sharp increase in exports to European countries and the high profile marketing strategy produced negative reactions among both the EU trade authorities and local motorcar makers. They could result in various measures equivalent to trade barriers. It has been argued that the rapid growth in Korean trade volume from the mid-1980s onwards has provoked the intensification of trade disputes between Korea and the EC.[22] The core problem of this rapid expansion of the Korean automobile industry seems to lay upon its rather involuntary characteristic. It is becoming the general view that the aggressive expansion of export towards overseas market is due to the overcapacity of Korean manufacturers and the saturation of the domestic market. The concerns were revealed at the OECD automobile industry workshop in 1998 that the potential inadvisability to the

established manufacturers could be remarkable because of the overcapacity of the Korean automobile industry.[23] Thus, negative reactions against Korean motorcar import are likely to be inevitable in the process of the internationalisation of the Korean automobile industry.

Secondly, over production among European VMs has been widely perceived abroad and this has influenced the formation of the protectionist view against imports from external producers. It is reported that the European VMs are responsible for around 27 per cent of excessive production of global motorcar production. Total capacity in the European car market recorded 18.1 million cars and vans.[24] This figure was in excess of demand by 5.1 million in 1995 after subtracting exports and adding imports (CEC 1996f). In short, the rapid increase in volume of Korean motor vehicle imports and overcapacity in Europe may have adverse effects on the expansion of the Korean automobile industry to an already saturated European motor vehicle market.

In regard to this, issues concerning the protectionist measures of the EU against Korean motorcar imports, based on the 'Fortress Europe' scenario, became of current interest. It is expected that these measures and practices may have adverse effects on the overall volume of imports of Korean cars to the European markets. The protectionist measures can be categorised into four headings as reviewed in the previous section. ADDs, VERs, reciprocity and using other legislative measures.

Firstly, the most distinctive feature that may have the potential to affect Korean motor producers are anti-dumping measures. An ADD regime is the most feasible method for the EU to use because international multilateral agreements authorise their imposition on dumped exports. The EU initiated 18 anti-dumping investigations out of 209 cases on Korean goods over the period 1985–90.

As defined above, anti-dumping regulations are aiming to counter alleged unfair trade practices when imported goods are priced below their cost of production. However, they are more often regarded as safeguard measures to protect domestic industries against competitive outsiders. For instance, 113 cases of anti-dumping investigation were concluded as 'no dumping or no injury' between 1980 and 1992. This is a clear example that anti-dumping investigations are often instigated with insufficient proof. Further, it shows the substantial possibilities for abuse in anti-dumping investigations.

Dent (1998) explained the argument of the Korean government on the ADD issues as being that the EC's anti-dumping policy was being shaped by both the influence of European industrial lobby groups and the protectionist mentality included in the SMP.[25] In particular, national

interests of the domestic producers may invoke stricter restrictions on imports from non-member countries. A clear instance was when France appealed to pressure the Commission to reform the anti-dumping regime as follows:

> . . . existing anti-dumping procedures are failing to protect European industry against 'unfair' competition from low-cost imports, particularly from Asia.
>
> (Financial Times 27/1/1998)

The market share of Korean cars reached 2 per cent in 1996 and it has further increased at a significant rate. An anti-dumping investigation was supposed to be initiated when the market share of Korean cars in the EU was over 2 per cent. An empirical survey on the impact of ADDs shows that the imposition of ADD with an average *ad valorem* duty of 23 per cent would reduce import quantity by 40 per cent.[26] It is considered that ADD may have significant effects on Korean motorcar imports if it is actually imposed.

Secondly, the direct imposition of quantitative restrictions on motorcar imports is also considered to have significant effects. Voluntary agreements which can be used to control Korean motorcar imports in national and EU level of quota systems are expected. As the EU progresses towards further integration, currently diversified national quota mechanisms would be centralised. However, this is unlikely to occur in the foreseeable future. This stems from the given condition that each country has different criteria in imposing restrictions. Thus, the setting up of a standard European quota is likely to be resisted by the different member states (Welford and Prescott 1992: 441).

For the time being, there is no evidence that VERs will be imposed on Korean car imports at either national or European level. Nevertheless, the possibility of VERs must not be ignored since a clear example of VERs can be found in the Japanese case in the 1980s. The validated period of VER agreement has been terminated, and all import controls against Japanese car imports were abolished by the end of 1999. However, the consented level in 1999 shows an ever decreasing trend in the number of vehicles approved to be imported.[27] This implies that, in the medium or long run, the trading performance of the Korean automobile industry with the EU is likely to be undermined with a reduced or stagnated volume of trade.

Thirdly, reciprocity issues are considered to be important, and may also result in a substantial impact on the present trade flows between

the EU and Korea. In the Korean automobile market, foreign luxury cars have not been considered as viable rivals due to the industrial policy in Korea which has protected both domestic industry and market from imported cars. This is not confined to the automobile industry. These practices pan out to almost all other industries which are comparatively less competitive. Relating to this matter, industrial and political disputes have continued since the imports of Korean motorcars in Europe reached a level that can threaten indigenous producers and erode their market.

The market share of foreign cars in Korea was only 0.4 per cent in 1994. The domestic sales of foreign cars increased by 79 per cent in 1995 compared to the previous year. The government protection against the import of foreign motor vehicles loosened. However, these increments were trivial compared to the increase of Korean cars abroad, particularly in the European markets. Even this trend has ceased since the 1997 economic crisis. The devaluation of the Korean currency added pressure on the high price of luxury foreign vehicles. In addition, the demand for foreign cars has dramatically diminished. In 1998, just over two thousand units of foreign vehicle were sold in Korea and sales of European-made cars were only 848 units.

This dimension of the trade relationship between the Korean and European automobile industries has been brought up in an annual forum between the EU authorities and the Korean automobile manufacturers association (KAMA 1996).[28] It is suggested that the success of the Korean car manufacturers in the EU countries is due to the openness of the EU markets and thus Korean markets should open to European motorcar imports.[29]

Lastly, other legislative measures are identified which are likely to be employed against Korean motorcar imports. In particular, emission control under the strict EU rules are considered to be a critical barrier if used deliberately. The European commission required Korean VMs to reduce the emission levels of the Korean cars imported to the European markets. The EU warned that if consent was not given, restrictions on Korean motorcar imports would be initiated. This request is alleged to have been made based on the pledges of ACEA that the same criteria should be applied to Korean and Japanese cars. ACEA has agreed to reduce the CO_2 level to 140 g per kilometre by 2008 with the European commission on July 1998.[30] In response to the request, JAMA consented to reduce the CO_2 level by 25 per cent compared to that of 1995 by 2008.

In July 1998, the ACEA agreed to reduce CO_2 emissions by 25 per cent by 2008 targeting 140 g of CO_2 per kilometre. This agreement also

includes automobile manufacturers bringing out car models with emissions of 120 g per kilometre or less by 2000. Implementation of this agreement will be monitored based on the data provided by the vehicle registration authorities in the member states.

As a consequence, it is expected that overall trade flows of motor vehicles from Korea to Europe will be reduced in the medium and long term due to the above measures and practices. According to the survey and interview results, which will be considered later in detail, 78 per cent of interviewees were of the view that total trade volume will be reduced in the medium and long term. The majority of Korean managers have the perspective that all the various measures and practices will have negative effects on the trade flows which will lead to decreased trade volume and profits. It is envisaged that Korean companies will prepare strategic alternatives to react to this issue. In regard to strategic alternatives in Europe, a feasible strategic choice seems to be local production to avert trade barriers by means of capital involvement. They include M&A, JV, establishing an independent distribution channel, expanding logistics capacity with related local distribution companies and setting up transplants which are inevitably accompanied by FDI.

Motivations of FDI-location-specific advantages

The dynamics in the EU stem from the logic that the lowering or removal of barriers and stimulus for market expansion will intensify competition across the markets with unhindered operation in a wider Europe. Cost reduction and efficiency gains are likely to be achieved for the above reasons. Hence, this is the dynamics of the internal market which facilitates major opportunities.[31] Increased opportunities in the region clearly enhance the location-specific advantage which is one of the critical determinants of FDI. Considering that these opportunities are available for Korean VMs, it may be argued that FDI in Europe has been determined by this.

While the static effect of economic integration relates to changes in output resulting from reallocation of a fixed amount of resources, the dynamic effect concerns the changes in growth rate as a result of an expanded market or a synergy effect of reallocated resources. Manifold integration measures in the EU such as removal of trade barriers, policy convergence, setting up a single market and finally establishing the EMU were catalysts that accelerated economic growth in the region. 'The Cecchini Report' (1988) is a comprehensive document outlining

the expected achievements of the SEM. This report identified costs of non-Europe estimated around ECU 200 billion. This implies that efficiency created by the completion of SEM may be explained in monetary terms calculating costs saved. A number of benefits are suggested in the report,[32] led by the following four major efficiency gains. First, a reduction in costs resulting from exploitation of economies of scale in production and business organisation. Second, efficiency is realised within companies through industrial reorganisation as increased competition puts a downward pressure on prices. Third, new patterns of industrial competition are arising out of a reallocation of resources as real comparative advantages play a key role. Finally, improved innovation is affecting new business processes and products in the internal market.

Notably, several industry sectors where the impact may be highly felt are selected as pertinent. The automobile industry is considered the prominent example among the suggested industrial sectors.[33] The report summarised that benefits as high as ECU 2.6 billion or 5 per cent of the industry's total costs could be reaped. The scale of the automobile industry in Europe is particularly prominent. The size of the sector, in monetary terms, reached USD 120 billion which exceeds by over USD 43 billion the second largest industrial sector. The immense size of the above market sectors is closely related to the importance of the SEM to the industry. Assuming that growth rates will correspond to what the Cecchini report forecasts, the actual amounts and effects on the overall regional economy are likely to be substantial.

These dynamic effects may determine and stimulate non-European companies to engage in international production in the EU.[34] This study assumes that the generated market opportunity by means of dynamics within the integrated market could be applied not only to indigenous companies but also to non-European companies such as Korean VMs. This could create important motivation for Korean automotive FDI with which Korean VMs have tried to expand their overseas operations in the EU. Thus, scrutinising the consequences of the relevant measures and processes influencing the automobile industry within the internal market seems to be critical to explaining the determinants for Korean automotive FDI.

The dynamic mechanisms in the integrated market can be categorised in fivefold based on the previous discussion.[35] Firstly, economies of scale resulting from the interaction between companies' activities and European integration are a clear example of the dynamics of integration. This seems to be a significant factor in both trade and production

activities within the integrated region. Increasing productivity through economies of scale is a critical element for the automobile industry. The productivity of European automobile manufacturers measured by the number of hours to assemble a standard car improved between 1980 and 1993. According to the work carried out by the International Motor Vehicle Programme (IMVP) in the early 1990s, European producers increased productivity by 29 per cent while US producers increased their productivity by 23 per cent (CEC 1996c). Economies of scale is more relevant to the automobile industry where achieving the lowest unit cost through high volume production turns out to be the decisive element of success. This is because a radical convergence of the technology and engineering sides of the industry resulted in undifferentiated groups of models from each manufacturer and the value for money of these models became a decisive factor in attracting consumers.

Secondly, the SEM aims to resolve various barriers to market access which distort pan-European competition. The target of the policy is to remove physical, fiscal and technical barriers which would lead to liberalised internal competition. Free movement of goods, services, capital and labour is guaranteed within the market since the EU completed its shape as a common market. Removal of barriers to entry such as entry costs, availability and information is expected to lead to increased competition in members' national markets. This may result in a decreased share of the national market place for each manufacturer. On the other hand, the market share in non-national markets will increase. It is, therefore, expected that market share of each manufacturer in each member state will converge. According to the single market study, variance in market share across member states has fallen.[36] Consequently, easy access to neighbouring markets and international sourcing which enable a manufacturer to locate the parts for production at the lowest production cost helped to accomplish a lower unit cost in the European dimension.[37] In particular, the harmonisation of technical standards and testing procedures in the automobile sector has improved the market access of VMs within the region. Different technical requirements, duplication of effort and non-optimal scale quantities incurred unnecessary costs. As discussed in the previous chapter, technical differences were used as barriers against non-member makers approaching the markets. Since WVTA has been agreed and adopted, it is no longer valid to protect the indigenous automobile industry in some member states.

Thirdly, the total size of the integrated market will surely increase when the procedures of integration are complete. It is suggested that

not only a simple increase in market size, but also an increase in the number of member countries during the process of integration will have significant meaning and result in an important dimension of market enlargement. Considerable barriers remain in sensitive areas such as regional adjustments and common agricultural policies. However, the consequences of an enlarged market are generally accepted as advantageous aspects of market integration. Accompanied by the earlier acquisition of membership of EFTA countries, the prospect of an EU with increased size may be envisaged in the medium or long term. Recent years have seen that rapid transition from a centrally controlled economy to a market economy open to a liberal world market results in significant changes in the trade attitude of the CEECs.

Fourthly, since the degree of integration in the EU has expanded horizontally as well as vertically, fair competition among European as well as non-European VMs has become a significant item on the agenda. Competitiveness across the EU is likely to be enhanced as a result of the removal of various barriers and enlarged market size. Unfair trading practices, M&As, state aid and subsidies to particular sectors are primary areas monitored and controlled by the Commission to prevent distorting the competitive environment. The primary direction of competition policy is embodied in Articles 85 and 86 which focus on concerted practices between two or more organisations. Article 86 of the Treaty of Rome described the Commission's authority to 'block mergers which so strengthen a company's dominant position that the only undertakings left in the market are those which are dependent on the dominant undertakings with regard to their market behaviour'. Article 92 of the Treaty of Rome concerns government intervention through state aid in distorting fair competition. State aid in various forms such as government grants, cheap loans and subsidies is defined as illegal. For instance, the Commission ordered Renault to repay a grant from the French government in 1989.[38] Similar instances were found in the cases of Peugeot, Alfa Romeo and Rover. In addition, any trading practices which would hamper a sound competitive environment are to be regulated by the Commission.[39]

Lastly, the introduction of the single currency enhances stability in the EU. The convergence of the currencies in Europe will remove the fluctuation of currency values and will enable VMs to operate with a long-term strategy in most phases of activities such as sourcing, assembly, distribution and after-sale services. In general, the circulation of the single currency would equalise economic differences such as GDP, labour cost and financial cost, which are potential sources of social,

economic and even political instability. The most important consequence of the introduction of the single currency is the complete removal of exchange risks. The vast majority of the representatives from industry and commerce have expressed their opinion that the exchange rate turbulence is a major hindrance to trade (AMUE 1988).[40] If prices of one member country are lowered as a result of changes in exchange rates, exports may increase from countries which have devalued to member states which have not. Consequently, the completion of EMU may prevent distorted trade between member states. This stability achieved by the elimination of exchange fluctuation is known to have critical effects on the price of vehicles traded across borders.[41] The price differences in the automobile industry in the EU are partly influenced by currency fluctuation. Countries with depreciated exchange rates are forced to increase the product price and this obscures the price structure across markets. For instance, high prices in the UK are addressed as a direct consequence of the continued strengthening of the Pound.[42] It is suggested that price convergence in the EU cannot be achieved without exchange rate stability.[43] Many VMs in Europe are known to have supported EMU and prepared plans for the single currency. According to the survey carried out by VDA, automobile manufacturers and component suppliers in Germany are prepared for EMU.[44]

In summary, the above opportunity factors derived from the dynamics of economic integration are directly related to the automobile industry and they have affected industrial structure for indigenous VMs, providing unprecedented opportunities for VMs from outside. As some of the important motivations of Korean automotive FDI in Europe, these factors are considered to be influential determinants. This proposition would be examined in the later part of this study together with negative consequences as a factor affecting the motivation of FDI, but the following section continues with the characteristics of Korean automotive FDI on the basis of the above considerations.

Characteristics of Korean automotive FDI

The institutional development of European economic integration and its relevance to the automobile industry have been reviewed in the previous chapter in the search for correlation between regionalism trends and the specific industries (see Chapter 3). In particular, the measures and policies of economic integration regarding the automobile industry were reviewed. Subsequent discussions in this chapter have focused on possible external consequences of economic integration in the forms of

negative and positive effects and their relevance to determinants and motivations of FDI from outside companies with particular reference to Korean VMs. The following step of this study is identifying the specific characteristics of Korean automotive FDI based on the exogenous motivations suggested in the previous sections.

Defensive and a *quid pro quo* investment

Korean automotive FDI in Europe may be characterised as defensive import substituting investment aiming to evade potential protectionism residing in measures and practices of economic integration in Europe (Lee 1991: 297–300). The motivations are to protect existing market position and advantages against reduced trade and sales volume in the local markets by employing defensive investment. Most of Korean automotive FDIs are limited to small size with very few exceptions and concentrated in peripheral regions in Europe. This phenomenon is based on the defensive characteristics of Korean automotive FDI. Most of the existing Korean FDI to Europe may be categorised into this type provoked by defensive motives (interview with Cha, J. K. 22/9/98).

There are two reasons which define the defensive characteristics of the Korean automotive FDI. Trade diversion and protectionist measures against Korean motorcar imports are considered as factors directly affecting Korean VMs to employ FDI in this mode. Even if it has not been publicised, the potential of this has significantly affected the strategy of the Korean VMs in Europe. In a number of instances, this study attempts to show that the overall trade performance of the Korean VMs may be eroded as measures for integration adversely affect trade flows.

Firstly, 'trade diversion' diverted trade flows from Korean imports to local producers between member states. This was found to be an unlikely factor affecting Korean motorcar trade in the future. However, traditional trade diversion effect considers only the common external tariff when other reasons stemming from a different dimension may cause similar effects. For instance, enhanced intra-trade within the integrated markets may result in diverted trade flows from Korean imports to trade between member states. As integration progresses, the volume of intra-trade is expected to increase for the following three reasons: (i) the introduction of enhanced production systems, large FDI in production facilities and R&D within Europe might increase the productivity of the existing European producers, (ii) reduced overall production costs may help lower the price of the products; mixed with

liberalisation measures in the internal market, this will create cross-border sales and (iii) accelerated restructuring within the industry and alliances would help specialisation and result in increased intra-trade. Thus, these internal factors may equally result in diverted trade flows, which is similar to the effects of the setting up of common external tariffs.

Secondly, possible various protectionist measures decisively determine the intrinsic characteristics of Korean automotive FDI. Trade relations could be worsened for the Korean automobile industry, resulting ultimately in decreased trade volume. Rapidly increased Korean motorcar imports in the 1990s may result in subsequent reactions by the EU and added concerns. As specified in the above sections, ADDs, VERs and reciprocity are the most probable measures which may be imposed on Korean motorcar imports.

Transition to local production has been viewed as an inevitable choice for the Korean automobile industry because of potential protectionism against Korean car imports due to increased market share and the progress of market integration (Jeong 1997). According to the survey carried out on Korean manufacturing companies that have invested in Europe, protectionism in the EU is considered to be the most important reason for their FDI in Europe.[45] Therefore, to sustain the rate of market share reduced due to the suppressed trade and diverted trade flows, defensive import substituting investment as a strategic reaction is expected to be incorporated.

Bhagwati (1983) suggested that a company may decide to invest to reduce expected protection or threat before the actual imposition of protectionist measures. This view helps to understand the intrinsic characteristics of the Korean automotive FDI as well as their strategic directions. This is based on the fact that none of the potential trade barriers have actually been imposed on the Korean motorcar imports. In addition to the basic characteristic of Korean automotive FDI which is defensive, a *quid pro quo* way of approach is likely to be helpful in identifying specific characteristics of Korean automotive FDI in Europe. The further details of this aspect are considered in the next chapter as empirical cases of Korean VMs are traced.

Consequences of defensive investment

FDI motivated by defensive reasons is likely to cause problems after it is affected in several ways. The background of problems preceding the defensive type of FDI is likely to be accountable for its passive and reluctant characteristics.

Cherry (1999) has focused on Korean electronics companies and the circumstances and motivations behind their reverse direct investment (RDI) to Europe. Based on the views of a number of Korean scholars,[46] it is suggested that the Korean FDI to Europe may be categorised as 'a case of involuntary internationalisation'. The rationale behind this is that successful export performance supported by the Korean government's drive, which has resulted in protectionist restrictions in overseas markets, will inevitably pile on pressure to make FDI secure existing markets and maintain growth. This view of Korean FDI as passive and one of unavoidable choices, stems from both internal and external factors. As an internal factor, the structure of the Korean economy and industry induces the FDI decisions since Korea has to unavoidably depend upon overseas markets. The external changes in the global economic environment have also forged involuntary internationalisation (Cherry 1999: 273–4).

Most problems are related to local market conditions and adaptation to the local market. Among many problematic areas, component supply networks and local content requirements are clear examples. Firstly, the specific characteristics of the Korean component suppliers system induce problems in the event of defensive investment. The strong and concentrated ties between VMs and their component suppliers will inevitably force follow-up investment by the parts suppliers after major FDI by VMs. Considering the size and capacity of the Korean component suppliers, it is likely to be a huge burden for them to invest overseas. The problem stems from the part supply system. The component supply system is a single-tiered system at the present time which means component supply companies are connected directly with VMs. The development of this system is accountable for the attitude of supply companies, which tend to secure their position by connecting directly and exclusively to a VM. To illustrate the problem, among 780 component suppliers in direct contract relations with VMs, the range of employment level varies from over 700 to less than 5 employees.[47] It seems a matter of course that component companies with less capacity will not be able to follow VMs in overseas investment. This may cause difficulties for the VMs in securing a supply of components at the initial stage of local production. Consequently, the competitiveness of Korean VMs over indigenous makes may be eroded due to an infirmed component supply system in the local market increasing overall production costs.

Secondly, the most remarkable consequence of defensive import substituting investment is likely to stem from the Screwdriver Regulation and the Rules of Origin.[48] FDI decisions, simply to avoid trade barriers

and to secure existing market share, are inevitably passive in nature and result in minimal commitment to financial involvement. Partial scale of involvement in local markets means setting up simple assembly plants which are subject to the regulation of Screwdriver Law in most host countries. In addition, as suggested above, local content requirements are likely to be a significant matter relating to the problems of component supply when Korean VMs experience difficulties in securing local suppliers and have to directly import components from Korea.

The case of Japanese VMs in the 1980s and their transplant to Europe show a clear instance which will be scrutinised in a later section. In particular, the products made in third countries where lower tariffs may usually be imposed compared to the home country are still subject to Screwdriver Regulation. For instance, one Japanese company manufacturing photocopiers had to face higher tariffs for its goods produced in the US. According to the Screwdriver Regulation, its products were considered to be of Japanese origin rather than US. This instance has critical implications for the Korean VMs whose production facilities are located in third countries where they wish to export from.

Most Korean motorcars produced in Europe are CKD or semi-KD (SKD) models. In particular, SKD is the prevailing production method of the Korean VMs in CEECs. SKD is distinguished from CKD in a particular manner. While CKD production is carried out with separate components imported from the home country, most of the production activities of SKD are finished in home country plants. Semi complete parts of motorcars are despatched to local production plants where final assembly is carried out to serve local markets or a third country's markets. This method is used in particular to avoid higher tariffs in European countries by Korean VMs. According to the above case of the Japanese photocopier manufacturing company, this production method in the local plant is likely to include high risk of being categorised under imported goods rather than local products.

In short, it seems to be the consensus that protectionist restrictions on imports may result in a reaction in the mode of FDI whether caused by economic integration or other reasons. Thus, it is envisaged that passive and forced FDI will result in more uncertainty in the unfamiliar foreign market and more chance for failure against strong local competition.

Offensive investment

The framework of this study considered that enhanced location-specific advantages stemming from increased opportunities in the European

automotive market is provoking offensive import substituting investment. Korean automotive FDI is expected to partially include aggressive characters in its nature. Bearing in mind the sudden expansion by means of FDI when there were no trade barriers, FDI in Europe can be expected to nurture and consolidate competitive advantages with a global approach in order to exploit the dynamic effects induced by the formation of the economic integrated region. Unlike defensive investment, this type of FDI is likely to be prompted by positive motivations. Owing to various liberalisation and harmonisation measures, dynamics within the EU seem to increase market opportunities. This study assumed that any offensive import substituting investment will be made to exploit these advantages generated as an economic consequence of integration. In particular, enhanced market access, economies of scale and the enlarged market seem to be the elements which are the most relevant to the positive changes in the automobile industry sector.

The major inducement to inward investment comes from the increase in the location-specific advantages of the internal market.[49] Location-specific advantages are likely to be enhanced by opportunities within the markets stemming from dynamic effects in a number of areas including the measures and policies of economic integration. Dynamic effects seem to be instituted by accomplishing economies of scale using the enlarged market and facilitating innovative activities which will enhance ownership advantage for a company within the territory. Maximum usage of created opportunities will be the main frame of the dynamic effect of the EU. General cost cutting effects are expected in the long run and this would make the region a better place for production. MNEs' international production activities, international sourcing, production and marketing are likely to be facilitated within the territory. Rationalised FDI will, finally, be induced by these effects to get over the market imperfection of differences in production costs in the global market.

Several explanations of conjunction between location-specific advantages and opportunities within the internal market may be identified based on the suggested opportunities in the previous section. Firstly, as the single currency was introduced, there were various improvements in terms of FDI environment in the region. Hedging costs to avoid the risks of exchange rate fluctuation would be reduced. Local finance would become easier because the liberalised financial sector in the integrated market would lead to fierce competition amongst institutions. Secondly, free movement of products and services and an enlarged market would play a role as overall factors that induce dynamic effects.

Thirdly, an extended market enables accomplishments in economies of scale and will result in cost reduction. A company may operate specialised plants for a regional market because integration and developed information facilities will facilitate the growth in a number of culturally homogenised European consumers.

In the case of the Korean automotive FDI in Europe, production, distribution and sales networks across Europe could be characterised as offensive investment to exploit locational advantages within Europe stemming from enhanced opportunities. An enlarged market and newly generated opportunities such as unified regulations and specimens within the EU will lead the Korean companies to invest to acquire better results than that through exports. Dynamic effects of integration may result in income growth which will be directly connected to market growth in the long run. The main motivations are to capture growing demand as well as new market opportunities.[50] Since economies of scale are an essential element for the automobile industry, enlarged market potential would support this necessity of the industry. Thus, the dynamic effects of integration might be helpful for Korean VMs to expand their production activities within the EU because there is a minimum capacity to cover costs and generate profits.

Furthermore, all these processes should be executed in a relatively short period of time which will stimulate more decisive influences. Companies are keen to intervene in new markets and simultaneously defend existing markets. 'First mover' advantage is a crucial factor for the companies which pursue these objectives. It is likely to be difficult for the company to carve out a new market without local knowledge of language, cultural, legal and business practices. Acquisition of well-managed enterprises in the established market seems to be a practised alternative to training large numbers of new workers. Companies may acquire skilled workers and production factors for successful local operation with less effort. This will reduce market conflicts among the companies which struggle to expand internal resources when they find themselves in the same boundary of production category in the territory.

This phenomenon of current investments by Korean VMs that are mainly concentrated in the CEECs can be viewed from two different perspectives. First, protectionist measures expected to be imposed in countries in Western Europe as well as Central and Eastern Europe are considered as critical reasons behind the FDI in the CEECs. Secondly, using the CEECs as a gateway to serve Western European countries since these countries are expected to be EU members in the near future.

The locational implications of the Korean automobile industry in Europe are closely related to the recent liberalisation of the CEECs and the economic potential of these countries. The potential growth and geographical importance of these countries appear to be meaningful for the Korean automobile industry relating to European economic integration. The prospect that some of the CEECs are considered for inclusion in the EU is found to be one of the critical determinants in locational decisions. From the second point of view, offensive investment to acquire opportunities is likely to be the case since the major and ultimate target markets are Western European countries. Even though serving Western European markets is the ultimate objective, the CEECs are considered to be appropriate for initial investment location for two reasons. Firstly, the potential of this market is considerable because growth seems to be steady though slow and secondly, because countries in this area have remarkable potential of being included in the EU in the foreseeable future. This aspect has been examined in the empirical analysis in following chapters.

Opportunities and localisation in Europe

During research interviews, it was suggested that most of the measures and policies of the EU such as competition and industrial policies towards the internal market will in the long term benefit indigenous companies rather than outside companies. For instance, the positive effect of the elimination of NTB in the internal market is likely to be conveyed to member countries rather than non-members. Yannopoulos (1992) suggested that the reduction in trading costs stemming from the abolition of NTB will be larger for traders from the internal market. Companies from outside serving the internal market through exports are likely to be discriminated against as their competitive advantages are eroded.[51]

It seems natural to assume that a differentiation policy in the EU may be initiated if local production by non-European companies prevails. The overcapacity and relatively low productivity of the indigenous automobile manufacturing companies within Europe along with stagnated domestic demand may concern policy makers. Indeed, even though most of the EU policies aim for liberalisation and an open economy to institute competitiveness, it will not be the case that the benefits of integration will be captured by foreign companies at the expense of domestic companies (Lee 1991).

