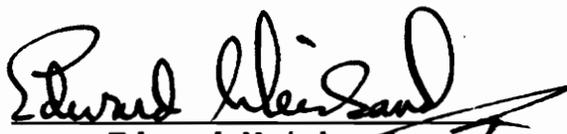


The Politics of Strategic Trade
South Korea and Mexico in a Comparative Perspective

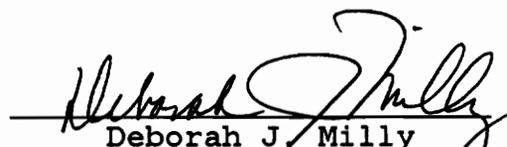
by
Ajay Tandon

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the
degree of Master of Arts
in
Political Science

APPROVED:


Edward Weisband


Mark E. Griffiths


Deborah J. Milly

April 27, 1992
Blacksburg, Virginia

c.2

LD
5655
V855
1992
T322
c.2

The Politics of Strategic Trade
South Korea and Mexico in a Comparative Perspective

by

Ajay Tandon

Edward Weisband

(ABSTRACT)

This thesis examines the applicability of the theoretical framework of strategic trade to the export-led growth of the automobile industry in South Korea. The study focuses on four areas. First, the "new" theory of international trade is elaborated in order to identify the "prerequisite" industrial characteristics under which policies of strategic trade are theoretically advantageous. Secondly, the development of the automobile industry in South Korea is analyzed. The focus is on examining the role of the state in initiating industrial and trade policies that specifically targeted the automobile sector. This thesis argues that strategic trade is a valid analytical framework in the case of the South Korean automobile industry. Thirdly, the development of the automobile industry in South Korea is compared with that of Mexico. The comparative perspective helps highlight several factors that may have helped make policies of strategic trade effective in the South Korean case. These factors include a virtual absence of transnational corporations and domestic

industrial conglomeration in the South Korean automobile industry. Finally, based on the possible critical importance of these factors for policy implementation and outcomes, the thesis ends with a discussion on the relevance of strategic trade as a model for economic development.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank the members of my committee, Edward Weisband, Mark E. Griffiths, and Deborah J. Milly. I would especially like to thank my committee chair, Edward Weisband, for being a constant source of inspiration, encouragement, and motivation. To Deborah J. Milly for her support in helping me focus in times of disorientation. Also, to Mark E. Griffiths for helping bridge the vast, and seemingly insurmountable, Political Science-Economics gap.

I would also like to thank the other faculty and staff members of the Department of Political Science for their help and encouragement especially Stephen White, Ilja Luciak, Karen Hult, and Maxine Riley.

Finally, I would like to thank my fellow graduate students and friends for these past years. First and foremost I would like to acknowledge my room mates and "surrogate" family, Karl-Yorck Kalckstein, Rosemay Guignard, and Andrew Albers, for believing in me. They probably will never realize the extent of their contribution in helping me write this thesis. To Marjukka Ollilainen for her friendship and encouragement (one step closer to 200,000...!). To Kirsten Lindquist, Janice McLaughlin, Rafal Paczkowski, Satomi Niki, Uma Kommineni, and Sharmishtha Koya. Thanks also to Beth Peery for volunteering to proof-read this thesis.

I would like to dedicate this thesis to my family without whom none of this would have been possible. To my parents, Gp. Capt. S.L. Tandon and Prakash Tandon, my brother, Anil Tandon, and sister, Maj. Arati Verma.

TABLE OF CONTENTS

CHAPTER ONE	1
1.0 Introduction	1
1.1 Research Question	3
1.2 Mercantilism	5
1.3 Liberalism	6
1.4 Economic Nationalism	11
1.5 The "New" Trade Theory	14
1.6 The Role of the State: Trade and Economic Power	19
1.7 The Practice of International Trade	24
 STRATEGIC TRADE POLICIES: CHARACTERISTICS AND INDICATORS	 28
2.0 Introduction	28
2.1 Strategic Trade and Industrial Characteristics	29
2.2 Strategic Trade and Policy Characteristics	31
2.3 Indicators of Outcomes of Strategic Trade	33
 THE INTERNATIONAL AUTOMOBILE INDUSTRY	 35
3.0 Introduction	35
3.1 Historical Overview	35
3.2 Japan and the Automobile Industry	38
3.3 The Automobile Industry and Developing Countries	40
3.4 Industrial Characteristics	43
3.5 Production and Competition in the Industry	45
 SOUTH KOREAN DEVELOPMENT POLICIES	 49
4.0 Introduction	49
4.1 History of Economic Planning	49
4.2 The South Korean Economy and Key Institutions	54
 THE SOUTH KOREAN AUTOMOBILE INDUSTRY	 57
5.0 Introduction	57
5.1 The Structure of the Industry	57
5.2 The Import Substitution Phase (1962-76)	58
5.3 The Export Promotion Phase (1976-87)	62
5.4 The Liberalization Phase (1987 Onwards)	64
5.5 South Korea's Competitive Advantage: Labor	67
 THE MEXICAN AUTOMOBILE INDUSTRY	 74
6.0 Introduction	74
6.1 The Structure of the Industry	74
6.2 The Import Substitution Phase (1962-1991)	75
6.3 The Liberalization Phase (1991 Onwards)	79
6.4 Mexican Labor and the Automobile Industry	81
 STRATEGIC TRADE AND THE AUTOMOBILE INDUSTRY	 86
7.0 Introduction	86
7.1 South Korea and Mexico: Similarities	86

7.2	South Korea and Mexico: Differences	89
7.3	Strategic Trade Policies	93
7.4	Strategic Trade and the International Auto Market	97
7.5	South Korea and Japan	100
7.6	Conclusions	101
STRATEGIC	TRADE AND ECONOMIC DEVELOPMENT	105
8.0	Introduction	105
8.1	The "New" Trade Theory and Developing Countries	105
8.2	The Dependency Theory and Economic Development	109
8.3	Arguments Against Strategic Trade Policies	111
8.4	Conclusions	115
FIGURES	117
APPENDIX	137
BIBLIOGRAPHY	153
VITA	159

CHAPTER ONE

"In every department of human affairs, Practice long precedes Science: systematic enquiry into the modes of action of the powers of nature is the tardy product of a long course of efforts to use those powers for practical ends. The conception, accordingly, of Political Economy as a branch of science is extremely modern; but the subject with which its enquiries are conversant has in all ages necessarily constituted one of the chief practical interests of mankind, and in some a most unduly engrossing one."¹

1.0 Introduction

International trade traces its historical roots to the earliest civilizations known to humankind. Economic historians have cited evidence of the existence of trade relations between the geographically dispersed ancient civilizations of Mesopotamia, Egypt, and the Indus Valley, among others. Trade has seen a slow and steady evolution from the earlier "primitive" forms of barter exchange to the sophistication of contemporary international economic relations.

The evolution of trade has been accompanied by an attempt by intellectuals to formulate theories of international trade. Historically, Political Economists identify three major theories of international trade. These

¹John Stuart Mill, Principles of Political Economy (Ashley ed.), London, 1921.

are Mercantilism, Liberalism, and Economic Nationalism.² In recent years, global trade patterns and the trade-induced economic growth in Japan and the Newly Industrializing Countries (NICs) in Asia (South Korea, Taiwan, Hong Kong, and Singapore) have illustrated the inadequacies of these theories in understanding patterns of international trade. Also as a result, the importance of trade for economic growth and development has come under increased scrutiny by academicians and policy-makers alike.³

There is considerable debate regarding the causes of rapid economic growth in the Asian NICs. Neoclassical economists view the Asian "success" story as a vindication of "free market" liberal principles.⁴ Statist political scientists use these countries as examples of the important role of the state and related institutions in policy making.⁵ Others have attributed economic growth to the Confucian work ethic prevalent in these societies. Whatever may be the causal factors of economic growth, the importance

²Gilpin (1987)

³Traditionally, most literature on economic development argues that trade relations between developing and developed economies are harmful for the former. Policies of import substitution have been justified on the basis of these arguments.

⁴Wade (1990), p.22

⁵Wade (1990), p.26

of international trade in these countries is evident even from a perfunctory glance at their national economic statistics. A "new" theory of international trade emerged around the same time as the impact of the Asian NICs was registering in the global economy. This "new" theory claims a better explanation of the causes and patterns of trade among nations and elaborates interesting theoretical possibilities for trade and industrial policy making in the form of policies of strategic trade. This thesis explores the applicability of the "new" trade theory and the framework of strategic trade policies in understanding certain aspects of economic growth in the Asian NICs. The utility of strategic trade as a model of economic growth for developing nations will also be discussed.

1.1 Research Question

What is the theory behind strategic trade? What are some of the policy implications of this theory? How is strategic trade and the "new" theory different from other theories of international trade? Furthermore, does strategic trade provide a valid theoretical framework for the export-oriented economic policies being practiced in the "real world"? And finally, if strategic trade (both in theory and practice) is a new model for trade-induced growth, what are some of the economic policy implications

for developing nations? These are some of the primary research questions motivating this study.

To facilitate the analysis, this thesis will focus on three areas. First, the "new" trade theory and the policies of strategic trade will be examined and compared with other dominant theories of international trade such as Liberalism and Economic Nationalism. Secondly, state economic policy in the South Korean automobile industry will be examined. The focus will be on analyzing the role of the state in areas such as industrial targeting, export promotion, and protection for domestic markets. It is hypothesized that the development of the automobile industry in South Korea is a "real world" case study of strategic trade policies. Thirdly, South Korean economic policies in the automobile industry will be compared with those in Mexico in order to highlight any important differences and similarities between the two modes of state economic intervention. The study will conclude with a discussion on the relevance of strategic trade theory for other developing countries and industries.

⁶The justifications for picking the automobile industry are provided in later chapters.

THEORIES OF INTERNATIONAL TRADE

This section examines some of the dominant theories of international trade (Mercantilism, Liberalism, and Economic Nationalism) as a prelude to the elaboration of the "new" theory of international trade. Major propositions and policy implications of the various theories are also discussed and compared. Some of the policy implications of the "new" trade theory, called strategic trade policies, are significantly different from those proposed by the traditional liberal view and indicate a partial reversal to the economic thought of Mercantilism and Economic Nationalism.

1.2 Mercantilism

The doctrine of the mercantilists originated in sixteenth century Europe and represents one of the earliest "theories" of international trade. Mercantilist ideas developed against the backdrop of intense national rivalries among the European powers of England, Spain, France, and the Netherlands. According to Gomes (1987), one the basic elements of the mercantilist doctrine was the pursuit of national policies aimed at attaining a favorable trade balance. Reserves of bullion were considered the primary indicators of national wealth and power. State foreign

policies, which included economic, political, and military, were aimed at the enhancement of state power through bullion accumulation from other nations. Mercantilist economic policy recommendations included promotion of industry through state subsidy to manufacturing, accompanied by the promotion of exports and a restrictions on imports, in order to produce a net inflow of bullion⁷.

1.3 Liberalism

The mercantilist doctrine came under attack from the liberal theorists of the eighteenth century. The criticism of Mercantilism was pioneered by Adam Smith. He attributed mercantilist policies to the machinations of the merchants and manufacturers whose aim was to achieve a monopoly of the home market resulting in the misallocation of resources⁸. He laid the foundation for the liberal theory of trade which was later refined by Ricardo, David Hume and John Stuart Mill, among others. The liberal theory was based primarily on the hypothesis that different nations had different relative cost advantages in the production of goods which led to an international division of labor and specialization.

⁷Gomes (1987)

⁸Smith ([1776], 1948)

Adam Smith advanced the principle of absolute advantage of nations. His conception of the reasons for international trade was simple. According to him, trade occurred because different nations were efficient in the manufacture of different goods. Nations specialized in the production of those products in which they had an input cost advantage.⁹ The effects of international trade were stated to be beneficial in terms of: (a) encouraging international specialization resulting in resources being effectively utilized and, (b) expanding market size to enable a further reduction in unit costs through economies of scale.

Adam Smith's conception of international trade was very similar to his ideas regarding domestic trade. He linked national wealth and stability to economic growth. He proposed that economic growth (domestic and global) was a function of the division of labor and the scale of the market and international patterns of production were determined solely by the "invisible hand" of the global marketplace (as was the case within nations). Therefore, the free market (through the adoption of free trade

⁹For example, if country A requires 5 units of input (capital and/or labor) to manufacture good X and 10 input units for good Y and the corresponding input requirements for country B are 10 units for good X and 5 for good Y then the principle of absolute advantage dictates that country A will produce and export the good X (i.e., in which it has a relative lower cost advantage) and country B will produce good Y.

practices) was viewed as the most efficient allocator of resources based on the absolute advantage of nations. This was assumed to hold true even if the level of economic development and wealth differed between trading nations. In fact, Adam Smith proposed that trade was a means for making poorer nations rich. In his words, free trade should make a poor nation "regard the riches of its neighbors as a probable cause and occasion for making itself rich" because "as a rich man is likely to be a better customer than a poor one, so is likewise a rich nation" and therefore "the wealth of a neighboring nation, however, though dangerous in war and politics, is certainly advantageous in trade" because of its ability to purchase goods produced and exported by the lesser developed nation^o.

David Ricardo's principle of comparative advantage was a subsequent refinement of Adam Smith's theory of international trade. The key distinction in this formulation was that even if a nation had an absolute advantage (i.e., lower production costs) in more than one good, the market would determine it to specialize in the production of those goods in which it had the greatest

^oSmith ([1776], 1948), p.400

relative or "comparative" cost advantage¹. Trade will occur (and both trading nations will gain) as the international division of labor takes place on the basis of comparative advantage. In his words:

"...it is quite as important to the happiness of mankind, that our enjoyments should be increased by a better distribution of labor, by each country producing those commodities for which by its situation, its climate, and its other natural or artificial advantages, it is adapted, and by exchanging them for commodities of other countries."¹²

Unlike Adam Smith's principle of trade, Ricardo argued that comparative advantages were more relevant than absolute advantages. He argued, for example, that:

"...a country possessing very considerable advantages in machinery and skill, and which may therefore be enabled to manufacture commodities with much less labor than her neighbors, may in return for such commodities, import a portion of the corn required for its consumption, even if its land were more fertile, and corn could be grown with less labor than in the country from which it was imported."¹³

¹If the input costs in country A are 10 units for good X and 7 units for good Y, and in country B 15 units for good X and 10 units for good Y then the principle of comparative advantage dictates that country A will specialize in the production of good X and country B will produce good Y (even though country A has an absolute advantage in the production of both goods, it has a greater relative advantage in producing good X and will be "forced" by the market to allocate all of its resources to manufacture and export it).

¹²Ricardo (1881), p.74

¹³Ricardo (1881), p.77

The contemporary (and widely accepted) liberal theory of international trade, elaborated in the Heckscher-Ohlin trade model, is a refinement of Ricardo's principle of comparative advantage. The theory states that a nation's comparative advantage is determined by the relative abundance of its several factors of production such as capital, labor, natural resources, management, and technology. Subsequently, the key proposition in this theory is that "a country will export (import) those goods which are intensive in the use of its abundant (scarce) factor¹⁴ .

The Heckscher-Ohlin version of the liberal theory of international trade remains a significant explanation for the causes and patterns of contemporary North-South trade. But it is inadequate in terms of explaining and understanding North-North trade. In recent decades, the bulk of world trade has been between industrialized nations. The liberal theory of free trade is incomplete in explaining the fact that trade is occurring between industrialized nations that are relatively similar in their endowments of factors of production and also trade a large quantity of very similar goods (e.g., automobiles) that do not seem to reflect trade based on comparative advantage alone. This

¹⁴Gilpin (1987), p.175

criticism of the liberal theory of international trade forms the basis for the "new" trade theory which is discussed in the section following that of Economic Nationalism.

1.4 Economic Nationalism

In the late eighteenth century, Alexander Hamilton (and later Friedrich List) presented an alternate theory of international trade that signified a partial reversion to mercantilist ideas. This theory, known as that of Economic Nationalism, criticized the liberal endorsement of international free trade. According to this view, free trade was beneficial for stronger and industrially advanced states (such as Great Britain in that era) because it enabled them to have access to larger markets. Products manufactured in lesser developed nations were not able to compete against low cost and better quality imports from advanced nations⁵. Economic nationalists argued that comparative advantages of nations were caused by historical situations and were not immutable (especially in manufacturing industries). They viewed the build-up of

⁵The adjectives "advanced", "industrialized", and "wealthy" are used interchangeably as the contemporary national wealth indicator is the Gross National Product (GNP) which is the market value of all final goods and services produced in an economy in a given year.

national economic power¹⁶ through state sanctioned industrialization as necessary to overcome the inequities perpetuated by open trade relations. They were also against the notion of free trade because it lead to the "exposure" of nations to the uncertainty and vagaries of the international market¹⁷.

Alexander Hamilton, in elaborating the theory, recognized the innate superiority of manufactured goods over agricultural products and the inequity in trade between an industrial and an agricultural nation. He cited one of the reasons for the inequalities in trade to result from the "fluctuations and interruptions" and "stagnations of demand" caused by seasonal changes in agricultural nations¹⁸. This placed these countries at the mercy of the climactic conditions. He advocated state support for industrialization in lesser developed and predominantly agricultural nations to overcome discriminatory international trade exchanges. He added that:

"...there is always a higher probability of a favorable balance of trade, in regard to countries

¹⁶The term economic power in this paper is used to indicate the existence of economic wealth differentials among nation-states. In the least, these differentials are proposed to give richer nations the potential to influence the economies of lesser developed and poorer nations through trade linkages.

¹⁷Gilpin (1987)

¹⁸Hamilton ([1791], 1929), p.50

in which manufactures, founded on the basis of a thriving agriculture, flourish, than in regard to those which are confined, wholly, or almost wholly, to agriculture."¹⁹

Hamilton's ideas had the greatest impact in nineteenth century Germany. Friedrich List founded the German Historical School of economic analysis which was a significant proponent of Economic Nationalism. By presenting the examples of Germany and Great Britain, List proposed that free trade was a means by which economically advanced nations are able to exploit other less developed nations²⁰. List, like Hamilton, also argued that free trade exposed lesser developed nations to the vagaries of the international market. In his words, industrially backward nations in trading with advanced nations tend to have:

"...decidedly and continuously disadvantageous balance of trade [causing] internal commercial crises, revolutions in prices, financial difficulties, and general bankruptcies, both in the public institutions of credit, and among the individual merchants, manufacturers, and agriculturalists."²¹

Economic nationalists advance protectionism combined with state led industrialization as a means for ensuring long

¹⁹Hamilton ([1791], 1929), p.51

²⁰The theory of Economic Nationalism has similar propositions to dependency theory which is used to explain contemporary Third World underdevelopment.

²¹List ([1885], 1966), p.292

term economic growth. The international identity and economic standing of a nation-state is of paramount concern for the economic nationalists. In recent years, the propositions of the theory of Economic Nationalism have formed the basis for the economic policies of several developing countries (also called policies of import substitution).

1.5 The "New" Trade Theory

A new theory of trade emerged in the late 1970s and early 1980s. Some trade policy issues proposed on the basis of this theory are highly similar to mercantilist thought and are often referred to as neomercantile policies. Mercantilists assumed that there was a fixed amount of bullion in the world and proposed that the wealth and power of nation-states would be enhanced by acquiring a greater share of this fixed "pie" of bullion. Some policy implications of the "new" theory similarly proposes that there is relatively fixed amount of world trade profits in certain sectors of the global economy. Theoretically, national economic wealth and power can be enhanced by state economic policies that encourage exports of these sectors. This would enable a larger proportion of the international market share and profits to accrue for domestic firms in those industries.

The "new" theory of international trade primarily attempts to explain North-North trade (which, as mentioned earlier, the propositions of Liberalism leave incomplete). The theory takes into consideration industrial learning curves, economies of scale, and differentiated consumer preferences as possible additional determinants of trade patterns as opposed to explaining trade on the basis of comparative advantages alone. Also, the level of analysis in the "new" trade theory is significantly different from the earlier theories of trade. Industrial organization and large transnational corporations, not nation-states, are the focus of this theory in explaining trade. Paul Krugman, one of the primary proponents of this theory, states that this trade theory is akin to the "study of international industrial organization"²².

The "new" trade theory assumes oligopolistic competition among internationally trading firms. This is different from the liberal conception of perfect (or atomistic) competition among firms whereby each individual firm is not assumed to have any power to influence prices and other market outcomes. Individual firm profits are assumed to be at the mercy of market forces. According to the new theory, international industrial competition in some

²²quoted in Gilpin (1987), p.176

industrial sectors is largely oligopolistic (or monopolistic) in nature. There exists the potential for significant industrial power differentials between firms from different nations (and from within the same nation). Also, it is possible for firms to gain profits in excess of those earned in perfectly competitive markets (called "supernormal" profits). This potentially allows large individual firms a certain degree of control over international prices, profits, and other market outcomes. Factors such as increasing returns to scale, historical situations and experiences, and barriers to entry for new firms become pivotal in bestowing competitive cost and other advantages to firms. These variables are important in explaining why certain firms (from a "micro" view) and nations (as "macro" aggregates of domestic firms) export and others import rather than explaining trade largely on the basis of national endowments of factors of production as the liberal theory does.