In particular, the supply and demand structure in the European motorcar market provides further assurance of this proposition. Before

considering this, the significance of changes in negotiation balance should be mentioned. The enhanced bargaining power of the EU in general, as a result of the completion of the internal market may influence bilateral negotiations. This will reduce the scope of the strategic choices of Korean VMs in terms of negotiation for trade taxation and incentives because it is not inter-regional negotiation. This aspect seems to have significant meaning for the Korean VMs since it has been clearly presented in many other Japanese cases showing that negotiation is the most important tool for protecting strategic scope. This implies how it may be dangerous for a non-European company to remain as a non-European company in Europe.

The structure of the European automobile market seems to be related with the imposition of discriminatory measures on non-European automobile companies. Recent restructuring of the European automobile industry as a consequence of the 1993 market depression resulted in expansion of production facilities. Moreover, the introduction of the lean production system helped increase productivity. For these reasons, current and predicted supply level is outweighing demand.

Increased imports and possible local production function as a pressure on the supply–demand structure of the European motorcar markets. According to internal documents of the Commission, European car makers and Japanese transplants have the capacity to produce 18.1 million motor vehicles. After subtracting exports and adding imports, the excess is approximately 5.04 million cars. It is suggested that the major problem of European excess capacity is structural. High redundancy costs and social obligations are the reasons that make closure of inefficient plants difficult (CEC 1996a). As these pressures increase in the automobile sector, it is presumed that the European government may no longer hold onto the principle of treating foreign companies and European companies equally.

The degree of Europeanisation is, therefore, the key issue for foreign companies in sharing the benefits of the dynamics of integration without becoming a victim of discriminatory measures. The question is how successful the localisation of non-European companies will be with production facilities within the region. The categories regarding Europeanisation require localisation in a number of areas relating to most business activities in Europe; for instance, the localisation of human resource management and parts procurement, meeting the requirement of local content, sophisticated R&D to satisfy local consumers' preferences, the management of quality, establishing logistic channels for parts and goods, and

setting up a commercial network between sales subsidiaries for marketing and consumer management.

The outreach of Korean automobile companies is limited to exports and KD or a relatively small scale of production activities. Thus the localisation factors listed are not likely to be met in the foreseeable future. In particular, the requirement of local contents seems to be the critical element for the Europeanisation of local production in Europe.

The Japanese cases in Europe in the 1980s clearly show the importance of this issue. Prolonged arguments relating to the rules of origin and local content ratio of cars produced in the Nissan plant in Sunderland, in the UK showed local companies' concerns over cars produced by non-European companies in Europe. Korean cars manufactured in Romania and Poland started to be imported into the EU countries in 1999. These imports are tariff-exempted due to the free trade agreement between the EU and these countries. As long as this type of tax-exempted trade flows continue, local content requirement can always be claimed against Korean motorcar imports.

In short, it is assumed that the main beneficiaries of European integration will probably be confined to European makes. However, the degree of discrimination between indigenous and Korean VMs relating to the benefits of economic integration may be reduced according to the degree of localisation of non-European companies in Europe, in other words, 'Europeanisation'. This concept includes various efforts at localisation in Europe which define the image of the Korean VMs in Europe as European companies.

Conclusions

This chapter focused on both negative and positive economic consequences of integration as exogenous factors that determine FDI and trade flows. A number of points show that economic integration in Europe may turn out to be an exclusive trading bloc against market access to non-European companies. Diverted trade flows due to the economic convergence and protectionist measures are likely to affect the Korean automobile industry significantly and leave direct market access via export a less feasible option. Increased opportunities resulting from the dynamics of economic convergence may also have effects on the FDI and the location behaviour of Korean VMs in Europe. Economic opportunities realised by means of economic convergence within the EU have remarkable effects on the automobile industry. Newly generated opportunities within the industry are based on economies of scale,

removal of trade barriers, expanded market size, fair competition and stable business environment.

These contrary aspects of European integration affected the characteristics of Korean FDI in the automobile sector in Europe. Korean automotive FDI seems to include both defensive and offensive characteristics in its nature. However, a defensive and rather 'a *quid pro quo*' approach outweigh the offensive motivations. Inevitably, a defensive character of Korean FDI and involuntary nature is likely to provoke a number of unexpected consequences. In addition, based on the fact that the European motor car markets are saturated with excessive production capacity, discrimination against the Korean VMs in Europe is expected. However, this discrimination relating to the benefits of economic integration may be avoided, based on successful localisation in the European markets.

6

The Cases: Korean Vehicle Manufacturers in Europe (The 1990s)

This chapter attempts to trace the activities of Korean VMs in Europe. It is suggested that the internationalisation process of a company should be understood at the corporate level; the company's specific history and changes in the competitive and regulatory environment (Nilsson *et al.* 1996). This study, therefore, selected two Korean companies in Europe as particular cases. These companies are HMC and DMC. In 1997, both companies comprised over 70 per cent of the country's total in terms of production, sales and exports (Table 6.1). KMC is considered as a part of HMC based on the fact that Hyundai merged with KMC in October 1998.

The analysis of these two companies will provide practical examples of the status and specific activities of Korean VMs in Europe. This may help understand the unique characteristics of FDI motivations and industrial location of Korean VMs in Europe in the context of European

Table 6.1 Relative importance of HMC and DMC in the Korean automobile industry (1997)

	Production	Domestic sales	Export
HMC (A)	1,346,964	710,099	601,841
DMC (B)	844,992	361,544	517,866
Country total (C)	3,009,642	1,508,159	1,510,087
A/C (%)	44	47	40
B/C (%)	28	23	34
(A+B)/C (%)	72	70	74

Source: Various sources.

economic integration. First of all, the general overview of Korean VMs in Europe is sought. This is followed by the particular cases of the two companies which will lead to implications for this study by identifying the peculiarities of Korean VMs relating to the effects of economic integration.

The final part of this chapter contributes to further implications for the Korean FDI in Europe by introducing and comparing the case of the Japanese automobile industry in Europe in the 1980s. This case vividly shows that economic convergence in Europe may form an exclusive trading bloc. A number of barriers, regulations and rules have been adopted to limit Japanese car imports over the last few decades. This created an immediate reaction of the Japanese VMs and the reaction was a production transplant to Europe in the 1980s. This seems similarly applicable to the case of the Korean VMs who are in the emerging stage in the European markets.

Overview

The structure of Korean motorcar exports shows a rapidly changing pattern in terms of market diversification since the middle of the 1990s. The apparent tendency is that the US markets become less important while the exports of the Korean automobile industry will come to heavily rely upon the European car markets. The market share of the Korean VMs in Europe has kept increasing since 1993. The European markets, therefore, have become important in terms of both market diversification and internationalisation. Figure 6.1 clearly illustrates the importance of

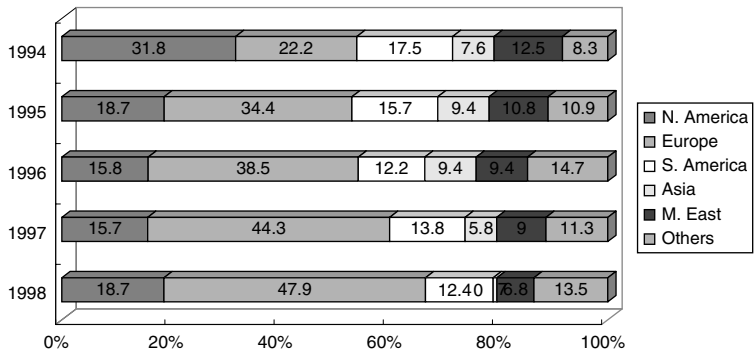

Figure 6.1 Changes of export ratio by region (1994–98)
Source: KAMA, Monthly Automotive Statistics, 1995–99.

the European car markets for the Korean automobile industry and for its trade relationships. Exports to Europe have been dramatically increased since 1993 onwards and show a continuing upward trend. In 1998, more than 47 per cent of the total Korean car exports headed for Europe. Together with this, the importance of the European market is gradually increasing for the Korean automobile industry.

This rapid increase of imports and sales of Korean motorcars in Europe may be reasoned with the following explanations. Firstly, export to the US market has decreased since the beginning of the 1990s. This has stimulated Korean VMs to diversify their overseas sales and distribution channels. Inevitably, the European markets, which are the largest in the world, had to be included as one of the diversified overseas outlets. Secondly, the enlarged territory of the European market enhanced market attractiveness. The unification of Germany and the liberalisation of the CEECs introduced a great amount of potential into the European markets. Thirdly, the economic integration process in the EU has accelerated in the 1990s. The single market measures such as technological harmonisation, reform of the tax system and regulations on national aid to the industry boosted the fair competition environment within the market. Fourthly, the efforts of Korean VMs to exploit the locational advantages generated by the integration of the EU initiated closer involvement with the European markets resulting in enhanced export performance based on the enhanced overall quality of Korean cars.

Table 6.2 shows the position of Korean motorcars in the European markets. The market share of Korean motorcars in 1997 reached 2.7 per cent. This figure is a 33.5 per cent increase compared to the previous year. By the end of 1999, market share of Korean motorcars had risen to over 3 per cent.

As the position of the Korean automobile industry in Europe has been upgraded, Korean VMs show contentious activity in Europe. Consequently, the rapid increase in exports to European countries and a high profile marketing strategy has produced negative reactions from both the EU trade body and local car makers that resulted in a number of negative reactions.[1] The Korean automobile industry has responded with specific strategies because of the importance of the European markets for the Korean automobile industry. Local production strategies in the European markets by means of FDI started from the mid-1990s as did Japanese motor manufacturing companies in the 1980s. In practice, the types of local production at the moment are FDI on a small or medium scale, acquisition of local companies or JVs in peripheral countries in Europe.

Table 6.2 Western Europe* new passenger car registration 1997, 1998 by manufacturer

	1997		1998		Changes (%)
	Units	%	Units	%	
VW group	2,293,178	17.1	2,581,711	18.0	+12.6
GM group†	1,623,786	12.1	1,645,945	11.5	+1.4
PSA group	1,514,913	11.3	1,634,101	11.4	+7.9
Fiat group‡	1,590,288	11.9	1,562,492	10.9	–1.7
Renault	1,326,029	9.9	1,540,701	10.7	+16.2
Ford group§	1,509,272	11.3	1,455,202	10.1	–3.6
BMW group	821,258	6.1	818,934	5.7	–0.3
Daimler–Chrysler	584,321	4.4	727,056	5.1	+24.4
Volvo	231,320	1.7	240,255	1.7	+3.9
Japanese	1,560,324	11.6	1,695,529	11.8	+8.7
Korean	287,773	2.1	384,213	2.7	+33.5
Total	13,405,581		14,339,147		+7.0

*Western Europe includes European Union, Norway, Switzerland (includes Liechtenstein); † GM group/others include IBC/ISUZU & GM(US); ‡ FIAT group: FIAT includes innocenti/others includes Ferrari & Maserati; § FORD group/Ford includes Ford (US).
Source: Various sources.

The main purpose of this type of strategy could be to avoid trade barriers and stimulate export expansion. As suggested in previous sections, turbulent changes in the Korean automobile industry since 1997 may have strangled strategic choices for further market involvement. The existing local production in Europe is a clear example and further FDI is expected subject to financial availability. Table 6.3 is a summary of the Korean VMs in Europe focusing on existing local production activities.

It may take time for the transition from export to full local production. It is worth noting that except for innovative technology, generalised and fast spread production technology has enabled manufacturers to reduce differences in the quality of motor vehicles produced in any country. Price competitiveness is, therefore, a critical element within a competitive global market. In addition, the 1997 economic crisis facilitated better conditions for exports as the Korean currency lost value. Thus, Korean motor producers will benefit from this situation by maintaining price competitiveness for the transitional period.

The following section is devoted to exploring, in more detail, the Korean automobile industry in Europe at the company level. This section focuses on DMC and HMC with particular reference to locational implications.[2] HMC and DMC, two rival companies,[3] have taken significant

Table 6.3 Overview of Korean VMs in Europe by 1998

	Country	Partner	Model	Capacity	SOP	Stakes (%)
HMC	Netherlands	Greenib Car Automotriz	3.5T truck	5,000	7/95	T/A
	Turkey	HAOS	Accent, Grace	50,000	9/97	50
	Hungary	Cell Motors	2.5T, 3.5T truck	1,000	n.a.	
	Bulgaria	Skoda	Pick up	n.a.	98	T/A
	Czech Rep.	Skoda	Pick up	2,000	6/96	T/A
KMC	Germany	Karmann	Sportage	30,000	4/95	
	Turkey	Ihlas	WitIII Pregio	50,000	6/99	15
DMC	Romania	Automobile Craiova	Cielo, Espero, Nubira, Matiz	200,000	3/96	51
	Poland	FSO	Espero, Tico, Lanos, Nubira, Cielo, small truck	400,000	4/96	69.9
		DMP		170,000	11/95	73.4
	Czech Rep.	AVIA	Small truck	17,500	12/96	50.2
	UK	LDV	2.5–3.5T van	80,000	4/98	50

Note: T/A – Technical Agreement.
Source: Various sources.

market positions in the European markets. The reasons behind this may be found by reviewing their involvement and strategies in the European market. In particular, it is expected that economic integration in Europe will have significant implications on the trade and local production of each manufacturer. Locational patterns of these companies may provide an important clue to this issue.

D Motor Corporation

D Group's involvement in the automobile industry started in 1978 as it acquired a 50 per cent stake and management rights of GM, Korea. DMC became an independent VM by purchasing 50 per cent of GM's share in 1992. By 1999, DMC established its production facilities in 12 countries with the capacity of 1.04 million units. The majority of its production facilities are concentrated in the CEECs.

This section reviews the location patterns of DMC in Europe and focuses on Poland as an important strategic centre (Table 6.4). DMP, commercial vehicle manufacturing subsidiary, and DW-FSO, passenger

Table 6.4 DMC's FDI in the CEECs

	Location	USD, million	Stakes (%)	Date	Model
DW-FSO	Warsaw, Poland	1100	70.0	November 1995	Passenger cars
DMP	Lublin, Poland	700	61.0	July 1995	Small CVs
AVIA	Plague, Czech	200	50.2	August 1995	Large CVs
Rodae	Craiova, Romania	360	51.0	November 1994	Passenger cars
2 Mai Shipyard	Cluj, Romania	5.3	51.0	May 1996	–

Source: Various sources.

car manufacturing company, in Poland are reviewed with particular reference to the implications of economic integration for their activities.

Strategies in Europe

Together with a rapid increase in sales, innovative marketing and aggressive expansion of production facilities, attention has been drawn to DMC in Europe. The main European strategies of DMC can be explained by the following several points: (i) aggressive local production, (ii) establishment of independent sales and distribution subsidiaries and dealers, (iii) networks strategies, (iv) local R&D and (v) focusing on the CEECs.

Firstly, as opposed to other rival VMs in Korea, DMC has focused on local production even before the brand name was appropriately introduced in the local markets by means of export. Expansion to Europe has been intentionally planned since DMC separated from GM in 1992. Actual operation in Europe started in 1995.[4] In particular, aggressive expansions by merging troubled local manufacturers were preferred rather than a gradual introduction to the indigenous market.

Secondly, DMC established independent sales subsidiaries and dealers in the early stages of its marketing in Europe (Guest 1996: 46–56). This unique marketing strategy became a prominent aspect of DMC in Europe. This influenced its basic concept of marketing in Europe, and a number of manufacturers imitated it by establishing direct sales outlets to bypass a thick layer of dealers.

Thirdly, network strategy is particularly prominent in the CEECs. It aims to achieve specialisation and complementary production at the company level. Production facilities in Korea and the CEECs are logically

connected under this strategy. Figure 6.2, together with Table 6.5, illustrates a summary of the European sales and production activities of DMC in Europe. The production of medium- and small-sized commercial trucks has ceased in Korean plants since they lost competitiveness in 1987.

To compensate for this, AVIA is producing large-sized trucks, and D Motor Polska (DMP) in Poland is producing small-sized trucks. In addition, DMP also provides an engine block for D Heavy Industries, and wheels for RODAE. In terms of a sales network, cars produced in this area target not only the CEECs' domestic markets but also Egypt, Africa and Western European markets.

Fourthly, together with production facilities, it is a notable point that DMC established three R&D centres in Europe simultaneously.[5] This seems to imply that there is a long-term strategy in serving European

Figure 6.2 DMC in Europe (production, R&D and distribution)

Table 6.5 DMC in Europe (production and R&D location)

Country	Name	Est.	Capacity	Employment
UK	Worthing technical centre	1/94	–	850
Germany	German technical centre	3/95	–	100
Poland	DMP	9/95	20,000	6,600
Poland	DW-FSO	5/96	200,000	15,800
Czech Rep.	AVIA	6/94	25,000	2,500
Romania	DWAR	11/94	100,000	4,800
Ukraine (CIS)	AVTOZAZ-DW	6/96	150,000	20,000

Sources: Various sources.

markets. The development of motor vehicles according to the requirements of indigenous customers is critical for localisation and to survive in the local markets. The European locational strategy of DMC shows clear instance of this. DMC placed its R&D site in Worthing, in the UK and production sites in the CEECs in the early 1990s.[6] DMC established this type of network of R&D, production, and sales sites dispersed across Europe. Production plants in Poland, the R&D centre in the UK, and the headquarters in Korea were connected by an exclusive networking system.

Finally, DMC's production activities are concentrated in the CEECs. Recently liberalised markets in the CEECs were viewed as opportunities for considerable growth along with the dramatic increase of purchasing power prominent in a number of countries. During the communist regimes in the CEECs, the automobile industry in these countries had been left largely underdeveloped under the centrally planned regime. These markets are relatively less competitive compared to Western Europe where established motorcar manufacturers dominate national markets. In addition, avoidance of the relatively higher tariffs of the CEECs against third country imports may have affected the strategic motivation to locate production facilities in this area.

It was questionable whether these strategies in Europe would be successful in the long term, because DMC's high profile strategy in Europe may have resulted in negative effects on trade and FDI relations with other motor vehicle producing countries. This is partly because DMC has relied upon both government incentives and favourable trading tax agreements when making its investments.[7] This has been considered to be the weakness of DMC in Europe which was eventually revealed after the huge crisis of the D group at the end of the 1990s.

In the following sections, particular cases of DMP in Poland at the company level are considered. In connection with the above instance of exports from the CEECs to the EU member states, the locational importance of Poland became significant. Hence, the two primary Korean motorcar manufacturing companies in Poland are selected as concrete instances.

DMP: the LD-100 project

DMP is a specialised company manufacturing commercial vehicles. DMP has its prominent aspect in a European wide collaboration in designing, production and marketing of its products. This has been particularly facilitated by economic integration with enhanced movement of products and production factors.

FSC was established in 1951 producing light commercial and military vehicles, and became a privatised company in 1995. DMC took over the company as a strategic investor and established DMP in the same year. DMP is a product of a joint investment by D Corporation and D Heavy Industries.[8] The number of vehicles exported in 1999 was 5500 units. The number of units exported in 1996, 1997 and 1998 were 1745, 3140 and 3562 respectively. The export destinations include Italy, Spain, CEFTA countries, and other countries in South America and North Africa.[9] In the domestic market in Poland, the market share of DMP recorded 25.2 per cent of the total commercial vehicle market.

The LD-100 project has been developed in order to produce an innovative and localised commercial vehicle to compete with indigenous producers. This project has become the core part of European strategy to develop DMP as the centre for van production. It particularly aims to meet local customers' demands. The basic concepts of the project are a reliable, flexible commercial vehicle for world markets with competitive cost of ownership, that is environmentally friendly, with a futuristic design. The impact of this project on the Polish economy is known to be significant, as the contribution to exports will be an increase of USD 5 million per annum. Fifteen thousand parts will be supplied from Polish and European JVs' which is equivalent to USD 1 billion in monetary terms. In addition, jobs will be created for as many as 30,000 people.

There are two product ranges. They are the LD sized between 2.6 and 3.5 ton and the BD between 2.2 and 2.6 ton. Localisation of components is planned to reach 90.6 per cent including 5 per cent of components supplied from the EU. The project includes the construction of a production facility of building area of 33,600 m^2 on a site of 227,400 m^2.

The initial production plan shows that DMP in Poland is to start production by the middle of 2000 with a capacity of 100,000 units. Following this, LDV in the UK will start to produce by the middle of 2001 with a capacity of 80,000 units. The project's primary targets are markets in Poland, Central Europe and CIS countries. The middle East, Asia and South America have been listed as secondary markets.

The critical aspect is that co-operation with LDV in the UK comprises the core part of the project. The co-operation with LDV became possible through the acquisition of ordinary shares in LDV by DMC while the UK government offers a grant to LDV. LDV was established in 1981 as a commercial VM located in Birmingham. By 1997, the company recorded a turnover of GBP 239 million and had 1433 employees. The company has a production capacity of 20,000 units per annum of commercial vehicles which range between 2.2 and 3.5 ton. The co-operation starts with product development, as the LD-100 of DMP and the BD-100 of LDV have been developed to share around 70 per cent of parts from the outset suppliers. In terms of sourcing, they are expected to source jointly for common parts to realise volume effects in order to minimise duplicated costs. In addition, the scope of co-operation extends to other areas such as manufacturing engineering, marketing and sales, and personnel exchanges.

In the wider areas of joint product planning, sourcing, production technology and marketing, DMP, DWTC, DWMC and LDV maintain an integrated and co-operative relationship. DWTC is responsible for the development of LD-100 and BD-100 for both DMP and LDV which are the main production sites. DMP and LDV are also expected to co-operate in the areas of production, marketing and purchasing (Figure 6.3). They are assisted by DMC with process development.

The distribution of investments for the LD project are, first, USD 150 million for product development and then a further investment of USD 228 million in production facilities including existing facilities. The production plan shows that the minimum initial investment and maximum utilisation of existing facilities are targets in the initial stages.

The project's primary aim is to achieve more than 96 per cent of component procurement locally. The plan indicates that there will be a minimum of 96 suppliers for the first tier. From the first stage of product development, component suppliers are supposed to work together in the cost management scheme through simultaneous engineering. The main feature is joint purchasing with LDV for common parts. According to the procurement plan, which is expected to be achieved

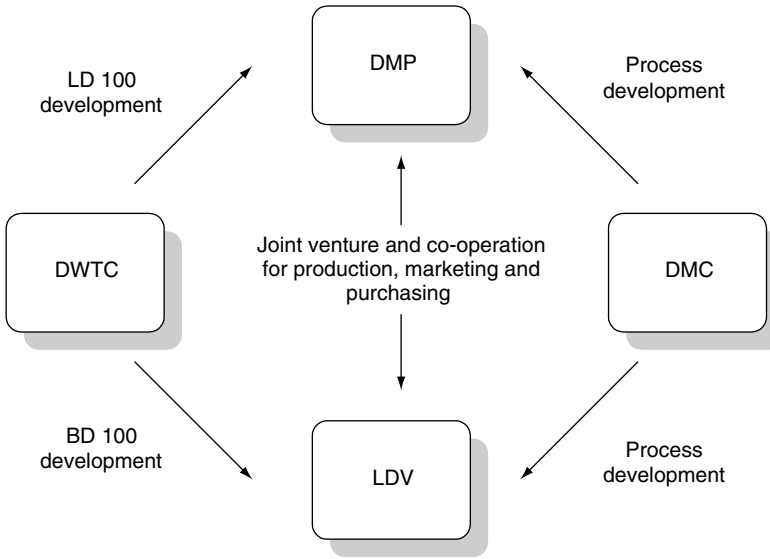

Figure 6.3 Organisational co-operation and integration of the LD-100 project
Source: Company Reports, *D Motor Polska*, 18/1/99.

by 2003, only six suppliers are from Korea, with USD 88 million in monetary terms, out of 96 suppliers with USD 946 million in total.[10] Major suppliers are Andoria, Stomil, Saint Gobain from Poland and other European companies such as Bosch, GKN, Valeo, Delphi and TRW. Components are supplied not only from out sources, but also in-house as well as by JVs. In-house components are supplied from the fasteners, forging, foundry and wheel plants within DMP. JVs are both with Polish indigenous companies and with Korean companies.[11] The market share in Poland is expected to rise more than 35 per cent when that in other countries in the CEECs remains around 2.5 per cent. Recent years have seen the rapid expansion of a sales and service network in Poland.[12] The forecast for sales in Poland, though rather optimistic, stems from this basis.

The LD-100 project provides a very important implication for this study. This project may be interpreted as parts of efforts for localisation by the establishment of an intra-network ranging from product design to marketing. The enhanced mobility of production factors and products thanks to the abolition of various barriers helped the international co-operation of this project. This localisation strategy from the early stages in Europe implies the importance of the European market for Korean

VMs together with the escalating fear of protectionism. DMC has another large production facility in Warsaw which is considered to be the most successful example of Korean automotive FDI in the CEECs. This case provides similar important implications for the study as this facility became the centre of the entire European activities which are presented in the following section.

DW-FSO: Poland as an export centre

DW-FSO was established in 1996 through a JV with the Polish government financed by 86.6 per cent of shares from DMC and the remaining 13.4 per cent from the government. FSO, the predecessor company of DW-FSO Motor, was established in 1948. The first model was produced in 1951. The present model 'the Polonaise' has been produced since 1976. This particular model occupied around 33 per cent of domestic market share. This company became subject to privatisation after the government proclaimed the policy of liberalisation. DMC acquired the company as a result of winning a bidding competition against GM.

DW-FSO in Poland has 13 components manufacturing subsidiaries in addition to the main plant in Zeran. It has been producing two local models and two DMC models.[13] Total production in 1996 recorded 98,500 units which increased to 360,000 units by 1999. Around 43 per cent of total components have been produced by subsidiaries. By the time investment is complete, it is expected to achieve a capacity of 550,000 units.

The sales of DMC cars recorded 40,000 units in 1996, which had increased to over 50,000 units in 1999. The VMs in this country are Opel, Fiat, Volkswagen and DMC. In particular, Poland is the strategic production base of Fiat in subcompact vehicles targeting across the European countries. DMC has preceded Fiat in the Polish motorcar markets and achieved a major market share in 1998. DMC concentrated on establishing a production network in Poland. The simultaneous establishment of components sectors together with vehicle assembly plants has been encouraged.

DMC plans to export over 70 per cent of total vehicles produced in Poland to Spain, France and Italy. This plan clearly implies that FDI in Poland has also aimed at the EU markets as this facilitates tariff free export. In fact, tariff free shipment to Western Europe started in 1999. DMC started to export from Poland to Italy from July 1999. In particular, this export is tariff free according to the agreement with former COMECON countries that if the local content of a product exceeds 60 per cent, the product is entitled to have tariff exemption. Ten thousand units of the

'Lanos' model are planned to be exported to the EU by this method (Table 6.6). Ch'angwon factory in Korea with 240,000 units of production capacity is known to be far short of meeting total demand for the subcompact model 'Matiz' (*Hankyung* 5/8/99).

European markets are expected to be served by the parts and service network which will be centred by DW-FSO that performs as the logistics hub. The proportion of exports recorded 6.2 per cent of total sales in 1996. According to the company reports, it is planned to raise this proportion to 40 per cent by 2004. These figures clearly show that DW-FSO is designed to play a critical role as a headquarters in Europe. The strategic direction visibly indicates this intention. Beyond the simple production base, this company is expected to become a centre for exports, distribution, parts and service supply.

As the national territories between the EU and the CEECs become less distinctive by means of mutual trade agreements and the prospect of the inclusion of the CEECs in the near future, the importance of the CEECs as strategic location has increased for Korean VMs. This changing context of the European business environment has been considered to be a prime factor. In particular, DW-FSO has become a role model adapting these changes in Europe. Production and distribution systems, regulations, and management plans have been modified to adapt to integrated market circumstances.[14]

The changing circumstances in Europe are likely to influence the company's export strategy. In this regard, external and internal changes in the business environment have been identified. Firstly, the expectation that Poland will be joining the EU in the near future is considered to be an important factor which enhances the position of DW-FSO as an export base. It is worth noting that CEFTA countries are also achieving remarkable economic integration among the CEECs. Secondly, Poland is regarded as the optimal location for distribution. Its geographical

Table 6.6 Exports performance of DW-FSO

		1998	**1999**	**2000**
Passenger	Matiz	–	–	4,000
Cars	Lanos	3,026	9,612	34,930
LCV	Polonez	2,368	3,495	4,495
Total		5,394	13,107	43,425

Source: DW-FSO Company Report, January 2000.

location which is in between Western and Eastern Europe including the CIS and Russia may help realise the minimisation of transportation costs as well as optimum inventory level. In terms of customer service, quick market response may be possible for these reasons. Thirdly, there are significant benefits resulting from local production in terms of tariffs and duties.

As internal factors, several points are identified which justify the strategic choice of Poland as a critical production, distribution and export base. Firstly, production capacity of DW-FSO, which recorded 390,000 units in 1999, has been expected to increase to around 500,000 units per annum by 2000. Compared to the size of the Polish motorcar markets which is 260,000 units, this capacity is excessive. The surplus should be consumed outside of the country which inevitably leads to export orientation strategies. Secondly, the infrastructures of the company established for production are considered to support export performance. For instance, 22 component JVs have enhanced a quick and wide range of component localisation which is regarded as a foundation for export. According to the company report, a parts depot in Poland may be able to cover all CEECs by the end of 1999. In addition, its distribution network across Europe may facilitate appropriate expansion by means of increased exports. Thirdly, enhanced export performance will also be important for the government. The trade balance will be improved as a result of increased exports and this is likely to be the best way to attract an inflow of hard currency to Poland in the short and medium terms.

In short, the changing context of the business environment in Europe, namely, economic integration, and the internal situation of the company may be affecting the strategic choice of Poland as the centre for production as well as an export base.

H Motor Corporation

Including the existing production facilities of KMC, HMC had assembly plants in 21 countries with a capacity of 837,000 units in 1998.[15] As the latest investments, HMC made FDI in Turkey and India in 1997. Until 1996, HMC regulated the annual capacity of overseas plants between 10,000 and 20,000 units. Most overseas production was concentrated in developing countries such as Botswana, Thailand, Malaysia, Pakistan, Egypt and so on, and the capacity of these facilities had been limited by this plan. However, this plan was eventually abolished. This change in

overseas production strategy implies that HMC started to realise the importance of aggressive local production in order to survive in the competitive global automotive market. In Western Europe, an FDI plan for HMC was revealed in April 1997.[16] This project was not implemented but this revealed the intention of HMC to expand its European operation through local production.

Figure 6.4 illustrates European subsidiaries that specialise in production, liaison, R&D and components distribution. In addition, the European network of HMC, as shown in the map, pans out access 17 local distributors or importers supplying Hyundai motorcars to over 1800 dealers across Europe. HMC's failure in Canada in the 1980s seems to have influenced it to be cautious in the expansion of overseas production. A production facility was established in Canada in 1987 as HMC

Figure 6.4 The industrial locations of HMC in Europe

assumed that there were opportunities resulting from the automobile pact between US and Canada. Its success in exports did not continue in local production and the plant ceased production in 1993. As a consequence, HMC's approach to local production became rather cautious. Localisation was contemplated as HMC established local production facilities accompanied by sales, after-service networks and parts supply systems. In fact, most of the local production facilities have been with comparatively small production capacity. The following sections consider some specific points relating to the industrial location pattern of HMC (Table 6.7).

Table 6.7 Industrial location of HMC in Europe

Name	Country	Est.	Remarks
HME (Hyundai Motor Europe) Head Quarters	Eschborn, Germany	7/92	The offices consist of four departments: marketing, technical service centre, R&D centre, spare parts in various location across Europe
HME technical service centre	Mainz-Kastel, Germany	8/92	Co-ordinating its pan-European PR activities and analysing the European car market
HME R&D Centre	Mainz-Kastel, Germany	8/92	European design studio, Product planning, Homologation, Product evaluation and testing
HME marketing centre	Hayes, UK	8/92	Co-ordinating its pan-European PR activities and analysing the European car market
European parts and logistic centre	Lummen, Belgium	9/98	Overseas supplies of components and transports goods for all European regions which covers 1800 dealers in Europe
Hyundai Assan Otomotiv Sanayi Ve Ticaret A.S.	Istanbul, Turkey	12/94	Manufacturing and selling motorcars
Hyundai Motor Deutschland GmbH	Neckarsulm, Germany	11/90	Selling HMC cars and parts

Source: Various sources.

Plant in Turkey

HMC has recognised Turkey as a strategically important gateway to Europe, Asia and the Middle East. Establishing HAOS in Turkey, HMC aims to tackle not only domestic markets in Turkey but also European and Middle East markets.[17] This may be supported by the fact that the EU and Turkey made an agreement on tax exemption for mutual trade in January 1996. This seems to have influenced the locational decision of the HMC plant in Turkey because the target markets include European and Middle Eastern countries (Kim 1995: 105). Figure 6.5 illustrates changes in the tariff regime between the EU, Turkey and a third country effective since 1996.

It is suggested that the locational decision of Toyota in Turkey has also been influenced by this agreement. Toyota planned to expand its capacity to 100,000 units in Turkey by the year 2000. The construction of Hyundai Assan Auto Plant was completed in 1997 and the company started production in the same year. Hyundai Assan Otomotiv Sanayi (HAOS) is a JV between HMC and the Kibar Group of Turkey.[18] The capacity of manufacturing the Accent car model and the H-100 van of 60,000 units initially; this is planned to be increased to 120,000 units. Production facilities and major parts will be provided by HMC. Localisation of parts is around 35 per cent initially and will increase to 70 per cent.

Component distribution centre

HMC developed a centre to offset its dependence on local distributors by supplying components across Europe. In Europe, independent

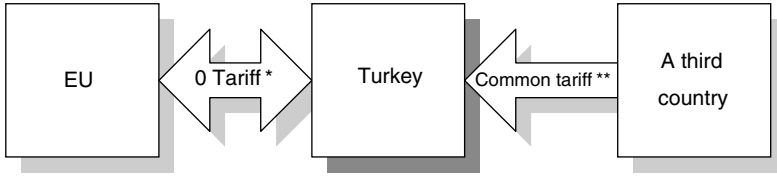

Figure 6.5 Free trade accord between the EU and Turkey

* These are restricted to industrial products meeting requirements of the rules of origin. If a product has been imported from a third country, it should have passed through either the EU or Turkey customs. Quota controls also have been abolished; ** By 1995, average EU tariff was 6 per cent, while that in Turkey was 19.4 per cent. Even after the effective date of agreement, there are items with different tariff rates. Passenger vehicles are one example. Transitional period is 5 years.

importers and distributors are responsible for handling all Hyundai cars.[19] Apart from small scale CKD assemblies, there are no HMC production facilities for assembly and parts in Europe. It has often been suggested that the setting up of production facilities within Europe would be critical for the future of HMC in Europe. It is alleged that HMC is considering direct investment within Europe in the foreseeable future.[20] Considering that DMC has set up its own subsidiaries and dealers for sales and distribution, the lack of production facilities has been considered to be weakness of HMC in Europe. Together with the erosion of profitability, a timely response to local market became a significant issue. Instead of setting up production facilities, HMC developed a strategy of intermediaries to enhance the quality of service in the European markets.

In 1998, a European parts distribution centre, namely Hyundai Motor Europe Parts (HMEP), was established in Lummen in Belgium. It is a warehouse to improve delivery times for both fast and slow moving parts in the region. Previously, after a request for parts supplies from the distributor, the Korean parts centre in Ulsan was responsible for the delivery of all parts to Europe. Delivery times were 56 days for normal orders and 10 days for urgent orders. HMC claims that delivery times have been reduced to 8 days for normal situation and 2 days for urgent orders since the European centre opened. This parts centre covers 1800 dealers across all the European countries.

Poland as a strategic centre in Europe – a comparison with DMC

Poland is considered to be an important base at the centre of Europe to access both the EU and CEECs in the future. HMC started to assemble an initial batch of 1000 cars in Poland in 1997. It has been announced that HMC is initiating a five-year plan and calculates the cost at USD 120 million. The possibility of a further FDI of USD 1 billion in car manufacturing was also implied, but depends upon market conditions.[21] HMC recorded less than 1 per cent of market share in Poland in 1996 because the Polish market has been protected by high import tariffs. This has persuaded HMC to engage in local production. In October 1997, the Polish government permitted HMC to start tariff free car assembly. HMC signed a licence contract with Sobieslaw Zasada Centrum to produce a subcompact model.[22] Later, HMC announced it was to form a JV with Sobeslaw Zasada Centrum in 1998. This JV, namely, Hyundai Centrum Polska with a 48 per cent equity contribution by Hyundai would need total FDI of around USD 1 billion by 2003.[23] However, strong objections from DMC and other manufacturers have

increased the difficulties in executing this FDI plan. It is worth noting that HMC is not the only manufacturer which considers Poland as a strategically important location in Europe. In fact, the production facilities and sales in Poland comprise the most important aspect of DMC in Europe. Hence, it is necessary to consider why Poland became an important location for Korean VMs.

Since economic reform was instituted in 1989, the change in the country's economy was insignificant until 1992 when the volume of FDI and foreign trade began to rise. The inflation rate rose rapidly soon after the liberalisation of price controls and the introduction of value-added tax and this was followed by the devaluation of its currency. The unemployment rate had risen and had created a basis for social unrest. The speed of the privatisation of small stores and companies was rather quick as progress in larger industry was retarded. In 1995, per capita GNP reached USD 2985 with an economic growth rate of 6 per cent and the inflation rate reaching 21.6 per cent. The unemployment rate increased from 16 per cent to 16.5 per cent and imports reached USD 17.6 billion in 1994. Poland was accepted into the OECD in July 1995 which reflects the high rate of economic growth and its success in transition to a market economy has been appreciated by the advanced countries. This may also have a positive effect on Poland's entry into the EU.

Korea and Poland signed trade and investment guarantee agreements in November 1989, followed by aviation and double taxation prevention agreements in October 1991. Korea's trade with Poland has grown to be the largest among the CEECs since the opening of diplomatic relations in 1989. By 1995, two-way trade reached USD 542 million, surpassing the previous mark of USD 376 million in 1993. Korea's FDI totalled USD 45 million by 1996. Korea allocated USD 50 million for the modernisation of communications facilities in Poland. This figure doubled as Korean VMs entered Polish motorcar markets.

This country is known to possess a number of attractions to induce FDI. They are summarised under the following three headings. First, Poland has a potential domestic market with a population of 40 million people which is the largest among the CEECs. The potential prospect of the economic development is usually followed by an improvement of purchasing power. Second, inexpensive labour is available accompanied by a strong government policy to attract FDI in the automobile industry. The government provides a lot of support and various incentives to foreign companies to reduce unemployment and to promote economic development. Third, the country is located within easy access of the

Western European countries as well as Central European countries such as Russia and Ukraine. The geographical location of the country is a critical rationale why this country is preferred as the production base of established manufacturers. The case of DMC in Poland is a prominent example of Korean FDI in Europe in the 1990s. The significance of Poland to DMC is even more critical than HMC.

The locational behaviour of HMC and DMC has certain similarities. Though progress in local production is different, both companies consider the CEECs as important strategic locations for local production to serve the entire European motorcar market. The Polish plants of DMC and the Turkish plant of HMC are clear examples of this preference. In terms of distribution, HMC has a distribution centre in Belgium to cover component requirements across Europe while local distributors supply complete motorcars. DMC may be distinguished by the fact that it set up its own subsidiaries for motorcar sales and distribution in Europe. A comparison between HMC and DMC is summarised in Table 6.8.

Implications for this study

The summary of the above cases with its focus on the determinants of FDI and industrial location of the Korean automobile industry has several important implications.

A *quid pro quo* FDI

Foreign direct investment of Korean VMs in the CEECs seems to be categorised as a defensive type investment in that the primary motivation for FDI was to avoid trade barriers. During the series of interviews with the Korean managers at Korean VMs in Poland, it was found that one of the primary objectives of the investments in the CEECs was to avoid possible trade barriers in Europe.

In the previous chapters, we have explored the European context of the business environment which has affected the strategic choices of the Korean automobile industry. Two particular reasons behind the investment decisions have been put forward. Firstly, diverted trade and the fear of protectionist measures, as a part of a closed Europe, have proved important motivations for FDI by the Korean automobile industry in Europe. Secondly, even though it has not been considered as influential as the protectionism in Europe, increased opportunities within Europe as a result of economic integration have also been considered as a factor which influences strategic decisions. The case of

Table 6.8 An overall comparison between HMC and DMC in Europe

	HMC	**DMC**
Motivations of local production	Defensive (against possible barriers) Involuntary (maintaining existing market share)	Defensive *quid pro quo* and preventive
FDI location (production site)	Turkey (trade agreement with the EU) Poland (commercial vehicle)	The CEECs (Poland, Czech, Romania and Ukraine)
Alliance mode for local production	JV	JV
FDI attitude	Passive/cautious	Active/aggressive
Strategically important location	Poland (strategic centre)	Poland (export and distribution centre)
Main market in Europe	W. Europe	CEFTA countries and W. Europe
Market share in Europe	1.94% (1999)	1.35% (1999)
Distribution and sales network	Dependent on local distributors and dealers	Independent
R&D location	Germany	Germany UK
Strategies in Europe	Mainly export to serve the market Parts centre to offset dependency on local dealers	Export with local production (mainly SKD) Localisation of R&D by networking (LD-100 project)

the Japanese transplants of production facilities to Europe can largely be classified into the first category.

Referring to the case of Japanese automobile manufacturers, it is expected that this type of investment will be made after practical measures are imposed on imports of Korean motor vehicles. However, a critical difference in behaviour towards FDI decisions has been identified based on practical observations. Considering the importance of the European markets for the Korean automobile industry with identified

market opportunities, this decision has been made earlier than expected. This seems to correspond to Bhagwati's framework concerning the determinants of FDI that a company may decide to invest to reduce expected protection or its threat before actual protection measures are imposed. The two companies in Poland referred to in this case study clearly show this trend and may be used as empirical support for the results of this study.

DW-FSO appears to be a clear instance of a Korean VM investing in Europe to avoid potential protectionist measures which may lead to difficulties in trade relations with Europe.[24] Based on the fact that no protectionist measures have been imposed on the Korean motorcar imports, it may be argued that Korean VMs have reacted prior to the actual barriers being imposed, unlike the Japanese VMs who acted after the imposition of quantitative restrictions.

Targeting the EU markets

The prospect that the CEECs will join the EU has influenced the decisions of FDI and industrial location. The case of the export strategy of DW-FSO indicates that its target market is not limited to a small number of neighbouring countries. The scope of target markets pans out to all European countries including even Russian and CIS countries. At the level of products, the focus has been given to the small car segment since its market share of total European car markets is 65 per cent. By 2003, the company aims to achieve 2.5 per cent of the Western European market, 10 per cent of the Eastern European and another 10 per cent in Russia and CIS countries. In particular, this is clear in the case of DMP. The marketing strategy of the LD-100 project shows that DMC targeted the EU as an important market beyond the CEECs.

In 1999, the first shipment of Korean motorcars manufactured in Poland to Italy was made under tariff free exports. This indicates that the establishment of production facilities in Poland included strategic implications towards the EU. Critical advantages are identified in this way of servicing the EU car markets from a third country. Firstly, facility efficiency may be enhanced as total operation hours of local production is increased. As a consequence, turnover and profitability are likely to be increased. Secondly, tariff free export to the markets can be realised. The current tariff for imported cars is a uniform 10 per cent. Savings from tariffs can be altered to enhance marketing capacity and the profitability of a local factory.

The European headquarter system adopted by DMC clearly reflected this strategy in Europe based on the importance of the CEECs as an

export and distribution centre relating to economic integration. This system includes the plan to make DW-FSO the European centre for logistics, service, training and parts supply across Europe.[25]

Similar business environment

There seem to be other factors which have provided a favourable business environment in the CEECs to cultivate and exploit the competitive advantages over the established VMs. In particular, Korean VMs acquired advantages over competitors from advanced economies based on the similar business and managerial environment in Poland as in Korea.

A review of government policy in Poland shows that it is strikingly similar to that of Korea in the 1970s. The automobile industry in Poland is considered to be a critical industry for the country's economic development. The industry contributes 4.6 per cent of GDP and 6.2 per cent of total industrial production. For this reason, government influence towards the industry is rather strong. Government Policy in Poland on the automobile industry may be divided into two categories. They are (i) strong support to develop the industry rapidly and (ii) protecting domestic industry by imposing higher tariffs against imports.

The industry is supported by direct and indirect policies to attract inward investment.[26] In accordance with the support to attract inward investment, the postponement in the level of local contents has been considered with the gradual transition to component localisation. In addition, machines, components and other facilities which are directly related to production were exempted from duties. At the individual company level, special arrangements may be made to attract FDI. From the above case, DW-FSO benefits from exemption from corporate tax for the first few years of incorporation. In a similar way, the Korean automobile industry rapidly developed under strong government influence. Financial support as well as tax exemption and protection against overseas competitors helped the industry to build up in a short period. Similar policies in Poland are likely to provide a favourable business environment for Korean VMs since they have achieved rapid development under a similar situation. Reflecting the experience at home, the deployment of this strategy seems to be easier than for other makers from advanced countries.

The government intentionally protects the industry by imposing higher tariffs against imports of new and used cars. For instance, the level of tariff for motorcar imports is a fixed rate of 35 per cent for all countries. The special tariff with the EU countries is set at 10 per cent by 2000 and it is subject to further reduction depending upon the

progress of negotiation. This is also relevant to the issue of membership of the EU in the future. In addition, the regulations of the indigenous government can provide protection for the Korean VMs.[27] It was suggested that a less competitive business environment in indigenous markets, due to the government intervention, provided better conditions compared to competitive market conditions mainly because of the lack of competitive advantages of the Korean VMs. The rapid development process of the Korean automobile industry is known to have been made possible by means of the exclusive protection of the Korean government from the industry's early stages of development. Concentrated finance to the VMs in the 1970s arranged by the government, facilitated the independence of the industry. The protectionist policy of the Polish government, resulting from socio-economic reasons, provided protection to DMC in Poland against later entrants. This seems to be one of the important determinants influencing the industrial location of the Korean automobile industry in Europe.

Low level of technology and price competitiveness

Other factors relating to the competitiveness of Korean VMs and found to be critical for FDI decisions and industrial location have also been identified. The competitiveness of Korean motorcars in overseas markets is often attributed to their low-price. Indeed, Korean VMs attempted to reduce production costs in order to acquire price competitiveness against established manufacturers. In the case of the US market, the price differences with other makers are clearly visible ranging between USD 1500 and 5000 in 1992. However, there is a tendency that the price gaps between Korean cars and other brands are being reduced in many overseas markets. The non-price competitiveness has become important for medium- and long-term success.

The overall quality of new cars reflected by IQS index shows that the number of defects in Korean cars was higher than the industry's average by 42. Vehicle dependability index (VDI) which is derived from a survey of the number of defects in 4- and 5-year old vehicles also indicates that Korean cars were less durable. Other competitiveness indices such as automotive performance execution and layout study (APEAL) which is the overall assessment of the quality of the car, sales satisfaction index (SSI), and service index (SI) also recorded less than the average figures for the industry. In addition, the productivity of the Korean automobile industry is also lower than other established makers by 5–45 per cent.[28]

In the European context, firstly, the lack of sophisticated technology, which seems to be regarded as a specific aspect of NIEs, appears to be related to the locational decisions of the Korean VMs in Europe. The case of DMC may be summarised as risk taking as it enters markets where other manufacturers abstain. According to the interview results, a number of Korean managers consider that the expansion of Korean VMs was a risk attempt aiming to acquire new markets. The European activities of DMP including locational decisions may be explained within this context. It is suggested that the lack of technology and financial resources may be overcome by the development of new markets.[29] However, there seems to be economic risks which result from the country risks. This raises the importance of success in the Western European motorcar markets where VMs may secure the minimum production capacity resulting from a consistent level of demand.[30] Secondly, it is suggested that the increasing trend in market share is attributable to the appropriate price level of Korean motorcars in the local markets. Motorcars produced by DMC have fitted local demands as the price of cars corresponds to the income levels of local consumers.[31] The quality of the products and the price of Korean motorcars became the keys for success in the Polish market.

In summary, the above cases provide empirical support to the propositions and previous discussion of this study. Potential trade barriers and further enlargement are found to have affected FDI and industrial location of the Korean VMs in Europe. Similar business environment, competitiveness in price, less sophisticated technology resulting from the peculiarities of the Korean automobile industry are also found to be important factors for international production. The analysis of the cases provides an important example of how the peculiarities of emerging MNEs from NIEs, which are usually considered to be disadvantages, can be advantageous factors in overseas markets.

A comparison: the case of the Japanese automobile industry

The model of international production of established manufacturing companies may be applied to the case of the internationalisation of the Korean automobile industry. Taking the advantage of a latecomer who learns by watching, Korean VMs have learned from the experience of developed countries' VMs. In connection with this, the experience of Japanese automobile manufacturers in Europe is likely to have significant implications for Korean VMs in Europe. Since the focus of the study is on the Korean automobile industry which is in an emerging stage in

the European markets, the Japanese case in the 1980s is an appropriate comparison in terms of international production.

This section reviews frictions concerning trade and local production between the Japanese automobile industry and the EC resulting from the protectionist policies and practices of the European Union. By examining the experience of the Japanese automobile industry in Europe, implications regarding the external dimensions of economic integration on non-European companies, in particular, Korean automobile companies, may be assessed.

The Japanese automobile industry in Europe (1980s)

The experience of the Japanese automobile industry in Europe has significant meaning for both Japanese manufacturing companies themselves and the formation of the internal market within Europe. Sadler (1991a) argued that any discussions on the potential gains from the internal market ignoring the impact of Japanese producers rested on a narrow range of economic assumptions. This study also considers that it is necessary to understand the expansion of the Japanese automobile industry in Europe and the reaction of the indigenous automobile manufacturers in the context of their particular industrial structure.

It is worth noting that the penetration rate of Japanese VMs was high in countries where there were no indigenous competitors (Pemberton 1991). According to Table 6.9, the Japanese market share in EFTA countries in 1989 reached 30.3 per cent.[32] This implies that there have been reactions against Japanese car imports in countries having indigenous VMs.

The sensitive reaction of many countries in Europe to the expansion of the Japanese automobile industry seemed to stem from the structural weaknesses of the European automobile industry and the importance of the industry for a nation's economic development. The competitiveness

Table 6.9 Japanese penetration in Western Europe, 1989

	Japanese volume	Total volume	Japanese share
EC	1,106	12,288	9.00
EFTA	344	1,135	30.30
Western Europe	1,450	13,423	10.80
Non-manufacturing and free market countries	347	1,068	32.49

Source: JAMA, Automotive Statistics Yearbook.

of indigenous manufacturers is known to be weak compared to non-European established manufacturers because many European VMs rely too heavily upon their domestic markets.

The automobile industry in those countries was proved to be relatively lenient to the intrusion of Japanese VMs in Europe.[33] In other words, national champions in each European country dominated their own domestic markets. For instance, the specific context of the UK where there are weak manufacturers and a relatively large market was preferred as an investment location with the prospect of an open Europe (Thomsen and Nicolaides 1991).

In terms of the economic development of a nation, the importance of the industry in terms of widespread connections to other industries and employment is known to be significant. For these reasons, the encroachment of Japanese VMs in European markets became a matter of interest to motorcar producers and many countries in Europe. Most of the VMs in Europe paid particular attention to keeping the Japanese out in some countries. In particular, the growing strength of Japanese exports and the level of technology in the European market stimulated EU external trade policy to target Japan. A number of trade barriers have been imposed on Japanese imports.

The location of Japanese VMs and parts manufacturers is related to the approach of the SEM (Shimokawa 1994: 153). The economic integration in Europe by this time was viewed as 'Fortress Europe' as it formed an exclusive trading bloc. The Japanese perspective on the abolition of internal barriers was that this liberalisation within the community's trade would bring new external barriers to trade (Strange 1993: 181–2). Consequently, the perceived threat derived from the trade barriers resulted in a series of responses. Rather than face the external barriers, many Japanese companies decided to locate their production within the EU and bypass the barriers altogether. The allegation of 'Fortress Europe' became more significant when the debate relating to local content against Japanese cars produced within Europe opened up.

Transplants and patterns

There was a substantial increase in Japanese capital outflows to Europe in the 1980s. Japanese FDI in Europe rose from around USD 3.9 billion in 1981 to USD 7.7 billion in 1985, and over USD 13.4 billion in 1987.[34] This seems to be a similar case to the experience of the Japanese VMs in the US market. Following the steady expansion of exports to the US over the 1970s, the Japanese deployed a strategy of FDI for local

production. Increased imports of Japanese motorcars and relatively closed market conditions are factors behind the transplants. It is suggested that there was little incentive for the transplant of production facilities to Europe, until the creation of the SEM with the notion of external 'fortress' trade relations (Rawlinson and Wells 1992: 354).

In general, local production and joint production included risks to a certain extent. It meant the acceptance of different types of labour practices and relations, production systems and material supply logistics for the recipient nations. Hence, there were mitigating reasons that made the transplant attractive despite the risks. A number of reasons were identified as motivations for Japanese transplantation to Europe. Firstly, yen appreciation accompanied with the accumulation of a huge capital surplus made FDI popular in accordance with the process of globalisation (Ozawa 1992; Hasegawa 1998: 38–9).[35] Hence it is suggested that the transplants in Europe provide measures of insurance against the risk of exchange rate fluctuations (Smith and Venables 1990: 127).[36]

Secondly, while these were involuntary reasons for the transplant, there were also other factors that instigated local production. Japanese companies realised that advantages offered by the internal market could be exploited within the European markets (O'Cleireacain 1991). By establishing local production facilities, Japanese companies were able to attain the scope to exploit their advantages such as closeness to the market, better local market information, stimulating demand, brand image and local identity, and access to public procurement.[37] In particular, competitive advantages resulting from the efficient production system of the Japanese manufacturing companies increased the scope to exploit those advantages.

Thirdly, trade frictions in the 1980s which created immense difficulties for Japan in terms of trade seemed to be the most critical reason for the Japanese transplants to Europe. The Japanese trade surplus with the European Community rapidly grew in the 1980s. In 1980, the trade surplus was USD 8 billion. The figure started to rise dramatically and recorded USD 19.8 billion in 1989. The market share of Japanese cars in Europe had increased at a substantial rate.[38] National quotas imposed in a number of countries in Europe had significantly eroded the scope for Japanese exports. Reciprocity became the critical issue as the quantity of Japanese car exports increased dramatically, while competitors in Europe could not keep abreast.

Most major Japanese VMs developed European strategies, which included building or acquiring European manufacturing facilities, or chose

strategic alliances with EC partners to hedge the risk of protectionist measures. The FDI of Japanese VMs in Europe for transplant may be categorised into two different types. Firstly, green field investment by means of setting up new production facilities is one. The Nissan plant in Northeast England and the Toyota plant in the Midlands are clear cases of green field investment.[39]

Secondly, entering into collaborative arrangements with EU companies as a way of securing a market presence and local involvement is the other. Honda's alliance with the Rover Group provides an example of a collaborative arrangement. Honda held a 20 per cent stake in Rover for a number of years and the company now produces cars from its own manufacturing facility in the UK.[40] Japanese companies also made efforts to be seen as 'Europeans' in the form of localisation. Japanese automobile producers were also involved in manufacturing in Germany, Italy, the Netherlands, Belgium, Ireland, Greece, Spain, Portugal and Hungary.[41]

In Europe, the majority of Japanese transplants have concentrated in the UK and peripheral locations such as Spain, Portugal and Turkey. However, Japanese companies have had a wider European presence in terms of R&D, production, training and marketing (EIU 1991b). For instance, Nissan exported around 60 per cent of its output in 1991. This high level of export ratio is considered to be a result of the strategic purpose of the transplant to penetrate the EC market (Abo 1993: 112). Its European R&D centres in Brussels and Cranfield are responsible for designing the original body, suspension, drive axles and trim for models which will be introduced in Europe.

Toyota also has R&D centres in Belgium. Honda invested a total of GBP 420 million in its production facility in Swindon over a 10-year period from 1985. Following the completion of an engine plant in 1989, the basis for European production was established for its Accord and Civic models. UK-built Honda cars are sold in 26 different European countries, making around 75 per cent of export ratio.

Japanese VMs showed a steady increase in terms of both production and sales in the European markets. Due to the increase in levels of local production by Nissan in the UK, the total Japanese cars locally produced recorded over 250,000 units by 1989. In the same year, more than ten per cent of market share was achieved in Europe. However, this high profile of the Japanese automobile industry with its remarkable achievement in a short period by means of export and transplant, provoked a series of reactions resulting in reverse effects.

The following sections introduce the major issues relating to the expansion of Japanese VMs in Europe in terms of trade and local

production. This review focuses on the protectionist measures of the EC and individual countries against Japanese car imports and local production. In particular, the strategic reaction of Japanese automobile manufacturers to these barriers as non-European companies is examined in search of implications for the Korean automobile industry.