In summary, the "new" trade theory explains trade on the basis of competitive advantages of firms situated in different nations. Firms can have a competitive advantage due to the fact that the nations they are situated in have a "liberal" comparative advantage in factors such as natural resources (e.g., oil) as well as other important variables

such as economies of scale, experience, prestige, among others. In Krugman's words:

"the new theory of trade does not reject comparative advantage as a determinant of international trade. Instead, it supplements it. The basic view is that the pattern of trade is determined only up to a point by countries' tastes, technologies, and resources. These underlying factors determine certain features of trade patterns, but do not determine its complete detail. The reason is that the complete pattern of trade also reflects specialization due to economies of scale, and this additional specialization typically includes an arbitrary or historical element."²³

The key proposition in the "new" theory is that firms, and the nations they are situated in, tend to export goods in which they have an industrial competitive advantage enabling them to capture international market share. It is important to note that the competitive advantage applies at the level of industries not nations.

Given this view of international trading behavior, some of the "new" trade theorists present interesting propositions regarding the role of the state in increasing the international competitiveness of domestic firms. By providing support for domestic firms (such as subsidies, research and development funding, and domestic protection from foreign competition) the state can help "create" a greater competitive advantage for domestic firms in certain

²³Krugman (1990)

"strategic" industries enabling them to have a larger international market share (and concomitantly, a larger share of the "supernormal" profits). As a result, the state can ensure a favorable trade balance and economic growth through active export promotion. These propositions of the "new" trade theory envision the state as devising strategies in terms of choosing "strategic" industries and firms to support and dealing with possible trade "retaliations" from other states. These policy implications of the "new" trade theory are often referred to as "strategic trade policies". The state can directly play a role in international industrial competition conjuring up an image of a national trade contest requiring economic, not military, strategies to "win". Barbara Spencer, in elaborating the policy prescriptions of the new trade theory, states that:

"governments and firms are seen as being engaged in a strategic game to gain profits in world markets. The theory indicates that policies such as export subsidies can affect the underlying structure of the game so as to allow domestic firms to achieve extra profits from exports that exceed the amount of the subsidy. If this is the case, the policy will have resulted in a net gain to the domestic economy."²⁴

And Krugman adds that:

"...government policies can serve the "strategic" purpose of altering the subsequent incentives of firms, acting as a deterrent to foreign competitors. The "strategic" analysis seems to

²⁴Spencer (1986)

offer a possible rationale for trade policies, such as export subsidies, that have been almost universally condemned by international economists in the past."²⁵

The next section compares some of the broader government policy implications proposed by the different theories of international trade.

1.6 The Role of the State: Trade and Economic Power

Liberalism, Economic Nationalism, and the "new" trade theory differ in their characterizations of international economic behavior. They, therefore, also differ sharply in their conclusions regarding the "ideal" role of the state in economic policy formulation. The state under the liberal conception is delegated to a market conforming and supportive position. Its role is to ensure the free flow of goods across borders and the stability of exchange rates. Barriers to trade in the form of tariffs and quotas are proposed to result in the misallocation of resources and to lead to economic inefficiency and decline in the long run. The implications of liberal economic thought are best summarized by the two theorems of welfare economics. The first theorem states that "perfect competition is efficient" and the second theorem states that:

²⁵Krugman (1990)

"...any distributional objective can best be met by reallocating wealth or income and then just leaving private competitive markets to do their job of enforcing efficiency."²⁶

The theory of Economic Nationalism, on the other hand, views the role of the state as central to the augmentation of national power. It proposes that the state be actively involved in protecting domestic industries from foreign competition. Importation of raw materials may be allowed freely but otherwise the state must ensure autarkic industrial development until it reaches parity with other major industrial powers. Economic nationalists accept the view that free trade is beneficial among nations of equivalent economic development.

Some of the models of the "new" trade theory conceptualizes the role of the state in a similar fashion to that of the economic nationalists. The state's role can be essentially twofold. First, the state can determine "strategic" sectors of the economy. These sectors have to be characterized by oligopolistic competition and have potential "spillover" effects (i.e., growth in these industrial sectors should help other sectors in the economy by bringing up the general technological level of the nation). Secondly, the state can support these "strategic" sectors of the economy using an interventionist industrial

²⁶Brander (1986)

policy. As mentioned earlier, elements of the industrial policy could include tariff barriers to protect domestic firms from foreign competition and research support, among others. The goals of the state, in pursuing strategic trade policies, would be domestic industrial development (as the economic nationalists propose) as well as the capture of international markets through active export promotion of these strategic industries.

In conceptualizing the role of the state, all three theories assume that economic growth is in the "national interest" of the state. Liberalism proposes that letting the international market allocate resources and thereby determine national production profiles would ensure global economic growth and efficiency. All trading nations, regardless of their level of development, would benefit from international specialization imposed by comparative advantages. Inequities of national wealth among nations is accepted as an "efficient" outcome of the market.

Economic Nationalists criticize this cosmopolitan view of economic well-being that is espoused by the liberal theory of international trade. Economic nationalists acknowledge that power differentials among nations are perpetuated by free trade and therefore conclude that states should pursue industrial and trade policies that ensure national economic well-being. On the other hand, strategic

trade policy models recognize trade induced cosmopolitan economic growth that "trickles down" unevenly to individual trading nations. Active state intervention can, at least theoretically, ensure a greater national proportion of the global trade-induced economic growth for domestic economies. This can be achieved by a state "created" comparative advantage in strategic sectors of the international economy. These sectors are recognized as being crucial determinants of economic power in the future.

Strategic trade policies, in a sense, are a reconciliation between the policy recommendations of Economic Nationalism and Liberalism. The state is directly involved in the promotion of industry as proposed by economic nationalists. At the same time, trade is recognized as being important in increasing market size and stimulating economic growth as proposed by liberals. One of the primary difference is that in the view of advocates of strategic trade policies, the international market does not determine the national production profile based on immutable comparative advantages. Instead, the state can actively participate in ensuring that its domestic industries have a comparative advantage in the production of those goods that would enable it to have an advantage in trade relations.

The theories of international trade implicitly (as well as explicitly) link the practice of international trade

with the attainment of national economic power. The liberal theory of international trade, with its emphasis on utilitarian economic growth and well-being, does not directly address the issue of national economic power. But the nations that have historically been practitioners and proponents of free trade have tended to be economically advanced nations. These nations saw free trade as favorable for achieving trade balance surpluses and a means for maintaining their economic power vis-a-vis other nations.

The theory of Economic Nationalism directly addresses the issue of economic power. It proposes that free trade and openness in a relatively less developed nation-state undermines its ability to undergo industrialization and economic development. State sanctioned build-up of economic power is central to this theory of trade. Although, as mentioned earlier, Economic Nationalists acknowledge that free trade among nations of equal economic standing is beneficial for economic growth in the trading nations. Strategic trade policies also directly addresses the issue of state sanctioned build-up of economic power. The techniques proposed in the models of strategic trade are different from those proposed by Economic Nationalists. State sanctioned export promotion is assumed to benefit the trade balance of individual nations and contribute to their economic growth.

1.7 The Practice of International Trade

There are important linkages between theoretical constructions of trade relations among nations and the actual practice of international trade. An analysis of the "real world" practice of trade undoubtedly laid the basis for the formulation of the various trade theories. At the same time, nations have tended to use the intellectual arguments of trade theorists in justifying the use of policies that are aimed at attaining greater economic power in the global economy.

Great Britain was a staunch liberal state in the nineteenth century. It was industrially advanced and arguably required free trade to ensure access to larger markets to sustain its economic growth. The greater price (and demand) for British exports of manufactured goods (vis-a-vis agricultural and raw material imports) enabled it to have a beneficial trend in its terms of trade²⁷. The United States was in a similar economic situation in the era after the end of World War II and has been active in attempting to institutionalize global free trade through the support of international regimes such as the General Agreement of Tariffs and Trade (GATT).

²⁷Terms of trade is defined as the ratio between the price indices of a nation's exports and imports. An increase in a nation's terms of trade symbolizes its ability to extract economic surplus from other nations.

Examples of economic nationalist states include Germany in the latter part of the nineteenth century. German manufactured products faced stiff competition from lower cost British imports. Subsequently, Germany instigated a highly successful state sanctioned industrial plan for the development of its domestic industries. Economic Nationalism is widely practiced by several of the larger nations in the contemporary developing world. Most of the developing nations have had their economies conditioned by decades of colonialism. Their experiences under colonial rule provide examples of some of the outcomes of forced "free" trade between nations having vastly different levels of economic development. For example, economic patterns of production in the British colony of India were limited to the supply of raw materials to fuel British industrialization. Indian markets were flooded with advanced British manufactured imports and this resulted in the complete destruction of the burgeoning indigenous manufacturing sectors. The post-colonial era in India is marked by policies of import substitution (that are similar to the policy prescriptions of Economic Nationalism). These policies have been motivated primarily by the desire to overcome the economic dependence and vulnerability imposed by trade relations with the economically advanced Great Britain under colonialism.

Japan, South Korea, Taiwan, and to a limited extent, France are cited by researchers as examples of nations pursuing economic policies that can be characterized as those of strategic trade. State support for industries such as semiconductors and machine tools has enabled Japanese firms to become leading international market share holders in these sectors²⁹. These strategic industries are arguably the "backbone" of the modern industrial era. Similar state support for (and the subsequent export of) industrial products such as electronics and automobiles (industries that have traditionally been dominated by the industrialized nations) has enabled South Korea and Taiwan to use international trade as an "engine" for domestic economic growth.

In summary, the "new" trade theory provides additional insights into the causes and patterns of contemporary trade relations. It also provides theoretical justifications for active state intervention in certain sectors of the economy in the form of strategic trade policies. How relevant are policies of strategic trade in overcoming the problems of developing countries? Some of the predominant characteristics of developing countries such as small economic size, large agricultural sectors and resource

²⁹Krugman (1986)

bases, and "inefficient" import-substituting industrialization, may make it difficult for them to compete internationally in "strategic" sectors dominated by firms from industrialized nations. Any conclusions regarding the use of strategic trade as a model for achieving economic growth need to be made cautiously. The next chapter examines in detail some prerequisites (in terms of international market conditions and industrial characteristics) that must preclude the successful pursuit of strategic trade policies.

CHAPTER TWO

STRATEGIC TRADE POLICIES: CHARACTERISTICS AND INDICATORS

2.0 Introduction

This chapter details some of the prerequisite conditions that are theorized as necessary for the successful pursuit of strategic trade policies. Several issues are addressed in this section such as what types of economic policies characterize strategic trade? In what industries or economic sectors are strategic trade policies theorized to be successful? In other words, what indicators and/or evidence can be examined to depict the pursuit of (and the potential for) successful strategic trade policies? In later chapters, these indicators will be examined in the case of the South Korean automobile industry in order to determine whether it could typify a case study of strategic trade.

Indicators for the pursuit of strategic trade policies can be "operationalized" within two primary domains. First, there are certain international industry characteristics that must exist for successful strategic trade policies to occur. Secondly, the structure of state support for specific industries must fit a discernible pattern that emphasizes international competitiveness of domestic firms. Within these two domains are included several "theoretical"

conditions that must preclude strategic trade policies. These are elaborated in the next two sections.

2.1 Strategic Trade and Industrial Characteristics

One of the most important industrial attributes for successful strategic trade policies is the existence of an international market for the targeted industry characterized by "imperfect" competition and not the usual neoclassical depiction of perfect competition. Perfect competition implies that there are a large number of firms (theoretically, infinite) competing in the market. Individual firms are assumed to have no influence on market outcomes (such as price and production output). Each firm takes market price as exogenously given and believes that it can sell all it wants at the going price. More importantly, perfect competition implies the existence of "free" entry and exit of firms (in that there are low "barriers to entry" for new firms in the form of high start-up or overhead costs). Theoretically, under considerations of perfect competition, individual firms need not be concerned by activities of other firms (such as expansion or price cutting). On the other hand, "imperfect" competition (where industrial organization is in the form of oligarchies and monopolies) is defined by the existence of an "international market for some good or closely related set of goods, but

relatively few firms in the market^{2p} . Strategic trade policies can be successful only in industries that are approximations of "imperfect" competition, not perfect competition.

Typically, industries that have "imperfect" competition are those that have high fixed and overhead costs that present substantial barriers to entry for new firms. The National Bureau of Economic Research conducted a study to assess the applicability of strategic trade policies to certain sectors of the global economy which included semiconductors, aircraft manufacturing, telecommunications equipment, automobiles, and steel^o . Such industries have relatively greater potential for economies of scale and are dominated by a handful of firms. Actions by some individual firms, under conditions of "imperfect" competition, could have the potential to influence market outcomes such as industrial prices and output thereby affecting the viability of other firms.

A second industrial characteristic for successful strategic trade is the existence of positive "externalities" (although this is not a necessary characteristic).

"Externalities", or spillover effects, could occur when the

^{2p}Brander (1986)

^oStegemann (1989)

industry in question is relatively high-tech, involves large investments in R&D, and represents high value-added products (such as the electronics and semiconductors industry). As a result, these industries provide a conducive atmosphere for innovation. Such innovations could have the potential to improve the efficiency of other industrial sectors as well (in other words, "spillover") thereby helping to bring up the general technological level of the economy. Borrus et al. (1987) argue that:

"if government targeting of one of several sectors has spillover effects on other sectors, then the overall effects on the economy and on its competitive position in a whole chain of related sectors can be widespread and profound. If spillover effects are important, then the national welfare implications of strategic government policy will be very sensitive to whether such policy is targeted at industries whose spillover effects are nonexistent or limited or at industries whose spillover effects are large. Successful strategic targeting of sectors with significant spillover effects will have a much more dramatic influence on national economic well-being."³¹

The next section outlines some of the economic policies that are required for the successful pursuit of strategic trade.

2.2 Strategic Trade and Policy Characteristics

As the above section elaborated, strategic trade policies require specific industrial characteristics in

³Borrus et al. (1987)

order to be successful. These industrial characteristics are essential when economic policies are implemented that aim at enhancing the international competitiveness of domestic producers. There are several policy tools that can achieve this purpose. The existence of state sanctioned subsidies for exports is a primary mechanism by which incentives for export can be installed. The economic effects of a state subsidy are similar to providing lower costs for domestic firms thereby increasing the profitability and viability of domestic production as well as undercutting foreign competition. Subsidizing costs for domestic producers can take several forms. States can provide outright cash subsidies by investing in the private sector, for example. Other more subtle subsidies include provisions such as access to lower credit for export purposes, labor suppression for lower wages relative to foreign producers, and prioritized access to foreign exchange for export-oriented firms. Evidence of implicit state subsidies would also be apparent in the form of state sanctioned devaluations of the exchange rate.

Another important role for the state can be to provide protection for domestic producers from foreign competitors. The state, by erecting tariff barriers and implementing import quotas, can achieve two important objectives. First, as is the case with the infant-industry argument for

protection, tariffs and quotas can enhance the development of domestic industrial sectors unhindered by competition by more experienced and competitive foreign producers. Secondly, as argued by Krugman himself, import protection can, ironically, also serve the purpose of export promotion³. Theoretically, this can happen if large economies of scale exist in the industry. Access to the entire domestic market (without foreign competition) can enable domestic firms to benefit from reduced marginal costs due to increased production for domestic markets. Additionally, firms can also lower their operational costs by moving down on their "learning curve" (i.e., greater the production, the more experience the firm can have, potentially trimming production costs). Therefore, import protection can serve the purpose of export promotion if the protected domestic industry has an export orientation and can benefit from the reduction in marginal costs giving it another potential source of international competitiveness.

2.3 Indicators of Outcomes of Strategic Trade

Successful strategic trade policies can be disaggregated into a third component. As mentioned above, first, indicators of industrial characteristics should fit

³Krugman (1990)

the theoretical considerations of this model of trade. Secondly, the economic policies should be discernible as export promoting and subsidizing. Thirdly, indicators for the "successful" outcomes of strategic trade policies would need to be examined. Increase in the international industrial market share of domestic firms would be one indicator. Increases in exports (and exports as a percent of production), and low imports (partly as consequences of tariffs/quotas). Proportion of (and increasing trends in) industrial sectors as contributing components of the Gross National Product (GNP), domestic production levels, and increases in industrial employment levels would all be indicative of the importance of the industry for economic growth.

The next chapter sets the stage for the examination of "evidence" pertaining to the pursuit of successful strategic trade policies in the South Korean automobile industry by first examining the international market and industrial characteristics of the automobile industry.

CHAPTER THREE
THE INTERNATIONAL AUTOMOBILE INDUSTRY

3.0 Introduction

Since its inception in the late nineteenth century, the evolution and growth of the automobile industry has had a major impact on global industrial development. The auto industry is currently the world's largest manufacturing activity and is widely perceived as a key industry for any developed economy. This chapter traces the historical development of the industry (focusing on the role of developing countries in the process) and outlines some of the significant characteristics of international automobile trade and market conditions. Throughout this thesis, the term "automobile" will be used to refer to passenger cars only and all data will be in units unless otherwise stated.

3.1 Historical Overview

The automobile industry traces its origins to the 1880s when a couple of German firms (Daimler and Benz) put their cars on the market. The early years of automobile manufacturing were limited to Europe (primarily Germany and France) and were characterized by small scale production aimed at a limited "luxury" market segment. American production began in a similar fashion in the early 1900s.

In 1908, Ford, an American manufacturer, revolutionized the industry with the introduction of the Model T car and a concomitant switch to mass production techniques. These techniques, characterized by an extensive division of labor and the use of conveyor belts, had such a profound impact on production techniques in other industries that they came to be known as Fordism. By 1923, partly as a consequence of the new production techniques and partly due to the devastation of Europe caused by World War I, the US accounted for an overwhelming 91% of global automobile production³³. Throughout the 1920s, the US was both the primary producer and exporter of automobiles.

The European response to America's dominance in this sector was government mediated import protection and an emphasis on domestic development of the industry. High tariffs were placed on automobile imports in most European markets³⁴. As a result, major American producers such as General Motors (GM) and Ford set up plants in several European locations in order to gain access to the growing European market and bypass the high import barriers. The result was a gradual diffusion of American production and

³³Altshuler et al. (1984)

³⁴For example, Great Britain, traditionally a champion for free trade, had a direct tariff as high as 33% on imported American automobiles (Altshuler et al., 1984).

technological know-how into Europe. By the early 1950s, Europe accounted for about 14% of global automobile production (compared with 85% in North America)⁵.

The post-World War II liberalization in trade provided an additional impetus to growth of the automobile sector in Europe. The Europeans had a wider product range than the Americans and this flexibility enabled them to benefit dramatically from the increase in global prosperity in the period from 1950 to 1970. By 1970, production in Europe equalled that of North America (each had approximately 40% share of global production). Equally significantly, Europe became a dominant exporter of automobiles to other regions of the world (fuelled by the fact that the traditionally "large" American cars were not popular in other world markets). The automobile industry was now characterized by truly transatlantic production. European and American automobile markets were open internally and to each other and the volume of automotive trade between North America and Europe was substantial. This was combined with large amounts of direct investment in manufacturing facilities occurring in both directions.

⁵Altshuler et al. (1984)

3.2 Japan and the Automobile Industry

In the 1970s, the automobile industry experienced a Japanese-led transformation similar to the one caused by American-led innovations in production techniques in the early part of the twentieth century. In the immediate postwar era, Japan had designated the automobile sector as a "strategic" sector. This enabled Japanese automobile manufacturers easier access to credit, tax incentives, and protection from imports. The government also required that Japanese auto plants be Japanese-owned. The Japanese automobile sector developed indigenously with technological help from the West and, by 1960, Japan had become a modest exporter of automobiles. More importantly, Japanese producers made use of a labor relations model based on worker participation and lifetime employment. Japan also had a market organizational model based on industrial and conglomerate groups. More importantly, the Japanese auto producers also developed radically new production techniques such as "quality circles", "just-in-time", and "total quality control" that made it possible for them to build high-quality cars with flexibility and reduced costs and overhead. Japanese production in 1970 was about 10% of

global manufacturing output and was mainly concentrated to small cars³⁶.

The oil shock of 1973 was a windfall for the Japanese automobile industry. Global demand patterns began to move toward the types of cars that the Japanese were producing, namely high quality, small-sized, and fuel-efficient. Japanese automobile exports and international market share increased dramatically in the 1970s. The second oil shock of 1979 helped Japanese producers even further. As a result, by 1980, production levels in Japan were nearly equal to those in North America with a large proportion being exported. Figure 1 (p.117) plots production trends in the three major regions of the world, North America, Western Europe, and Japan. As can be seen in the figure, production in Japan nearly equalled that of North America's in 1980 and subsequently overtook it. Primarily as a reaction to the perceived "Japanese challenge" to European and American producers, the 1980s saw a partial reversal of the "free trade" regime which the automobile sector had enjoyed from the 1950s onwards. Most European markets established limits on Japanese imports and Japanese exports to the US were governed by a Voluntary Export Restraint (VER) treaty. Despite these developments, Japan continued to enjoy a

³⁶Altshuler et al. (1984)

dominant position in the automobile sector during the 1980s. Several Japanese firms have resorted to setting up production in Europe and the US to bypass import protection. Also, Japanese production techniques are increasingly being adopted by other manufacturers.

3.3 The Automobile Industry and Developing Countries

Automobile production was largely initiated in developing countries in the 1950s. The Latin American nations were at the forefront in this regard. Several of these nations adopted policies of import substitution for development. These policies encouraged domestic production of automobiles rather than importation from the US and Europe. Domestic production entailed very high investment outlays. As a result, the Latin American automobile industry was set up with the help of substantial foreign direct investment and technological know-how. The Latin American governments stressed local content ratios for production. Similar patterns of development of the automobile industry were observed subsequently in India and Egypt.

The oil crises of 1973 and 1979 had a profound impact on international automobile trade and production patterns. As mentioned in the last section, fuel-efficient compact cars produced in Japan made significant inroads into the

major markets of the US and Europe. US manufacturers saw a slow decrease in demand for their existing models (often characterized as "gas guzzlers") and the global market generally became more competitive. As a result, many of the major Western car manufacturers sought to make greater use of their manufacturing bases in developing countries. Many US firms used their production plants in Mexico and Brazil (which offered substantially lower production costs) by importing components from these countries for the US market. Completely built-up automobiles were not as popular for exporting as import substituting policies entailed that they have substantial local content ratios. As a result, these automobiles tended to be low-quality and overpriced by international standards.

The 1980s have seen the additional developments of automobile industries in South Korea and some of the ASEAN countries (such as Malaysia and Thailand). With the sole exception of South Korea (which will be discussed in later chapters), the automobile industries in developing countries have been closely linked with transnational corporations through investment and technological links. In 1987, manufacturing in developing countries was around 8% of the global share (including production and assembly). In the same year, South Korea was the largest producer of

automobiles among developing nations followed by Brazil, Mexico, Taiwan, and India (See Appendix 8³).

To conclude, in the late 1980s, the international automobile industry is still dominated by the US, Japan, and Western Europe. Significant inroads have been made by developing nations but they still remain marginal players in percentage terms. The history of the development of the automobile industry illustrates the traditional predominance of the nations that were at the forefront at the time of its inception (with the sole exception of Japan).

The marginal role of developing countries in the international sector makes it extremely difficult for trade-induced industrial development in this sector as they face overwhelming competition from established producers that hold the key to investment and technology. But the role of the automobile industry in economic development remains significant for a variety of reasons. Although the output of this sector is consumed primarily by the wealthier sections of the population of developing economies, one of the primary benefits of the automobile sector is the generation of large scale employment. Development of the automotive sector promotes industrialization and growth of ancillary industries and the introduction of product,

³EIU

process, and managerial technologies has potentially beneficial effects for the rest of the economy. Also, automobile production remains a prominent target for import substitution due to the high value-added nature of the product. Imports of automobiles can pose a substantial drain on foreign exchange reserves.

3.4 Industrial Characteristics

What are some of the characteristics of the automobile industry? And how do these characteristics affect the possibilities for practicing strategic trade? As the earlier section outlined, international trade in the automobile sector has undergone several stages. It started as a fairly open liberal trade regime in the early part of the twentieth century. The period after World War I until the 1950 was characterized by protectionism. The period between the 1950s to early 1970s saw a reversal to a free trade regime. Developments after the 1970s indicate a partial reversal to protectionism.

Dunn (1987) highlights the importance of the fact that the history of the automobile industry indicates that its international trading regime was not always "trade liberal" but can be characterized as being always "investment liberal". Even though there have been significant restrictions on the exports and imports of automobiles at

different times, there have been very few restrictions on the export and import of international capital in the industry. The trend towards increasing transnationalization of the industry in the future can be expected to continue (especially in developing nations) even though actual trade between nations may face restrictions.

From a "macro" perspective, the predominance of the developed nations, both in the production and consumption of automobiles, and the transnationalization of international capital are important characteristics of the automobile industry. There are some other characteristics at the "micro" level that also merit discussion.

The most dominant characteristic of the automobile industry is the pervasiveness of large transnational corporations (TNCs). In 1982, for example, 30 corporations accounted for nearly 100% of the worldwide automobile production. More importantly, only 10 TNCs accounted for nearly 78% of global production. Two corporations from developing countries (Hyundai from South Korea and Zastava from Yugoslavia) barely made it to the top 30⁸ (See Appendix 10).

Automobile production (or "final assembly") accounts for only a proportion of the activity in the automobile

⁸Altshuler et al., 1984

sector. Approximately half of the value-added comes from ancillary industries. On one side are the component manufacturers that are responsible for the production of "inputs" to the final assemblers. The other side consists of the distributors that provide the link between automobile producers and consumers³⁹. In addition, the financial sector (banks and insurance companies) have significant stakes in the automobile sector. But the "nerve center" of the industry lies with the final assemblers and, appropriately, they will be the focus of study.

3.5 Production and Competition in the Industry

In the early stages of the its development, the automobile industry had low capital requirements and scale of production. Ford's introduction of assembly line production dramatically changed the character of automobile manufacturing. Mass production allowed for increased output with lower per-unit costs⁴⁰. The new techniques also raised the capital-labor ratio required for production. Assembly line production, therefore, required greater capital investments and increased output as well as allowed

³⁹In 1982, there were an estimated 50,000 distributors in the US, Western Europe, and Japan)(Altshuler et al., 1984).

⁴⁰For example, Ford was able to reduce its production costs by as much as 50% when it first switched to mass production (Jenkins, 1977).

for greater scale economies. As a result, Fordism encouraged increased concentration in the industry. Because fixed costs became higher (and scale economies more competitive), the larger firms were able to drive out competition and dissuade new entrants⁴¹.

The actual production process for final assembly mass manufacture of automobiles includes stamping of sheets to form body parts, casting of engine blocks, forging of body parts with the engine and transmission, and final assembly on a conveyer belt. Labor costs in the process vary from 25% to 35% of total production costs and a majority of the labor force employed tends to be unskilled⁴².

Competitive success in the automobile industry can involve large investment decisions as well as lengthy gestation and payback periods. Altshuler et al. (1984) identify two major factors affecting competition in the automobile industry. In their words:

"first, the producer's products must be competitive in styling, price, image, performance, and reliability. Second, the producer's production system must be competitive in cost, accuracy, and flexibility. This system includes the production hardware, its geographic location, and the social organization of the production process."⁴³.

⁴¹Jenkins, 1977

⁴²Todar, 1978

⁴³Altshuler et al., 1984, p.127

To remain viable, producers need to be competitive in at least a few of the above mentioned areas. The post-oil shock era is widely perceived by industry analysts as being one of "competitive imbalance" which is leading to an international restructuring of the industry.

What are some of the contemporary competitive positions of the major producers? In other words, what are some of the competitive advantages that drive international trade in automobiles? The Japanese producers are currently at the cutting edge of competition. They have implemented innovative production techniques (increasingly being emulated elsewhere) enabling them to have considerably lower production costs and a greater degree of production flexibility in meeting changing market demand. Japanese automobiles also have very high levels of manufacturing accuracy and product quality. In addition, Japanese automotive workers have lower wage levels when compared with their counterparts in Western Europe and the US. Japanese industrial organization in the form of conglomerates (called zaibatsu) also affords producers advantages in the form of coordinated vertical integration as well as financial stability.

The European and American producers primarily have advantages in the form of unhindered access to large

domestic markets (The European Common Market and North America, respectively) as well as access to a relatively greater number of international production facilities (as compared with Japanese producers). The primary competitive advantage that developing countries have is in the form of lower real wages and production costs but this advantage is offset by the fact that their domestic markets remain small and quality standards are low. Several transnational corporations (TNCs) have taken advantage of lower production costs in developing countries and set up production plants there for export to markets in developed nations. Transportation costs (for shipment from production locations in developing countries to markets in developed nations) erode some of the competitive advantage obtained by TNC manufacturing in developing countries.

The next chapter examines some of the economic and political developments in South Korea that laid the foundation for growth of its automobile industry.

CHAPTER FOUR
SOUTH KOREAN DEVELOPMENT POLICIES

4.0 Introduction

This section presents a brief summary of post-colonial South Korean development policies and outcomes. Historical experiences have played an important role in terms of influencing economic policy choices made by developing countries. An overview is necessary to understand some of the national industrial development policy choices and the institutional context within which these choices were (and still are) made and implemented. South Korea has had one of the most planned economies in the world. The state has been actively involved in targeting specific sectors for development and South Korea has experienced very rapid levels of export-led economic growth.

4.1 History of Economic Planning

Korea has a history of being one of the most isolated regions of the world. It was only in 1876 that it was opened to trade when it signed a treaty with Japan. Subsequently, the three major powers in the region (China, Japan, and Russia) competed for dominance over the Korean peninsula. In 1905, Japan made Korea its protectorate. By 1910, Japan had firmly established control and the Korean

emperor was deposed and Korea officially became a colony of Japan.

Industrial development in Korea began under Japanese colonialism. The emphasis under Japanese occupation initially was agricultural development. Japan used Korea primarily as a supplier of rice and industrial raw materials although a predominantly Japanese-owned burgeoning industrial sector was also initiated in this period. The major thrust for industrial development in Korea came with the onset of Japanese war preparations in the 1930s. Japanese zaibatsu (industrial conglomerates) received encouragement from the Japanese state to invest in the colony. Heavy industrial production in hydroelectric power, mineral processing, and textiles was launched and most of the output was exported to Japan. There existed a distinct geographic specialization with the North leading in electricity production, manufacturing, and mining. The South was predominantly agricultural and had a large proportion of the forestry and fishing industry⁴⁴.

In 1945, with the end of World War II and Japanese capitulation, Korea was divided into North and South at the 38th parallel. South Korea came under American occupation. It inherited the industrial manufacturing infrastructure

⁴⁴Jones and Sakong, 1980

left behind by the Japanese although a sizeable portion of the heavy industry went to North Korea. The American occupation ended in 1948 and Dr. Syngman Rhee was elected president⁴⁵.

Rhee was instrumental in implementing the land reform schemes that had been initiated under American occupation. The Korean War from 1950-53 (when the communist invasion from the North was defeated with the aid of the US and the United Nations) played a prominent role in shaping the goals of his administration. The South Korean economic infrastructure was devastated during the war. The latter half of the 1950s was devoted to post-war reconstruction with the help of massive US aid. In 1960, the Rhee regime was overthrown by a student uprising on account of charges of government corruption, economic hardship, and general political discontent among the people⁴⁶.

A military coup in 1961 brought General Park Chung Hee to power. Concerted economic development policies (in the form of Five Year Plans) were implemented under his regime. The First Five Year Plan included industrial policy measures that were directed at import substitution of consumer goods, industrial raw materials, and intermediate goods.

⁴⁵Reynolds, 1985

⁴⁶Cho and Kim, 1991

Industries such as cement, chemical fertilizers, and oil refining were promoted. By the early 1960s, import substitution of consumer goods was complete but South Korea still imported industrial raw materials, intermediate goods, and machinery resulting in chronic balance of payments deficits and a foreign exchange crunch. This prompted initial export promotion measures such as the devaluation of the won (the Korean currency), establishment of a floating exchange rate, and incentives for the export of manufactured goods such as lower interest rates (See Appendix 6 & 12)⁷ .

The Second Five Year Plan (1967-71) continued state sanctioned export promotion for light industries. Exports consisted primarily of products such as textiles and clothing (these constituted 80% of exports in 1970). Other government policy measures included a moderate emphasis on the development of domestic industrial sectors such as automobiles, iron and steel, electronics, and petrochemicals. The Third and Fourth Five Year Plans (1972-81) saw an initiation of industrial and trade policies aimed at the concerted promotion of "heavy" industries for export purposes. This change was brought about in part by increasing protectionism and recession in the major industrialized countries as well as international monetary

⁷Reynolds, 1985

disturbances caused by the oil crisis which had an adverse effect on South Korean exports of "light" industrial products. Heavy industrial products were preferred due to their greater value-added component of export earnings and relative immunity to international market disturbances. The government targeted six industrial sectors as "strategic". These were: steel, non-ferrous metals, shipbuilding, machinery, electronics, and chemicals⁴⁸.

President Park's 18 year tenure came to an abrupt end with his assassination in 1979. After a brief period of turmoil and a power struggle within the military, General Chun Doo Hwan was sworn in as President in 1980. The 1980s have seen South Korea gradually move away from explicit export promotion programs. Special promotion for industries is being phased out and the "free market" approach (with reduced state intervention) is being embraced. The economy has become more open to imports and the government is generally emphasizing competition (not protection) for ensuring industrial efficiency and growth. 1987 also saw South Korea return to democracy and liberalization with the election of President Roh Tae Woo.

⁴⁸Cho and Kim, 1991

4.2 The South Korean Economy and Key Institutions

What has been the result of nearly three decades of state sanctioned economic planning? South Korea has experienced an average Gross National Product (GNP) growth rate of 7%, one of the highest in the developing world (World Development Report, 1991). In 1989, it had a GNP per capita of \$4,400 and was classified by the World Bank as an "upper-middle-income" economy (in the 1960s, South Korea's GNP per capita was among the lowest in the world). Industrial contribution to South Korea's GNP has grown from 25% in 1965 to 38% in 1989. Also significant is the fact that South Korea's exports as a percent of GNP have grown from 9% in 1965 to 34% in 1989. In the late 1980s, electronics constituted the largest proportion of exports (25.3%), followed by textiles (24.3%), footwear (6.7%), steel products (6.4%), and automobiles (5.3%) (1988 figures)⁹.

South Korea's export-led industrialization was facilitated by the centralization of economic policy-making through the Economic Planning Board (EPB) and the Ministry of Trade and Industry (MTI). Based on the example of India, budgetary and planning powers were brought together under the tutelage of the EPB. The EPB works on coordinated

⁹McDermott (1989)

monetary, fiscal, industrial, and trade policies in conjunction with the office of the President. The government also nationalized major banks. The Bank of Korea and other major state-owned banks in South Korea designated specific sectors for prioritized access to credit based on recommendations from the EPB and MTI. In addition, short term loans were granted without limit to firms that have confirmed export orders. These export loans were automatically rediscounted by the Central Bank.

The South Korean government, apart from easier access to credit for exports, also administered a system of export targets for firms and held monthly trade promoting meetings. Export targets are usually set by the firms themselves. Firms have incentives to set higher targets as the targets form the basis for prioritized access to longer term financing in the future. Since 1975, to speed up export growth, the state has designated some industrial firms as General Trading Companies (GTCs). GTCs were picked according to their large size and existing export earnings, among other criteria (See Appendix 13). GTC status allowed firms access to direct cash subsidies tied to export value, access to export "intelligence", and increased foreign exchange allocation. In return, the GTCs have to fulfill state set export value requirements and maintain a minimum number of trade representative offices in foreign countries.

The South Korean economy is also typified by the dominance of a handful of large corporate conglomerates (called chaebol, similar to the Japanese zaibatsu). The importance of the chaebol has been heightened after the government switched to promotion of heavy industry after the first oil shock⁵⁰. In 1989, 15 of the largest chaebol accounted for 40% of the GNP. Of these, four are the most prominent: the Hyundai group, the Samsung group, the Daewoo group, and the Lucky-Goldstar group. Some of the chaebol trace their roots to the period under Japanese colonialism. The state has used the chaebol as primary vehicles for industrial policy implementation. The chaebol have benefitted the most from heavily subsidized credit, import protection, and guaranteed sales through government procurement⁵¹.

Given this brief backdrop, the next chapter elaborates the development of the automobile industry in South Korea.

⁵⁰In contrast, small and medium-sized firms had been the backbone of South Korea's successful labor-intensive export-led industrialization in the 1960s and early 1970s.

⁵¹McDermott (1989)

CHAPTER FIVE

THE SOUTH KOREAN AUTOMOBILE INDUSTRY

5.0 Introduction

This chapter elaborates the policy stances of the state that directly and indirectly affected the development of the automobile industry in South Korea. The discussion will focus on two primary domains. First, industrial and trade policies regarding the automobile sector will be examined. Secondly, state labor policies and their impact on automobile manufacturing will be analyzed. Government policies in the late 1970s and early 1980s were specifically export promoting. During the same period, South Korea saw a large surge in its automobile exports⁵².

5.1 The Structure of the Industry

In 1990, with production reaching 986,751 units, South Korea became the largest manufacturer of automobiles among developing countries. It surpassed other established producers in developing countries such as Brazil, Argentina, and Mexico. A little more than a third of the output, 339,672 units, was exported (primarily to the US and

⁵²This section draws on Chu (1987); Lowry (1987); McDermott (1989); Ogle (1990); Park (1980); Robertson (1990); and Wade (1990)

Canada). In the same year, there were four firms that produced automobiles: Hyundai (57% share of production), Kia (23%), Daewoo (19%), and Ssangyong (1%). Hyundai was the largest exporter (67% of exports) followed by Kia (23%), and Daewoo (10%). Hyundai was part of South Korea's second largest chaebol and has been a designated GTC since 1976. Mitsubishi of Japan held a 7.5% equity stake in the company⁵³. Kia was a member of a South Korean automotive conglomerate. Mazda of Japan held 8% and Ford of the US held 10% equity stake in the company. Daewoo was a joint venture between the fourth largest conglomerate and General Motors of the US (which held a 50% stake in the company but had no management control). Ssangyong was a wholly owned subsidiary of another South Korean conglomerate (See Appendix 4). It is important to note that none of the firms was state-owned and, except for Daewoo, TNCs were not major players in the South Korean automobile sector. The next section chronicles major phases in the growth of automobile manufacturing.

5.2 The Import Substitution Phase (1962-76)

The South Korean automobile industry was established in the early 1960s. Prior to that period, South Korea had no

⁵³In 1982, Hyundai sold 10% of its equity stake to Mitsubishi in exchange for technical assistance.

automobile manufacturing activity and all automobiles were imported or assembled from imported kits. In May 1962, under the auspices of its First Five Year Plan (1962-66), the South Korean government enacted the Automobile Industry Protection Law that initiated domestic manufacturing of automobiles. The law completely prohibited imports of built-up automobiles. At the same time, the state decreed that only firms with majority domestic ownership (at least 50%) that met stipulated local content requirements would receive licenses for production. Duty-free imports of intermediate inputs and tax incentives for producers were also instigated. In addition to the above measures, the state set up the Korean Automobile Industry Association to act as intermediary between the government and the emerging private producers. The law resulted in the initiation of a publicly owned automobile manufacturing enterprise, Saenara Auto in technical cooperation with Nissan of Japan. In 1965, South Korea produced 106 automobiles with a local content ratio of about 21%⁵⁴. In the same year, the government transferred ownership of the sole manufacturer to a private firm, Shinjin⁵⁵.

⁵⁴Park, 1980

⁵⁵Later, Shinjin came to be known as GM-Korea.

The Second Five Year Plan (1967-71) saw the commencement of volume production in South Korea with an increase in the number of automobile producing firms. Three new private firms were given licenses for production between 1965 and 1969 (Hyundai, Asia, and Kia). In March 1967, as part of the Second Plan, the state enacted the Machinery Industry Promotion Law. This law, although not industry-specific, helped promote the localization of auto parts production. In the same year, the state increased the standard specifications for factory sites and floor space. As a result, automobile production plants were able to expand their scale of production. Also in 1967, the government initiated a long term local content plan which aimed at increasing the domestic content of automobiles produced in South Korea. Preferential allocation of foreign exchange was given to producers that increased their level of local content. Auto production increased from 106 units in 1965 to 12,428 units in 1971. The state's "localization" stipulation was quite successful as most of the automobiles produced in 1971 had a local content ratio of around 50%.

During the Third Five Year Plan (1972-76), additional government incentives were provided to producers with local components. The Heavy and Chemical Industry Plan of 1973 identified automobiles as a priority industry. Targeting the automobile sector was part of the state's plan to

emphasize heavy industrial production over light manufacturing. This forced producers to emphasize domestic production over assembly. During this period, another long term automobile industry plan (covering ten years), called the Long Term Automobile Promotion Plan, was implemented. This plan emphasized the development of a completely South Korean model by the end of the 1970s and to turn the industry into an exporter by the early 1980s. The government also stipulated that production be limited to the three automobile producing firms (Hyundai, Kia, and Daewoo). The state directed the minimum size and maximum engine size of each of the firms and they had to receive approval from the government for any of their future plans. By 1975, Hyundai produced its Pony model with an 80% local content ratio. Meanwhile automobile production increased from 9,525 units in 1972 to 26,701 units in 1976.