National quotas

By the 1990s, over 2000 national quotas had been imposed on imports from third countries in execution of Article 115 of the Treaty of Rome, as had a variety of bilateral VERs to protect domestic industry in a number of sectors.[42] This was particularly significant in the automobile sector. Apart from the Community's external tariff on cars which was set at a rate of 10.3 per cent, quantitative restrictions imposed by various EC member states implied that the Community was far from having a common external policy. Quantitative restrictions on import of Japanese cars can be found in many member states of the EU.

The differing Japanese share of individual European markets reflected distinct national policies on imports from Japan. In particular, some retained rigid protective measures even after they joined the EU. This is because the member states were allowed to maintain the national import restrictions that they had had before joining. For instance, Spain and Portugal had national quotas, which were in place before joining. Italy had imposed a national quota, since the 1950s, in retaliation for restrictions against the import and sales of Italian cars in Japan. Italy restricted the sales of Japanese cars in the domestic market to around 1 per cent of total.[43] France set national quotas, indistinctly, on Japanese imports of 3 per cent of total sales.[44] The UK had no formal quotas on Japanese imports, but an informal bilateral agreement set up in the mid-1970s was used as the source for import control.

The scope of restrictions expanded beyond quantitative measures. For instance, there were no legitimate clauses for restriction in France. Instead, in the 1970s, technical standards differences were deployed as a method to hinder the sales of Japanese cars in France. Common European vehicle specifications had been agreed on 41 headings in the 1970s. Nevertheless, the sanction of technical harmonisation was vetoed by France who insisted that Japanese imports should be controlled. It was about 20 years until a full agreement on technical harmonisation came into effect.[45] This was a clear case of internal measures having external consequences.

National restrictions on imports and bilateral agreements were criticised in that they were contrary to the basic direction of the internal

market and eroded the concept of the single market. Further, they created an additional cost for customers in terms of overall welfare.[46] In the early 1980s, an informal agreement concerning inflows of Japanese imports of vehicles was established between the EC and the Japanese Ministry of International Trade and Industry (MITI). For instance, the VER in 1988 was 1.2 million units in total. It was noted that this agreement regarding quotas on Japanese car imports was merely a temporary and transitional measure.

The commission recognised that a market that limits the volume of trade and intentionally excludes products is not a free market.[47] In February 1990, the VER arrangement with Japanese exporters and the EC was announced by Japanese officials. These visible and invisible trade barriers and import controls over Japanese cars remarkably affected the strategy of Japanese VMs and influenced them to engage in local production by way of establishing production facilities. Inevitably, local production increased production capacity by a further 500,000 units by the early 1990s.

Local content

The local production of Japanese motor vehicles was initially intended as a way of avoiding EC trade barriers. However, it merely resulted in new conflicts when the indigenous companies and EC countries sought to exclude Japanese vehicles produced in Europe from European production. At the heart of the debate about Japanese motor vehicles produced in the UK was the question of 'local content'. Japanese vehicles produced in the UK were said to be non-European in origin because the rate of 'local content' was far less than it should be.

During the negotiations between Nissan and the UK government concerning an aid package, the UK government asked Nissan to achieve 60 per cent local content and this figure was eventually to rise to 80 per cent if Nissan wished to label the car as European. This standard was adopted for all other cases which followed. Since 1988, Nissan has started to export from the UK to the markets of other European countries. It was announced that the model exported to France had 70 per cent local content but France and Italy objected and claimed that it should be over 80 per cent local content to be recognised as a European product. Thus, they argued that the Japanese model produced in the UK should not be circulated freely within the market and should be controlled as if it were an imported car.

The method of how to measure the percentage of local content became the centre of the argument. The standard set by the UK

government was on the basis of 'ex-works price'. Since this method could include indirect production costs such as administration, marketing, depreciation cost and profit margin, the proportion of direct cost in the total cost could be minimised. This means that there were possibilities for the Japanese producers to import a crucial part from Japan as long as they maintained a 70 per cent local content rate.[48] These defects in the 'ex-works' formula raised critical debates in Italy and France, who declined to accept it as appropriate. And worse there were no international standards by which local content could be measured precisely. In 1988, the motor vehicles produced by Nissan in the UK were claimed to be maintaining the 60 per cent of local content standard. Nevertheless, this was discredited by the Italian producer, Fiat, who totally dismantled a Nissan 'Bluebird' model. Fiat argued that the European content of the car was, in fact, only 21 per cent (Sadler 1991a: 26–8). This argument was based on another definition of local content. Fiat approached this issue by using a different method of assessing local content. This was designed to only evaluate costs directly connected to production. Indirect costs, profit margin, the costs of plant construction and machinery purchase may comprise around 42.5 per cent of the vehicle price. This case was seen as further proof of 'Fortress Europe' as it went to the Commission for judgement.[49]

Toyota agreed to reach 60 per cent local content by August 1993 at its UK plant, and 80 per cent by August 1995. This has led to major local content commitments by Japanese companies in the EU which are far higher than corresponding amounts in the USA.[50] Honda's collaboration with Rover provided an opportunity to meet local content requirements and to access the European markets. The European Accord built in Britain by Honda and Rover was designed to aim at the SEM. The cars would be jointly developed, and made by Rover using engines built by Honda at Swindon. In 1992, the Accord at Swindon and the Rover 600 at Cowley started simultaneous production (Dymock 1995).

Reciprocity

EC bilateral policy towards Japan is based on the premise that a mutual balance of advantages did not exist. Japan was accused of opening its own market insufficiently to European motorcar imports. The EC attempted to incorporate reciprocity provisions into a number of its directives. In particular, a sectoral trade-based interpretation of reciprocity has been called for within the EC. It was emphasised that strict reciprocity from the Japanese should be guaranteed together with the strengthening of the position of European VMs.[51]

Table 6.10 Compared car registration by country of origin in Japan and Europe

	1985	1990
European cars in Japan	48,356	191,268
Japanese cars in Europe	1,319,535 (932,970)*	1,498,668 (1,085,331)

*Total figure includes amount in Eastern Europe. Figures in bracket indicate registration in the EC only.
Source: JAMA, cited from KAMA (1995) Overseas Automotive Industry Data, pp. 346–7.

As a result, the EC automobile industry sector sought the application of an EC-wide VER on Japanese cars until the Japanese market share obtained by EC car companies approached that held by Japanese companies in the EC. The EC efforts resulted in the Japanese implementing measures to open their motor vehicle market (Table 6.10).

In short, the Japanese automobile industry faced a number of obstacles in terms of trade and local production in Europe. These protectionist measures against market intervention by the Japanese show the fear of the European business community that this invasion would disrupt European markets, causing a loss of jobs as domestic companies fell victim to Japanese competition (Egan and Mckiernan 1994). Consequently, Japanese automobile manufacturing companies were cautious about discriminatory practices, despite recognising the market opportunities that followed economic integration and the completion of the SEM.

Comparison to the Korean automobile industry in Europe

The situation of the Korean automobile industry in the EU seems to be similar to that of the Japanese case in the 1980s reviewed above. The similarity of the situation and stage of development is threefold. Firstly, the development stages in Europe of both cases are at the emerging level in terms of local production. Market share and export both dramatically increased in the European market after they diversified target markets from North America to Europe.

Secondly, both cases had a defensive motivation for FDI in Europe to avoid barriers to their trade. This aspect also comprises some of the differences between both cases. It is interesting that the characteristic Korean FDI is defensive when there were no actual barriers imposed. As briefly reviewed in the theoretical considerations, Korean FDI seems to be rather preventive to avoid possible future barriers which will affect trade. Korean FDI also seems to have involuntary motives, while trade

surplus and overseas experience enabled Japanese VMs' active expansion to Europe. In addition, the uncertainty of the Korean automobile industry triggered by the 1997 economic crisis and consequent, shortage of resources, may force the Korean automobile manufacturers to delay their FDI plans or to be at least more cautious about the issue.

Thirdly, intensive domestic competition played a role as an incentive for overseas operations. A highly saturated domestic market with strong competition obliges a company to seek low costs and comparatively lower competition in overseas markets.

Despite contextual similarities, a number of contrary aspects are also found between the Korean and Japanese automobile industries in Europe. Firstly, since the end of the 1980s, the movement towards economic integration has been accelerated. It is certain that the degree of competition in the European market is higher than that of the 1980s. A critical factor for success in the local market, in the 1980s was the technology of the automobile industry, which was affordable for Japanese VMs. However, in the automobile industry of the 1990s, cost efficiency and price competitiveness have become more decisive factors. Technology can be transferred at enormous speed due to the development of transportation infrastructure as well as communications. For these reasons, the level of production technology is insignificantly differentiated. The price competitiveness became important in this context. This aspect seems to be a beneficial change for the Korean automobile industry since they have a competitive advantage in lower prices.

Secondly, the patterns of market penetration and industrial location are different. In the case of Nissan, Toyota and Honda, most of the major FDIs were carried out as these companies established production facilities within the EC markets. Compared to this, most of the FDI made so far by Korean automobile manufacturers in Europe has been concentrated in the CEECs by means of JVs.

Thirdly, the degree of the localisation of production seems to show different conditions. After the local content dispute, Japanese VMs shifted parts procurements sources to local suppliers. Local content has been off the agenda in the latter half of the 1980s. The level of localisation of the Korean VMs is very low in Europe. The production of motorcars relies on SKD assembly. The Korean VMs were able to avoid the local content dispute with the EU by establishing production facilities in the CEECs. This production method could become an actual problem since tariff-free exports to the EU have started. Other descriptive similarities and differences are presented in Table 6.11.

Table 6.11 A comparison between the Japanese automotive industry in the 1980s and the Korean automobile industry in the 1990s

	Japanese VMs in the 1980s	**Korean VMs in the 1990s**
The industry		
Economic status of country	Developed	Newly industrialised economy
Status of industry	Established	Emerging
Number of Manufacturers	11	7 (reduced to 5)
Domestic competition	Intensive	Intensive
Main type of market intervention	Export	Export
Major markets in Europe	Germany, UK, France, Italy	Poland, Germany, UK, Italy
FDI and Local Production in Europe		
Motivation of FDI	Defensive (barrier circumvention)	Defensive (a *quid pro quo*) Involuntary
Trade barriers	National quota/VER	No
Other restrictions	Local contents	No
Local production in Europe	Emerging stage	Emerging stage
Entry mode	Greenfield investment + strategic alliance	JV(+KD)
Location for production	Mainly UK and other peripheral regions in the EU	The CEECs
Production style (localisation)	Local procurement	Partial local procurement, SKD
Number of production facilities	10	6
Market share	11%	3%

Based on the similarities and differences stated above, the implications for the Korean automobile industry in Europe should be discussed. Increased imports of Japanese cars and the encroachment of Japanese automobile manufacturers triggered discriminatory practices at a national level in the early 1980s. The Korean automobile industry in Europe seems to have arrived at this stage of development in terms of trade. Since the beginning of the 1990s, exports increased dramatically and by 1998, 44 per cent of all total exports were directed at the European markets. According to the experience of Japanese car producers, it is to

be expected that protectionist measures in various forms will be imposed on Korean car imports. Anti-dumping rules, national quotas and emission controls on imported cars are considered to be probable practices which may be imposed. The strategic future of Korean VMs will be influenced by them. Considering the importance of European markets and the need for market diversification by the Korean automobile industry, Korean VMs will have to deploy corporate strategies to continue their market presence in Europe. In fact, Korean automobile manufacturers started to transplant to Europe as direct exports to serve the European markets became less viable.

Korean VMs who have already invested heavily to increase capacity during the last decade will continue to maintain existing or increase to even higher levels of production to maintain the efficient use of facilities. Under the condition that direct export would not be a feasible strategic choice, KD export using local production facilities may become an important alternative to absorb increased production capacity. In fact, a number of instances are found already in production facilities in the CEECs. This strategic alternative seems to be critical for a transitional period before the full extent of local production starts.

Some locational implications can be identified from this strategy. As was distinct in the case of the Japanese automobile industry in the 1980s, local content rules may hinder the penetration of Korean car producers as these prevent 'screwdriver plants' within the EU. Peripheral regions are to be considered for the production sites as there are possibilities to access the EU markets. For the next step forward, there might be residual problems even after local production by means of transplant. Invisible barriers against serving the internal market such as local content and country of origin could become issues even though production sites are located in peripheral areas outside the EU.

Rapid expansion of the Korean automobile industry in Europe for both export and local production is likely to stem from the process of involuntary internationalisation. This is mainly the consequence of the internal economic and industrial status of the Korean automobile industry. Particular status may include domestic competition accompanied with market saturation, overcapacity followed by massive FDI in production facilities in the 1980s, and the needs for market diversification acknowledged by failure in the US market. These are raised inevitably in the process of the globalisation of the industry. Thus, the expansion to European markets is likely to be categorised as an involuntary internationalisation. Increased volume of trade for involuntary reasons is likely to result in a more desperate situation when the discriminatory

practices are imposed on imports. The Korean automobile manufacturers might have less capacity to handle the situation in terms of flexibility in diverting overseas markets.

Eventually trade restraints on motorcar imports from Japan were lifted by all member states and the free internal market for cars was established by 1999. The establishment of the WTO together with the Uruguay round has facilitated the trend in international trade relations towards multilateralism. Hence, protectionism has become a less viable option for the EU in maintaining external policy and increasing the competitiveness of European companies. This has been the basis for the positive prospects of the Korean VMs in future trade relations with the EU.

In summary, trade and FDI relations of non-European companies or countries with the EU in the context of 'Fortress Europe' are clearly visible in the case of the Japanese automobile industry in Europe in the 1980s. The implications for the Korean automobile industry, as a similar case, seem to be significant. The case of the Japanese automobile industry in the 1980s is found to coincide with the result of the previous discussion relating to the protectionist measures in Europe and the strategic reaction of the Korean automobile industry.

7
Survey Analysis

General information

The questionnaire consists of three parts according to the theme of this study (Table 7.1).[1] The effects of economic integration on the Korean FDI and industrial location in Europe are simplified into negative and positive prospects for the Korean automobile industry. Decreased trade volume resulting from protectionist measures and trade diversion, and increased opportunities based on the dynamics of internal market mechanism are largely categorised as determinants for FDI. Industrial location decisions are related to factors which might affect the process. In particular, the CEECs and their potential as candidates for EU membership are considered as a central variable for the industrial location of the Korean VMs in Europe.

The total sample comprises 20.4 per cent of HMC respondents and 55.1 per cent respondents from DMC. This is because of the relatively small operation of HMC compared to DMC in Europe. Others consist of KMC, KAMA and other research institutions.

Distribution of samples by specialisation shows that more than 50 per cent are from production or sales departments. This seems to present the fact that production facilities concentrated in the CEECs and the distribution channels or that sales outlets spread across Europe comprise a significant proportion of the Korean automobile industry in Europe.

Managerial levels of the sample are well distributed between lower and higher management levels. Despite questionnaires being distributed to various management levels, interviews in order to acquire qualitative information were focused at the higher level of management. Note that most of the managing directors are from sales subsidiaries. This is because the number of sales subsidiaries is much greater when

Table 7.1 The summary of survey questionnaire

Sections	Contents
General information	Company name Department Position in the company Length of service
Part I Trade and defensive FDI	Total car exports to Europe will be reduced due to increased internal trade Trade barriers will be expected to be erected based on reciprocity The implementation of trade barriers relating to environmental issues, for example, emission controls The implementation of anti-dumping regulations against imported Korean cars Reduced volume of trade by means of bilateral agreements, such as voluntary export restraints (reflecting Japanese case) If the level of exports is reduced for the above reasons, this will induce investment for local production to sustain the existing market share The outlook of exports will have nothing to do with local production followed by investment
Part II Opportunities and offensive FDI	Technical harmonisation such as WVTA (92/53/EC) will provide an opportunity for Korean motor manufacturers Competition policies (for example, regulation to the State subsidies, the amendment of block exemption, pan-European regulations on discriminated sales directed by manufacturers) will facilitate fair competition for Korean motor manufacturers A single currency will enhance the business stability of pan-European activities of Korean motor manufacturers The abolition of frontier formalities will enhance the market access of Korean motor manufacturers The opportunities highlighted above will only be available when Korean motor manufacturers locate within the internal market. Direct export will not provide full opportunities The above opportunities will provoke investment to exploit them

Table 7.1 (Continued)

Sections	Contents
Part III Industrial location in Europe	CEECs (Central and Eastern European Countries) will be included in the EU in the near future The possibility that CEECs will be included within the EU is one of the criteria of the locational decision The rapid expansion of Korean motor industry in Europe in the 1990s is attributed to oligopoly competition between the major motor manufacturers Rank the following factors relating to locational decision according to their importance 1 Production costs 2 Potential local demand 3 Government incentives 4 Internationalisation process 5 European integration 6 To exploit competitive advantage 7 To acquire advanced technology 8 Other

compared to the production subsidiaries. It was not possible to contact managing directors from production subsidiaries during this survey.

The sample groups' length of service distribution is also evenly spread between one and five years. It seems important to cover various groups of managers from different lengths of service and different positions within companies. This is required in order to avoid bias which could stem from the deviation of sample groups.

The total number of respondents was 103 people from various business specialisations, companies and careers. The question may be raised as to whether the number of respondents is sufficient for statistical analysis. It is necessary to consider the relations between a population and a sample group to understand the reasons behind relatively small sample numbers. In Europe, the absolute number of Korean managers from VMs is small. In addition, dispersion of Korean managers has hardly been even due to the geographical concentration of Korean VMs. Some subsidiaries have less than two Korean managers. The number of samples in a location where many Korean managers were identified had to be limited so that the survey could avoid bias. In particular, many of

them were specialised engineers who have relatively less concerns about economic integration in Europe. Hence, qualitative interview results are used to complement the insufficiency of quantitative survey analysis.

The following sections show the main quantitative results of the survey. Firstly, descriptive analysis and the frequencies of each section are considered which are divided into three parts according to the themes of the survey questionnaire. Secondly, correlation analyses are performed based on items in each section to find out the relationship between variables. Thirdly, analysis of variance and crosstabulation analysis are carried out to compare differences between groups of respondents. For instance, statistical significances are sought in the search for different responses from different companies and various business departments. When statistical significance is found, crosstabulation analysis is employed to identify further details in differences and the implications of the results. The results of interviews are simultaneously deployed where applicable to support quantitative findings. At the end of each statistical analysis, explanations and implications for this study are sought which are summarised again in the conclusion of this chapter.

Descriptive and correlation analysis

Perceptions of threats and defensive investment

The proposition of this study is that the overall volume of Korean motor vehicle imports will decrease due to the influence of economic convergence in Europe. Hence, this negative effect on trade will provoke defensive investment to circumvent barriers as well as to maintain market share. The survey has been conducted to examine if there are any relations between trade diversion as well as protectionist measures as part of the negative aspects of economic integration and defensive import substituting investment as strategic reaction.

Most interviewees and respondents answered that the prospect of trade and international production followed by FDI is closely related. In particular, it is worth noting that all Korean managers interviewed considered the transition of corporate strategy from export to local production highly likely in the near future to sustain their market position.[2] The inducements of this type of FDI, as a reaction to decreased trade volume, are divided into five areas: increased intra-trade, emphasis upon reciprocity, emission controls, the imposition of ADDs and the agreement of VERs.

Firstly, the prospect of decreased overall imports of Korean motorcars due to enhanced intra-trade is recognised as a probable factor in the near future. According to the results of the survey conducted with the Korean managers of Korean VMs across Europe, over 56 per cent responded that increased intra-trade may affect the trade volume of Korean motorcars resulting in aggravation.

However, a far from negligible 41.2 per cent of Korean managers responded that increased intra-trade may not be a critical matter for the future trade of Korean motorcars in Europe. There are two different opinions relating to this perspective. The first group of interviewees, in this perspective, indicated that increased intra-trade itself is questionable.

The second group admitted that increased intra-trade is highly feasible but thought that it will not have remarkable effects on the Korean motorcar trade.[3] Practical observation of the performance of the Korean VMs in Europe proves that trade volume is unlikely to be influenced by integration (Figure 7.1). The market share of Korean motor vehicles increased by 33.5 per cent in 1998 compared to the previous year. This rate is around five times higher than the average growth of the Western European motor vehicle market.[4]

Secondly, emphasis on reciprocity as the basis of the imposition of various protective measures against Korean motorcar imports is considered a likely factor. Figure 7.2 shows that around 70 per cent of Korean managers consider that the reciprocity issue will become a decisive matter in trade disputes in the near future. This is likely to be followed by pressure on both the Korean motorcar markets and the trade flows of Korean motorcars to Europe.

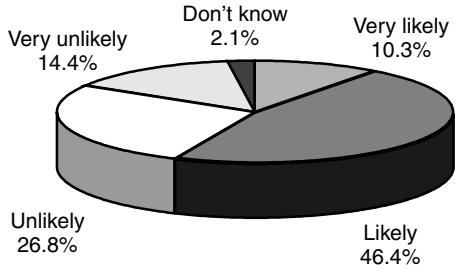

Figure 7.1 Increased intra-trade and decreased trade volume: percentage of respondents on increased intra-trade as a factor for decreased trade volume of Korean motorcars in Europe[5]

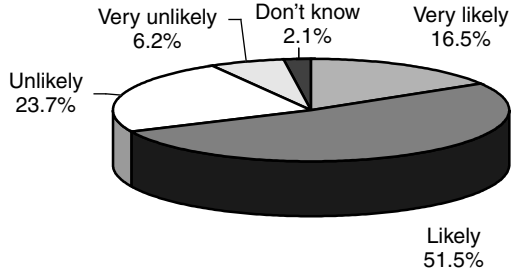

Figure 7.2 View of reciprocity as a factor resulting in decreased trade volume of Korean motorcars to Europe

Interviews with Korean managers revealed that Korean VMs are recognising this matter and considering that the Korean motorcar market should eventually open up to foreign makers.[6] This is regarded as an inevitable step towards the globalisation of the Korean automobile industry as well as a way to survive in the competitive international motorcar markets.

Thirdly, environmental concerns, particularly relating to emission controls, are considered to be a likely factor which might influence trade flows. More than 75 per cent of Korean managers answered that it is quite likely that this might result in negative consequences for Korean exports to Europe. In particular, 35.1 per cent responded that it is highly likely to influence the future of Korean exports.

This issue is considered to be closely tied in with the extent of the technology level of the Korean automobile industry. There are two separate opinions regarding the level of technology. Some managers view that to satisfy the European standards for emission levels would not be a problem for the Korean automobile industry, while others have a rather more sceptical perspective. There is a tendency that respondents with the former answer to consider emission controls as a negligible factor, while they are viewed as a serious barrier for future trade by the other respondents. In general, this type of environmental regulation is considered to be a basic requirement rather than a trade barrier, because this applies to all VMs in Europe. The issue is whether the Korean VMs can comply with the environmental standards.

Fourthly, ADDs are considered as the most important issue. However, a considerable number of respondents presented their views that this is unlikely to affect the trade performance of the Korean automobile industry in the short or medium term. Around 60 per cent considered

it as a likely factor while another 30 per cent regarded it as negligible (Figure 7.3). Thus, it may be said that the perspective of the Korean managers on the imposition of ADD in the near future is divided into two opinions.

The first group answered that this is a likely factor which may be imposed on Korean motorcar imports to Europe. However, the second group answered that it is unlikely to be imposed. The rationale of the second group was presented during interviews.[7] ADDs are considered as a formidable instrument to exclude non-European companies. Imposition of this implies that the business of the company concerned within the market is literally blocked. Thus, this method is likely to be used only as an extreme measure. Considering the fact that this process is not easily imposed due to its nature and complicated process, the actual imposition is likely to be a remote event. In addition, the initiation of the accuser is necessary to start an investigation. The most probable institution is ACEA and it is known that the opinion of this institution mainly depends upon the chairperson. Korean managers consider that the chairperson of ACEA at the time of this survey is unlikely to initiate an accusation against Korean imports to impose ADDs.

Lastly, VERs are considered as a likely factor which may be applied against Korean motor vehicle imports. This factor is also considered as likely as other factors such as emission controls, ADDs and reciprocity issues. More than 60 per cent of Korean managers thought that the level of trade will be reduced due to this factor. However, the remaining 31.8 per cent of respondents did not consider it to be a critical issue. An analysis of the Japanese case, in which any protectionist measures which resulted in transplantation ended up with even higher or at least

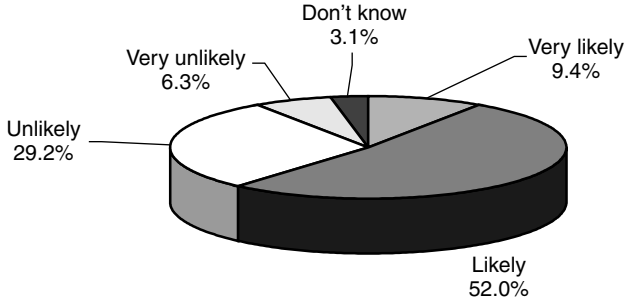

Figure 7.3 The imposition of ADD is responsible for reduced trade volume

unchanged market share, may support the view that trade volume will not be reduced.[8] Increased tariff or the European wide quota system is recognised as infeasible alternatives for the EU for this reason. The market share of Japanese motor vehicles in Europe was increased even after the imposition of protectionist measures against them. Thus, the view prevails that protectionist measures will not be effective tools to protect domestic producers and products against non-European imports.

In short, the prospect that the level of total Korean motor vehicle trade in the near future may be reduced due to the various reasons suggested above seems to be widely shared within the Korean VMs in Europe. The Korean managers' views on this issue are clearly presented in the results of the survey. The vast majority of them consider that the present level of Korean motorcar imports in Europe may not be continued as a result of expected protectionist measures such as ADDs, VERs, registration of emission controls and trade reciprocity issues.

Nevertheless, different views on the matter were identified during the interviews. These views were particularly prominent from the mid-management level. Some of the interviewees considered that it seems unlikely that the economic integration and reduced trade volume would be critically relevant. However, this was a minority view and the proportion in the total answers is negligible.

As a next step, the perspective of the Korean managers was sought relating to the probability of defensive investment, assuming that the level of trade is decreased due to the various suggested reasons (Figure 7.4). The vast majority of the respondents (89.7 per cent) answered that reduced volume of trade in the future will be followed by defensive import substituting investment to defend existing market share.

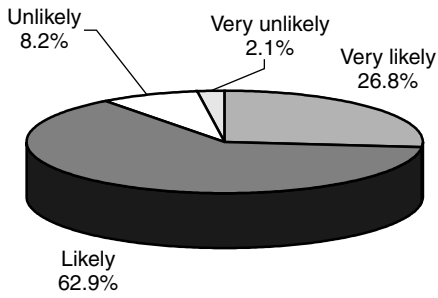

Figure 7.4 Perspective on the execution of defensive investment as a strategic reaction to the decreased level of trade volume of Korean motorcars in Europe

The survey was designed to compare the views on the prospects for trade and defensive import substituting investment as a strategic reaction. The proposition that worsened trade relations accompanied by decreased volume of Korean motorcar imports are likely to provoke defensive investment as a strategic reaction may be proven by examining correlation between these variables. Table 7.2 summarises the correlation between the suggested factors which are likely to have effects on the level of trade and the possibility of the execution of defensive investment. According to the analysis suggested in Table 7.2, a statistically significant correlation is identified among defensive investment and increased intra-trade, reciprocity issues and emission control regulation. Other factors such as ADDs and VERs are also directly proportional to defensive investment.

Thus, the assumption of this study relating to trade prospects and direct investment based on the theories may be applicable, to a certain extent, to the case of the Korean automobile industry in Europe. However, this result should be interpreted carefully. It does not necessarily mean that these variables are the cause of defensive investment. It simply means that these variables are changing together. Thus, the possibility that there could be other reasons for this tendency should not be ignored.

Table 7.2 Correlation between decreased trade volume for various factors and defensive import substituting investment

		Defensive investment
Increased intra-trade	Pearson correlation	0.262*
	Significance (two-tailed)	0.009
Reciprocity	Pearson correlation	0.286*
	Significance (two-tailed)	0.005
Emission control	Pearson correlation	0.357*
	Significance (two-tailed)	0.000
Anti-dumping rules	Pearson correlation	0.278*
	Significance (two-tailed)	0.006
VERs	Pearson Correlation	0.286*
	Significance (two-tailed)	0.005

* Correlation is significant at the 0.01 level (two-tailed).

Respondents were given opportunities to present their views on this issue with an additional question directly addressing defensive investment and the prospects of whether trade will be related to it. The majority of respondents presented the view that they were closely related. Around 50 per cent of Korean managers consider that they are highly likely to be related. This implies that it will be natural to expect FDI in the case of a practical reduction in trade volume or profitability of the Korean VMs in Europe due to the imposition of protectionist measures on Korean motorcar imports to Europe.