By the mid-1970s, therefore, the state had been successful in its import substitution strategy. Automobile production infrastructure had been established and demand was being met entirely by domestic manufacturing. Imports of automobiles were still banned and, due to high local content ratios, the imports of intermediate components were low. In keeping with the government's overall strategy of emphasizing development and exports of heavy industry instead of light manufacturing after the first oil shock,

the automobile industry subsequently became the target of export promotion policies. These are elaborated in the next section.

5.3 The Export Promotion Phase (1976-87)

1976 was a keynote year in the development of the South Korean automobile sector because Hyundai, the dominant firm, was able to export a modest 558 automobiles for the first time. Subsequently, the Fourth Five Year Plan (1977-81) set the stage for increased mass production and exports of automobiles in South Korea. First, the state set export targets for the three producers. Secondly, it encouraged producers to set their international market prices below cost of production⁵⁶. Thirdly, the state subsidized the producers (especially in credit for export expansion) and allowed them to import a specific number of "luxury" car assembly kits for the lucrative elite domestic market (the allowed number of imports was tied to the export performance of the producers). Consequently, exports of automobiles rose from 5,075 units in 1977 (about 12% of production) to 18,702 units in 1979 (approximately 16% of production).

⁵⁶For example, in 1979, the Hyundai Pony cost US\$3,700, sold domestically for US\$5,000, and sold abroad for only US\$2,200 (Chu, 1987).

The export take-off was limited as the second oil shock in 1979 had a significant adverse impact on the South Korean automobile industry. Domestic production declined by nearly 50% in 1980. Exports also dropped approximately 22% from 1979 to 1980. In February 1981, to salvage the industry, the state initiated an automobile industry rationalization program. Under this plan, the state restructured the industry so that automobile production was limited to two firms (Hyundai and Daewoo) and each was directed to specialize in the production of specific models (to reduce "overlap" in production). The third firm, Kia, was given monopoly rights in light truck production (which the other two were asked to stop production of). The government also reduced the exise tax on domestic automobile sales (in order to stimulate domestic demand), reduced export targets in half, and increased the volume of concessional credit.

With considerable state directives, the early 1980s saw a concerted thrust by the South Korean manufacturers to export and by 1983 Hyundai established itself as a leading exporter to Canada. Exports to the US began in 1986 and the same year South Korea had its first trade surplus. By 1986, South Korean automobile production had reached 457,383 units. In the same year, exports had grown to 298,878 units (65% of domestic production) and imports were still non-existent. Most of the exports were to the United States and

Canada. Hyundai accounted for almost all of the exports (99% of all automobile exports in 1986). Also, by this period, localization of motor vehicle content had reached 90%.

5.4 The Liberalization Phase (1987 Onwards)

The start of the Sixth Five Year Plan (1987-91) was another important year for the South Korean automobile industry. In January 1987, the government, emboldened by the success of automobile exports, initiated several policy measures aimed at "liberalizing" the automobile sector. First, the outright ban on automobile imports was lifted. Secondly, the stipulation that only two firms (Hyundai and Daewoo) could manufacture automobiles and a third (Kia) could only manufacture light trucks was reversed (although legislation in July 1986 prohibited new entrants into the market for three more years). These measures were undertaken ostensibly to spur competition in the domestic sector. Import liberalization also occurred as a result of pressure from the US to open the domestic market (although high tariffs remained and imports from Japan were still banned).

In 1988, the Ministry of Trade and Industry (MTI) formulated a five year blueprint for providing financial aid for technological development in the automobile sector

(especially for the development of robotic techniques after labor disruptions in the industry). A loan fund of W300 bn (over \$400 mn) was set aside to help finance automation plants in 1992. The program also raised the tax deduction rate for corporate investment in factory automation (from 10% to 20%).

In 1989, just two years after the liberalization phase was initiated, domestic production and exports faced a setback. Analysts cite several factors for this occurrence. First, the won appreciated against the dollar (and the yen) harming the competitive position of automobile exports. Secondly, growing labor unrest adversely affected production (this will be discussed in detail later). Thirdly, the US removed South Korea from its Generalized System of Preference (GSP) that had allowed South Korean imports favorable tariffs. And finally, recession in North America slowed the demand for imported automobiles. Some of these setbacks proved to be temporary and by 1990, the South Korean automobile industry again saw an increase in domestic production (although exports were slow to pick up). Part of the reason 1989 and 1990 saw a decrease in export volume can also be attributed to the fact that Hyundai set up its own production plants in North America.

In 1990, MTI reiterated its strong support for the automotive sector by declared it as "high-tech". R&D

activities are slated to be encouraged by providing finance and tax reductions (also, the government hopes to increase the number of private research centers from 57 in 1988 to 300 in 1994). The government also set a target for R&D spending at 5% of sales. These expenditures are aimed at reducing the automobile sector's dependence on labor. The initial competitive edge that South Korea enjoyed in the international auto market was largely due to its lower wage levels. Since the mid-1980s, labor strife has resulted in substantial rises in real wages eroding this advantage.

To summarize the above sections, the development of the South Korean automobile industry has had three distinct phases, import substitution (1962-76), export promotion (1976-87), and liberalization (1987-present). The state has played a dominant role in fostering domestic automobile production and exports while relying entirely on private producers and an insignificant TNC involvement. An examination of data summarizes trends in automobile production. Figures 2 and 3 (pp. 118-119) highlight the exponential rise in auto production and exports after export promotion began in 1976. Growth in production continued even though exports faced setbacks in 1989-90. Figures 4 & 5 (pp. 120-121) emphasize the correlation of increases in production and exports especially in the years prior to 1987. Until 1987, the growth in production was driven

entirely by exports as the domestic market grew very slowly (See Figure 6 & 7, pp. 122-123). Furthermore, Hyundai has consistently dominated both exports and production throughout the development of the industry (See Figures 8, 9, & 10, pp. 124-126). Imports remained banned until 1985-86 and, even after liberalization, have been slow to pick up (See Appendix 3).

Apart from "direct" policies that helped automobile production, the state has also provided several forms of "indirect" support that helped increase the international competitiveness of automobile exports. Primary among these was a near-authoritarian labor policy and favorable exchange rates. These are discussed next.

5.5 South Korea's Competitive Advantage: Labor

The automobile industry in South Korea has enjoyed a strong degree of direct support from the state in its development. As mentioned above, it is now a leading international producer and exporter of automobiles. Direct state support in the form of subsidies, import protection, and export guidance were certainly instrumental in bestowing South Korean manufacturers with a competitive advantage in international trade. But the South Korean automobile "success" story has another important dimension. The provision of indirect subsidies to automobile producers

through state sanctioned labor suppression (leading to lower wages, among other results) needs to be considered in the application of the theoretical framework of strategic trade to the case of the South Korean industry. This section explores the impact of state-labor relations on South Korean development in general and its bearing on the international competitiveness of the automobile industry⁵⁷.

The history of the labor movement in South Korea traces its roots to the period under Japanese colonialism. For the purpose of this study, however, the most relevant phase in the history of state-labor relations began in the early 1960s when General Park implemented policies of light industry export promotion. Since South Korea initially specialized in the export of labor-intensive manufactured products, the Park regime sought to implement extensive controls over labor in order to ensure lower real wages and fewer "disruptions" in the development process. In 1961, after imposing martial law, the Park regime initiated a total ban on strikes, deregistered all the existing labor unions, and arrested many union activists⁵⁸. Subsequently in 1963, with a return to civilian rule, several labor unions were reactivated and brought under an umbrella

⁵⁷This section draws upon Deyo (1987); Ogle (1990)

⁵⁸Deyo, 1987

organization, the Federation of Korean Trade Unions (FKTU). The role of the FKTU was primarily to moderate labor union demands and implement government policy. New unionization was allowed through application to the Office of Labor Affairs but all local and regional unions were required to become members of the national level FKTU. Strikes were permitted in the case of labor-management disputes unless the state felt that "national security" would be jeopardized by the labor strike⁵⁹. As a result, the 1960s saw considerable regulated labor activity with few legal work stoppages.

In 1972, President Park was reelected with a slim margin and shortly thereafter he declared a State of Emergency. All collective rights of labor were suspended after the declaration. Although unionization was allowed, strikes and lockouts were completely prohibited. Furthermore, the Special Law on Labor in Foreign Invested Firms was adopted which made all union activity in foreign firms illegal. During the 1970s, the government did not intervene directly to set industrial wage levels. But government approval was required for collective negotiations between the trade unions and management and state arbitration was automatic and binding.

⁵⁹Ogle, 1990

Several of the above mentioned measures were reversed after General Park's assassination in 1979 and with the imposition of martial law under General Chun Doo Hwan. The State of Emergency also ended in 1981. General Hwan's regime adopted several new stances with regard to labor policy. First, it promulgated the "Guidelines for the Purification of Unions" whereby several national union leaders were arrested and replaced with pro-Hwan members. Secondly, the Office of Labor Affairs required that 20% of the work force petition for new union membership before it could be established. Thirdly, the government began to play a more active role in the wage-setting process. The state set standards for wage increases through manipulation of public sector wages that subsequently influenced private sector wages. State-owned banks dictated that borrowers achieve targeted debt-equity ratios before initiating wage increases in their firms. Fourthly, and most importantly, the Hwan regime made it illegal for third parties (such as the church, students, and even the FKTU) to be involved in industrial disputes and collective bargaining by passing the Labor Dispute Law. The state also initiated support for non-union "micro" level labor-management relations ostensibly to emphasize company loyalty and work discipline through passage of the Labor Management Council Law. This law called for the establishment of factory-level councils

and resulted in decentralizing and fragmenting the labor force.

Up until the 1980s, only 15% of South Korea's labor force was unionized. Furthermore, there were no provisions for minimum wages⁶⁰. The government also indirectly controlled wage growth by manipulation of public sector wage levels. These often served as guidelines for changes in private sector wages. In 1987, South Korea returned to democracy with the election of President Roh Tae Woo. He campaigned on a platform that promised to ensure an end to strict government control. As a result, the country exploded with labor revolts significantly hitting the chaebol. The labor movement of 1987 also sought to dissolve the FKTU which was widely perceived as the arm of authoritarianism. Wage increases and work stoppages continued until 1990 and adversely affected manufactured exports.

These labor disruptions have especially harmed the automobile sector interrupting the flow of vehicle output⁶¹. The automobile sector, when combined with ancillary industries, is one of the largest employers in the

⁶⁰The government initiated plans to have a minimum wage level in 1986.

⁶¹In 1988, labor unrest resulted in 36 days' loss of production in Hyundai and Daewoo resulting in a decline in output in the first half of the year.

nation. Wages in the automobile sector have climbed by as much as 80% over the past three years. The price advantage of South Korean automobile exports is widely perceived to be evaporating in international markets. As a result, as mentioned in the earlier section, labor problems have prompted the government to provide incentives for automobile producers to invest in increasing automation in order to deflect labor dependence.

Up until 1987, therefore, the state has been actively involved with "disciplining" the labor force. State sanctioned corporatist structures of representation in the form of the FKTU have enhanced the ability of the government to manipulate labor policy in ways deemed to be conducive for economic development. Lower levels of wages have been instrumental in facilitating industrial development in South Korea.

The next chapter briefly elaborates the development of the Mexican automobile industry for comparative purposes. Mexico is comparable to South Korea in terms of its economic size and level of industrialization (both had nearly the same levels of GNP per capita from the late 1970s until the mid-1980s which was South Korea's export promotion phase). Both nations are touted as "success" stories in development literature and have consistently enjoyed high rates of economic growth. Both Mexico and South Korea are also

similar in the fact that they border dominant automobile manufacturing nations (US and Japan, respectively). This physical proximity would be attractive for both Japanese and American TNCs as bases for lower cost production sites and component import and should logically be expected to have important conditioning influences on the automobile industries of both South Korea and Mexico. Also important for comparative purposes is the fact that automobile production was initiated in both countries in the same year, 1962. Subsequent developments in the industries of both countries were influenced by similar international market conditions.

The logic behind the comparison is that of the "most similar systems" approach. Two similar cases are expected to provide "controls" over several factors making it easier to highlight the differences within the systems (and to understand some of the causal factors of the differences).

CHAPTER SIX
THE MEXICAN AUTOMOBILE INDUSTRY

6.0 Introduction

This chapter briefly examines the automobile industry in Mexico. The intent is to focus on stages of its development in order to compare it with developments in the South Korean automobile sector in the next chapter. Unlike in South Korea, the automobile industry in Mexico has been closely linked to the "transnationalization" process in the international automobile industry. The next section will trace historical developments in the industry and focus on the role of the state in providing direct and indirect support for the sector.

6.1 The Structure of the Industry

In 1990, Mexico was a leading automobile producer among developing nations. Production volume was 598,093 units of which a little less than half was exported (249,921 units). The Mexican automobile industry consisted entirely of TNC subsidiaries. In 1990, there were five major automobile producers. Volkswagen de Mexico was the largest producer (30.6% share of production) followed by Ford Motor (22.5% share), Chrysler de Mexico (18.1% share), Nissan Mexicana (16.5% share), and General Motors de Mexico (12.3% share).

Volkswagen de Mexico was 100% foreign owned by the German parent company and, in 1990, held 18.5% share of all Mexican exports. Ford Motor was also a wholly owned subsidiary of Ford USA and accounted for the largest export share (35.5%) in 1990. Chrysler de Mexico was 99% foreign owned by Chrysler USA (22.1% share of exports). Both Nissan Mexicana and General Motors de Mexico were also 100% foreign owned (Nissan's export share was 18.5% and General Motors de Mexico's was 16.4%) (See Appendix 4)². The next section traces the historical development of the industry.

6.2 The Import Substitution Phase (1962-1991)

Until the late 1950s, the Mexican automobile industry consisted of several producers that were involved in assembling imported kits. Ford and GM were the first to establish their assembly operations in Mexico (in 1925 and 1937, respectively). By the end of the 1950s, they together accounted for one-half of local assembly³. The rest of the industry comprised of ten wholly or majority Mexican owned assemblers with foreign licensing links. In 1958, the Mateos administration picked the automobile industry as a

²data is compiled from various EIU reports.

³Bennett and Sharpe, 1985

prime candidate for implementing import substitution policies.

The key turning point in the development of the Mexican automobile industry came with the passage of the Automobile Manufacturing Decree in 1962. This decree mandated domestic manufacturing of automobiles (as opposed to assembly) with a domestic content ratio of 60%. The decree also reduced the number firms in the industry and set production quotas on firms in order to prevent power concentration in the hands of the TNCs. Furthermore, price controls were also imposed on automobiles. Although the state wanted to disallow majority or wholly owned foreign firms from production, it was unable to do so because of pressure from the existing TNCs and the US government. As a result of the decree, imports of automobiles were made conditional on exports and producers were given tax incentives. The state also exempted the automobile industry from paying import duties on machinery, equipment, raw materials, and components for four to five years.

The decree resulted in automobile production being licensed to two wholly owned TNCs (Ford and GM) and seven Mexican majority owned firms. Nissan of Japan was licensed to set up production subsequently. The 1960s saw substantial development of manufacturing in the automobile sector but several of the Mexican producers, in spite of the

production quotas, were not able to compete against the well established TNCs. As a result, three of the seven Mexican firms ceased production. One was taken over by Volkswagen of West Germany. The other two were majority state-owned but sold substantial amounts of their equity to other TNCs. Nevertheless by 1970, production of automobiles had reached 133,218 units (up from 10,384 units assembled in 1950).

In 1972, prior to the oil shock, the state formulated a policy that made it mandatory for automobile producers to increase exports in order to compensate for their imports of intermediate automobile components. This policy was undertaken to ease the foreign exchange drain on the economy and to further encourage localized production of Mexican automobiles. Prior to the 1972 policy, state sanctioned production quotas were enforced through import licensing. The value of imports of intermediate goods was allowed in accordance with the production quotas. After 1972, production quotas were linked to the firm's export volume (which, in turn, was based on a percentage of the value of imported components utilized).

Developments in the 1970s (such as the oil crises and Japanese success in automobile trade) had a profound impact on exports in the Mexican automobile industry. Mexico saw the result of a significant shift in TNC component manufacturing sites to developing countries such as Mexico

in order to benefit from lower production and labor costs. At the same time, Mexican automobile production nearly doubled from 133,218 units in 1970 to 237,118 units in 1975. Growth in the automobile sector was interrupted in 1975-77 on account of a recession in the Mexican economy. Production subsequently fell to 187,637 units in 1977.

In 1977, the automobile industry was again the target of a state decree that aimed at reducing the nation's foreign exchange deficit. The first step that was taken was to increase the localization ratio. The state also set up an annual foreign exchange fund for the automotive sector and distributed foreign exchange amounts for imports of intermediate components based on historical foreign exchange usage and the degree of local content of each firm. The state also initiated a plan whereby automobile manufacturers could avail of certain fiscal credits if they were able to maintain a balance between their imports and exports (i.e., if export earnings would account for 100% of the value of imported components). By 1981, automobile production in Mexico had increased to 355,497 units but exports were 9,296 units (only 2.6% of production). Most automobile manufacturers complied with the state's decree by exporting components rather than built-up automobiles.

In 1982 and 1983, domestic production fell in Mexico. In response to this, the state announced another major

decree aimed at rationalizing the automobile sector. The local content ratio requirement was raised again. Several automobile lines (and models) stopped production for the domestic market and concentrate instead on the export market. The period in the late 1980s has seen large increases in automobile exports partly as a result of the decree and partly as a result of global market conditions. Again, exports were promoted to stop the drain on the state's foreign exchange reserves rather than a means of achieving growth in the automobile sector per se.

On the whole, the Mexican state was quite successful in achieving import substitution of automobiles. Despite extensive support, the government was not able sustain production in the state-owned automobile firms and by 1990, production was dominated entirely by TNC firms. The large domestic market, by developing country standards, was also an important factor in helping the domestic manufacturing of automobiles and attracting TNCs. In the past year, Mexico has radically shifted away from its old "inward-looking" stance with regard to industrial production. Part of the shift has been caused by prospects of a "free trade" pact with the US that could substantially alter the structure and orientation of automobile production in the US.

6.3 The Liberalization Phase (1991 Onwards)

The Mexican liberalization phase began in 1989 when the Salinas administration elaborated another new Automotive Decree aimed at removing state regulation of the sector. But the decree went into effect in 1991. Import protection was slated to be removed in order to make Mexican-produced cars internationally competitive in terms of price as well as quality. The government also reduced the local content ratio requirement from 60% to 30%. Several export incentives for the automobile sector were also to be initiated. The effects of the decree on the automobile industry have yet to register.

A brief examination of data from the automobile industry in Mexico summarizes its development. According to Figure 11 (p.127), production fluctuated until 1988 with output rarely crossing the 300,000 unit mark. Exports remained low until 1986 after which they grew substantially (See Figure 12, p.128). The increase in production in the late 1980s was caused primarily by a rise in exports (See Figure 13, p.129). Exports as a percent of production were below 20% until 1986 after which they saw a substantial increase (See Figure 14, p.130). Furthermore, production for the domestic market fluctuated quite sharply over the twenty year period with no discernible upward trend (See Figure 15, p.131). Unlike in South Korea, exports were

never greater than production for the domestic market (See Figure 16, p.132).

6.4 Mexican Labor and the Automobile Industry

As the above historical account indicates, the development of the Mexican automotive industry had significant ties with the internationalization of the global automotive sector and followed the path of import substitution. This was achieved with the help of significant foreign investment from American and European TNCs. The automobile TNCs have used Mexico as a site for production of automotive components and, in recent years, have also increased exports of built-up automobiles. One of the attractions of setting up production in Mexico has been lower production and labor costs. This section examines the role of state-labor relations and the ability of the state to "subdue" labor and attract foreign capital in order to pursue import substitution.

Mexican labor policy developed within an institutional context very similar to that of South Korea. Labor interest group representation in Mexico is corporatist in form and is dominated by the government-affiliated union, Confederacion de trabajadores de Mexico (CTM). Many researchers attribute Mexican development success to the political stability and labor acquiescence achieved under the aegis of the CTM. The

CTM has consistently held a proregime stance which belies its overall dependence on political, legal, and financial subsidies from the state⁶⁴. As Roxborough (1984) summarizes:

"[several analysts] see a direct connection between control of the labor movement by the government-affiliated CTM, low strike levels, slow growth in real wages, low levels of inflation, and rapid and sustained economic growth"⁶⁵.