The rather contrary opinions were also presented by some of the interviewees that trade barriers would not be taken seriously in the foreseeable future or even in the case that such barriers existed. The reasons for this opinion are attributable to the following three points. Firstly, it is expected that any discriminatory practices will lead to a sudden transition from export to local production, which could be an unwanted consequence for local manufacturers. This is based on the awareness of similar cases in the past and the predictable policy of the EU towards external trade relations. In fact, market share was even increased after the imposition of protectionist measures by means of local production in both the Japanese automobile industry and the Korean electronics industry.[9] The Korean managers seem to recognise how the regulating authorities understand the consequences of import barriers.[10]

Secondly, protectionist measures are recognised as an unlikely factor as some of the respondents consider an integrated Europe as an open market. The protectionist measures are less likely to be substantial factors as the governing bodies in Europe manifest open regionalism. It is suggested that the imposition of such visible barriers seems to be an 'unreasonable action'.[11] In particular, it is suggested that the imposition of barriers on Korean cars is unimaginable as there is a tendency that protectionist measures on Japanese cars are slowly reducing. In addition, some of the measures recognised as barriers are actually having a positive effect on the development of the Korean automobile industry. This is particularly true in the context of regulations for environmental controls.[12] This measure is identified as non-protectionist in the context of open regionalism.[13]

Thirdly, there are some opinions that even if protectionist measures are imposed on the Korean car imports, they are likely to be only short-term measures. In the medium and long term, these measures may not be viable to exclude Korean motorcars from European markets. This opinion is based on the recognition by the respondents about the consumers' purchasing pattern in some of the major European motorcar

markets. They show highly nationalistic buying behaviour which leaves less room for external entrants.[14] Hence, the total volume of Korean cars in the European markets will be insignificant in the long term and this will be eventually followed by less stringent trade regulations.

Awareness of opportunities and offensive investment

This section examines the survey results regarding various factors relating to opportunities within Europe as consequences of economic integration based on the discussion in the previous chapters. The main focus is given to the perspectives of respondents as to whether opportunities in Europe may be applied to the Korean automobile industry serving European markets by means of exports and local production.

To start with the conclusion of the survey results of this section, the inducement of opportunities in Europe is regarded as an important factor in terms of the FDI decisions of the Korean VMs.[15] However, suggested variables for determinants are found to have a weak correlation with the FDI decision.

According to the listed opportunities in the EU, suggested in the previous chapters, increased opportunities that stem from measures of economic integration can be divided into four subcategories. These are technical harmonisation, competition policy, the introduction of the single currency and the abolition of frontier formalities. Each variable is introduced as a factor inducing opportunity in Europe for the Korean automobile industry. Korean managers are asked to give their opinions relating to these variables.

Firstly, technical harmonisation is considered to be a beneficial factor for the Korean automobile industry in Europe. However, the figures show that this factor is not as important as other opportunity factors. Only 8 per cent of respondents estimated that this factor is highly likely to be an important opportunity in Europe. Thirty-nine per cent consider that this factor is unlikely to provide benefit to Korean VMs in Europe. The author recognised that this factor is not widely appreciated among respondents since it includes specific technical aspects which are less relevant to some people in different specialisations. There is a tendency for respondents from production and R&D departments to appreciate its importance as an opportunity more than those from other areas.

Secondly, the competition policy of the EU on the automobile sector is viewed as an unlikely factor to be shared with the Korean automobile industry in Europe. The study initially assumed that pan-European regulations on state subsidies, discriminatory sales practices and the amendment of block exemption would provide an environment for fair

competition within Europe. Thirty-nine per cent of respondents answered that this is likely to be shared with Korean VMs while 51 per cent viewed that it would not enhance the competitive position of the Korean automobile industry in Europe (Figure 7.5). Contrary to the assumption of the study, a number of interviewees posited that the competitive environment may not provide a favourable market position for the Korean automobile industry in Europe.[16] This opinion is based on the fact that the brand image of Korean motorcars is among the lowest and their niche in the market is not as wide as that of indigenous competitors. Intense competition due to the competition policy promoting open competition in the markets may mean a decreased market share for the Korean VMs, with their losing some of their existing market positions. Hence, an enhanced competitive environment in the market is often recognised as a threat rather than an opportunity.

Thirdly, Korean managers were asked if it was felt that the introduction of a single currency would work favourably for the Korean automobile industry in Europe. A majority of 71.4 per cent of respondents answered that it would be highly important or likely to be a beneficial factor. As discussed above, reduced exchange risks and simplified international transactions in Europe may be a positive influence in reducing costs. Among people who responded that the introduction of a single currency would be unlikely to provide substantial benefit to Korean VMs in Europe, the importance of the USD dollar was seen as already being a factor since it would remain the currency for international payment. While they approved of the advantages of ECU, the weakness of this currency is regarded as unfavourable for the Korean automobile industry.

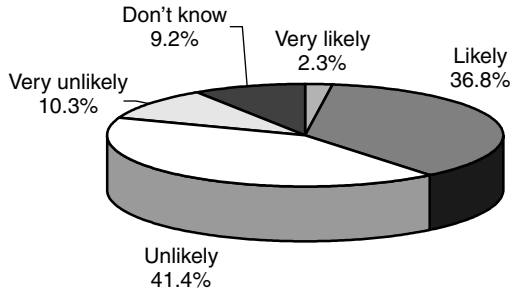

Figure 7.5 Korean managers' perspectives on the competition policy as an instrument for fair competition in the European motorcar markets

Fourthly, in regard to the abolition of frontier formalities which is considered an intrinsic benefit of economic integration, around 64 per cent of respondents answered that this is likely to be a favourable factor for Korean VMs in Europe. Including opportunity factors assumed above, this is also considered to be less important than was expected.

Finally, the potential of the CEECs in terms of host country domestic market and the prospect of entry into the EU in the near future is likely to have affected the FDI decisions of Korean VMs. Survey results show that 88.8 per cent of respondents presented their affirmative views on this. Less than 12 per cent revealed a negative opinion towards the entry of the CEECs as a factor for FDI (Figure 7.6). The above peculiarities and consequent advantages are considered to be more easily exploited in developing countries than in more developed economies. FDI in the CEECs may be categorised as this type of investment.

It is an interesting point that FDIs in the CEECs are closely related to the exploitation of particular competitive advantages of the Korean automobile industry in Europe. Korean FDI in the CEECs in the automobile sector can be seen to fit into the framework of Wells (1977, 1983) who suggested that local production by MNEs in developing countries has advantages stemming from experience in the home market. Similarities in economic development between Korea and the CEECs are likely to have provided favourable conditions for the Korean VMs to overcome their foreignness. This is because the context of the business environment in the host country is similar to the home country in terms of product types, market conditions, production styles and resource availability. FDI in the CEECs by Korean VMs may be explained in this framework.

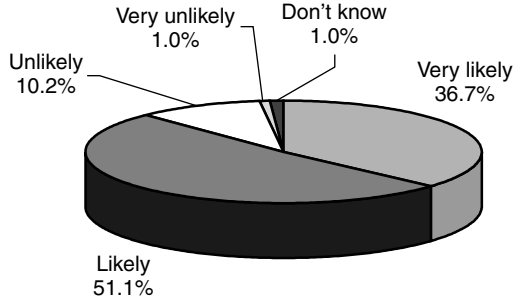

Figure 7.6 FDI due to entry of the CEECs into the EU

The results of the above examination raised the interesting suspicion as to whether there has been an appropriate spread of information or education relating to the possible impact of European economic integration amongst relevant Korean managers. This suspicion is based on the attitude and quality of answers during the interviews with the Korean managers regarding opportunities in Europe. Even though all interviewees were engaged in various specialisations relating to European matters, they showed little interest and knowledge about the matter.

This could also be a consequence of the passive and defensive posture of Korea against the negative perspective of European economic integration. Most of the respondents, while recognising the possible threat of economic integration, paid little regard to any opportunity which might be acquired by serving this market. There are tendencies that (i) Korean managers in Europe are more clearly aware of the effects of economic integration than the managers at headquarters in Korea and (ii) managers at higher ranks tend to have more appropriate information compared to lower level managers.[17] In general, the consensus was that a fast flow of information and feedback together with practical education is urgently required across all managerial levels.

In short, the well-known positive effects of economic integration in Europe are less likely to be considered as opportunities for the Korean automobile industry. This seems to be due to the negative aspects of integration frequently emphasised in the defensive postures of Korean managers and a lack of education or an appropriate spread of information relating to the positive effects of integration in Europe. The following section looks at the effects of these opportunities on the international production of the Korean automobile industry.

According to the interviews and responses to the questionnaire, a significant number of Korean managers in Europe viewed the increased opportunity for an integrated market in Europe as a likely factor to influence FDI decisions. However, correlation analysis of variables representing opportunities and an offensive type of investment shows a different picture. While offensive investment is likely to be made, suggested opportunity factors are not considered as important as their dependent variable. According to the direct interview results, the establishment of the internal market is weighed as only between 30 and 40 per cent of importance in the locational advantages attracting inward investments.[18] Thus, it seems that there are likely to be unexpected factors which determine this type of FDI.

The survey extended its coverage with the following two points. Firstly, a simple question, as to whether offensive investment should

take place given that there are clearly exploitable opportunities identified, was posed. Secondly, analysis of the correlation between variables is conducted to find out if the opportunity factors are considered to be determinants of offensive import substituting investment.

Offensive import substituting investment is regarded as an important strategic reaction to exploit opportunities in Europe and the advantages of the Korean automobile industry. Around 24 per cent of respondents answered that it was very likely to happen and 52.8 per cent responded that it was a likely factor (Figure 7.7). More than three quarters of respondents believed that offensive investment will be made as opportunities are identified in the markets. A test of the previous proposition revealed that some of the expected opportunity factors are not recognised as benefits for the Korean automobile industry in Europe. This seems contrary to the expectation of this study because the same respondents who answered that technical harmonisation or fair competition within the European motorcar markets was not considered to be a benefit, also responded that offensive investment was likely to be made to exploit market opportunities.

The survey is designed to examine whether there are differences between serving markets from the outside by means of export and within the market by means of local production. According to the survey results, the above opportunities are considered to be more likely to be advantageous if the Korean VMs are serving the European motorcar markets by means of local production. Korean managers recognised direct export as inappropriate for exploiting market opportunities.[19]

Based on this, it is arguable that inclusion of the CEECs in the EU should provide a number of additional opportunities such as averted exchange risks, harmonisation of country-specific homologations.[20] This

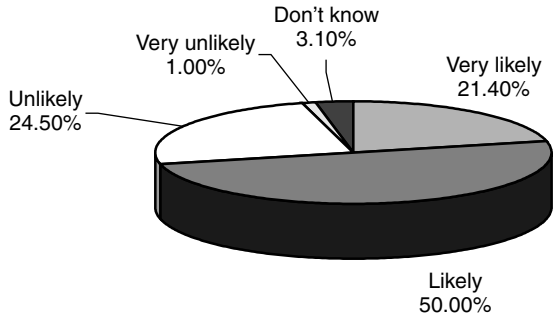

Figure 7.7 Perspective on the necessity of being an insider to acquire opportunities

contrary result may be interpreted to mean that either suggested factors are recognised as less relevant to the Korean automobile industry or there are some other factors which are regarded as unique opportunities for the Korean automobile industry in the European markets.

Correlation analysis of increased opportunities and offensive import substituting investment was carried out (Table 7.3).[21] The result of this analysis is similar to the results of the above examination.

Unlike the correlation test of the second proposition, significant relations between factors known to induce opportunities for the industry within the markets and an offensive type of investment were not identified. Even the negative significance of correlation was found in technical harmonisation and fair competition variables. This means that Korean managers consider these variables as unlikely or irrelevant factors to lead a corporate strategy for offensive import substituting investment. Only the variable of an enlarged market due to the market potential of the CEECs, as these countries are likely to join the EU, has a positive correlation with offensive investment. However, the result is statistically insignificant as two-tailed significance shows 0.069 which is more than the 0.05 level.

Table 7.3 Correlation of increased opportunities in the European markets and offensive import substituting investment

		Offensive investment
Technical harmonisation	Pearson Correlation	–0.064
	Significance (two-tailed)	0.530
Competition policy	Pearson Correlation	–0.234*
	Significance (two-tailed)	0.022
Single currency	Pearson Correlation	0.142
	Significance (two-tailed)	0.162
Abolition of frontier formalities	Pearson Correlation	0.064
	Significance (two-tailed)	0.532
Inclusion of CEECs	Pearson Correlation	0.187
	Significance (two-tailed)	0.065
Location and advantages	Pearson Correlation	0.382**
	Significance (two-tailed)	0.000

** Correlation is significant at the 0.01 level (two-tailed); * Correlation is significant at the 0.05 level (two-tailed).

The rationale behind these results was identified during direct interviews. Most of the respondents who disagreed with the suggested opportunities as benefits and viable motives for offensive investment for the Korean VMs presented a similar perspective that 'everyone's opportunity is no-one's opportunity'. The establishment of the internal market tends to be perceived as enhancing the competitiveness of indigenous companies as they specialise and rationalise their activities to acquire economies of scale. Consequently, the competitiveness of Korean motorcars as an external, lower priced brand may be eroded.[22]

It was suggested that fair competition and widely available opportunities are unlikely to be of benefit for the Korean automobile industry in Europe. Even if absolute costs may be reduced, comparative advantage against indigenous companies is expected to be far less.[23] In particular, the established competitive environment is likely to result in price effects which will put additional pressure on the Korean VMs to sacrifice an appropriate product price. This may be followed by the danger of the imposition of anti-dumping measures.

It was also considered that various measures are simply means of strengthening regulations which cannot be interpreted as opportunities. Considering the lack of competitiveness of the Korean automobile industry, imposition of various policies and measures could even be threats.[24] In practice, it is known that technical harmonisation is a long way from reaching real term harmonisation as National Type Approval (NTA) is still required. In addition, safety and environmental clauses have been added to existing technical standards.[25] In terms of sales, the dramatic growth of Korean compact and subcompact cars sales in Italy in 1997 was attributable to the tax exemptions. As similar practices are prohibited in the European markets, it is likely to result in adverse effects for the Korean automobile industry in general. In addition, the abolition of frontiers is considered to be less effective since there are ports for each country. Cross-border distribution infrequently occurs in motorcar sales which means this is not an applicable opportunity for the sales of Korean cars.

The result of the survey showed that offensive investment and oppurtunities in the EU have correlations. Nevertheless, there are also contradictory perspectives. Interviewees with these opinions are suspicious of offensive investment itself in Europe. These different views can be summarised in three points. Firstly, investment in Europe is viewed as the natural course of internationalisation of the Korean

automobile industry rather than exploitation of the dynamics of European integration. The expansion of Korean VMs to the European market was explained in that this market was targeted because of its importance in the process of internationalisation.[26]

Secondly, the expansion of the Korean VMs is explained in the context of market segment in Europe rather than integration effects.[27] The main target of the Korean producers in Europe is segments A and B, which are compact and subcompact cars. It seems that there are niche markets in these segments because of the sheer size of the market. Korean motor vehicles are regarded as having price competitiveness in those markets. Thus, the Korean VMs may invest to exploit this competitive advantage.

Thirdly, European integration itself is viewed as too incomplete to influence the strategic decisions of the Korean VMs.[28] European integration includes an amount of uncertainty and this is recognised and debated widely in both economic and political circles. In particular, whether member states will abandon economic and political sovereignty is questionable. Thus, the dynamics of integration are unlikely to be the factor behind strategic decisions for some since the market integration itself is in question.

In summary, the results of the examination of the third proposition indicate that the expected variables, considered to be opportunities which are expected to enhance locational advantages in the European motorcar markets, were less appreciated as benefits for the Korean automobile industry. However, offensive investment was regarded as a probable strategic alternative for Korean VMs in Europe. These results raised possibilities that there are different factors which may provide opportunities or advantages for the Korean automobile industry.

In the beginning of this section, it was suggested that there might be different determinants for offensive investment. As suggested in the correlation analysis above, the results show a contrary aspect between offensive investment and opportunities within markets. The following section focuses on examining this aspect of the international production of the Korean automobile industry in Europe. In particular, factors other than economic integration which are likely to affect the strategic alternatives of the Korean VMs and their origins are sought. Some other factors are oligopoly competition, globalisation process according to the normal development process of the industry and specific competitive advantages stemming from the peculiarities of the Korean automobile industry.

Other determinants of FDI

Other reasons for FDI by Korea in the automobile sector are required to explain the case of the Korean automobile industry in Europe. The above analysis of offensive investment motivated by opportunities revealed that the suggested opportunity factors may not provide satisfactory answers. In connection with this, there seem to be a number of points in the case of the trade and FDI of the Korean automobile industry, which cannot be explained by traditional theories and explanations of integration effects on international production. For instance, a survey carried out on 14 Korean companies in Europe revealed that R&D requirements and internationalisation were critical reasons for FDI in Europe following protectionism as the most important motivation. Thus, it is worth exploring exceptional aspects, in order to acquire an overall picture of the subject.

Table 7.4 shows the factors affecting the FDI and locational decisions of the Korean automobile industry in Europe as one process. In this table, economic integration as a factor in FDI decisions is estimated in a lower position compared to other factors such as production costs or host market potential.

Other motivations for the international production of the Korean automobile industry were identified through the questionnaire and during interviews with Korean managers. These are self-explanatory factors which are irrelevant, to a certain extent, to the effects of economic integration. It is worth noting that these variables appear to be closely related with peculiarities stemming from the governance structure, development process and production system of the Korean automobile industry. This is in line with the suggestion that the importance of

Table 7.4 Survey results on determinants affecting the FDI and locational decisions of the Korean automobile industry in Europe[29]

	Rank				
	1	**2**	**3**	**4**	**Mean**
Production cost	18.6	36.0	16.3	15.1	2.80
Host market potential	45.9	20.0	16.5	8.2	2.20
Financial incentives	2.4	4.7	17.6	14.1	4.82
Globalisation process	9.6	7.2	12.0	12.0	4.75
European integration	14.3	14.3	15.5	16.7	3.75
Competitive advantages	10.6	17.6	16.5	22.4	3.68
Technology transfer	1.2	4.7	10.6	14.1	5.95

'company-specific factors' contributes to unexpected outcomes of the internationalisation of companies (Nilsson *et al*. 1996: 164).

The following discussion of the findings focuses on the intrinsic reasons behind the results of the survey based on the previous discussion. This study considers that peculiarities of the Korean economy such as government roles and organisational peculiarities of the Korean companies have affected the international production of the Korean automobile industry.

According to the survey results, three primary factors are referred to as other determinants of the international production of the Korean automobile industry in Europe. They are (i) oligopoly competition, (ii) globalisation process and (iii) increased competitiveness as ownership advantage.

Firstly, oligopoly competition is considered to be one of the important motivations for FDI (Figure 7.8). In terms of trade and FDI, expansion towards the European markets is also influenced by similar oligopoly competition. The survey results indicate that more than 83 per cent of respondents answered that it has affected FDI decisions. Notably, the concept of oligopoly competition among Korean managers is limited to a narrow boundary accompanying the present situation of the Korean automobile industry in the home country. Fierce competition in the domestic markets is considered to be a critical motivation for expansion to the overseas markets, particularly to Europe. Thus, it is viewed as a method for survival rather than unnecessary competition with rival companies.

A number of instances of oligopoly competition may be found in the case of the Korean electronics industry in Europe.[30] FDI and locational

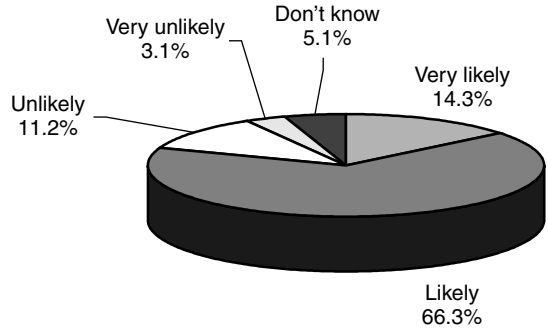

Figure 7.8 Oligopoly competition as a determinant of FDI

decisions in Europe have been profoundly influenced by oligopoly competition amongst Korean electronics companies in the 1990s (Cherry 2001: 160–70). This aspect might provide a basis for expecting that the oligopoly competition amongst Korean VMs will also be a critical element in FDI decisions to Europe, because electronics companies are subsidiaries of *Chaebols* which also comprise motorcar manufacturing subsidiaries. For instance, DMC has made some FDI in the CEECs. This might prompt a subsequent FDI by Hyundai. In fact, Hyundai was expected to announce the setting up of a factory within the EU at the end of 1997 but this was not implemented due to the economic crisis which occurred in the same year.[31] A clear example of this oligopoly competition occurred when DMC protested over the planned assembly of HMC by the Sobeslaw Zasada Centrum company in Poland. This has even influenced the Polish government to announce a new licence scheme for the duty free entry of KDs.[32]

Indeed, healthy competition could produce a positive incentive to improve motivation for success in overseas markets. It seems likely, however, to produce problems to some extent, because unnecessary competition may lead to overcapacity and inefficiencies across the industry as a result of duplicate efforts. Each brand of Korean cars is likely to be recognised as 'Korean cars' in the overseas markets. This implies that the scope in strategy relating to pricing, marketing, sourcing and many other activities is inevitably related between brands in the overseas markets. On many occasions, it has been found that there are underlying tensions between Korean VMs in Europe.[33]

These phenomena are regarded as inevitable consequences of the ownership and industrial structure of the Korean VMs. Korean VMs are either part of a *Chaebol* or the *Chaebol* itself. The family-owned, concentrated governance structure and diversified nature of the *Chaebols* has resulted in an inevitable competitive environment between them in overseas markets as well as domestic markets. FDI decision-making is not likely to be exceptional from this context.

Secondly, expansion by means of increased exports and engagement in FDI and local production are recognised as a part of the globalisation process of the Korean automobile industry. The development of the Korean automobile industry is reviewed in Chapter 4, which conclude that the present development stage of the Korean automobile industry is 'approaching independence and internationalisation'. Recent international value-adding activities accompanied with an increased level of trade may be understood in the same context.

Globalisation of the Korean automobile industry seems to be based on the changing paradigm of ownership advantages of the Korean

economy itself. This is known to stem from the economic development of the Korean economy. Since the 1970s, the major focus of economic development has been given to the heavy and chemical industries which are higher in added value. Consequently, the country's endowments in terms of comparative advantages have also changed from light, labour intensive industrial sectors to higher value-added industries. The Korean automobile industry is one of the industries intentionally nurtured by means of government policy. This background of development history may be shared with the changing context of the competitive advantages of the industry itself. The European markets as a critical strategic target for the Korean automobile industry could not be excluded from the process of the organising of a global network.[34]

The natural characteristics of motorcar exports have complementary relations with FDI. Motorcars as advanced and complex industrial products are service-intensive goods. Exporting in large quantities inevitably needs subsequent investment to establish service networks (Langhammer 1991). The recent years have seen a rapid increase in Korean motorcar sales in Europe. To meet the service requirements, it is necessary to input a huge capital to establish a service network in Europe. This coincides with the globalisation process of the Korean automobile industry.

Thirdly, competitive advantages over foreign companies resulting from the development of the industry, as discussed above, provided scope to make FDI to exploit them. A number of particular competitive advantages of the Korean automobile industry were identified during the interviews. Coinciding with the above discussion, most of the competitive advantages stem from the enhanced ownership factors as a result of the development of the nation's economy and that of the industry. It is necessary to consider this aspect of the Korean automobile industry further in order to understand its activities in Europe.

Some questions beyond the integration effects may be addressed by understanding this aspect. The competitiveness of the Korean automobile industry seems to stem from its peculiarities. The peculiarities of the Korean automobile industry have their origins in its development process. This is discussed in Chapter 4 where the development process of the Korean automobile industry is reviewed. In the industrial development of the Korean automobile sector, the role of government and the characteristics of the *Chaebol* are considered to be critical factors which have affected the industry to form particular aspects. The main Korean ownership-specific advantages are suggested in a number of studies focusing on the success of Korean companies overseas (Koo 1986; Whitmore 1989). They are proficient management, efficient production,

appropriate technology, preference for Korean companies over companies from NIEs, Korean company's familiarity with the host country environment, technology transfer and ability to absorb technology. Within the European markets, for instance, internalisation advantages can be enhanced with their family clan governance structure over the remarkably diversified sectors of businesses. This is likely to be particularly true in the European markets where the specialisation of production activities is highly important to gain competitive advantages over rival companies.

A number of respondents argued that competitive pricing is probably the most important advantage in the European markets.[35] The overall technology level of the Korean automobile industry has been enhanced during the last decade and facilitated the basis of overseas competition.[36] Equalisation of technology and quality among VMs has increased the importance of the price dimension from economies of scale, distribution costs and development time.[37] This made price competitiveness one of the critical advantages in the markets. Together with specific marketing strategies, the price competitiveness of Korean motorcars became a prominent advantage in the European markets. As Wells (1983) suggested, the particular production system including infrastructure, component supply systems and labour structure of the Korean automobile industry distinct from established MNEs, may have provided the basis to achieve price competitiveness in the European markets. In particular, these advantages over established MNEs may be exploited better in peripheral regions in Europe due to similar business circumstances. Existing Korean automotive FDIs in Europe can be explained in this context. The domestic experience of Korean VMs has been applied to the similar business environment in the CEECs.

In summary, some other factors which are unlikely to be explained in the main propositions of this study are suggested based on the results of the survey. They are oligopoly competition, the globalisation process according to normal development of the industry and specific competitive advantages. These factors appear to stem from the peculiarities of the Korean automobile industry. The next section examines the industrial location of the Korean automobile industry in Europe paying particular attention to the CEECs, where most of the current FDI is concentrated.

Industrial location of Korean VMs

It has been pointed out that current primary FDI and industrial location of the Korean automobile industry are concentrated in the peripheral

regions in Europe, namely the CEECs. It was also suggested that the strategic objective of the Korean VMs in these countries may be the EU motorcar markets.

The CEECs' entry into the EU is considered as a likely instance in the near future. Figure 7.9 shows the results of the survey. When asked whether the joining of the CEECs will possibly be completed in the near future, 27 per cent of respondents indicated that this could be very likely to happen and 55 per cent responded that this was likely.

This question was followed by a subsequent query, which asked if the positive prospect of the CEECs joining the EU is regarded as one of the factors affecting the locational decisions of the Korean VMs. An overwhelming 89 per cent of respondents presented their affirmative perspective on the issue. The fact that no respondent showed indifference on the question implies that views on the issue are considered to be a matter of concern among Korean managers.

Thus, it may be suggested that the FDI and locational decision of the Korean VMs in the CEECs are influenced by the potential membership of these countries. This may apply to existing as well as possibly forthcoming FDIs to these countries. A number of interviewees confirmed this opinion. This factor was chosen as the most important variable over all other factors.[38] In practice, the fact that the marketing efforts for some models developed and produced in the CEECs are concentrated in the EU proves that the location in the CEECs was a bridgehead aiming at the EU motorcar markets.[39]

The questionnaire was designed to assess the importance of overall determinants of locational decisions. Figure 7.10 summarises the results of this assessment in ranks. Numbers on the horizontal axis indicate the rank of variables according to their priorities. Technology transfer, economic

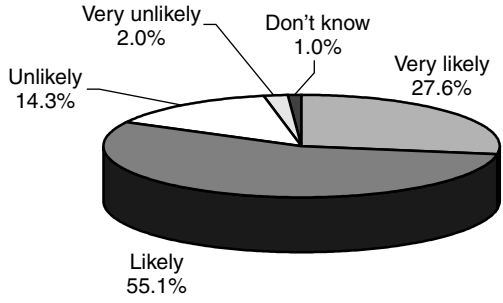

Figure 7.9 Korean managers' views on the entry of the CEECs into the EU

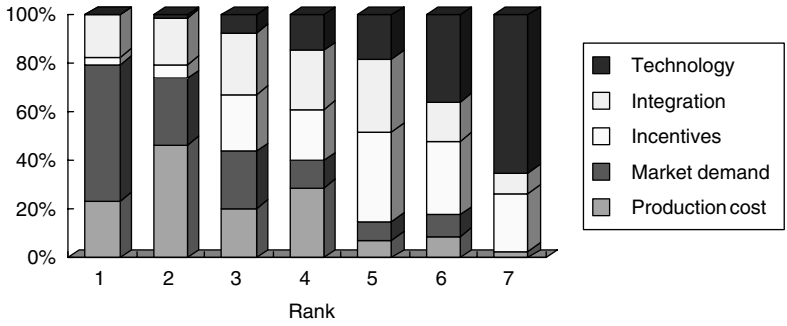

Figure 7.10 Other determinants of the locational decisions of Korean VMs[40]

integration, financial incentives, potential local market demand and production costs comprise the variables. The vertical axis indicates the frequency of response in percentile. Among other factors, potential of market demand and production costs are frequently placed in higher ranks. Technology transfer and financial incentives are considered as less important factors.