The CTM came together in 1936 and unified the previously weak and fragmented labor union movements. Subsequently, the state used the CTM as a means of controlling labor during the Mexican push for industrialization through import substitution. Several attempts for alternative unionization were unsuccessful as the government refused to grant legal recognition to other unions. The government of Mexico has been actively involved in the organization of the CTM. Several insurgencies within the union have been quelled with state intervention. One of the most effective tools used to quell "troublesome" workers within the CTM was the "closed shop provision" of the labor law (known as *clausula de exclusion*). According to this provision, offending workers could be dismissed from union membership on the basis of "inappropriate" behavior. As a

⁶⁴Middlebrook, 1991

⁶⁵Roxborough, 1984, p.161-2

result, employers had no option but to fire the worker since only union members could be hired. This was a very powerful tool against labor insurgency within the CTM as the Mexican industry already suffered from high levels of unemployment⁶⁶.

State-labor relations and union leadership in Mexico came to be typified by the concept of *charrismo*. An analytic "definition" of the term implies:

"a particular form of trade union control which is characterized by: (a) the use of repressive forces of the state to support a trade union leadership; (b) the systemic use of violence; (c) the permanent violation of workers' union rights; (d) misuse and theft of trade union funds; (e) dishonest dealing with workers' interests; (f) connivance between union leaders and government and capitalists; (g) corruption in all its forms."⁶⁷

The effect of this structure of labor unionization ensured that strikes were infrequent and predictable (occurring during contract negotiation periods only) and that wages rose slowly. The Mexican system of labor representation is often referred to as "inclusionary" corporatism. Organized labor was controlled by bringing it into the state apparatus. Union leadership was given extensive power (which was used to support the system) rather than to

⁶⁶Roxborough, 1984

⁶⁷Alonso quoted in Roxborough, 1984, p.132

restrict the power of the unions and "excluding" them forcefully⁶⁸.

In the 1970s, the state also relied on income policies as a way of controlling wage drifts. The government benefitted from the agreement that CTM and other official unions had. One of the ways the government was able to control wages was through the manipulation of annually set minimum wage levels. Although wages in industries such as automobiles were substantially higher than the minimum wage, government manipulation of changes in the minimum wage level tended to set the levels in other industrial wages⁶⁹.

During the 1970s, the dominance of CTM in state-labor relations was challenged by several "independent" unions. These unions tended to be company-based and often formed coalitions with other non-national unions. Mexican law allowed for the formation of various types of unions. These include unions at the level of the firm, enterprise, or industry. The Mexican automobile industry is characterized by mixed types of unions although a majority of the automobile labor force is affiliated with the CTM. Overall, during Mexican development, the labor force has been relatively passive. Part of the reason can definitely be

⁶⁸Roxborough, 1984

⁶⁹Schlagheck, 1980

attributed to the structure of state-labor relations. Labor passivity greatly benefitted the development of the automobile industry. As Kronish and Mericle (1984) argue:

"The predominance of collaborationist CTM-affiliated unions throughout the [automobile] industry during the immediate postinstallation phase (until the late 1960s and early 1970s) permitted motor capital, often in conjunction with the state and the unions, to institute measures designed to constrain total labor costs by controlling militancy and ensuring managerial control in the plants."⁷⁰

In the next chapter, major characteristics of the automobile industry in the two cases are compared.

⁷⁰Kronish and Mericle, 1984, p.279

CHAPTER SEVEN

STRATEGIC TRADE AND THE AUTOMOBILE INDUSTRY

7.0 Introduction

The last two chapters elaborated developments in the automobile industries of South Korea and Mexico. This chapter compares the two cases especially focussing on how state policies affected the automobile sectors. The chapter concludes with a discussion on the applicability of the framework of strategic trade to the case of the South Korean automobile industry.

7.1 South Korea and Mexico: Similarities

In both South Korea and Mexico, automobile manufacturing (as opposed to assembly) was initiated in 1962. Prior to this period, the industry in both countries was characterized by scattered assembling activities and imports (primarily from Japan in South Korea and from the US in Mexico). In 1962, both states identified the automobile industry as a prime candidate for policies of import substitution. Import substitution entailed domestic production of automobiles instead of a reliance on imports and assembled "kits". Import barriers were erected and several incentives were provided to producers to initiate production (such as tax breaks and duty-free imports of

intermediate products). South Korea completely banned imports whereas Mexico maintained high tariffs and discretionary import licensing. Additionally, in both cases, the government regulated the local content ratio in automobile production. Comparative data for the initial stage of domestic automobile production is summarized below.

Year 1965:

<u>Country</u>	<u>Pop'n</u>	<u>GDP/capita</u>	<u>Prod</u>	<u>Exports</u>
South Korea	28.33 mn	US\$ 106	106	0
Mexico	42.69 mn	US\$ 507	70,242	0

As is evident from above, in 1965, Mexico was substantially larger in terms of economic size, population, and automobile production.

Import substitution continued to be emphasized in both cases and, by 1970, automobile production in the two countries had grown as compared below.

Year 1970:

<u>Country</u>	<u>Pop'n</u>	<u>GNP/capita</u>	<u>Prod</u>	<u>Exports</u>
South Korea	32.24 mn	US\$ 270	14,487	0
Mexico	50.69 mn	US\$ 710	133,218	0

In the period 1965-70, South Korea's automobile production grew by 13,567% compared with an increase of nearly 90% in Mexico. In 1970, automobile production in South Korea was one-tenth the level in Mexico whereas its GNP/capita was a little more than one-third of Mexico's. By this time, both countries had achieved approximately the same domestic

content levels (about 50-60%) and automobile manufacturing in both cases relied extensively on foreign technological know-how. Subsequent developments in the two cases were sharply different. The reason for the differences can be attributed to the overall development policy stances of the two countries (i.e., export promotion in South Korea versus continued import substitution in Mexico) as well as initial difference in the structures of the automobile industries, among other factors.

Developments in the automobile industries of South Korea and Mexico also benefitted from indirect support and "subsidization" by the state in the form of extensive labor control. Estimates of labor costs in automobile manufacturing range from 25-40% of total costs. Labor costs are an even higher percentage of total costs in automobile component manufacturing. As elaborated in earlier chapters, state-labor relations in both Mexico and South Korea have leaned towards labor suppression in order to foster rapid industrialization.

Lower labor costs were an important factor in attracting substantial foreign capital for the development of the automobile industry in Mexico in order to pursue policies of import substitution. Similarly in South Korea, consistent efforts by the state to discipline the labor force provided a conducive atmosphere for the development of

industry. Furthermore, lower labor costs leading to lower unit costs were one of the primary factors in subsequently making South Korean automobile exports internationally competitive.

7.2 South Korea and Mexico: Differences

There were several important differences in the development of the automobile industry in South Korea and Mexico. Some of these differences existed prior to the initiation of import substituting policies in both countries and significantly affected future outcomes. Prior to import substitution of automobiles in 1962, Mexico had a much larger market for automobiles. As a result, Mexico had numerous domestic assemblers which included American TNCs. South Korea, in contrast, had considerably fewer assembly operations before 1962. It relied more on imports from Japan for its relatively smaller domestic automobile market. This contrast at the initial stages appears to have been the key to implementing the next important difference in state policy in the two cases.

In 1962, the South Korean government was easily able to implement its policy of licensing automobile production to majority domestic-owned firms only. In the same year, Mexico attempted to implement the same policy but was unable to overcome pressure from the already "entrenched" dominant

American TNCs and from the US government. The subsequent "denationalization" of the Mexican automobile industry was caused by the inability of state and Mexican private auto firms to successfully compete against the TNCs in spite of extensive state support and production quotas.

Other differences in policy tools included the fact that the Mexican government emphasized domestic manufacturing by setting quotas for the producers whereas the South Korean government set production targets within the planning framework. As mentioned earlier, the Mexican automobile market was initially much larger than its South Korean counterpart. As a result, another notable difference between the two has been that the number of firms in Mexico has always been larger than those in South Korea.

In the early 1970s, both countries attempted to further emphasize domestic content ratios for automobile production. But the policy measures used were very different. In South Korea, foreign exchange was allocated preferentially to those producers that increased their local content. In Mexico, on the other hand, producers were made to generate their own foreign exchange requirements by exporting a percentage of their imported component value. Additionally, production quotas were inversely related to changes in the imported component value of each producer. As a result of providing "positive" incentives, South Korea was more

successful in achieving a higher domestic content ratio. Meanwhile by 1975, as indicated below, South Korea was still far behind Mexico in automobile production and exports.

Year 1975:

<u>Country</u>	<u>Pop'n</u>	<u>GNP/capita</u>	<u>Prod</u>	<u>Exports</u>
South Korea	35.28 mn	US\$ 580	18,498	0
Mexico	60.15 mn	US\$ 1,360	237,118	1,083

In the late 1970s, South Korean policies shifted to those of export promotion as the automobile industry came under the umbrella of South Korea's export infrastructure. Specific export targets were set for each of the producers and additional incentives installed to stimulate export performance. Mexico also stressed a different sort of export promotion but not as a means of generating growth in the sector. Mexican manufacturers were now required to meet 100% of their foreign exchange requirements for imported intermediaries and the state provided nominal incentives for surpassing the 100% mark. Mexican automobile manufacturers primarily exported components (such as engines) to meet the stipulation⁷¹. South Korean manufacturers, on the other hand, exported built-up automobiles⁷². As a result, by

⁷¹US automobile firms made extensive use of the export zones (maquiladora) as production sites for labor intensive components.

⁷²The South Korean government instituted export targets in terms of automobile units. Mexico set targets in value terms.

1979, South Korean exports were nearly the same as those of Mexico.

Year: 1979

<u>Country</u>	<u>Pop'n</u>	<u>GNP/capita</u>	<u>Prod</u>	<u>Exports</u>
South Korea	37.53 mn	US\$ 1,510	113,564	18,702
Mexico	67.52 mn	US\$ 1,820	280,049	19,085

The oil shock adversely affected the South Korean automobile sector. Mexico, having discovered large oil reserves in the late 1970s, was not significantly affected by the oil shock but did see a decrease in its exports. Post-oil shock production levels are compared below.

Year 1980:

<u>Country</u>	<u>Pop'n</u>	<u>GNP/capita</u>	<u>Prod</u>	<u>Exports</u>
South Korea	38.12 mn	US\$ 1,630	57,225	14,655
Mexico	69.66 mn	US\$ 2,320	351,000	13,683

In 1981, the South Korean government instituted several measures to rationalize the automotive sector. Most significantly, domestic competition was reduced and exports continued to be promoted. The industry slowly picked up. By 1985, South Korea's GNP per capita had surpassed that of Mexico. As the data below summarizes, production nearly equalized in the two cases fuelled primarily by exports in South Korea's case.

Year: 1985

<u>Country</u>	<u>Pop'n</u>	<u>GNP/capita</u>	<u>Prod</u>	<u>Exports</u>
South Korea	40.81 mn	US\$ 2,310	264,458	119,210

Mexico	77.94 mn	US\$ 2,180	297,064	50,104
--------	----------	------------	---------	--------

There have been several changes in the two cases subsequent to 1985. South Korea overtook Mexico in terms of production to become the leading producer among developing countries. Mexico has attempted to specifically stress exports of built-up automobiles and is beginning to have some success in that sector. Both South Korea and Mexico have moved to liberalize their industries and the effects of these efforts are not yet discernible. Developments in the two automobile industries in the latter half of the 1980s have significant linkages with the international market for automobiles and will be discussed later.

7.3 Strategic Trade Policies

The important question is one of analyzing whether South Korean state economic policies can be characterized as those of strategic trade. Until 1976, the South Korean government pursued policies of import substitution and that period would not directly "fit" the framework of strategic trade. During that phase the state initiated several support mechanisms that laid the foundation for subsequent export promotion. The export promotion phase (1976-87) has the most potential to be designated as the "strategic trade" period. The period after 1987 can be interpreted as a move

away from state involvement in the industry and onto a more "free market" phase.

What was the nature of state support for the South Korean industry prior to 1987? There are several aspects of the development of the automotive sector that are interesting from the perspective of strategic trade. First, both production and exports in South Korea were dominated by one firm, Hyundai. Additionally, this firm was a designated General Trading Company (GTC) since 1977 which means it had access to several forms of export subsidies⁷³. These included easier access to importation of intermediate goods and membership in trade and export associations. GTCs such as Hyundai were also given preference in obtaining bank loans within the limit of their past export performance. The state guaranteed any loans that GTCs took from foreign banks. Additionally, Hyundai, along with other GTCs, got tax incentives such as a return of value-added taxes on purchases and an exemption of business income tax of up to 24% of the increase in capital⁷⁴.

Secondly, by limiting domestic competition and barring imports, the government enabled the automobile firms to expand their scale of production thereby decreasing marginal

⁷³GTCs were created in 1975 as part of state policy to consolidate the export effort after the first oil shock.

⁷⁴Cho and Kim, 1991

costs and helping them to be internationally competitive. Additionally in 1981, the state decree of industry rationalization reduced the number of automobile manufacturers further and enabled additional economies of scale for existing producers. Thirdly, the state helped set export targets for the producers. Attainment of these targets was a prerequisite for future loans and incentives. Short-term "export loans" were made available to the automobile producers (tied to volume of export sales) as well as long-term loans for fixed investments in export-oriented expansion of existing production facilities. Furthermore, interest rates for these "export loans" were substantially lower than general bank lending rates⁷.

Automobile producers also benefitted in another way from import barriers for automobiles. State sanctioned limits on competition in the domestic market allowed firms to maintain higher prices at home while subsidizing the price of exports. Additionally, tax incentives were instituted for foreign exchange earnings. The government also mediated promotional activities such as trade fairs as well as instigated trade support institutions such as the

⁷Tan and Kapur, 1986

Korea Trade Association, Korea Trade Promotion Corporation, and the monthly Export Expansion Meetings⁷⁶.

As is evident from the South Korean case, the government undertook several policies that specifically subsidized exports. It is extremely difficult to ascribe an overall numerical value to the extent of export subsidization in the case of the automobile industry only. World Bank estimates place direct export subsidies at a range between 15-20% of net value of all South Korean exports during the period 1970-85⁷⁷. As a result, by 1987, South Korea was exporting nearly 70% of its production with one firm, Hyundai, being the dominant exporter. Apart from direct export subsidization, state suppression of labor provided "indirect" subsidization for automobile producers in the form of lower labor costs which helped them to compete internationally. From a policy perspective, Mexico seemed to have followed the opposite goal of stressing domestic market production rather than exports of built-up automobiles. A few export promoting measures were instituted in the late 1980s which led to an increase in exports. But these exports were of cars that had to have very low stipulated local content ratios (only 30% in

⁷⁶Kim, 1977

⁷⁷Cited in The Economist article, "Survey of the Third World", September 23, 1989, p.27.

1988)(See Appendix 14). These cars can hardly qualify as "Mexican" exports in technical terms.

A comparison of the data from the two cases highlights the predominance of exports in the South Korean especially until 1987. Mexican exports in comparison were low (See Figure 17, p.133). South Korean production was also highly dependent on exports as compared with Mexico. Figure 18 (p.134) plots comparative export dependence in percentage terms. In large measure due to South Korea's large exports, its production overtook Mexico's by 1985 (See Figure 19, p.135). Production for South Korea's domestic market has also been consistently increasing and overtook Mexico in 1986 (See Figure 20, p.136).

7.4 Strategic Trade and the International Auto Market

Industrial competition in the international automobile sector at the production level does have the appearance of being "imperfect"⁷⁸. There are very few large TNCs controlling a substantial amount of the production. Furthermore, due to the nature of the production process, large fixed costs and high-value added processing are

⁷⁸It is important to note that the marketing (i.e., distribution) and component manufacturing stages of the industry would be closer approximations of perfect competition given the wide range of products offered and suppliers that distribute them.

involved. This has acted as a deterrent for any new entrants. The large fixed costs also provide the potential for substantial economies of scale. In fact, several studies have shown that automobile production will not be viable for most producers if they are not able to take advantage of scale economies through high-volume production⁷. Therefore, the first theorized industrial characteristic for strategic trade, namely the existence of imperfect competition, does appear to exist in the international automobile sector.

The second industrial characteristic that is conducive for strategic trade policies, namely the existence of "spillover" effects, is apparent in the history of the development of the automobile industry. Production techniques developed in the automotive sector (Fordism and Just-In-Time inventory management, for example) have been influential enough to revolutionize the development of capitalism itself. The high technological level of the industry has led to numerous innovations in ancillary industries. The automotive sector can also be characterized as "strategic" in the context of developing nations due to its importance as an employment generator and its extensive

⁷Most studies indicate that the minimum efficient scale of production in developed nations is 200,000-300,000 units. This can be discounted slightly in the case of developing nations given lower labor and production costs (Rodrik, 1988).

impact on the rest of the economy through backward and forward linkages. The manufacture and export of automobiles, due to its high-value added content, can be "strategic" in the sense of being a substantial contributor to a nation's GNP.

Is the "new" trade theory then of any relevance to the South Korean case in the period prior to 1987? The international market conditions were arguably "sufficient" and the state subsidization of the "national champion", Hyundai, for export purposes fulfilled the "necessary" conditions. South Korean cars were able to find a niche in the international market based primarily on low prices, apparently in large part, with the help of extensive state intervention in the automobile sector. For analytical purposes, the South Korean "success" story does provide some insight into the practice of strategic trade. This conclusion is not based on an empirical test of the data in the sense of calculating the extent of export subsidization in numerical terms and correlating it to increases in international market share. Most studies on the relevance of strategic trade policies in research journals have tended to do favor this quantitative approach. A historical case study, such as this thesis, has attempted to reconcile economic intuition (which economic models of trade try to capture numerically) with an understanding and explanation

of "real world" developments. The historical analysis of the automobile industries in the two cases also highlights the importance of historical leads, economies of scale, production techniques, quality, and the role of the state in bestowing competitive advantages to firms. These factors, ignored by the liberal theory of international trade, have proven to be major determinants of trade in the automobile sector.

7.5 South Korea and Japan

The development of the South Korean automobile industry has been remarkably similar to that of Japan. The key initial stage that was common to both Japan and South Korea was promulgation of a law that did not allow automobile manufacturing by majority foreign owned firms at the initial import substitution stage. The industry in both countries developed using foreign technological know-how and required exports to keep production viable. Both countries have been successful in keeping out imports and letting higher prices for domestic consumers "pay" for subsidized export prices. Japan established itself internationally after the first oil shock. South Korea did so, with a lesser degree, after the second oil shock.

Whereas the European and American TNCs have experience, mass production, and prestige as competitive advantages

(which are rapidly eroding), the Japanese and South Korean manufacturers have access to extensive state subsidization, conglomerate support, and flexible production techniques to back them up. Furthermore, the industry in both countries has had access to comparatively lower labor costs during their respective development phases.

The similarities between South Korea and Japan probably end there. South Korea will find it extremely difficult to establish itself in a similar position as that of Japan. There are signs of increasing protectionism of the automobile sector in the US and Europe. Another trade "attack" by a Pacific nation will face several more hurdles than the Japanese producers did. American TNCs are facing enormous problems of production in their home manufacturing plants resulting in several waves of shut-downs. As a result TNC production facilities, such as those in Mexico, are increasingly being used as production sites for built-up automobiles. Competition will be tough in the future for South Korean manufacturers as international pressure is forcing them to open up their markets to imports.

7.6 Conclusions

Finally, this chapter concludes with a discussion on the structural and institutional differences between South Korea and Mexico. These differences may help shed some

light as to what caused the policy differences and made policy implementation feasible in South Korea. First and foremost, the most important difference that probably made strategic trade policies feasible and effective in South Korea was the absence of TNC firms. If South Korea's major automobile firms had been TNCs, it would have been difficult to formulate policies of export promotion without taking into account the repercussions on TNC home markets. As is evident from the Mexican case, compliance with Mexico's export requirements ended up with TNCs exporting components rather than built-up automobiles. Exports of built-up units would have threatened existing production plants in TNC home countries. Only when recession hit North America and there were several plant closures (as in the late 1980s), exports of built-up automobiles from Mexico increased whereas exports from South Korea decreased. The increase in exports of built-up automobiles from Mexico is reflective of transnational influence in another dimension. The local component ratio for exports is much lower (only 30% in 1988) bringing into question how "Mexican" these exports really are.

South Korea developed much later as compared with Mexico. Japan was also a late entrant into the automobile industry when compared with the US. When South Korea initiated import substitution, Japanese TNCs had not

established themselves as international players. This, combined with the fact that South Korea had a small domestic market and was geographically distant from other major automobile producing regions (i.e., Europe and North America), may have been an important determinant in sheltering South Korea from TNCs at the initial stages of its industry's development. The lack of TNCs in South Korea was an important factor in making it feasible for the South Korean government to implement its policies of export promotion in the automobile industry.

Apart from a lack of TNC involvement, implementation of state support was made easier by the predominance of one large firm and GTC, Hyundai, in automobile manufacturing. Hyundai was also part of South Korea's second largest conglomerate. This structure gave it increased financial stability. Additionally, South Korea's small domestic market gave Hyundai an added incentive to export in order to expand its scale of production.

In conclusion, the South Korean automobile industry appears to be a valid case study of the practice of strategic trade policies. International market conditions appeared to have also helped make such policies successful. Export subsidization by the state was effective in bestowing competitive advantages to South Korean firms like Hyundai and resulted substantial increases in its international

market share. Furthermore, the virtual absence of transnational corporations, domestic market concentration, and internal rationalization measures (such as those limiting competition in the domestic market) appear to be have been crucial in facilitating the implementation of policies of strategic trade in South Korea. In contemplating the use of strategic trade as a model for economic development these factors may be important considerations. The next chapter discusses some other general issues pertinent to the use of strategic trade as a model of economic development.

CHAPTER EIGHT
STRATEGIC TRADE AND ECONOMIC DEVELOPMENT

8.0 Introduction

This chapter examines the relevance of strategic trade as a model for achieving economic growth in developing nations. As the previous chapters have highlighted, a developing country such as South Korea was able to make inroads into international automobile markets using a policy framework that, at least apparently, lends itself in applicability to models of strategic trade proposed by the "new" trade theory. This section discusses two questions that broaden the analysis. First, can the analysis of the automobile industry be generalized to other industries? Secondly, what may be some of the potential repercussions of practicing strategic trade policies?

8.1 The "New" Trade Theory and Developing Countries

At first glance, the applicability of the new theory to developing nations appears quite valid. Imperfect competition, economies of scale, and arbitrary specialization, all basic assumptions of the new theory, are characteristic of most sectors in developing nations. Arguably, there are more economic sectors in developing nations that are "imperfect" as compared with developed

nations. Rodrik (1988), after a survey of markets in developing nations, concludes that:

"outside peasant agriculture and some services, perfect competition-or any recognizable semblance thereof-is typically conspicuous by its absence...imperfect competition is in fact more pervasive in the industrial sectors of the developing countries than of the developed ones."⁸⁰

Consequently, the new trade theory should be useful in understanding some patterns of trade (especially certain exports by developing countries) that are not explained by comparative advantages alone.

The new trade theory, and strategic trade policies, can be useful analytical tools even when evident patterns of trade are apparently explained by the liberal theory of comparative advantage. Several developing countries export primary products. Examples of such products include wheat, coffee, rice, etc.. Some researchers such as Thursby (1988) argue that strategic trade policy is relevant even in these international sectors. This is so because, even though at the domestic production level some of these commodities face approximations of perfect competition, competition at their international distribution level is a closer approximation of imperfect competition. For example, international wheat trade is dominated by state trading boards. These marketing

⁸⁰Rodrik, 1988, p.112

boards are common for both import and export of wheat and account for a substantial proportion of world wheat trade⁸¹. Japan, Canada, and Australia are primary wheat trading nations whose markets are represented by one state trading firm. Theoretically, strategic trade policies are of relevance even in these sectors of international trade.

Even though the "new" trade theory has the potential for applicability in understanding international trade in a wide variety of industries, it is important to note that there is a hierarchy of industries in terms of the theory's applicability. The first factor, as discussed above, is the degree of imperfect competition in the international trading sector. The greater the tendency toward "imperfection", the more applicable is the new theory. Also important is the fact that strategic trade policies are based on international profit-shifting. High-value added sectors having greater profit margins would tend to lend themselves more easily to the framework of strategic trade. Therefore, the applicability of the new theory to agricultural products is tenuous as agriculture is not a "high-profit" sector and

⁸¹Thursby (1988) estimates that in the period 1980-84, only 2.2% of wheat exports occurred between private exporters and private importers. Conversely, 64.1% was accounted for by private exporters to state importers, 31.6% by state exporters to state importers, and 2.2% by state exporters to private importers.

the effects of strategic trade would be marginal in numeric terms.

In summary, the applicability of the new trade theory to developing countries cannot be dismissed. But the use of strategic trade policies, as justified by the models of the new trade theory through international rent-shifting, may not be universally applicable as a model of economic growth. Strategic trade policies in only certain types of high-value added industries would generate substantial domestic economic growth to merit justification. This presents an additional dilemma for developing nations. As the case of the automobile industry illuminated, international trade in high-value added manufacturing industries is usually dominated by TNC firms based in developed nations. The sound financial, marketing, production, and technical bases of TNCs offers them a competitive advantage that is difficult to overcome for firms from developing nations.

In Mexico, extensive state support for a couple of the state owned and Mexican owned automobile firms was not sufficient in competition against TNC manufacturers. These firms were eventually driven out of the domestic market even before Mexico began stressing international exports of automobiles. Automobile firms in South Korea (and Japan at an earlier stage) did not face foreign competition in their domestic market which made it much easier for them to

develop indigenously and subsequently export. Both South Korean and Japanese auto exporting firms had competitive advantages in international trade in part due to their access to extensive state subsidization and economic stability in their conglomerate structural form.

8.2 The Dependency Theory and Economic Development

This section compares the framework of strategic trade with that of one of the dominant theories of development, the dependency theory. Briefly, dependency theory argues that economic growth in developing countries is linked to that of developed countries within a framework of "dependence". Dos Santos summarizes the condition of dependence by arguing that:

"By dependence we mean a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected. The relation of interdependence between two or more economies, and between these and world trade, assumes the form of dependence when some countries (the dominant ones) can expand and can be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion, which can have either a positive or negative effect on their immediate development."⁸²

Dependency theorists argue that these linkages of dependence are consolidated through the structure of international trade and capital relations between developed

⁸²Quoted in Gilpin, 1987, p.282

and developing countries. The propositions of dependency theorists are highly similar to those of the economic nationalists discussed earlier. Dependency theory, as a theoretical framework of analysis, is usually applied to economic relations between developed and developing countries during the colonial period as well as the preindustrial stage of developing countries. After initiation of industrialization in developing countries, several dependency theorists argued that the nature of dependence took on a new dimension. The "new" dimension was that of dependence by developing countries on foreign capital (in the form of TNC involvement) to pursue policies of industrialization.

The theoretical framework of dependency appears to be applicable to the development of the Mexican automobile industry. But the South Korean case seems to defy the propositions of dependency theory. South Korea's automobile sector developed with a virtual lack of foreign investment and, more significantly, its exports made substantial inroads into an automobile market (primarily North America) dominated by several established TNC producers. Although, growth in the South Korean automobile industry is certainly "dependent" on international markets (as is Japan's), this is different from the "dependent" economic conditioning hypothesized by dependency theorists who argue that

dependence on foreign investment for industrialization leads to a substantial erosion in the autonomy of developing countries in matters concerning industrial development.

Instead of blaming international economic linkages for a lack of economic growth in developing countries, the framework of strategic trade provides theoretical justifications for using international economic relations, with certain stipulations, to generate domestic economic growth. But as some of the "new" trade theorists themselves argue, strategic trade as a policy option, even though theoretically feasible, may not be such a good idea for several reasons that are summarized next.

8.3 Arguments Against Strategic Trade Policies

The development of the "new" trade theory and concomitant strategic trade policies by researchers has been accompanied by strong arguments by the same people against the use of strategic trade policies. This section summarizes some of these arguments while relating them to recent developments in the international automobile industry. A discussion of this nature is of importance given the fact that several developing nations, inspired by the success of South Korea and Taiwan, are trying to model their economic policies away from import substitution to those of industrial export promotion.

Most of the criticism directed against the new theory deals with the issue of strategic trade policies. Researchers argue that the empirical difficulties faced in formulating a cost-benefit trade-off matrix are insurmountable. The amount of subsidization that would ensure a subsequent increase in international market share and enough national economic growth to offset the subsidy would be impossible to quantify. As a result, many nations may become involved in economic policies of subsidization without having any way of determining whether or not those policies would have the desired effects. The result of export subsidization may result in substantial financial resource misallocations similar to those caused by policies of import substitution. Another point of contention is the issue of limited state resources. A gamble at export promotion may take away precious resources from other sectors of the economy (such as agriculture) without any inkling of future prospects. Krugman (1990) himself argues that:

"a country cannot protect everything and subsidize everything. Thus interventionist policies to promote particular sectors, whether for strategic or externality reasons, must draw resources away from other sectors. This substantially raises the knowledge a government must have to formulate interventions that do more harm than good."⁸³

⁸³Krugman, 1990

This argument is very similar to the one proposed by several academicians against policies of import substitution that have been shown to result in severe economic distortions.

Equally relevant, several theorists argue, are the "political economy" arguments against strategic trade policies. There are two components to this argument. First, strategic trade policies are similar in motivation to mercantilist policies and therefore are prone to the same international economic repercussions, namely trade warfare. Mercantilist economic policies inspired a series of trade retaliations between trading nations. These retaliations ranged from protectionism to outright military warfare. Pursuit of strategic trade policies has the potential to result in similar outcomes paving the way for a wave of international protectionism that would eventually harm all sectors of the global economy.

In recent years, there are some indications of increasing protectionism in automobile trade. Japan and the US have been at loggerheads over Japanese support policies in the automobile sector. Japanese exports have been subject to quotas in the US as well as Europe. Similar developments threatened the South Korean automobile exports at the end of the 1980s. South Korea was forced to open up its domestic market to imports under pressure from the US. Furthermore,

South Korea lost its favorable trading status, GSP, for its exports to the US. The disarray of the automobile sector in the US, blamed primarily on imports, has also resulted in plant closings in the US resulting in substantial layoffs. The shut down of many American production facilities has caused a transfer of manufacturing of built-up automobiles to cheaper sites. As a result, Mexico saw a substantial increase in its exports by American TNCs to the US in the late 1980s.

The second argument is based at the domestic political level and is more normative in nature. Many governments do not necessarily act in accordance with the "national interest". More often than not, economic policies result from some form of interest group pressure. Policies for subsidization, ostensibly for national growth, could easily be manipulated to favor powerful groups while imposing costs on other less fortunate groups. A case in point is the subsidization of Hyundai, which represents one of the largest conglomerates in South Korea. It is difficult not to imagine that the choice to support automobile exports did not stem from some kind of influence of "big business" on policy making.

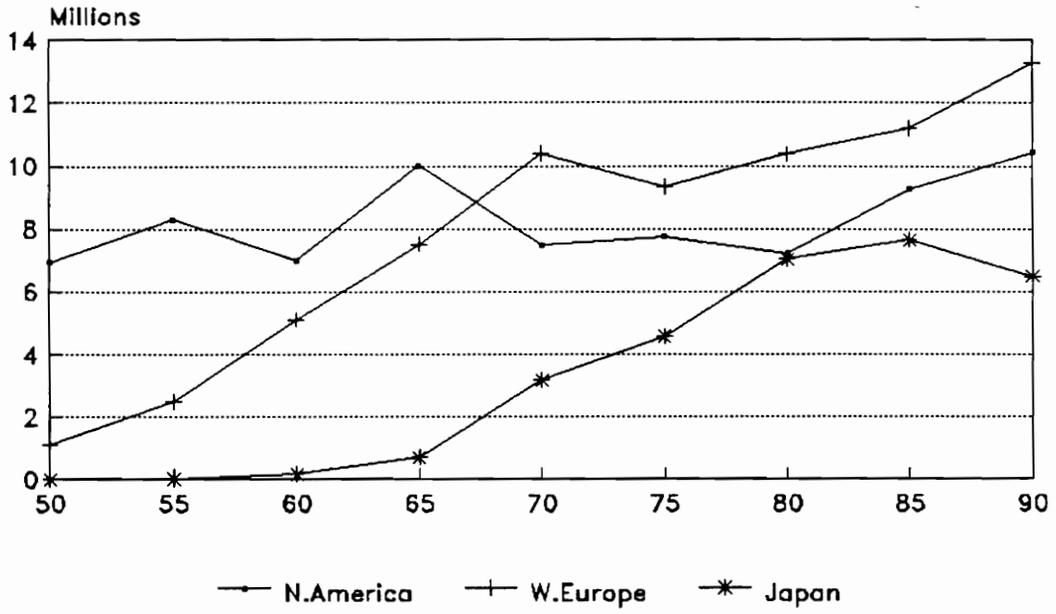
8.4 Conclusions

As mentioned in the beginning of the thesis, international trade has seen an evolution over time as have theories of trade such as Mercantilism, Liberalism, Economic Nationalism, Dependency Theory, and in recent years, the "new" trade theory. When used as analytical frameworks in the case of developing countries, each theory has the potential to provide a different perspective. In the context of economic development and industrialization, each theory provides a different set of policy prescriptions. Liberal theorists (in their present neoclassical mode) argue that slow economic growth in developing countries is caused by "inefficient" markets and extensive distortionary government intervention. State subsidized export-led growth cannot be justified in the liberal view.

The propositions of Economic Nationalism and Dependency prescribe "inward looking" economic policy stances. Trade relations are seen as the causes of economic stagnation and underdevelopment. A break from the global economy through the marginalization of trade relations is justified on these grounds. The policy prescriptions and hypothesized outcomes of these theories are probably applicable to understanding several contemporary trade patterns. But these theories fail to provide a valid theoretical framework for understanding the recent export-led economic growth of Japan

and the Asian NICs. The "new" trade theory and the models of strategic trade come closest in explaining certain aspects of the dynamics of trade induced economic growth in these nations.