These results seem inconsistent with the proposition of this study. It was assumed that present threats and opportunities of the markets were the less effective of the locational decisions of the Korean VMs compared to market potential resulting from economic integration. This was based on the fact that no actual trade barriers have been applied to the imports of Korean motorcars since Korean FDI to the automobile sector in Europe started, and the locations of existing production sites are not in the EU where opportunities are identified.

It may be argued that the above assumption could be accepted within the framework of economic integration. According to the previous discussions, it seems true that threats and opportunities generated by economic integration as determinants of industrial location seem less influential compared to the potential prospects of remote or peripheral regions of the EU. However, it is necessary to consider that the overall importance of integration is insignificant as shown (Figure 7.10) in the results of the survey. In practice, other factors may override the importance of this aspect as economic integration is regarded as a less significant factor.

Many of the Korean managers explained the motivations for FDI in the CEECs as (i) an aggressive commitment to the growth potential of these countries and (ii) significant advantages over production factors. Compared to these intrinsic factors, the possibility of the CEECs joining

the EU is considered to be less than 50 per cent important as a determinant of locational decision.[41] However, it is worth noting that these factors are categorised as short-term determinants, and the targeting of the EU is critical in the medium and long term.[42]

Thus, it may not be appropriate to nullify the proposition of this study because it is probably accepted as an affective factor within the framework of the effects of economic integration on the industrial location of the Korean automobile industry.

Crosstabulation analysis

It is necessary to observe the deviations in answers that were dependent upon the concerns of respondents. The survey results show that there is a tendency that people who think that the trade volume will not be reduced, also regard tariff jumping or defensive investment as less important in terms of international production strategy.[43] This tendency seems to coincide with the results of the above analyses because defensive import substituting investment is assumed in case of reduced trade volume. However, this perspective is worth consideration, since it was the prevailing view of the sales and export departments, and these may have more relevant information. For instance, answers from sales departments and production departments tend to show different propensities. Table 7.5 shows significant divergence amongst the views of respondents, from production and sales departments, on increased intra-trade as a factor for decreased trade volume of Korean motorcars.[44]

Thus, it is necessary to consider different views of people from various fields to avoid a biased conclusion. Interviews with managers from various specialisations helped to distinguish departmental differences on the same issues.

In this section, differences between responding groups are analysed. The preliminary screening process has been carried out by employing 'Analysis of Variance (ANOVA)' using t-statistic and F-statistic. From the result of this process, cases which are proven to be statistically significant are considered in detail by using 'Crosstabulation Analysis', other cases which show no significant differences between groups are exempted from consideration. Significant differences are found in respondent groups classified by companies and department. ANOVA tests on groups divided by the length of service and position in the company prove that there are no significant differences between them. Thus, this section is devoted to the illustration of the differences between groups as classified by company and department.

Table 7.5 Independent samples (production and sales departments) test of increased intra-trade

	Levene's test for equality of variances		*t*-test for equality of means						
	F	Significance	T	df	Significance (two-tailed)	Mean difference	Standard error difference	95% confidence interval of the difference	
								Lower	Upper
Equal variances assumed	0.005	0.994	–2.628	43.0	0.012	–0.78	–0.30	–1.37	–0.18
Equal variances not assumed			–2.577	34.073	0.014	–0.78	–0.30	–1.39	–0.16

Classified by company

Based on the independent sample tests, three sections of responses are identified as different between respondents from HMC and DMC. They are (i) emission control, (ii) the EU membership of the CEEC and (iii) market potential as locational decision. They are considered in the following section by employing crosstabulation analysis.

The proposition of this study is that the emphasis on the emission limits of the cars sold in Europe and strengthened regulation will be used as a means of protectionism that will subsequently lead to a reduced overall trade volume. According to Table 7.6, the perspectives of each company on this issue show significant difference. It seems that managers from HMC considered emission control to be a less likely factor compared to DMC managers.

While the respondents from HMC are relevantly evenly spread on this question, the respondents from DMC are much more concentrated. Twenty-four respondents presented their view as very likely and 17 respondents answered that it is likely. These results suggest that managers from DMC showed a lack of confidence in the technological standard to meet the emission regulations. However, it is worth noting that HMC has less production bases in Europe compared to DMC. Hence, the majority of respondents from HMC for this survey are from HQ and sales department. In terms of technological level of a company, the

Table 7.6 Crosstabulation: perspectives on emission controls as a factor for reduced level of Korean motorcar trade

	Name of company			Total
	HMC	**DMC**	**Others**	
Very likely	5 (25.0)	24 (45.3)	5 (20.8)	34 (35.1)
Likely	7 (35.0)	17 (32.1)	15 (62.5)	39 (40.2)
Unlikely	3 (15.0)	10 (18.9)	4 (16.7)	17 (17.5)
Very unlikely	4 (20.0)	2 (3.8)		6 (6.2)
Don't know	1 (5.0)			1 (1.0)
Total	20	53	24	97

Notes: $x^2 = 19.657$, df = 8, p (two-sided) = 0.012.

views of production including R&D department will be more reliable. Based on the fact that more than 32 per cent of respondents from DMC are from production department, the perspective of DMC respondents seems to represent a reasonable average of the technological status of the Korean VMs.

Thus, Korean VMs are considered to be in a difficult position in relation to attaining the required technological level to meet higher emission standards in Europe. In the case that this measure is employed against Korean motorcars and if Korean VMs cannot meet these requirements, the overall trade volume is likely to be significantly affected.

DMC appears to be more affirmative to the idea of the EU membership of the CEECs being a determinant for FDI and locational decision. Table 7.7 shows different responses between the two companies. Korean managers from HMC answered that this factor is less likely compared to managers from DMC.

This statistical result implies that the EU membership of the CEECs is considered to be a significant factor for DMC's FDI and industrial decision. This result is understandable considering the fact that most of the current FDI of DMC for local production are concentrated in the CEECs. A predominant number of respondents from DMC believed this factor to be a very likely or likely element for their FDI in Europe. The involvement of HMC in the CEECs' is relevantly limited compared to DMC in the 1990s. The perception of HMC towards the potential of the

Table 7.7 Crosstabulation: perspectives on entry of the CEECs as a factor for FDI and locational decisions

	Name of company			Total
	HMC	**DMC**	**Others**	
Very likely	4 (20.0)	27 (50.0)	5 (20.8)	36 (36.7)
Likely	12 (60.0)	22 (40.7)	16 (66.7)	50 (51.0)
Unlikely	3 (15.0)	5 (9.3)	2 (8.3)	10 (10.2)
Very unlikely	1 (5.0)			1 (1.0)
Don't know			1 (4.2)	1 (1.0)
Total	20	54	24	98

Notes: $x^2 = 15.913$, df = 8, p (two-sided) = 0.044.

Table 7.8 Group statistics: local market potential as the determinant for the locational decision

Name of company	Mean	Standard deviation	Standard error mean
HMC	2.95	1.81	0.36
DMC	2.02	1.36	0.20

Notes: Levene's test for equality of variances: $F = 3.970$, $p = 0.050$, $t = 2.318$, df = 69, p (two-tailed) = 0.023.

CEECs is therefore limited. DMC was early in the search for the strategic importance of countries in the region.

Further difference between two companies is also found in relation to their perspective on market potential as a determinant of locational decision. For the other factors determining the industrial location of Korean VMs in Europe, potential demand in the local market is suggested and examined. The group statistics in Table 7.8 shows that local market potential was a more critical factor for DMC compared to HMC. However, the degree of difference is less significant than other factors suggested above.

The result of statistical significance for this crosstabulation analysis indicates that there is no statistical difference between groups. This result is influenced by the inclusion of the 'other' group to this analysis. The independent sample test in the previous table which only examines the differences between the two companies shows significant difference. The statistical significance between the two companies in this item may be sustained since the main objective of this section is to compare HMC and DMC.

The interpretation of this result may be found in the fact that DMC's market share in Polish market reached more than 27 per cent in 1998. The main part of their strategy comprised the targeting at this local market as a basis for further expansion towards other markets in adjacent countries, including the EU.

Classified by department

Identifying differences between responses received from various specialisations provides a helpful tool to interpret survey results. For instance, analysis relating to increased intra-trade as a factor affecting the volume of motorcar trade from Korea by classified groups showed a tendency that managers from production department consider these factors as more

relevant compared to sales department managers. Ignoring differences in the numbers of responses received from various departments could lead to a biased result. Thus, it is necessary to consider if there are any variances in responses from different specialisations.

Table 7.9 shows the results of compared means categorised by different business departments. Among other variables, listed items are found to be significantly different through statistical examination.

It is worth noting that from the listed items, 'perspective on reciprocity', 'competition policy' and 'oligopoly competition' showed very significant differences in the responses received from sales and production departments. Each of these items is considered using crosstabulation analysis in the following sections.

Firstly, Table 7.10 shows that distribution of responses between sales department and HQ is similar, whilst production departments consider increased intra-trade as a more relevant factor negatively affecting trade volume. This tendency seems to stem from intrinsic vocational differences between these specialisations. People in sales departments tend to be more sensitive to this issue and their experience in the trade and sales of motorcars in the local markets has provided them with practical views on this issue.

In contrast, managers in R&D and production departments appear to consider this issue from a rather conceptual stance, and their views are likely to be based on conjecture rather than practical observation. Hence,

Table 7.9 ANOVA table: departmental difference

	Mean of each group				F-statistic	Significance
	Production	Sales	HQ	Others		
Increased intratrade	2.11	2.75	2.74	2.30	2.761	0.047
Reciprocity	1.68	2.75	2.11	2.30	6.800	0.000
Competition policy	3.42	2.93	2.73	2.45	4.047	0.010
EU membership of the CEECs	1.37	1.83	1.81	1.95	2.949	0.037
Oligopoly competition	1.84	2.62	2.11	2.00	3.821	0.013
Financial incentives*	4.39	4.03	5.52	5.53	6.992	0.000

*The figures in this item indicate the rank according to importance for the locational decision.

it seems reasonable to regard perspectives from sales and HQ as suitable to explain the case.

Secondly, significant differences are found between responses from sales and production departments relating to the reciprocity (Table 7.11). Korean managers from sales departments consider that the 'reciprocity issue' has less effect on the potential trade volume, while managers

Table 7.10 Crosstabulation: increased intra-trade and department

	Department				Total
	Production	**Sales**	**HQ**	**Others**	
Very likely	7	1	1	1	10
	(36.8)	(3.6)	(3.7)	(5.0)	(10.6)
Likely	6	12	12	13	43
	(31.6)	(42.9)	(44.4)	(65.0)	(45.7)
Unlikely	3	9	8	5	25
	(15.8)	(32.1)	(29.6)	(25.0)	(26.6)
Very unlikely	3	5	5	1	14
	(15.8)	(17.9)	(18.5)	(5.0)	(14.9)
Don't know		1	1		2
		(3.6)	(3.7)		(2.1)
Total	19	28	27	20	94

Notes: $x^2 = 22.330$, df = 12, p (two-sided) = 0.034.

Table 7.11 Crosstabulation: reciprocity issues and department

	Department				Total
	Production	**Sales**	**HQ**	**Others**	
Very likely	8	2	4	2	16
	(42.1)	(7.1)	(14.8)	(10.0)	(17.0)
Likely	9	10	18	11	48
	(47.4)	(35.7)	(66.7)	(55.0)	(51.1)
Unlikely	2	11	3	6	22
	(10.5)	(39.3)	(11.1)	(30.0)	(23.4)
Very unlikely		3	2	1	6
		(10.7)	(7.4)	(5.0)	(6.4)
Don't know		2			2
		(7.1)			(2.1)
Total	19	28	27	20	94

Notes: $x^2 = 25.309$, df = 12, p (two-sided) = 0.013.

from other departments consider this as being a very important factor affecting the overall trade volume.

A similar explanation may be applied to this case as applied previously. The reciprocity issue is closely related to trade and sales aspect of automobile business. The manufacturing of motorcars is considered to be less relevant to this issue. The view of managers from sales department seems to be close to the truth.

It is interesting that there is some discrepancy in analysing this issue. Considering that sales department may have more practical information and perspective on this issue, views from this department should be given more weight. However, the overall assessment on this issue is that this factor has very significant implications for future trade relations. Thus, choice should be made as to which perspective has to be employed when drawing a conclusion. This analysis benefits the overall level of analysis of this survey by allowing it to avoid the possible pitfalls of descriptive assessment.

Thirdly, this study expected that competition policy in the EU, ensuring a fair competition among companies within the market, would enable Korean automotive companies in Europe to compete in the fair business environment. And this factor would be regarded as an opportunity which could lead to FDI in order to exploit it. The comparison of means using F-statistic revealed that there are significant differences between groups of Korean managers divided by specialisation. Crosstabulation analysis has been followed to find out how they are different. Different from other cases which usually compare sales and production departments, Table 7.12 shows that there are little differences between these two groups. Both departments presented that competition policy emphasising fair competition with the market is a less favourable factor for Korean VMs. This aspect has already been examined in the descriptive analysis. It is interesting that other departments which are mainly R&D sections in this survey consider that fair competition in the European motorcar markets will institute an opportunity for Korean VMs.

Around 70 per cent of respondents from other departments regarded this factor as an opportunity. Considering that competition policy and practices are more sensitively felt by sales and production departments, the opinion of managers from these departments is likely to reflect appropriate actual practices.

On this basis, it is necessary to proceed with another independent sample test comparing only sales and production departments to find out if there are significant differences between the two groups. The result of the *t*-test for equality of means revealed that there is no significant

Table 7.12 Crosstabulation: competition policy as an opportunity factor and department

	Department				Total
	Production	**Sales**	**HQ**	**Others**	
Very likely		1	1		2
		(3.6)	(3.8)		(2.2)
Likely	4	7	9	14	34
	(21.1)	(25.0)	(34.6)	(70.0)	(36.6)
Unlikely	7	16	12	4	39
	(36.8)	(57.1)	(46.2)	(20.0)	(41.9)
Very unlikely	4	1	4	1	10
	(21.1)	(3.6)	(15.4)	(5.0)	(10.8)
Don't know	4	3		1	8
	(21.1)	(10.7)		(5.0)	(8.6)
Total	19	28	26	20	93

Notes: $x^2 = 24.393$, df = 12, p (two-sided) = 0.018.

difference between the two groups.[45] Hence, the previous analysis, that competition policy and subsequent fair competitive business environment are considered to be less favourable factors for the Korean VMs in Europe, can be confirmed by this analysis.

Fourthly, the EU membership of the CEECs affecting FDI and the locational decisions of the Korean VMs in Europe constitute one of the most important discussions of this study. The departmental ANOVA test indicates that there are significant differences between groups of managers divided by their specialisations. Table 7.13 also confirms that this result can be statistically confirmed. However, the tendency of responses is an overall affirmative perspective on this issue. The difference is only the degree of their agreement.

Production departments show more affirmative responses compared to sales and other departments. More than 68 per cent of respondents regarded it as a very likely factor. The fact that most of FDI and industrial location in this region in Europe are focused on production facility and proportionally more concentrated in terms of scale and scope, supports this result.

Indeed, the EU membership of the CEECs appears to be a critical element when Korean VMs started to draw their strategic plan towards Europe. The lack of confidence in competitiveness in terms of technology and marketing, together with the unhealthy financial status, may

Table 7.13 Crosstabulation: the EU membership of the CEECs as the determinants of locational decision and department

	Department				Total
	Production	**Sales**	**HQ**	**Others**	
Very likely	13 (68.4)	10 (34.5)	9 (33.3)	3 (15.0)	35 (36.8)
Likely	5 (26.3)	14 (48.3)	15 (55.6)	15 (75.0)	49 (51.6)
Unlikely	1 (5.3)	5 (17.2)	2 (7.4)	2 (10.0)	10 (10.5)
Very unlikely			1 (3.7)		1 (1.1)
Don't know					
Total	19	29	27	20	95

Notes: $x^2 = 17.004$, df = 9, p (two-sided) = 0.049.

have forced them to locate in the peripheral regions in Europe, namely, the CEECs. However, the Western European markets could not be ignored as their major target. With this background, the prospect that the CEECs may be included in the EU in the near future must have had critical influence on their FDI and location decisions. Previous crosstabulation analysis classified by company showed that this consideration is more likely to be true for DMC rather than HMC.

Fifthly, based on F-statistic figure, the means of production and sales departments relating to oligopoly competition are proven to be significantly different. This is also supported by the *t*-test comparing these two departments.[46] The statistical examination of crosstabulation analysis in Table 7.14 is affected by variances of other departments.

Oligopoly competition as a determinant for FDI is considered to be more strongly felt by the production department. In general, the sales department is sensitive to competition. However, competition in European market is usually categorised as competition with indigenous brands. For instance, DMC in Poland is competing with Fiat. The result of this difference might be better understood by recalling that DW-FSO strongly opposed the Polish government's idea to allow HMC tariff-free local assembly in 1998. The majority of responding Korean managers from production departments in this survey are DMC managers and this appropriately reflects actual distribution of Korean managers in Europe. By the time DMC made a decision to expand its European

Table 7.14 Crosstabulation: oligopoly competition as a determinant of FDI and department

	Department				Total
	Production	**Sales**	**HQ**	**Others**	
Very likely	5	1	6	1	13
	(26.3)	(3.4)	(22.2)	(5.0)	(13.7)
Likely	13	18	15	18	64
	(68.4)	(62.1)	(55.6)	(90.0)	(67.4)
Unlikely		5	4	1	10
		(17.2)	(14.8)	(5.0)	(10.5)
Very unlikely	1	1	1		3
	(5.3)	(3.4)	(3.7)		(3.2)
Don't know		1	1		5
		(3.4)	(3.7)		(5.3)
Total	19	29	27	20	95

Notes: $x^2 = 20.592$, df = 12, p (two-sided) = 0.057.

operation, the market share of HMC in European market was much higher than DMC. The brand name of DMC was hardly known to European consumers. Thus, DMC's expansion by means of establishing production facilities in Europe must have been seen to be catching up with its domestic rival. However, the effectiveness of this explanation is reduced considering that no significant differences were found when the two companies were examined relating to this issue. It is important to recognise that these differences pertain only to degree when the majority of responses show affirmative perspectives. This analysis therefore seems to be of less benefit than other analyses.

Finally, a significant difference was found between the sales and other departments including the production department relating to the matter of financial incentives as a determinant for industrial location. In Table 7.15, figures in the first column indicate the importance of this variable. While other departments considered this factor as a less important determinant, the sales departments regarded this as a relatively important element in deciding business location.

In the case of the production departments, financial incentives are usually considered to be an important factor. However, other factors such as production costs, the indigenous local market and technology transfer for R&D sections, in particular, seem to have overwhelmed the importance of this factor. In the case of the sales departments, these

Table 7.15 Crosstabulation: financial incentives as a determinant of industrial location and department

	Department				Total
	Production	Sales	HQ	Others	
1		2			2
		(6.9)			(2.2)
2		4			4
		(13.8)			(4.4)
3	5	6	3	2	16
	(27.8)	(20.7)	(12.0)	(10.5)	(17.6)
4	5	4	1	2	12
	(27.8)	(13.8)	(4.0)	(10.5)	(13.2)
5	5	5	9	6	25
	(27.8)	(17.2)	(36.0)	(31.6)	(27.5)
6	2	8	4	2	16
	(11.1)	(27.6)	(16.0)	(10.5)	(17.6)
7	1		8	7	16
	(5.6)		(32.0)	(36.8)	(17.6)
Total	18	29	25	19	91

Notes: $x^2 = 37.792$, df = 18, p (two-sided) = 0.004.

would benefit from financial incentives as long as a subsidiary creates employments. In practice, either cases of production or sales subsidiaries, financial incentives have been a critical factor when Korean VMs had to decide their business location in Europe.

Survey summary

Survey results indicate that overall awareness of the effects of SEM by Korean managers in Europe is that it is a threat rather than an opportunity. Potential protectionist measures such as ADD, VER, reciprocity, together with trade diversion and increased intra-trade with the European market are considered to be critical factors affecting Korean motorcar exports. Some opportunity factors which this study assumed, such as fair competition, technical harmonisation, the abolition of border controls, are found to be less important for Korean managers and a few of them are even considered to be threatening factors. This seems attributable to the lack of education or appropriate spread of information relating to the positive effects of integration in Europe.

In line with the awareness of the effects of SEM, defensive export substituting investment as a strategic reaction to the SEM is found to be related to future trade prospects. Survey results indicated that decreased import levels of Korean motorcars will be followed by FDI to avoid barriers and to sustain the existing market share. Nevertheless, there are some contrary opinions from Korean managers who consider import controls on the Korean cars to be insignificant.

The concentration of industrial location in the CEECs is explained based on the survey results, by (i) an aggressive commitment to the growth potential of these countries and (ii) significant advantages over production factors. Local market demand and production costs ranked top. However, in-depth interviews revealed that these factors are short-term determinants of business location, and targeting EU markets is critical in the medium and long term. The potential membership of the CEECs was considered as one of the most important variables. The FDI and locational decision of the Korean VMs in the CEECs are influenced by this. Existing as well as possibly forthcoming FDIs are classified in this category.

Statistical analysis according to companies and specialisation of respondents shows that there are some differences between responding groups in a number of issues. HMC tends to consider emission control as a potential protectionist measure to be a less likely factor compared to DMC. The EU membership of the CEEC is found to be a critical factor for FDI and locational decision of DMC. In terms of practical locational factor, the potential of a local market affected DMC's locational decision in Europe. Analysis carried out according to the specialisation of respondents revealed different awareness regarding various issues. Respondents from sales departments tend to view increased intra-trade and reciprocity issues as less critical threats for the future of the Korean automotive trade, while production departments showed opposite opinions. Competition policy is considered to be an opportunity factor for all respondents from various specialisations except the production departments. The perspectives on the importance of EU membership and oligopoly competition as FDI determinants are found to be less significantly different, as differences are shown in the degree of their affirmative. Financial incentives when deciding business location are considered to be a very important element by sales departments.

8
Summary and Conclusions

This book sheds light on the FDI and industrial location of the Korean VMs in Europe relating to the economic consequences of SEM measures and further expansion of the EU for the automobile industry. Their recent activities in Europe are considered to be a unprecedented example of MNE from NIE in international business and economics. The expansion of the Korean VMs by means of trade and FDI in Europe has been traced in the search for the theoretical and practical implications of economic integration and MNE from NIE.

The propositions of this study indicated that economic integration in Europe seems to influence the internationalisation process of Korean VMs in Europe, in various aspects and dimensions. Existing trade relations, capital flows and locational decisions are presumed to be dependant variables significantly influenced by changing circumstances and continuing convergence and expansion of the European markets. In particular, the SEM process is having an important psychological influence on the decision-making process of Korean VMs. Most of the propositions were confirmed with several notable exceptions through the theoretical review as well as empirical examinations. This conclusion summarises the research issues and the findings in connection with the propositions, and discusses implications for international business literature relating to economic integration and international production.

Integration, FDI, location, and beyond

This study surveyed the awareness of Korean managers of the effects of the SEM and perceptions relating to the FDI and industrial location of Korean VMs in Europe. The managers of Korean VMs are aware of the economic consequences of European integration on the Korean auto-

mobile industry as both opportunities and threats. Firstly, an anticipated decrease in overall trade volume due to restrictions on motorcar imports may motivate them to engage in local production to maintain existing market share. Secondly, increased opportunities within the internal market will also encourage them to initiate FDI in order to exploit locational advantages. Industrial location in Europe also seems to have been affected by the expansion of SEM towards the CEECs.

First of all, this study found that direct discrimination against Korean motor imports may have significant consequences for the strategic reactions of the Korean VMs as the effects of tariff alignment are found to be insignificant. Assuming that changes in tariff levels are not substantial, trade diversion effect should be less significant. In the case of Korean VMs unlike expectation, trade volume has increased in the early 1990s. The negligible volume of trade up to the end of the 1980s, is obviously the primary reason for the comparatively rapid increase in statistical figures of Korean motorcar imports to Europe in the 1990s. In addition, reduced 'trade creation effect' resulting from the characteristics of the motorcar markets in Europe which are segmented into national markets may lead to 'trade diversion effect' being insignificant. Price differences among member states owing to the monopolistic behaviour of some producers, exchange fluctuation, market conditions of each country and tax differences also hamper trade creation within the EU.

The sharp increase in exports to European countries and the high-profile marketing strategy have produced a negative reaction among both the EU trade authorities and local car makers that may lead to various actual measures equivalent to trade barriers. The most distinctive features that may have the potential to affect Korean VMs are anti-dumping measures, national and EU level quotas and the reciprocity principle. A clear example can be found in the Japanese case in the 1980s. The surge of Japanese cars into the European market induced many European countries to impose national quotas against imports, local contents and reciprocity issues. In addition, some technical specifications embody a certain level of protection against Korean motorcar imports. Thus, in the medium and long term, the status of trading relations with the EU is likely to be worsened with reduced or stagnated volume of trade.

On this basis, direct exports which have been the main sources for serving the European markets are considered a less viable option as 'Fortress Europe' with a number of protectionist measures develops. This seems to have led Korean VMs to employ defensive FDI and local production as a long-term strategy aiming to defend existing market

share. Thus, the exogenous determinant of strategic transition to local production of Korean VMs in Europe by means of FDI are found to be potential trade barriers.

Secondly, economic integration generates a number of opportunities under the condition that companies properly react according to the internal market measures and policies. Economic integration brings changes in both the automobile industry and car markets in Europe. The dynamics of economic integration, triggering economies of scale, have contributed to the rapid industrial restructuring by means of reduced costs and equalised price levels across the region. SEM measures aiming at fiscal, technical and physical harmonisation also helped minimise uncertainty about development, production and marketing. Key measures such as the abolition of frontier formalities and liberalisation of cross-border transport, technical harmonisation, regulations on state aids to the industry and the introduction of a single currency are directly related to the automobile industry. These measures are found to have facilitated market access, room for cost reduction, fair competition and a stable business environment.

These positive aspects of integration which increase location-specific advantages appear to have attracted foreign companies to FDI in order to exploit potential gains. However, these opportunities appear to have not been decisive determinants of Korean automotive FDI. Survey results indicate that suggested opportunities within the integrated market resulting from various policies and measures on the automobile industry have had less significant effects on the FDI decisions of Korean VMs. Contrary to the dimension of trade relations which was regarded as having remarkable effects on FDI decisions, the opportunities in the European markets were found to have failed to convince Korean VMs to implement FDI. Thus, increased opportunities, as one of the important integration effects, is unlikely to be a viable factor encouraging Korean VMs to transform their European operations from direct export to local production.

Notably, the potential of European economic integration has not been properly assessed in terms of the opportunities and risks it may present according to its future evolution. The author's impression of the survey results is that Korean managers are failing to properly recognise the potential effects of economic integration. This seems to have been the reason why the negative aspects of integration have been emphasised, while positive dimensions have been neglected. It is natural to incline to the negative aspects when a situation is not precisely analysed, as these are short-term and their consequences are more predictable,

whereas potential gains from integration are recognised as being at best uncertain.

Thirdly, the industrial locations of Korean VMs in Europe are concentrated in peripheral regions, namely the CEECs, for the production facilities while headquarters and R&D centres are located in developed countries. Their locational decisions appear to be affected by prospects for an expanded EU market. The EU Commission has formally announced that one of its future aims is the geographical widening of the Union which provided prospects for an extended market towards the CEECs. This aspect of European integration has influenced Korean VMs to locate in this region.

In addition, some other variables were also identified as critical factors for industrial location in peripheral regions. The establishment of production facilities in peripheral regions has been motivated by determinants such as low wages, domestic demand, infrastructure, local component industries and preferential treatment including government incentives. However, these factors are found to be short-term determinants as the long-term strategy of Korean VMs in the CEECs aims to serve the EU markets rather than remain in these countries.

Finally, this book embraced non-integration related determinants of Korean automotive FDI, which stem from the unique and endogenous characteristics of Korean VMs. Based on the theoretical context of NIE MNE, a number of other determinants of FDI and industrial location have been identified and these were applied to the case of Korean VMs and automotive FDI in Europe. This study considered oligopoly competition, globalisation process and competitive advantages of Korean VMs as determinants for FDI in Europe. These motivations were found to be closely related with the particular characteristics of the Korean automobile industry such as the governance structure, domestic market status, government influence, development process and technological regime. In particular, technological catching-up of the Korean VMs in the last two decades was prominent and affected the competitive advantages of the Korean VMs.

Research findings and implications

Six propositions were suggested according to the research questions at the beginning of this study. In the previous chapters, these were examined, argued and discussed by means of a literature survey and quantitative as well as qualitative analyses. The brief summaries of empirical analyses are presented below on behalf of research findings under five headings.

1 Trade diversion and other protectionist measures as partial consequences of the economic integration in Europe, appear to be threatening factors for the Korean automobile industry in Europe and affect strategic decisions towards defensive export substituting FDI.
2 Increased opportunities within an integrated Europe are considered to be partially beneficial for the external entrants such as the Japanese and Korean automobile industries. Nevertheless, the perception of this by Korean managers is found to be rather negative due to the lack of both information and competitiveness. Even some of the policies and measures initially considered as beneficial factors are also regarded as threats.
3 The survey results show that suggested opportunities in the automobile industry resulting from economic integration and offensive investment have a negative correlation. This means that this factor has little or even negative effects on the decision of FDI and local production.
4 In terms of locational decisions in Europe, production facilities tend to be located in peripheral regions, while headquarters and R&D facilities are located in developed member states of the EU. In peripheral regions of Europe, Korean VMs may exploit (i) locational advantages such as inexpensive production factors and the potential growth of local markets and (ii) ownership advantages resulting from their particular know-how as MNEs from NIEs acquired from their domestic experience. The prospect of these peripheral regions in Europe joining the EU in the near future appears to be one of the critical factors for locational decisions in the long-term perspective.
5 It has been identified that some peculiarities of MNEs from NIEs may have positively influenced their overseas value-added activities as endogenous determinants for FDI and local production. Korean VMs' FDI in Europe seems to be rather well explained within the extended framework of the enhanced competitive advantages by catching-up on technology in a relatively short period of time. Oligopoly competition, and globalisation process based on the particular development history of the Korean automobile industry are also found to be important factors for existing FDI and future decisions.

Through the results and findings of this study, the following conclusions have been made which will lead to further implications. Firstly, this study assumed that the expansion of the Korean automobile industry in Europe in the 1990s was rather aggressive in accordance with the

opportunities in Europe resulting from economic integration. However, the results of the study show that the stance of the Korean VMs in Europe is significantly cautious regarding economic integration. Rather defensive motivations have prevailed in terms of FDI. Contrary to the proposition, many of the opportunity factors are recognised as threats, which also provokes defensive FDI. Even expansion in the CEECs is considered to be part of a strategy to avert risks in Europe.

Secondly, although Korean managers are aware of the importance and potential of economic integration for strategic direction, its substantial effects have not been properly appreciated in practice. Survey results indicate that very few Korean managers are aware of the competition, commercial and external policies of the EU and their conceivable effects on the Korean automobile industry in Europe. This probably is the reason behind the perception of Korean managers regarding European economic integration as a threat rather than an opportunity. It has been identified that the lack of a systematic approach and understanding regarding the impact of economic integration has added uncertainty in assessing risks for strategic alternatives in Europe. Thus, it is necessary to properly appraise the possible consequences of economic convergence, which has brought enormous changes in the business environment.

Thirdly, the situation of the Korean automobile industry which is affected by the changing business environment both in the domestic and international economy has resulted in different strategic reactions that could not be fully explained by the existing framework covering only MNE from developed countries. This implies that it is necessary to extend the framework which will accommodate the specific case of MNE from NIE, including what may motivate them to react in unexpected modes of behaviour, in terms of FDI and industrial location. Due to their unique and specific characteristics resulting from their development history, the role of government, governance structure and financial resources, their behaviour in the overseas market in the context of economic integration tends to be different from established MNEs. These endogenous aspects should be incorporated with existing theoretical frameworks relating to the effects of economic integration on the international production activities of MNEs.

Through the case of the Korean automobile industry examined in this book, we may be able to provide inductive clues to general cases of MNE from NIE. The contents of characteristics could be different among MNEs from different NIEs. Nevertheless, it should be common that the specific characteristics of NIE MNE result in different motivations for FDI,

entry mode, industrial location which cannot be explained by existing FDI and economic integration theories. This study has found that the specific characteristics of NIE MNE, that are usually viewed as weaknesses compared to those of established companies, do not necessarily cause negative results for their globalisation. An interesting factor is that they could be converted to advantages in the process of globalisation, under particular circumstances. The case of Korean automotive FDI showed typical instances in terms of industrial location. The CEECs had to be chosen as industrial locations due to lack of competitiveness and financial resources. As Korean VMs locate in these countries, their recent domestic development experience helped to cope with the indigenous industry which is in the early stages of development.

Finally, the study of the Korean automotive industry in Europe may lead to a wider concept of international business in which economic regionalism may facilitate the globalisation of the international production of MNEs from NIEs. European economic integration forming either 'Fortress Europe' or 'Open Regionalism', and the economic consequences for external entrants are found to be significant. The case of the Korean automobile industry in Europe has proved this in many ways. The Korean VMs, as non-European companies from NIEs, tend to react to economic integration with local production by means of FDI as a strategic response. In other words, the globalisation of the Korean automobile industry is proven to be promoted by the formation of economic integration. Thus, it may be suggested that economic integration as an economic aspect of regionalism is positively related with and reinforcing the globalisation of international production companies from outside the integrated region, based on the case of the Korean automobile industry in Europe. From the host country's perspective, more market intervention from NIE MNEs will lead to enhanced overall welfare of the customers in the local market by providing products at lower prices, and this will also bring competitiveness to the industry. Thus, FDI from NIE MNEs should not be discouraged, since there is wider scope for success in specific business and economic circumstances, while there are positive implications for overall global economic welfare.

Final remarks

This study sought to examine Korean automotive FDI in Europe in the 1990s, with particular reference to how economic integration has affected the motivations and patterns of FDI and industrial location. However, it is extremely difficult to isolate the effects of economic integration on

the decision-making of Korean VMs in terms of the internationalisation process. This is mainly due to a number of other factors which actually influence the process and these are, to some extent, related to this prominent economic phenomenon. Thus, the empirical findings in this study should be carefully interpreted, as contrary conclusions can be drawn in different circumstances with contingent factors. For instance, the 1997 economic crisis seems to have had profound effects on the Korean automobile industry. It has also influenced the European activities of Korean VMs. The full consequences should be carefully observed and detailed research should follow in this area. The empirical examination of the Korean automotive case in Europe may provide only partial evidence of the effects of economic integration on the globalisation of international production. Nevertheless, it is hoped that this study opens up new horizons for further research on the globalisation of MNEs from NIEs and the effects of economic integration on their activities.

Notes and References

1. Introduction

1 Hereafter referred to as Korean.
2 *Chadongch'a Kyongje*, 241(23/11/99), p. 33.
3 In this study, 'Europe' implies a wider geographical area beyond Western Europe. In particular the CEECs are included.
4 The economic sphere of globalisation seems to show two distinctive phenomena illustrated in both academic and practical terms. First, the disintegration of conservative economic territories such as country boundary, mainly because of the worldwide spread of international production activities by multinational enterprises (MNEs) using internalisation as a procedure for value-added activity (OECD 1992: 11–14). Second, clear economic integration trends among countries and specific regions by means of Regional Integration Agreement (RIA).
5 The terms, globalisation and regionalism, are used in many disciplines of academic studies and the meanings also extend over a wide area. In this study, the meaning of globalisation is defined as 'the globalisation of the international production activities of companies'. Regionalism is defined as 'the economic dimension of regionalisation which is regional economic integration'.
6 The empirical studies of Bandera and White (1968), Schmitz and Bieri (1972) and Lunn (1980) verified the 'market size' hypothesis. The 'rate of growth' was examined by Goldberg (1972), and Scaperlanda and Balough (1983). More traditional customs union theory is annotated by D'Arge (1969), Wallis (1968), Scaperlanda (1967) and Schmitz (1970). For more recent attempts, see UNCTAD (1993), Clegg (1995), Buigues and Jacquemin (1994) and Pain and Lansbury (1996).
7 The proportion of the automotive production in the transportation equipment recorded 63.5 per cent in 1998. KAMA (2000) (in Korean) *Hanguk ui Chadongch'a Sanop 1998*, pp. 8–9.
8 The monetary value of the sector overwhelmingly exceeds communications – the second largest sector – by USD 43 billion (*Business Week*, 3/6/91).
9 ACEA, http://www.acea.be/structuraldata.html, March 1999.
10 This type of interview gives respondents considerable freedom to express their opinions and perceptions of a situation. The focused interview enables the researcher to acquire details of individual reactions and specific behaviours. In particular, it is useful to clarify or supplement inconsistencies and omissions in data. See Merton and Kendal (1946) 'The Focused Interview', pp. 541–57.

2. Economic integration as a determinant of FDI

1 Economies of scale give a downward slope to the average production cost curve, but the learning curve tends to lower the entire curve.
2 Molle (1994) suggested the case of the industrial location of Philips. After the formation of the EU in the 1960s, specialisation of factories in different countries serving one integrated system has been achieved for effective global competition. See Molle (1994) *The Economics of European Integration; Theory, Practice, Policy*, pp. 275–7.
3 The share of total output of the 50 largest companies in the manufacturing sector increased from 15 to 30 per cent between 1965 and 1980 and one-fifth of total employment belonged to the same companies. Another 10 per cent of employment and 15 per cent of output are accounted for by the next 50 largest companies. See Acocella (1992) 'Trade and Direct Investment within the EC: The Impact of Strategic Considerations', in Cantwell, J. (ed.) *Multinational Investment in Modern Europe: Strategic Interaction in the Integrated Community*, pp. 204–5.
4 The number of mergers and acquisitions made by the largest 1000 European companies increased from 303 between 1986 and 1987 to 622 between 1989 and 1990. Later, liberal trade in the internal market is considered as the best tool to promote large-scale companies. See Molle (1994) *The Economics of European Integration; Theory, Practice, Policy*, p. 271.
5 See Bandera and White (1968), Schmitz and Bieri (1972), Lunn (1980), Goldberg (1972), Scaperlanda and Balough (1983), Wallis (1968), D'Arge (1969) and Schmitz (1970).
6 Among others, see UNCTAD (1993), Clegg (1995), Buigues and Jacquemin (1994), Pain and Lansbury (1996) and Dunning (1997a, b).
7 *Financial Times*, 24/10/95 (supplement, Business location in Europe).
8 Oxelheim and Gartner (1996) suggested that companies will locate production in the Union in order to acquire long-term international competitiveness even though it would be more profitable to produce at home in a short-term perspective. Thus, external policies adopted by the EU would result in increased FDI volume in the region.
9 Public procurement (Tovias 1990), technical regulations and trade in services (Hirsch 1990) were illustrated for examples.
10 CEC (1996a) *The 1996 Single Market Review*, SEC (96) 2378.
11 This opinion complements Vernon's (1966) analysis of international production related to product life cycle theorem.
12 For instance, executive of HMC expressed the intention that it would react if domestic rivals during the interview held on 14 May 1995 by McDermott. McDermott (1995) 'The Development and Internationalization of the South Korean Motor Industry: The European Dimension', p. 40.
13 Toyota's investment decision in 1997 triggered the crucial debate on the impact of EMU on inward investment in the UK. Mr Hiroshi Okuda, president of Toyota announced that the company might have to shift its European investment strategy from the UK to continental Europe if the UK stays out of EMU (*Financial Times*, 30/1/97).

3. The institutional development of the European Union and the automobile industry

1 The Cecchini Report (1988) forecast that the GDP of the 12 nations would rise by between 4.5 and 7.0 per cent, that there would be an increase in employment of 2–5 million, that the EC's external trade balance would increase by 1 per cent of GDP and that consumers would benefit by a fall in prices which could range between 4.5 and 6 per cent. See Cecchini *et al*. (1988) *The European Challenge, 1992: The Benefits of a Single Market*.

2 In 1990, the EC population recorded 322.6 million compared to 120.8 million and 239.3 million in Japan and the US (*Eurostat* 1991).

3 Figures published by the Commission of the European Communities in 1996 indicate that Western Europe was the biggest producer and market between 1992 and 1995. See CEC (1996e) *Panorama of European Industry 96*, 17, p. 10.

4 They are Volkswagen (2,845,750), PSA (2,094,149), Ford (1,909,351), Renault–Nissan (1,888,967), GM (1,866,720) and Fiat (1,396,440) according to the order of production volume in 1999 (Source: JD Power-LMC).

5 In 1996, VMs in the EU produced 14,796,798 units, an increase of 3.2 per cent compared to the production level in 1995. In 1997, the production level was 15,392,771 units (*Eurostat* 1998).

6 For instance, in 1996, the PSA group's sales was 41 per cent to the French market and Renault's figure was 42 per cent. The market share of Fiat in Italy has reached as high as 53 per cent. Volkswagen has dominated the German market with a 42 per cent market share.

7 The sectoral policies of interventionist type in the 1970s and 1980s did not form an effective instrument to promote structural adjustment. See CEC (1991) 'European Industrial Policy for the 1990s', p. 20.

8 See *Chosun Ilbo*, 23/6/98. See also Guest (1996) Marketing Strategies in the European Car Industry, pp. 10–11.

9 For instance, Fiat and Renault announced that they were merging their commercial vehicle sector in 1998. Ford–Jaguar, GM–Saab and BMW–Rolls Royce and Rover are likely to fall into the same context.

10 Daimler–Benz procured approximately 90 per cent of its needs from Germany; Fiat, about 85 per cent from Italy; and Renault, about 70 per cent from France. See CEC (1996e) *Panorama of European Industry 96,* 17, pp. 25–26.

11 The number of component suppliers for Ford decreased from 2500 to 900 by 1993. Renault has reduced from 1415 to 900 since 1985. This trend is similarly applied to other manufacturers in the 1990s. See Park, S. J. (1993) *Information and Analysis for Accession to the EC Automotive Market: Trend, Strategy and Problem*, p. 43.

12 BEUC internet site, http://www.beuc.org/public/press/pr2000/pro2-3e.pdf (22/07/99).

13 See BEUC (1989) *EC Study on Car Prices and Progress Towards 1992* and Murfin (1987) 'Price Discrimination and Tax Differences in the European Motor Industry', pp. 179–86.

14 VW planned to reduce the number of production platforms from 16 to 4 by the year 2000, while the number of models is to be increased by 10 from 20 to 30. Fiat also planned to reduce the number of existing platforms to

a total of four (A, B, C/D, LC). Up to 75 per cent of all PSA models would share the same three platforms by the year 2003.

15 In the case of Renault, its Belgium factory was closed and left 3100 redundancies. Ford started rearranging its sales network in Europe in 1998. The sales networks in northern European countries including Sweden, Norway, Finland and Denmark were integrated as one Nordic regional centre. Ford is seeking further integration of other sales networks in order to minimise the inefficient usage of marketing costs, as well as to achieve an integrated brand image. Ford acquired two luxury automobile brands, Jaguar and Volvo. Together with its existing US luxury brand, Lincoln, Ford planned to upgrade the company's image by integrating the marketing efforts (Automobile news, 15/4/98).

16 This is resulted from a merger of the UK companies. See Molle (1994) *The Economics of European Integration; Theory, Practice, Policy*, p. 286.

17 Volvo sold more than 100,000 cars in the US market which counts for a quarter of its total sales. Volvo intends to concentrate on the commercial vehicle market as it seeks to acquire Scania (*Hankyung Jadongcha Shinmun*, 10/2/99).

18 Regional proportions of sales for Benz are 33 per cent for Germany, 30 per cent for other European countries, 21 per cent for North America, 8 per cent for Asia, 4 per cent for South America and the remaining 4 per cent for other regions. That of Chrysler in North America and other regions are 82 per cent and 8 per cent respectively (*Hankyong Chadongch'a Sinmun*, 6/1/99).

19 It was reported that cost of sales as a percentage of turnover fell by 7 per cent and total labour cost fell by 9 per cent between 1992 and 1994. CEC (1996c) *Motor Vehicle, The Single Market Review I: Impact on Manufacturing*, p. 89.

20 The European Council meeting in June 1993 adopted the criteria for membership. It requires social stability, economic capacity and the political obligations of membership. In terms of market economy, the Commission concluded that all countries made progress but none fully meet the economic criteria. Hungary and Poland are evaluated as comparatively close to the conditions. 1991 PTAs with Czech Republic, Hungary and Poland. 2913/92 and 2454/93; 717/91 (21.3.91) are main developments.

21 Greater security and stability, a wider Single Market and long-term business objective were suggested as the objectives which could be acquired. However, structural funds and the Common Agricultural Policy are listed for reviewing as the prerequisites for the negotiations (CBI 1995, p. 24).

22 When the average GDP per capita of member states of the EU recorded USD 23,000, those of the CEECs were between USD 3000 and USD 9000 in 1999.

23 In 1995, average wage in the CEECs such as Poland (USD 2.09), Hungary (USD 1.70), Czech Rep. (USD 1.30) were much lower than the EU countries such as Germany (USD 31.88), France (USD 19.34), Italy (USD 16.48). *Economist*, 2/11/96.

24 Bulgaria joined CEFTA in July 1998 and full membership will take effect in 2001.

25 VAT is the foremost difficulty in taxation. Different VAT rates in a wide array of sectors cause difficulties to establish common bands. In addition, any way to collect VAT is likely to collide with border freedom. The solution

has been to collect VAT on products as if they were domestic sales with net trade flows being used to determine which country owes what to whom.

26 As the policy concept suggested the internal market as a factor for change, standards and product quality, public procurement, the abolition of national quotas, a coherent legal framework for business and trans-European networks are listed as the elements. See CEC (1991) 'European Industrial Policy for the 1990s', pp. 15–18.

27 See also CEC (1988a) The EC 92 Automobile Sector, Research on the "Cost of Non-Europe": Basic Findings, Vol. 11.

28 Motor vehicles were included in the list of products for which technical barriers are regarded as important. Other products include electrical engineering products, foodstuffs, mechanical engineering equipment, metal articles, medical equipment and instruments, mineral products, pharmaceutical products and rubber products. See Lundberg (1990) 'Nordic Industry and the EEC Internal Market', Table 1.

29 Economist Intelligence Unit (EIU) (1991), p. 64, Table 36.

30 See Appendix II for the full list of Legislation for the Automobile Sector in the EU.

31 The Treaty of Rome, Article 92, 93 and 94.

32 It is suggested that other forms of protectionism recede, but state aid tends to grow which hampers the competitive environment within the market. It is pointed out that state aid has implications for the economic convergence within the EU because well-developed member states would outbid less developed states. Around 88 per cent of all aid granted is accounted for by the four largest member states. CEC (1991) 'European Industrial Policy for the 1990s', pp. 11–12.

33 The Commission's enquiry into six investment projects of Volkswagen, Bruxelles, SA regarded these investments as one large project, though each project did not exceed ECU 12 million. This was also clear in the case of the Rover Group when the payment to its potential new owner, British Aerospace, was interpreted as state aid.

34 There are five criteria for countries of the EU who want to involve in monetary union to fulfil before setting up. These are low inflation rate, deficit limits on the public budget, low debt burden, co-ordination of a long-term interest rate with that of inflation rate of a country and no devaluation of their currency (Article 104c, 109j). Some member countries are still remote from these standards. Germany, France, the Benelux and Denmark seem to fulfil the criteria. However, Italy, Spain, Portugal and Greece are unlikely to converge to the threshold values for most of criteria.

35 The paper raised several questions relating to the monetary union for the preparation of the 1996 IGC. They are (i) can the timetable set out in the TEU be adhered to and by how many countries? (ii) how might countries burdened by fiscal indebtedness secure economic convergence and at what cost? and (iii) do the convergence criteria need to be revised or maintained? See Scott (1995) *Crisis or Opportunity? Monetary Union and the IGC*, pp. 8–10.

36 See Article 85/86 123/85, Article 5(3) of Treaty of Rome and Regulation (EC) No 1475/1995 of 28 June 1995 (latest).

37 The contents of this amendment comprise changes of inclusive rights of a dealer to display more than one brand of car, to sell overseas excluding

sales by post, to use parts produced by independent parts producers and to cease contract even before the 4–5 years contract period. See EIU (1995) *European Motor Business: Research Report Examining the West European Automotive Industry and Market*, pp. 106–7.

38 A significant fine could be imposed on Daimler–Chrysler who prevented dealers in Germany, Sweden, Belgium and the Netherlands from selling the cars to the customers from other countries from 1985 to 1996. Renault, Peugeot, Volvo and Opel also face investigations for the same indictment. Penalties that may be imposed can be as high as 10 per cent of turnover. In January 1998, the practical sanctions were applied to Volkswagen which was fined ECU 102 million for instructing Italian dealers not to provide the Audi model to German and Austrian consumers.

39 Transportation cost differentials were not confirmed as one of the important factors. See Gual (1993) 'An Econometric Analysis of Price Differentials in the EEC Automobile Market', pp. 599–607.

40 See relevant directives; COM(91)219 final 89/458/EEC, 88/77/EEC, 70/157/EEC, 85/210/EEC, 87/416/EEC.

41 Similar capitalist economic systems, financial institutions and a common language have provided a favourable condition for inward investments. In addition, the economic status of the UK and other European member countries has also affected the flows of inward investments. The need for regional development pushed the British government to be aggressive to attract inward investments while many European countries set restrictions against foreign ownership of the stakes of indigenous companies. See Egan and McKiernan (1994) *Inside Fortress Europe; Strategies for the Single Market,* pp. 62–4.

42 See Kreinin (1991) 'EC-1992 and World Trade and the Trading System', p. 55.

43 . . . *ensuring strong and fair competition both within the European Union and vis-à-vis third countries* (Bulletin EU 7/8/96, Industrial policy).

44 It is explicitly suggested that the internal market should also be open to goods and services from third world countries if they are legitimately imported. CEC (1991) 'European Industrial Policy for the 1990s', p. 17.

45 The suggested key elements to build the concept of industrial policy are threefold. They are (i) efficiently functioning market economy by laying down stable and long-term conditions, (ii) providing the catalysts for structural adjustment and (iii) developing the instruments to accelerate structural adjustment, and to enhance competitiveness. See CEC (1991) 'European Industrial Policy for the 1990s', p. 10.

46 The removal fragmentation of the EC market would automatically be extended to foreign exporters and investors. See Kreinin (1991) 'EC-1992 and World Trade and the Trading System', pp. 54–5.

47 It was reported that the tighter exchange rate parameters of the ECU will provide a degree of security for outsiders (*Financial Times*, 19/9/97).

48 He also suggested that a margin of preference in favour of the internal traders is clear in the case of public procurement policies or the creation of a European financial area. See Yannopoulos (1992) 'Multinational Corporations and the Single European market', pp. 330–1.

49 It is estimated that trade diversion effect would be 8 per cent of ASEAN exports and 5 per cent of South Korean exports. See Kreinin and Plummer

(1992) 'Effects of Economic Integration in Industrial Countries on ASEAN and the Asian NIEs', pp. 1357–62.

50 See Reg. No. 2423/88, OJ. L209/1 (1988), Article 4 and Article 12(1).

51 The complexities of the required calculations and the various market distortions suggest that there is no guiding line between what can and what cannot be construed as dumping. See Welford and Prescott (1992) *European Business; An Issue-based Approach,* p. 438.

52 These are used to determine the type of treatment to be accorded a particular product. These treatments include eligibility for preferential market access, level of tariff and duty, application of quotas, eligibility for public procurement contracts. O'Cleireacain (1991) 'EC Policies Towards Japan: Implications for US–EC Relations'.

53 Rules of origin may be divided into 'Preferential origin rules' applied to EFTA and GSP countries (Reg. 693/88) and 'Non-preferential origin rules' (Reg. 802/68).

54 The main origin rules are found in Reg. No. 802/68, Article 5. This identifies the country of origin of a product as the country in which the 'last substantial or economically justified' operation took place.

55 Article 115 of the Treaty of Rome. This rule enables member states to restrain incoming goods through other member states.

56 The 1985 White Paper called for the consolidation of the commercial identity 'so that our trading partners will not be given the benefit of a wider market without themselves making similar concessions'. See CEC (1985) *Completing the Internal Market*, paragraph 19.

4. An introduction to the Korean automobile industry

1 Original source from KDI cited from Lee, J. H. (1996) 'Current Aspects and Peculiarities of Korean Chaebol', p. 31.

2 An inter-industry table published by Bank of Korea illustrated that source industries for the automobile industry consist of 21 per cent of motor and boiler products, 16 per cent of machine parts, 13 per cent of steel goods, 10 per cent of wholesale and retail parts and other fields like metallurgy, electronics, rubber, finance and insurance.

3 In 1994, 3014 suppliers produced a total of won 101.8 trillion (USD 119.7 billion) worth of automobile parts. See KAMA (1995) *Han'guk ui Chadongch'a Sanop 1995 (The Automobile Industry in Korea 1995)*, pp. 2–11.

4 At the time of writing, one of two major Korean VMs was collapsing due to the difficult financial situation. The company is destined to be sold by international auction by the end of 2000.

5 "...a unique feature of many Korean companies is their early effort to develop their own product models and to make abroad under their own brand names...", Poter, M. E. (1990), p. 471.

6 They are, for instance, technical agreements, JVs, licensing agreements, OEM and share holdings.

7 Sourced from KAMA cited in the '*1998 Korean Automobile Industry*', p. 65.

8 The disadvantages of KD assembly could be assessed in a number of aspects. These are the impossibility of long-term mass production, high price and

many defects due to small lots, and difficulties in export even if the industry could be localised. Consequently it deters long-term development of the industry and industries in the country as a whole.

9 Leapfrogging is defined as 'leapfrog old vintage of technology, bypass heavy investment in previous technology system and catch-up with advanced countries'. See Hobday (1995).

10 This figure is also lower than US and European manufacturers who recorded 22.9 and 25.6 man-hours in 1993 respectively.

11 In terms of the input and length of total production, Korean VMs showed a better than average level, but overall quality indicates only a third of the level of Japanese VMs. Common part ratio was particularly low and this is attributable to the rapid development of a number of new models in the 1990s. IQS index of Korean VMs was far below the average figures. In the case of HMC, its IQS index was decreased to 146 in 1996 and 125 in 1997, but they were much higher than the average of the industry which recorded 86. Refer to Ellison *et al*. (1995) cited from Kim, S. B. and Kim, J. (1998) p. 48, and J. D. Power and Data Association, each year.

12 The debt rate of Toyota, Nissan and Honda in 1996 recorded 54, 110 and 80 per cent respectively.

13 The proportion of component suppliers with less than 100 employees was over 60 per cent. See Park, J. S. (1988) *Han'guk ui Hachungje Hyongsong Yoin kwa Ku Kuchoe Kwanhan Il Kochal* (The study of factors affecting the subcontract system in Korea and its structure), p. 32.

14 Small- and mid-sized automobile parts suppliers are in danger of shortage of cash flow and regard themselves as lagging behind if they are in the position of 2nd or 3rd tiered subsidiary. Keeping a single tiered relationship, the security of the company seems to be guaranteed and more support is available.

15 Major manufacturers in the US, Toyota and Fiat started the project to develop a world car targeting the world compact car markets. Japanese makers aim to penetrate the Asian market with the Asian car to get over appreciation of the yen and trade friction. Further BMW and Mercedes Benz started to develop compact cars to transform their company image from luxury car makers to mass producers.

16 Low productivity, financial costs, excessive expansion by means of debts, components supply system, and moral hazard were considered to be factors which led to the overall crisis of the Korean automobile industry (*Hankyung Business*, 13/10/98).

17 Interview with Lee, K. Y. Overseas Marketing Department, KMC (23/8/98).

18 The broadening co-operation among competing global motor makers and the spread of lean production systems are also suggested as market re-shaping trends in the automobile industry. See Abrenica (1998) 'The Asian Automotive Industry', pp. 12–26.

19 This strategy has also been accused of being one of the major attributes of excessive investment which resulted in the crisis in 1999.

20 GM and Toyota agreed to develop an environmentally friendly car as engineers from both companies would work together. Mitsubishi also agreed to provide GDI (Gasoline Direct Injection) engines to PSA group. Renault, Fiat and HMC would ally with Mitsubishi in the R&D sector (*Hankyong Chadongch'a Shinmun*, 27/1/99).

21 In addition scale and scope of economies in narrow and fragmented markets were also pointed out. Graves (1994) 'Innovation in a Globalising Industry; the Case of Automobiles'.
22 This tendency was found in a survey in 1994 of 14 Korean manufacturing companies in Europe testing ownership pattern, locational decisions, motivations of FDI, employment and product brands.