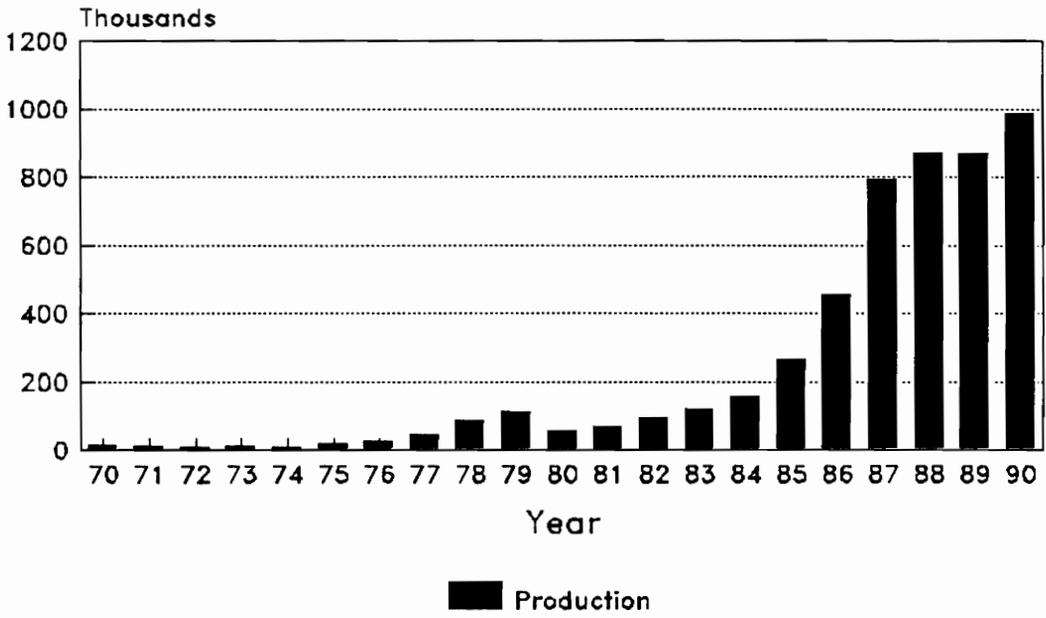
OUTPUT IN MAJOR AUTO COUNTRIES



Data: Appendix

FIGURE 1

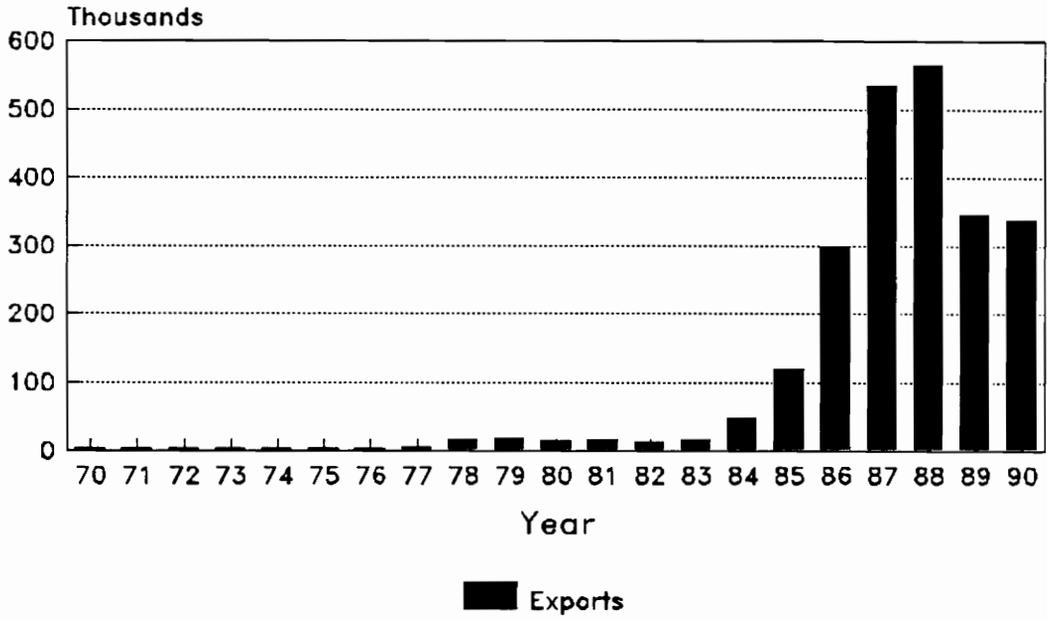
SOUTH KOREA AUTO PRODUCTION



Source: Appendix

FIGURE 2

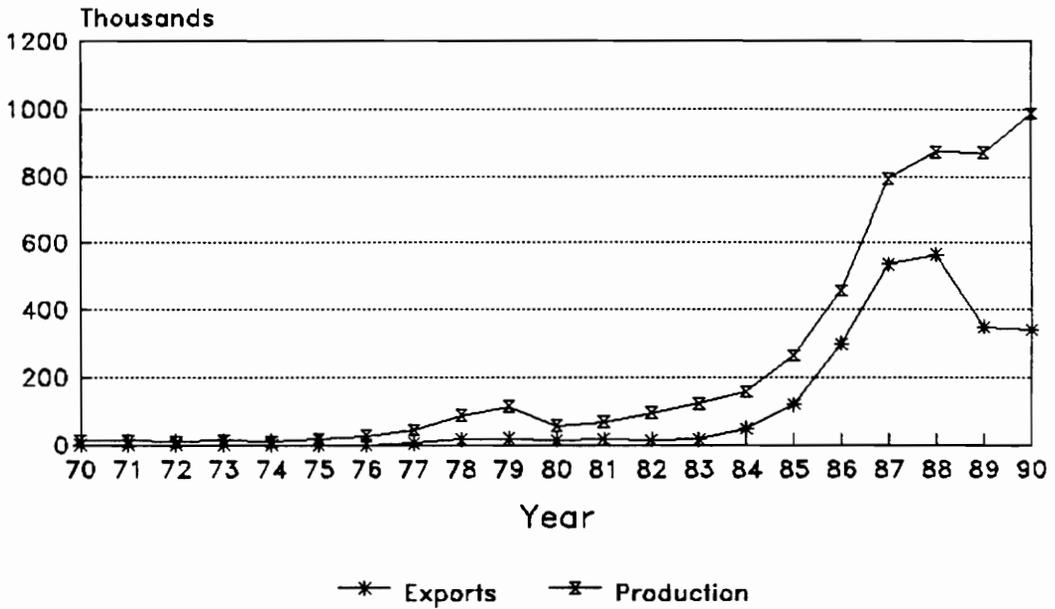
SOUTH KOREA AUTO EXPORTS



Source: Appendix

FIGURE 3

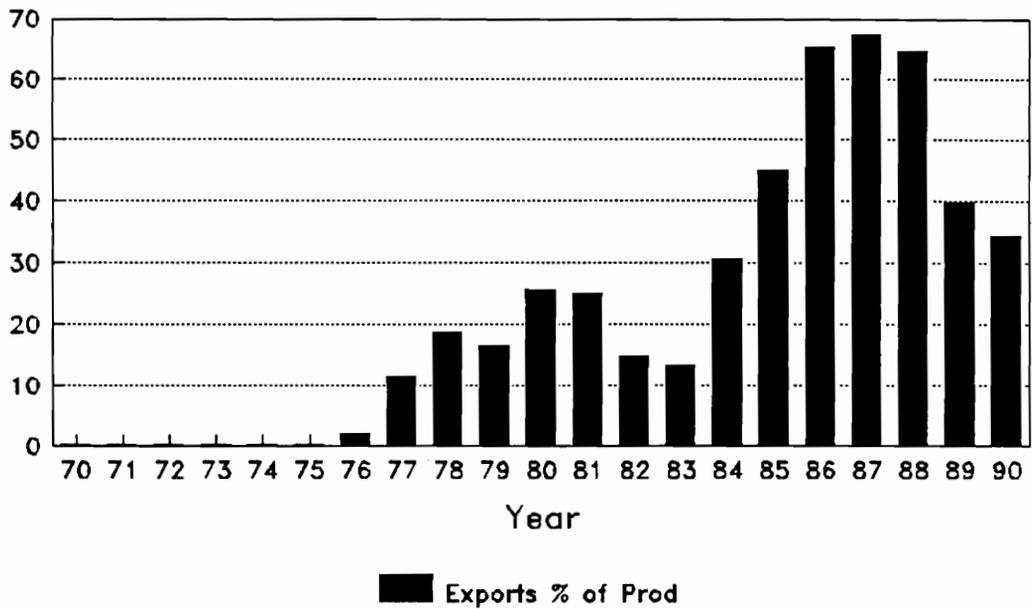
S.KOREA EXPORTS VS PRODUCTION



Source: Appendix

FIGURE 4

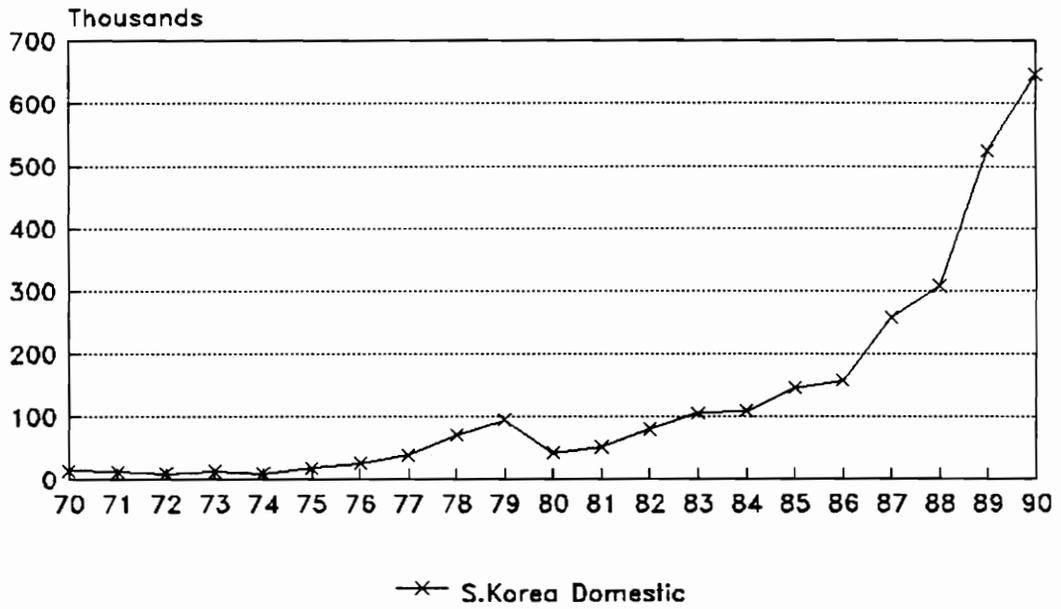
S.KOREA EXPORTS AS % OF PRODUCTION



Source: Appendix

FIGURE 5

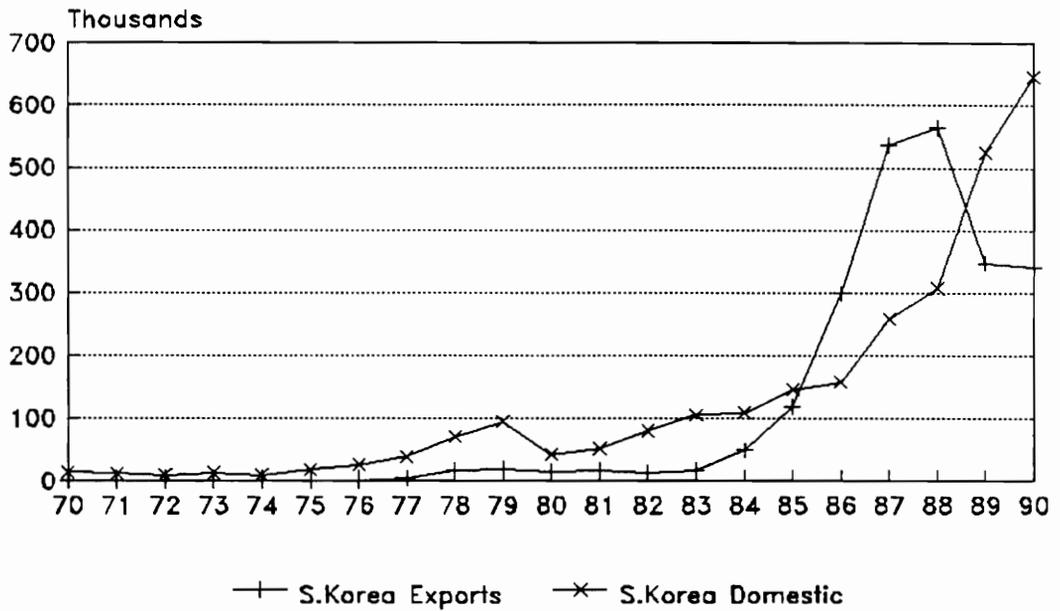
S.KOREA DOMESTIC AUTO MARKET



Data: Appendix

FIGURE 6

S.KOREA DOMESTIC VS EXPORTS



Data: Appendix

FIGURE 7

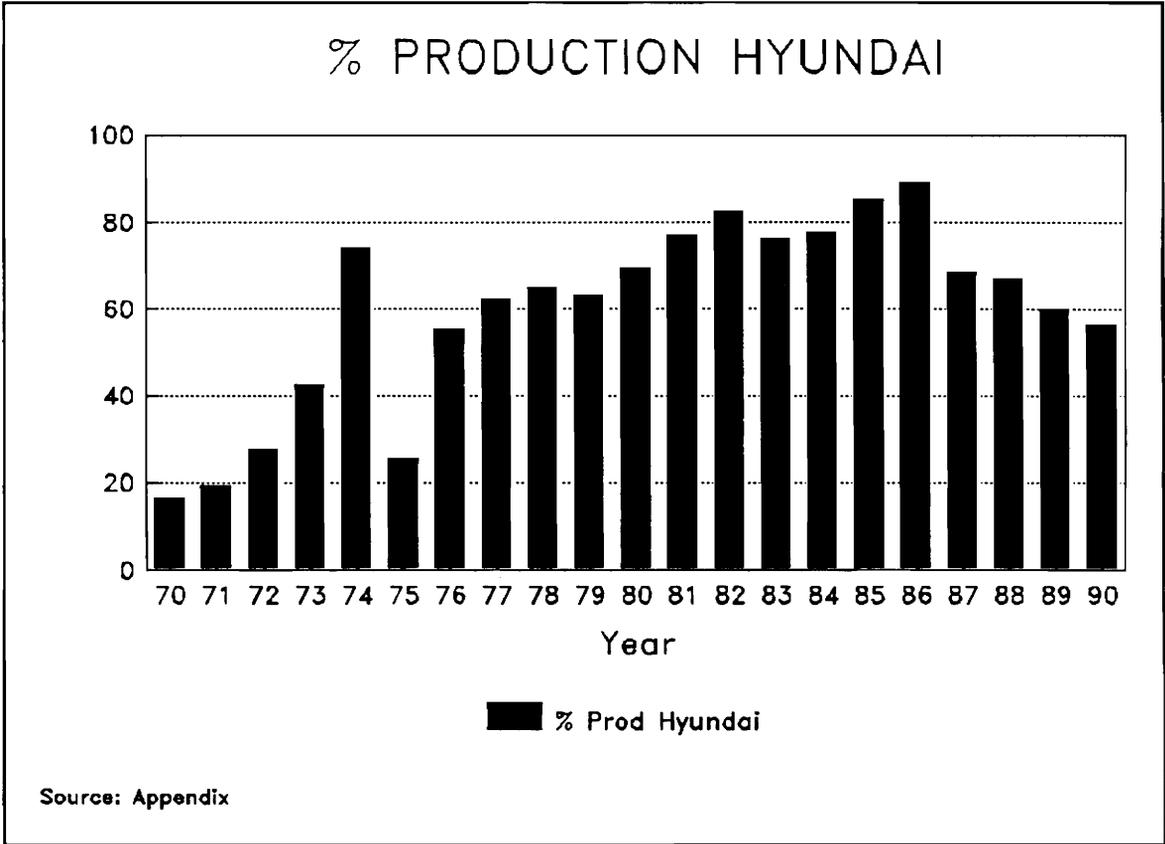
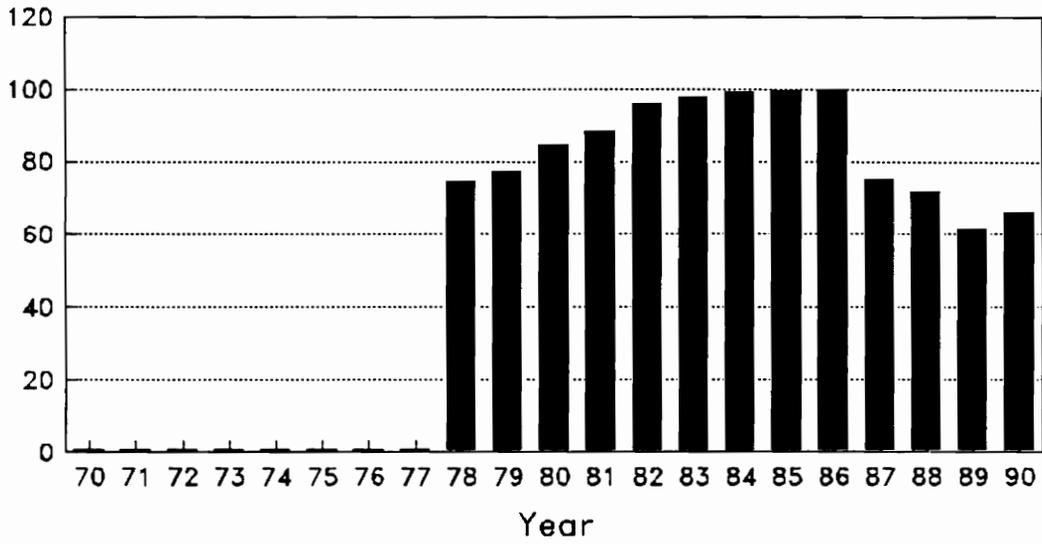