5. Korean automotive FDI in Europe: patterns, motivations and characteristics

1 The share of vehicle exports destined to Europe rose from 8.3 per cent in 1990 to 41.7 per cent in 1997.
2 It is suggested that even near outsider countries such as Middle East and North African countries are optimal location for the Japanese and Korean producers to trade with European countries (*Financial Times*, 19/9/97).
3 These countries are Spain, Portugal and Greece. See Yue (1991) 'The EC Internal Market and ASEAN–EC Direct Investment Flows', p. 351.
4 By doing this, the transportation and inventory costs have been reduced by an arrangement of component suppliers by VW near to Skoda. In 1996, Skoda recorded net profits and planned to produce 50,000 units by the year 2000.
5 Renault also reached an agreement with Dacia to produce Renault cars in mid-1998. Considering the usual strong French ties with Romania, it may threaten HMC in Romania. See O'Brien (1998), p. 126.
6 By 1997, DMP produced 40,000 units plus parts while DW-FSO produced 120,000 units per annum. The local production facility initiated in Romania in 1996 by RODAE Automobile SA, was established in 1994. Currently 100,000 units are produced and 200,000 units of engine and axle are planned to be produced. Twenty thousand units of trucks are produced by AVIA in the Czech Republic and they plan to produce 75,000 units of trucks.
7 The number of staff is around 950 including 70 Koreans and 20 Polish engineers relating to the project LD-100 van for the European markets by 1998 (Interview with Shin, Chul-Dong, General Manager, Programme Management-LD 100, DWTC, 10/11/99).
8 However, the unfavourable economic status of the UK may have a negative impact on the locational decision or incentives for further FDI. For instance, the closure of European hydraulic excavator manufacturing plant of Samsung Heavy Industries in Harrogate, UK in 1997 is known to be affected by the strength of Sterling, risen UK interest rate. Samsung indicated that these economic conditions are attributable to a substantial decline in competitiveness in its UK hydraulic excavator manufacturing business and an uncertain future forced it to close its European operation.
9 *Financial Times*, 30/1/1997 and 24/7/1997.
10 This report shows the increasing figures of inward investment and employment. The UK stock of inward investment rose from 52 billion pounds in 1986 to 131 billion pounds in 1993, 44 per cent of all total direct investments into the EU. It is estimated that 700,000 jobs have been created since 1979 in total.
11 *Financial Time*, 24/7/1997.

12 Cited from the interview in the Financial Times with British officials dealing with inward investment. In particular, the LG group's investment project of a USD 2.6 billion electronic plant was illustrated (*Financial Times*, 30/1/1997).
13 The trade relationship of Korea with the EU is compared to other Asian countries such as Japan, China and Taiwan. See Dent (1998) 'New Interdependencies in Korea–EU Trade Relations', p. 371.
14 Thirty-three per cent of Korean managers who answered the questionnaire perceived that barriers to trade are similar to other regions and only 9 per cent responded that they are lower than other regions. See Nam and Slater (1997) 'Korean Investment in Europe: Motives and Choices', pp. 43–4.
15 These struggles since the 1980s with many of the trade disputes are mainly at the political level. See Dent (1998), p. 378.
16 McDermott (1995) 'The Development and Internationalization of the South Korean Motor Industry: The European Dimension', p. 46.
17 Total annual EC import in 1992 was decreased from 8.7 billion to ECU 8.1 billion, while export to Korea was decreased by ECU 1 billion.
18 In addition to trade diversion factor, recession in Europe, Korean wage rate hikes and the appreciation of the won were also suggested as reasons which attributed the fluctuation of trade flows. Dent (1998), pp. 372–7.
19 The author suggested that the openness and competitiveness within the US car market had led the US manufacturers to a degree of efficiency, innovation and flexible adjustment. See Berg (1993) 'Motorcars: Between Growth and Protectionism', p. 145.
20 This mechanism entailed the phasing out of GSP benefits based on criteria indices that take account of the level of development and product specialisation in beneficiary countries. See Dent (1998), p. 378.
21 Other sectors were also completely removed from GSP privilege when Korea graduated from the scheme with Singapore and Hong Kong by May 1998.
22 Growth of Korean exports to the EC in an annual average was 26.7 per cent, while EC exports to Korea grew by an average 21.7 per cent per annum. Dent (1998), p. 374.
23 The delegations of Korea represented the opinion that it would be absurd if the criteria for the overcapacity should be a domestic market considering a liberalised open world economy. The restructuring of the Korean automobile industry will be motivated according to the market principle (*Chosun Ilbo*, 21/7/1998).
24 This figure includes European car makers and Japanese transplants. The actual number of vehicles produced in 1995 was 12.8 million which is 71.2 per cent of utilisation percentage. See CEC (1996f) *Examination of Current and Future Excess Capacity in the European Automobile Industry*, p. 29.
25 In addition, he pointed out the fact that the decision of the EC to suspend its GSP privileges on Korean goods from 1989 to 1992 has added to the frustrations of the Korean government. Dent (1998), pp. 378–81.
26 This survey was conducted in 1989, examining the cases of ADD between 1980 and 1985. Messerlin (1989) 'The EC Anti-Dumping Regulations: A First Economic Appraisal 1980–1985', pp. 563–87.
27 VER level imposed on Japanese vehicles consented in 1999 is 114,000 units which is decreased by 6,000 units compared to 1998 (*Chadongch'a Kyongje*, 27/4/99).

28 The Korea–EU Automobile Industries Forum is held by the KAMA and the European Commission.
29 This was referred to by Stefano Micossi, Director General, DG III at the third Korea–EU Automobile Industries Forum held in June 1996.
30 According to the agreement, the European VMs should develop a model which does not exceed 120 g/km of CO_2 by 2000 and reduce by 25 per cent compared to the level of 1995 that is 140 g/km. The fuel consumption should be reduced by 61 per cent (*Hankyung Chadongch'a Shinmun*, 24/3/99).
31 Acceleration of economic growth, removal of border controls, the new approach to standardisation, and opening of public procurement are suggested as the main elements which offer major opportunities. See Koopmann and Scharrer (1991) 'Scenarios of a Common External Trade Policy for the EC after 1992', pp. 186–97.
32 'The Cecchini Report' (1988) forecasted that the GDP of the 12 nations would rise by between 4.5 and 7.0 per cent, that there would be an increase in employment of 2–5 million, that the EC's external trade balance would increase by 1 per cent of GDP and that consumers would benefit by a fall in prices which could range between 4.5 and 6 per cent. See Cecchini *et al.* (1988) *The European Challenge, 1992: The Benefits of a Single Market*.
33 Those are financial services, telecommunications services and equipment, foodstuffs, building products, textiles and clothing, pharmaceuticals and automobiles.
34 The erection of protectionist walls and dynamic efficiencies that are conferred by regional integration would provide more incentive to seek to be an insider by way of inward investment. Dent (1997) *The European Economy: The Global Context*.
35 Discussions about the dynamic mechanism of internal market in this section are focusing on the measures and legislation particularly relevant to the automobile industry in the EU which are likely to influence the strategic decisions of manufacturers from non-member countries.
36 SMMT, CEC (1996c), p. 40.
37 The unit costs which are determined by scale factors in the automobile industry would be decreased by 10 per cent when the volume of production doubled up to 2 million units annually (Owen 1983).
38 In 1988, the French government agreed to abandon Renault's special status protecting it from bankruptcy and to cut capacity by 15 per cent in return for a state grant of FF 12 billion. This promise was breached, as the French government was reluctant to close plants. As a reaction to this case, the Commission ordered Renault to repay the state grant.
39 For instance, Daimler–Chrysler was accused of unfair trading practice in 1999. It is alleged that Daimler–Chrysler have prevented customers from other countries from purchasing motor vehicles from German and Belgian dealers. In such cases, the commission is entitled to charge up to 10 per cent of sales for the effective period.
40 The completion of EMU and the circulation of the single currency are likely to have affected investment flows. It is suggested that uncertainty of finance and exchange negatively influence the direct investment flows. See Morsink and Molle (1991) 'Direct Investment and Monetary Integration'.
41 The currency fluctuations are likely to lead to greater unit price increase in general. For instance, in the aftermath of the crisis of the currency fluctuations in the EU between 1992 and 1993, unit cost increased in the market.

The currency appreciating countries and depreciating countries in the regions showed clear economic effects as a result. Whilst the export profitability in the former countries decreased, that in the latter countries increased. In addition, appreciating countries experienced difficulties in penetrating the depreciating countries' markets.

42 By 1998, the value of Sterling had risen by more than 20 per cent since May 1996, when UK car prices were amongst the lowest in the EU. In the case of Italy, prices were the lowest in the EU from 1993 until 1995 due to the devaluation of the Lira. Since the Lira has made a recovery, prices are at a similar level to those of other member states.

43 Together with this, tax harmonisation is also suggested as important fiscal harmonisation measure affecting price convergence in the motor car markets in the EU. See ACEA, http://www.acea.be/100298html, 13/2/1998.

44 The survey found that two-thirds of companies are planning to convert their accounting from DMs to Euros and a third hope to have converted by 1999. See *Journal of Automobile Industry*, 1998, p. 31. For instance, BMW in Germany recognised that the 'Euro' will bring greater stability through its growing importance as a global currency because 25 per cent of its world trade is invoiced in Euros. The company prepared a project team to manage the switch to the Euro. Around 300 people will be involved in conversion tasks with overall cost of conversion at DM 40 million (*FT*, 7/10/99).

45 The KIET and KOTRA jointly carried out a survey in 1994 on 14 Korean manufacturing companies in Europe relating to ownership pattern, locational decisions, motives for FDI, employment and product brand.

46 Among others, see Jun (1989) and Yun (1993) for further details relating to 'involuntary internationalisation'.

47 The proportion of component suppliers with less than 100 employees was over 60 per cent. See Park, J. S. (1988) *Han'guk ui Hachungje Hyongsong Yoin kwa Ku Kuchoe Kwanhan Il Kochal (The study of factors affecting the subcontract system in Korea and its structure)*, p. 32.

48 Screwdriver regulation is developed from anti-dumping legislation in 1987 (Reg. No. 1761/87, Article 13).

49 In particular, a global redistribution of the locational advantages which might affect investment decisions is due to the measures of the single market programme. See Yannopoulos (1992) 'Multinational Corporations and the Single European Market', p. 330.

50 The assumption for this conjecture is that the relations between export and FDI are complementary.

51 He also suggested that a margin of preference in favour of the internal traders is clear in the case of public procurement policies or the creation of a European financial area. See Yannopoulos, (1992) 'Multinational Corporations and the Single European Market', pp. 330–1.

6. The Cases: Korean vehicle manufacturers in Europe (the 1990s)

1 The CEO of Fiat, Roberto Testore, noted the difficulties the company had experienced recently due to the aggressive market intervention of the Korean and Japanese motors in the compact and subcompact sector (*Hankyung Chadongch'a Shinmun*, 13/1/1999).

2 There are a number of further JVs and takeovers apart from the cases reviewed. For instance, DMC contributed 16 per cent with the British government to form a JV with LDV in 1998. In the case of DMP is analysed in detail. In February 1998, DMC agreed a JV contract with Avtozaz in Ukraine to form Avtozaz–DW.
3 By early 1999, the formation of the Korean automobile industry was rearranged. HMC merged with KMC and DMC acquired Ssangyong. The collapse of Samsung and the Daewoo crisis left restructuring unfinished by 1999.
4 Interview with Kim, S. K., Deputy Managing Director, D Cars Ltd (26/8/99) and Lee, K. K., Coordination Team, Personal Division, DW-FSO Motor Corporation (29/2/00).
5 DMC acquired the independent motor R&D company of the IAD group in January 1994. The package included all existing staff and research, design and development facilities. This R&D centre has in total a 750 work force, 650 local researchers and 100 additional staff despatched from Korea. This centre is attributed to the successful launch of three new models in 1997 (*Seoul Kyungje Shinmun*, 19/4/99).
6 *Chadongch'a Kyongje*, 226, 26/4/99.
7 This was clearly visible when the EU complained that measures of the Ukraine government for DMC violated its trade arrangement with Ukraine. Ukraine government allowed DMC to have exemptions on import duties and taxes as part of the JV agreement with Avtozaz.
8 The structure of the shares is comprised of 65.3 per cent of D Corporation, 21.2 per cent of D Heavy Industries and 13.5 per cent of others.
9 Approximately 2000 units to Italy, 500 to Spain, 1000 units to five countries in CEPTA and 600 units to other countries (interview with Cheong, M. S., 29/2/00).
10 Sixty-eight suppliers are indigenous companies in Poland with USD 810 million in monetary terms and 23 are from other European countries with USD 48 million which comprise a total of 96 suppliers with a total value of USD 946 million.
11 They are D&D Spring Poland Comp. Ltd, Hanyang DMP in Swidnik, Metal Parts from Wegorzewo, Dong Seo in Parczew and Upholstery Plant.
12 The number of dealers of DMP's sales network in Poland reached 98 with 200 service stations across the country by 1998.
13 Local models are the 'Polonaise' and the commercial pick-up, and the 'Tico' and the 'Espero' are produced as DMC SKD models.
14 Interview with Kim, K. Y., Research Fellow of Economics, Coordinator of President's Office, DW-FSO Motor Corporation. He mentioned that the research to find critical changes resulting from economic integration and adaptation to practice have ceased since the Daewoo crisis occurred (29/2/00).
15 They include CKD plants in Thailand, the Philippines, Indonesia, Holland, Venezuela, Botswana, Zimbabwe and Egypt.
16 *Financial Times*, 25/4/1997.
17 This is mentioned in the opening ceremony speech by Chung, S. Y., Honorary Chairman of HMC that HAOS will serve as a strategic foothold to advance into the European and Middle East markets (HMC http://www.hyundai-motor.com, 1997 news, 22/9/97).

18 The percentage of stake share was 50 per cent for HMC and 50 per cent for the Kibar group.
19 The only exception is the local HMC distribution company, H Deutscheland GmbH where HMC has a part of the equity stake (*Hyundai Annual Report 1996*).
20 This is supported by the instance in 1997, when an FDI plan was revealed. Even though it has never been executed, four potential locations were appointed near Bristol's Portbury Docks, in Sunderland, Tyne and Wear, and Scotland. It is worth noting that these listed locations were all in the UK (*FT*, 25/4/97).
21 *Financial Times*, 17/10/1997.
22 This company specialises in the automobile industry and has been working with Mercedes of Germany on joint local assembly of vans. The Polish company also makes buses and trucks for the local market.
23 This equity split is Zasada 52 per cent, HMC 24 per cent and H Corporation 24 per cent. The sequel of investment in a five-year plan would be USD 120 million by 2000 and total USD 1 billion by 2003. See O'Brien (1998) *Korea's Automotive Future*, p. 125.
24 Interview with Lee, K. K., Co-ordination team, Personnel Division, DW-FSO Motor Corporation (29/2/00).
25 Interview with Kim, K. Y., Research Fellow of Economics, Coordinator of President's Office, DW-FSO Motor Corporation (29/2/00).
26 There are two phases in policies for fostering the automobile industry. As a first step, industrialisation and the restructuring of the industry was carried out between 1995 and 1997. The component industry has been focused on development policy since 1998 as the second phase.
27 Interview with Lee, K. K., Co-ordination Team, Personnel Division, DW-FSO Motor Corporation (29/2/00).
28 For instance, input man-hours per car in Korea recorded 94 which is 55 per cent of Japanese manufacturers (30 hours), and 82 per cent of US, and 95 per cent of European manufacturers.
29 Interview with Cheong, Y. S., Corporate Strategy and Planning Director, D Motor Poland Corporation Ltd. He emphasised the importance of technological development and lack of technology and competitive advantages are suggested as reasons for the risk taking of DMP (29/2/00). A similar perspective was found during the interview with Lee, S. S., Chief of Finance and Accounting Department, D Motor Poland Corporation Ltd (29/2/00).
30 Interview with Jung, M. S., Chief, Market Development Department, D Motor Poland Corporation Ltd (29/2/00).
31 Interview with Cheong, Y. S., Corporate Strategy and Planning Director, D Motor Poland Corporation Ltd (29/2/00).
32 Among EFTA countries, the lowest level of Japanese market share was found in Sweden where Volvo and Saab are present. Overall EFTA intervention level of the Japanese motors is reduced for this reason.
33 These were viewed as a result that both vehicles and component suppliers would not be able to achieve any considerable market intervention in Japan. See EIU (1991b) 'The Japanese in Western Europe', pp. 49–85.
34 See CEC (1988b) Com (88) final-II, 15/3/88, and UNCTC (1988) *Transnational Corporations in World Development: Trends and Prospects*, pp. 76–7. Notably

manufacturing FDI has become more significant as the location of FDI has altered from Asia to the US and Europe. See Dicken (1988) 'The Changing Geography of Japanese Foreign Direct Investment in Manufacturing Industry: A Global Perspective', pp. 633–53.

35 'Export-substitute' investment is also suggested in the text relating to the resolution of trade conflicts along with the relative strength of Japanese production systems. See Hasegawa (1998) 'Japanese Global Strategies in Europe and the Formation of Regional Markets', pp. 38–9.

36 They also mentioned additional motivation for Japanese transplants to Europe as (i) means of circumventing restrictions on imports from Japan and (ii) to be near to local markets which help to respond to local tastes. See Smith and Venables (1990) 'Automobiles', p. 127.

37 These are often referred to as presence effects in foreign investment. See Welford and Prescott (1992) *European Business; An Issue-based Approach*, pp. 445–6.

38 The market share of Japanese companies recorded 1 per cent in 1971 which increased to 9 per cent in 1980. Japanese automobile manufacturers managed to capture 13 per cent of the market in 1990.

39 For a more recent instance, Toyota opened engine and assembly plants in Burnaston, Derbyshire and Deeside North Wales that cost USD 1.4 billion in 1992. The second major investment was a USD 1.6 billion car plant in Lens, northern France which created more than 2000 jobs and generated additional demand for the 200 European component suppliers. The second project aimed at a target of increasing sales in Europe to 600,000 units with 60 per cent of local production (*Financial Times*, 17/3/1997).

40 Co-operation continued in body production, and Honda used Rover diesel engines even after Rover was taken over by BMW in 1994. However, any prospect of Honda taking over Rover's mainstream car development disappeared. See Dymock (1995) *Honda, the UK Story*, p. 68.

41 The companies that matched to these countries are Mitsubishi (Netherlands, Belgium), Nissan (Greece, Ireland, Spain, Portugal), Toyota (Germany, Portugal), Daihatsu (Italy), Hino (Ireland, Greece), Mazda (Portugal), Suzuki (Spain, Hungary) and Isuzu (Spain, Ireland).

42 These sectors are inclusive of automobiles, textiles, toys, porcelain and chemicals. CEC (1991) 'European Industrial Policy for the 1990s', p. 17.

43 Italy restricted its imports of Japanese cars to 2300 a year even before the formulation of the EU. See Molle (1994) *The Economics of European Integration; Theory, Practice, Policy*, pp. 284–5.

44 France has had an agreement with the Japanese government to restrict the Japanese market share in the French market since 1977.

45 According to the WVTA, all vehicles which have been sold since January 1996 could be freely circulated within the European market. However, it took a long time to agree all the specifications of motor vehicles.

46 It was estimated that the cost to consumers of EC restrictions on Japanese imports amounted to ECU 2.8 billion annually. See National Consumer Council (NCC) 'Cars: The Cost of Trade Restrictions to Consumers'.

47 EIU special report (1991a) suggested that the strenuous efforts to exclude the Japanese products are motivated to allow European industry to adapt to a changing world. See EIU (1991a) *Europe's Motor Industry after 1992: A Review of Single Market Legislation and its Implication*, pp. 72–7.

48 Trade and Industry Committee (1987) 'The motor components industry' House of Commons paper 143, session 1986/87.
49 Italy dropped its complaint because the cars built in the UK would have 80 per cent local content by 1990. See Egan and McKiernan (1994) *Inside Fortress Europe; Strategies for the Single Market*.
50 For example, in the production of television sets in the USA, Japanese companies source only 28 per cent of their components locally, in Europe this figure is 70 per cent.
51 This is clearly presented in the essay of Giovanni Agnelli who is chairman of Fiat. See Agnelli (1989) 'The Europe 1992', *Foreign Affairs*, Fall.

7. Survey analysis

1 The research survey was performed in three rounds extending from 1998 to 2000. The first round of field studies was carried out in Korea, visiting the headquarters of the Korean VMs in Korea between September and October 1998. The author completed a number of interviews with managers from the headquarters of DMC and HMC specialising in European operations, and managers from the Korean Automobile Manufacturers Association in order to acquire neutral implications for the research theme. The second round of field studies was performed in September 1999 in the UK. HMC European office, D Cars UK which is DMC's sales subsidiary, and DWTC in Worthing were chosen for the survey. The third round of the survey was carried out in Poland to examine the dimension of the Korean VMs in the CEECs visiting DMP, DW-FSO and HMC Poland office.
2 Among other interviewees, Cha, J. K., Western Europe Team II, D Corporation (22/9/98), Oh, I. W., European Team Export Group I, H Motor Company (23/9/98), Lee, K. Y., Overseas Marketing Dept, KMC Corp. (23/9/98), and Kim, K. Y., Coordinator of President's Office, DW-FSO Motor Corporation (29/2/00).
3 This perspective was suggested by Mr Cha, J. K., Manager, Western Europe Team II (22/9/98).
4 Western Europe includes European Union + Norway + Switzerland (includes Liechtenstein).
5 The source of the survey result sections are hereafter omitted because they are obviously 'The author', unless otherwise stated.
6 Interview with Lee, S. S., Chief of Finance and Accounting Department, D Motor Poland Corporation Ltd (29/2/00).
7 This is the perspective of Mr Rhim, B. K., Product Planning and Marketing Manager, H Motor Europe Office (9/11/99) and Mr Cha, J. K., Manager, Western Europe Team II, D Corporation (22/9/98).
8 This is the view of Mr Kim, S. K., Managing Director, D Cars Ltd, UK (26/8/99).
9 Interview with Kim, S. K., D Cars Ltd, UK (26/8/99).
10 Interview with Jung, M. S., Market Development Department, D Motor Poland Corporation Ltd (28/2/00).
11 Interview with Kwon, O. J., Vice President's Co-ordination Team, DW-FSO Motor Corporation Ltd (29/2/00).
12 Interview with Kim, K. Y., DW-FSO Motor Corporation (29/2/00) and Cha, J. K., Western Europe Team II, D Corporation (22/9/98).

13 Interview with Jeong, Y. S., D Motor Poland Ltd (29/2/00).
14 Interview with Choi, S. M., Co-ordinator of Regional Centre, Centrum DW Ltd (29/2/00).
15 This perspective was suggested during the interview with Hong, Y. P., General Manager, D Cars Ltd, UK (26/8/99). He mentioned that increased opportunity within the European market comprises around 40 per cent of investment inducement.
16 This perspective was prevailed among most interviewees. This view was clearly identified during the interview with Kim, Y. T., Deputy Chief, Purchasing Division, Raw Material Department, D Motor Poland Corporation Ltd (28/2/00), Kim, T. Y., Director of Export Department, DW-FSO Motor Corporation (1/3/00) and Choi, S. M., Co-ordinator of Regional Centre, Centrum DW Ltd (29/2/00).
17 For instance, Korean managers in Poland anticipate changes in social welfare reforms and health services to comply with the EU standard (interview with Kwon, O. J., Vice President's Co-ordination Team, DW-FSO Motor Corporation, 29/2/00).
18 Interview with Hong, Y. P., Project and Business Analysis, D Cars Ltd (26/8/99).
19 More contact within the integrated region may facilitate more opportunities compared to imported motor cars from Korea (interview with Kim, Y. T., 29/2/00).
20 Interview with Lee, S. S., Finance and Accounting Department, D Motor Poland Corporation Ltd (29/2/00).
21 The values of the correlation coefficient range from –1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative). The absolute value of the correlation coefficient indicates the strength, with larger absolute values indicating stronger relationships. The significance level (or p-value) is the probability of obtaining results as extreme as the one observed. If the significance level is very small (less than 0.05) then the correlation is significant and the two variables are linearly related. If the significance level is relatively large (for example, 0.50) then the correlation is not significant and the two variables are not linearly related.
22 Interview with Song, S. H., Manager, Research and Information Service Division, KAMA (2/9/98).
23 Interview with Kim, Y. T., Purchasing Division, Raw Material Department, D Motor Poland Corporation Ltd. It is suggested that the success of DMP in Poland may be explained in the context of the unfair circumstances of the Polish markets where the company found shelter from severe competition (29/2/00).
24 For instance, emission controls as part of technical harmonisation measures can be applied to the CEECs as they join the EU. This upward equalisation appears to be a clear threat for the Korean VMs (interview with Choi, S. M., Co-ordinator of Regional Centre, Centrum DW Ltd, 29/2/00).
25 Interview with Kim, T. Y., Director of Export Department, DW-FSO Motor Corporation. He mentioned that country-specific homologations still exist which accrue additional costs (29/2/00).
26 This perspective was presented by Kim, S. K., Deputy Managing Director, D Cars Ltd (26/8/99).
27 This aspect was mentioned during the interview with Song, S. H., Manager, Research and Information Service Division, KAMA. He also suggested that

integration in Europe would enhance the competitiveness of local manufacturers which may result in an adverse business environment for the Korean VMs.

28 Cha, J. K. was not assured in regard to the market integration in Europe. He pointed out uncertainty over integration relating to fiscal, tax and political harmonisation.

29 The design of the survey focused on the overall assessment of recognition about the international production of the Korean automobile industry in Europe which, inevitably had to fuse determinants of FDI and locational decisions in the same category. In particular, some of the variables such as European integration and technology transfer are likely to affect both FDI and industrial location.

30 For instance, Korean electronics companies made major investments in Europe between 1995 and 1997. Samsung Electronics announced that it would build a plant in Northeast England in 1995. Less than a year later, LG and Hyundai, who are Samsung's Korean rivals, also announced major investment plans. The biggest investment project in the UK with a semiconductor facility to be built in south Wales was made by LG, while Hyundai chose Scotland for its site to build a semiconductor plant in Europe. D electronics was already producing VCRs in Northern Ireland (*FT*, 24/7/97).

31 *Financial Times*, 25/4/1997.

32 Any companies desiring to import more than 1000 CKD kits are required to have an arrangement with the government. Later H announced a JV with Zasada, forming H Centrum Polska.

33 For instance, one Korean car sales subsidiary reduced the prices of imported cars soon after the devaluation of the Korean currency. This has affected the strategic choices of other subsidiaries from different Korean companies in the European market (interview with Rhim, B. K. in 9/11/99).

34 Interview with Kim, S. K., Deputy Managing Director, D Cars Ltd (26/8/99).

35 Interview with Kim, S. K., Deputy Managing Director, D Cars Ltd (26/8/99) and Song, S. H., Research and Information Service Division, KAMA (2/9/98) and Cha, J. K., Western Europe Team II, D Corporation (22/9/98).

36 Interview with Hong, Y. P., Project and Business Analysis, D Cars Ltd (26/8/99).

37 Interview with Song, S. H. (2/9/98).

38 Following from the possibility of the CEECs being included in the EU, domestic market potential, growth potential and lower labour costs are suggested as subsequent factors (interview with Kwon, O. J., 29/2/00).

39 The LD-100 project is a clear instance (interview with Lee, S. S., Finance and Accounting Department, D Motor Poland Corporation Ltd, 29/2/00).

40 This survey result is derived from the questionnaire designed to assess the overall determinants of FDI and locational decisions. Some factors which are not directly related to locational decisions are omitted in this analysis. They are globalisation and competitive opportunities. This author assumes that this omission should not make a critical difference to the results.

41 Interview with Kim, S. K., Deputy Managing Director, D Cars Ltd (29/8/00). Other managers indicated the importance of the inclusion of the CEECs in the EU as around 30 per cent as the target level of export to the EU is 30 per cent of toal exports (interview with Kim, T. Y., Export Department, DW-FSO Motor Corporation, 29/2/00).

42 Interview with Kim, K. Y., Research Fellow of Economics, Co-ordinator of President's Office, DW-FSO Motor Corporation (29/2/00).

43 Kim, S. K. (MD, D Cars Ltd, UK) suggested that current investment of DMC is to increase production capacity. The establishment of overseas production network is suggested as the main motivation for investment to Eastern Europe (26/8/99).

44 The significance value for the Levene's test is 0.944 (which is higher than 0.05). Statistics use the results that assume equal variances for both groups. The results show that two-tailed significance is 0.012 which is lower than 0.05. This indicates that there is a significant difference between the means of the production and sales groups.

45 The statistical figure for this analysis is as follows: Levene's test for equality of variances $-F = 2.566$, $p = 0.116$; t-test for equality of means $-t = 1.666$, df = 45, $p = 0.103$. The figure of significance is less than 0.05 which means statistical significance cannot be confirmed in differences between two groups.

46 Independent sample test comparing production and sales departments only confirms that there are significant differences between two groups (Levene's test for equality of variances $-F = 5.971$, $p = 0.018$; t-test for equality of means $-t = -2.717$, df = 46, $p = 0.009$).

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