FIGURE 8

% EXPORTS HYUNDAI

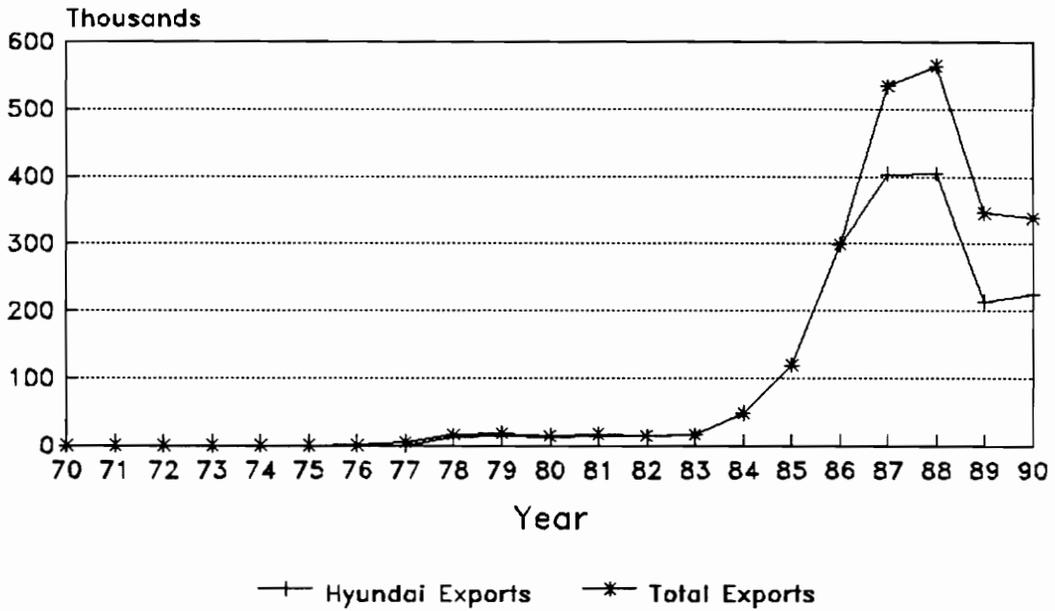


■ % Exports Hyundai

Source: Appendix

FIGURE 9

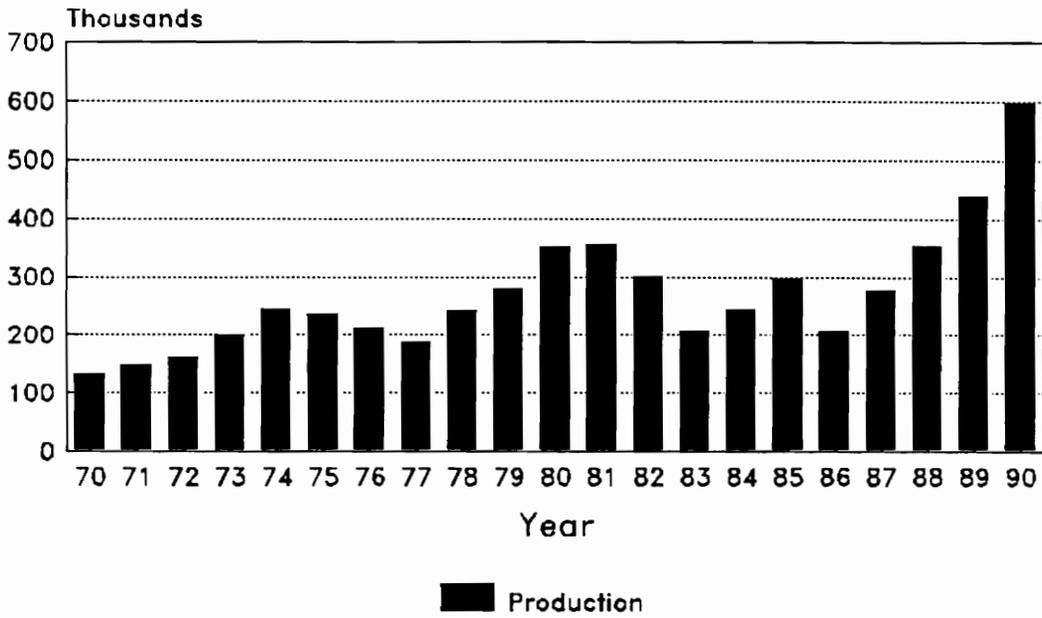
HYUNDAI VS TOTAL EXPORTS



Source: Appendix

FIGURE 10

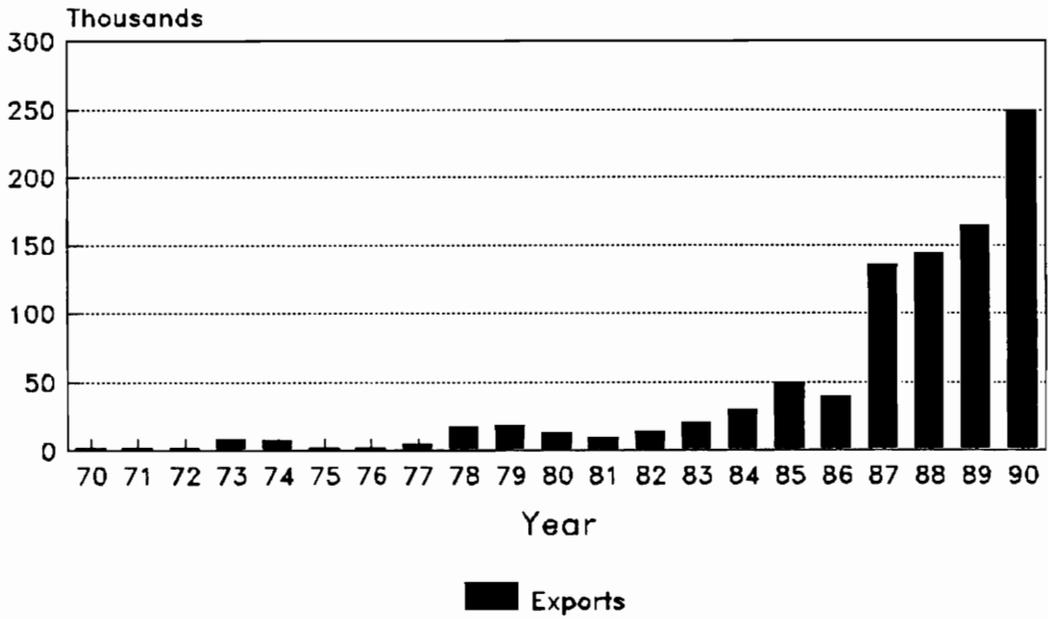
MEXICO AUTO PRODUCTION



Source: Appendix

FIGURE 11

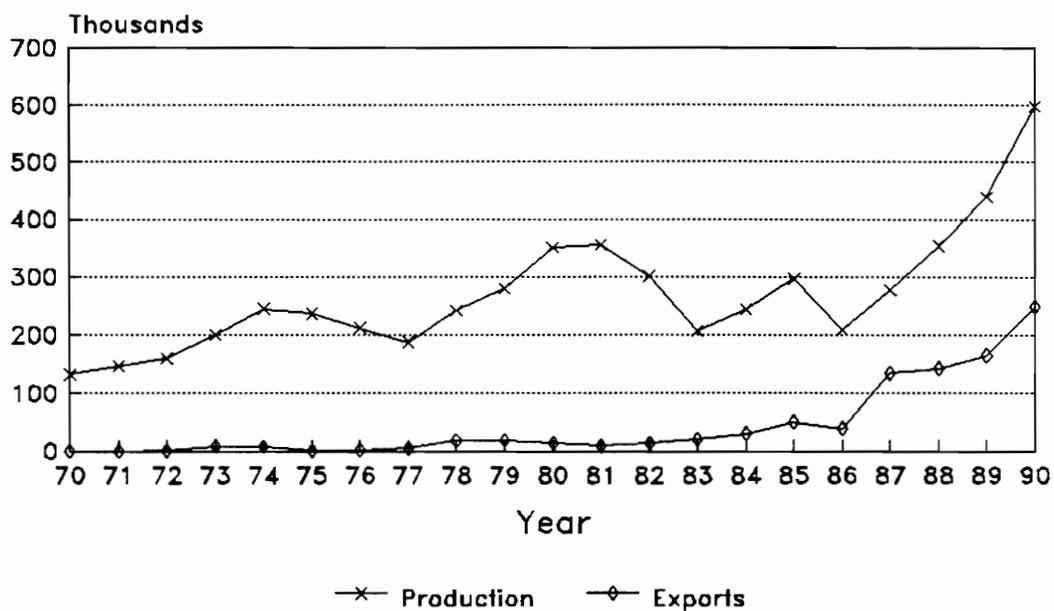
MEXICO AUTO EXPORTS



Source: Appendix

FIGURE 12

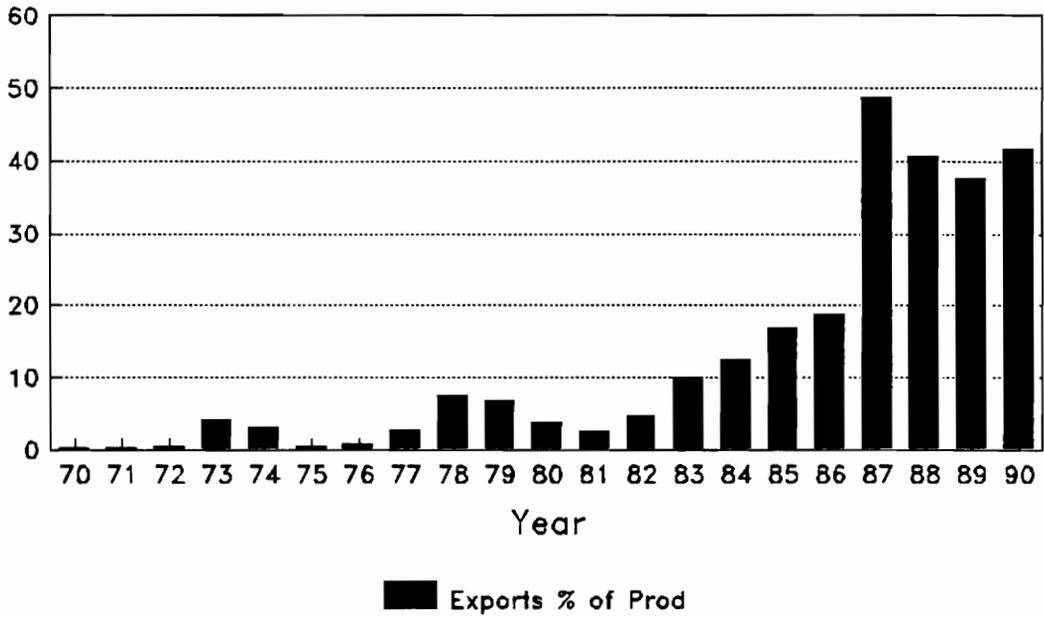
MEXICO EXPORTS VS PRODUCTION



Source: Appendix

FIGURE 13

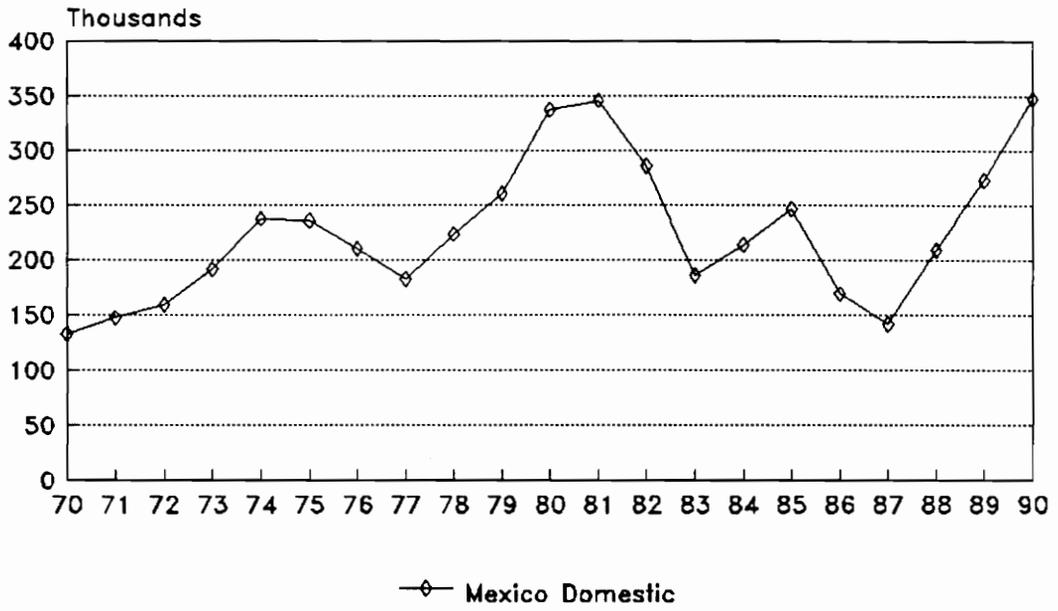
MEXICO EXPORTS AS % OF PRODUCTION



Source: Appendix

FIGURE 14

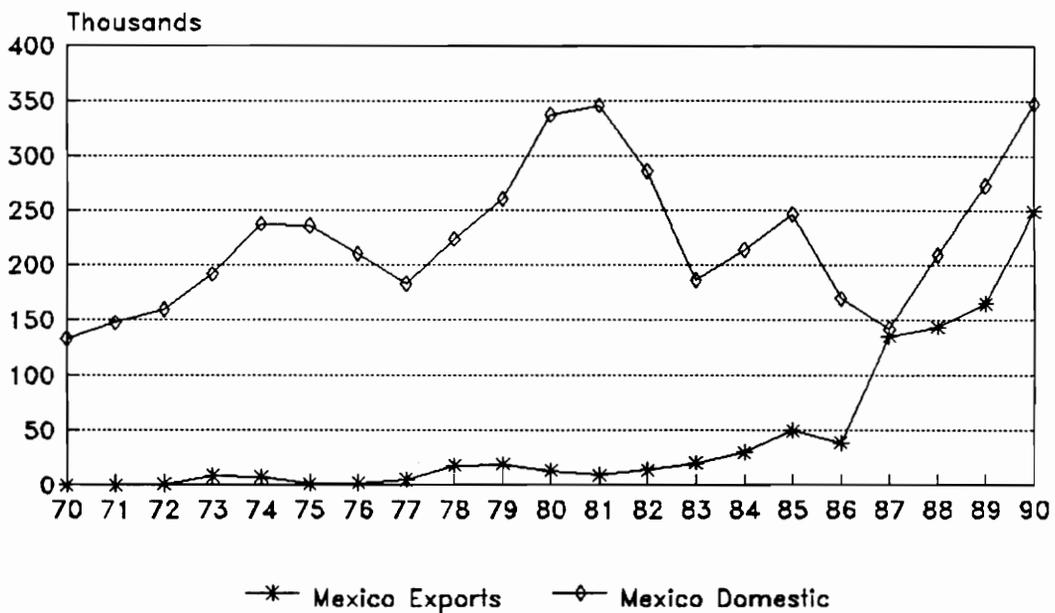
MEXICO DOMESTIC AUTO MARKET



Data: Appendix

FIGURE 15

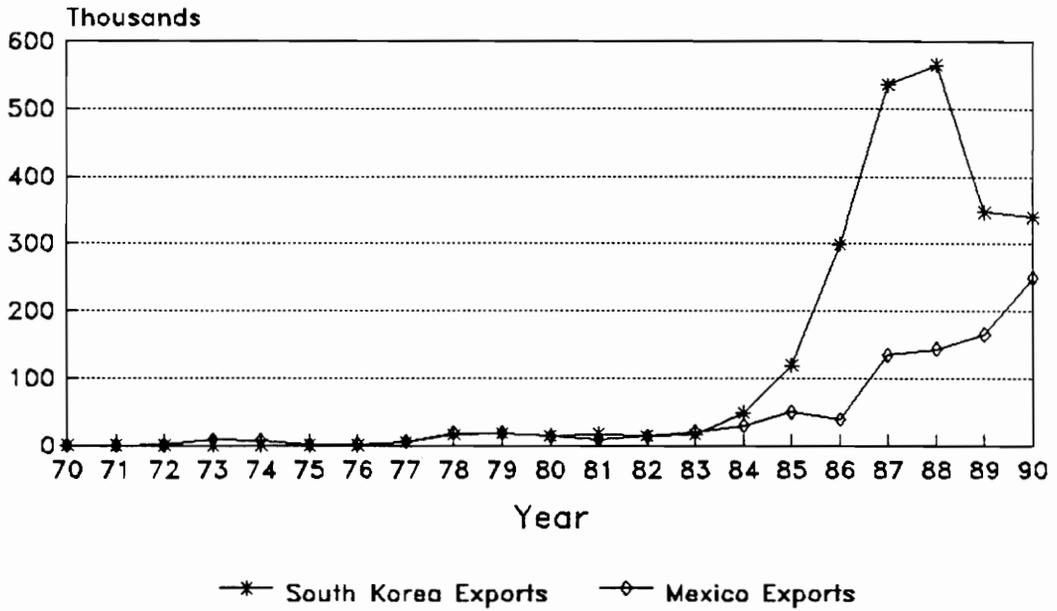
MEXICO DOMESTIC VS EXPORTS



Data: Appendix

FIGURE 16

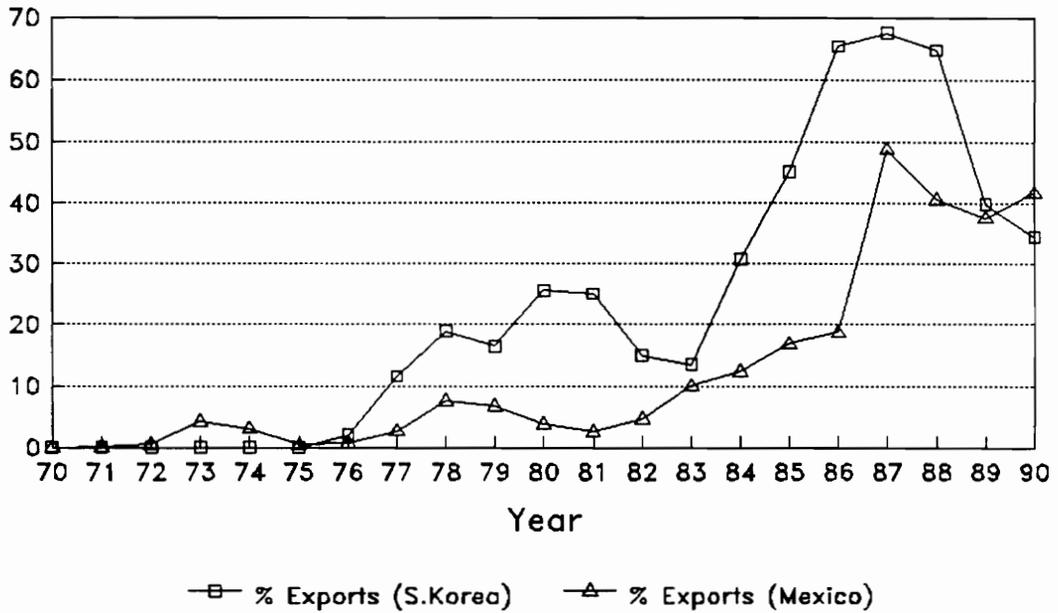
COMPARATIVE AUTO EXPORTS



Source: Appendix

FIGURE 17

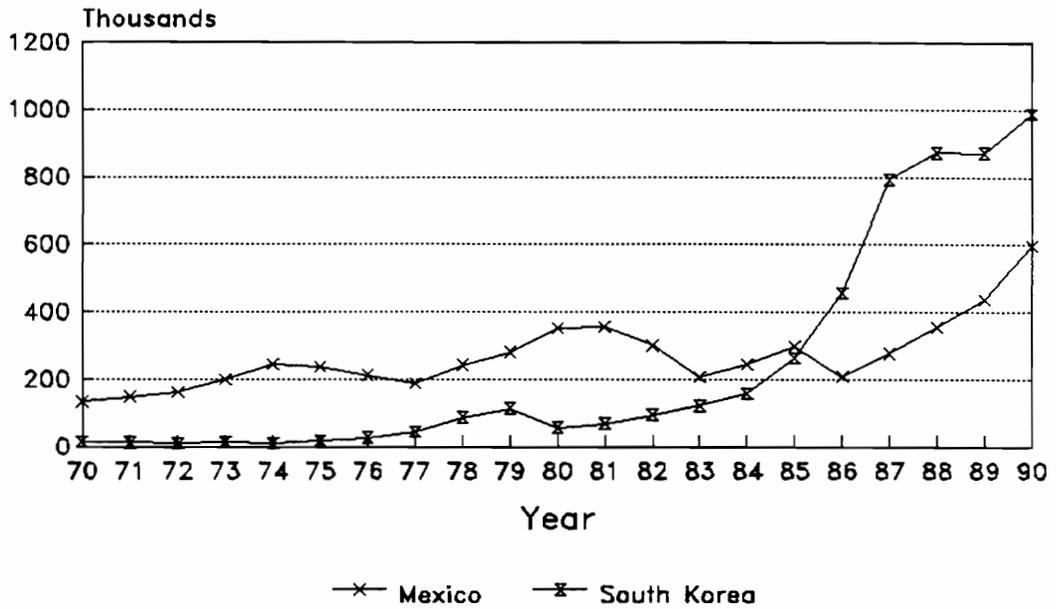
COMPARATIVE EXPORT DEPENDENCE



Source: Appendix

FIGURE 18

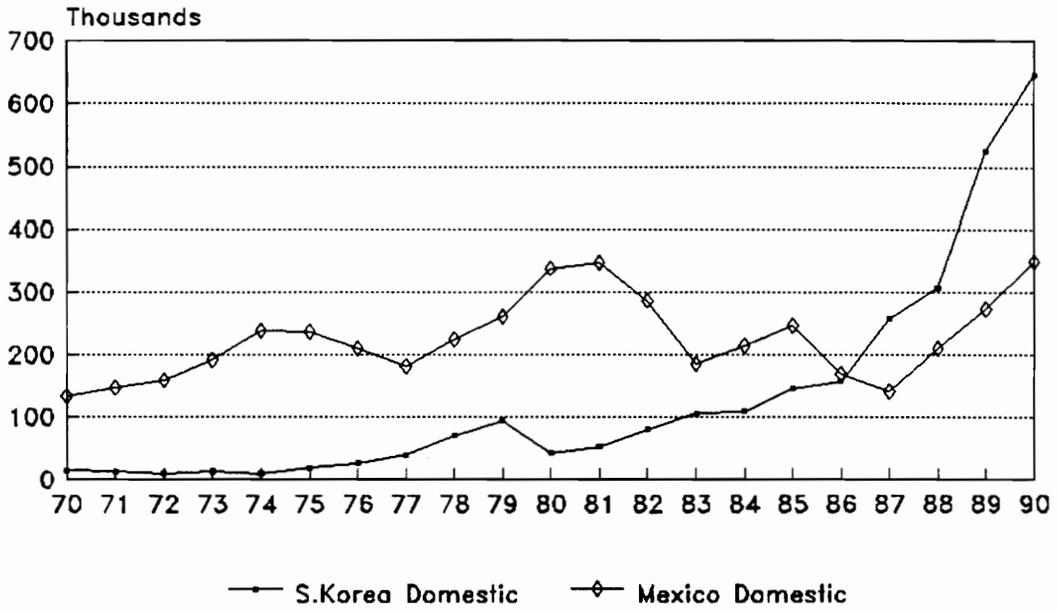
COMPARATIVE AUTO PRODUCTION



Source: Appendix

FIGURE 19

COMPARATIVE DOMESTIC MARKET



Data: Appendix

FIGURE 20

APPENDIX 1
SOUTH KOREAN AUTOMOBILE PRODUCTION⁸⁴

<u>Year</u>	<u>Total</u>	<u>Hyundai</u>	<u>Daewoo</u>	<u>Kia</u>	<u>Asia</u>
1970	14,487	16.3%	71.7%	-	12.0%
1971	12,428	19.3%	57.6%	-	23.1%
1972	9,525	27.5%	54.4%	-	18.2%
1973	12,751	42.6%	53.6%	-	3.8%
1974	9,230	74.2%	17.0%	6.7%	0.4%
1975	18,498	25.5%	14.4%	55.2%	-
1976	26,701	55.5%	14.2%	26.2%	-
1977	43,981	62.4%	9.7%	24.0%	-
1978	86,823	65.0%	15.0%	18.8%	-
1979	113,564	63.2%	16.2%	19.5%	-
1980	57,225	69.4%	13.1%	15.2%	-
1981	68,760	77.0%	12.9%	6.9%	-
1982	94,460	82.6%	15.7%	0.6%	-
1983	121,987	76.2%	22.5%	0.1%	-
1984	158,503	77.7%	21.4%	-	-
1985	264,458	85.4%	13.9%	-	-
1986	457,383	89.2%	10.3%	-	-
1987	793,125	68.7%	18.9%	12%	-
1988	872,074	67.0%	16.9%	15.3%	-
1989	871,898	60.3%	17.0%	20.9%	-
1990	986,751	56.5%	18.7%	22.5%	-

⁸⁴Data is in terms of units of production. The percentage of production accounted for by the various firms, Hyundai, Daewoo, Kia, and Asia is also shown. Data sources include Lowry (1987); Park (1980); Robertson (1990);

APPENDIX 2
SOUTH KOREAN AUTOMOBILE EXPORTS ⁸⁵

<u>Year</u>	<u>Exports</u>	<u>As Percent of Production</u>	<u>Percent of Exports- Hyundai</u>
1975	0	0%	0%
1976	558	2.1%	n.a.
1977	5,075	11.5%	n.a.
1978	16,371	18.9%	74.5%
1979	18,702	16.5%	77.5%
1980	14,655	25.6%	84.3%
1981	17,221	25.0%	88.3%
1982	14,133	15.0%	96.0%
1983	16,405	13.4%	97.8%
1984	48,778	30.8%	99.0%
1985	119,210	45.1%	99.5%
1986	298,878	65.3%	99.7%
1987	535,231	67.5%	75.3%
1988	564,511	64.7%	71.7%
1989	347,273	39.8%	61.5%
1990	339,672	34.4%	66.3%

⁸⁵Data compiled from Lowry (1987); Robertson (1990)

APPENDIX 3
SOUTH KOREAN AUTOMOBILE IMPORTS ⁸⁶

<u>Year</u>	<u>Imports</u>	<u>Tariffs</u>
1985	0	imports banned
1986	0	60%
1987	27	50%
1988	375	30%
1989	1,537	25%
1990	n.a.	20%

⁸⁶Data compiled from Lowry (1987); Robertson (1990)

APPENDIX 4
OVERSEAS AFFILIATIONS ⁸⁷

SOUTH KOREA

<u>Company</u>	<u>Overseas Partner</u>
Hyundai	Mitsubishi Motors (Japan)-7.5% equity ownership, technical cooperation, joint development; Mitsubishi Corporation-7.5% equity ownership.
Daewoo	General Motors (USA)-50% equity ownership, sales and technical cooperation; additional technical cooperation with Opel (Germany), Isuzu (Japan), and Nissan (Japan).
Kia	Mazda (Japan)-8% equity ownership, technical ownership; C Itoh (Japan)-2% equity ownership; Ford (USA)-10% equity ownership and sales cooperation.
Ssangyong	Technical cooperation with AMC (USA), Toyota (Japan), Nissan (Japan), Panthers Cars (UK).

MEXICO

<u>Company</u>	<u>Overseas Partner</u>
Volkswagen de Mexico	100% equity owned by Volkswagen (Germany).
Ford Motor Company	100% equity owned by Ford Motor (USA).
Chrysler de Mexico	99% equity owned by Chrysler (USA).
Nissan Mexicana	100% equity owned by Nissan (Japan).
General Motors de Mexico	100% equity owned by General Motors (USA).

⁸⁷O'Brien (1987); Robertson (1990)

APPENDIX 5
EXPORT INTEREST RATES ⁸⁸

<u>Year</u>	<u>Export Interest Rate</u>	<u>Ordinary Interest Rate</u>
1962	12.0%	13.9%
1963	8.4%	13.9%
1964	8.0%	14.0%
1965	6.5%	16.5%
1966	6.5%	24.0%
1967	6.3%	24.0%
1968	6.0%	24.5%
1969	6.0%	23.8%
1970	6.0%	24.8%
1971	6.0%	26.1%

⁸⁸McDermott (1989)

APPENDIX 6
EXCHANGE RATES (currency/US\$)⁸⁹

<u>Year</u>	<u>S.Korea</u>	<u>Mexico</u>
1970	310	12.5
1971	347	12.5
1972	392	12.5
1973	398	12.5
1974	404	12.5
1975	484	12.5
1976	484	15.4
1977	484	22.6
1978	484	22.8
1979	484	22.8
1980	607	23.0
1981	681	24.5
1982	731	56.4
1983	775	120
1984	805	167
1985	870	256
1986	881	611
1987	822	1,378
1988	731	2,273
1989	671	2,461
1990	707	2,812

⁸⁹currency units are: S.Korea-won; Mexico-peso; Japan-yen;
IMF Yearbook, various years

APPENDIX 7
1987 VEHICLE PRODUCTION IN LEADING DEVELOPING COUNTRIES ⁹⁰

<u>Rank</u>	<u>Country</u>	<u>1987 Production ('000 units)</u>
1	South Korea	793
2	Brazil	683
3	Mexico	277
4	Taiwan	195
5	India	181
6	Argentina	166
7	China	21
8	Malaysia	10

⁹⁰O'Brien (1989)

APPENDIX 8
PRODUCTION IN NORTH AMERICA, WESTERN EUROPE, AND JAPAN⁹¹

Year	N.America	W.Europe	Japan
1950	6,950,000	1,110,400	1,600
1955	8,295,200	2,486,200	20,300
1960	7,000,000	5,119,700	165,100
1965	10,016,300	7,519,400	696,200
1970	7,490,600	10,378,600	3,178,700
1975	7,762,000	9,325,500	4,568,100
1980	7,222,300	10,371,800	7,038,100
1985	9,263,000	11,216,000	7,647,000
1990*	10,433,000	13,289,000	6,500,000

⁹¹Altshuler et al. (1984)

APPENDIX 9
1982 TOP TEN PRODUCERS⁹²

<u>Rank</u>	<u>Firm</u>	<u>Production ('000 units)</u>
1	General Motors (USA)	4,779
2	Ford (USA)	2,993
3	Toyota (Japan)	2,386
4	Nissan (Japan)	2,017
5	Renault (France)	1,962
6	Volkswagen (Germany)	1,828
7	Peugeot (France)	1,504
8	Fiat (Italy)	1,468
9	Honda (Japan)	860
10	Mazda (Japan)	824
*	Top Ten Total	20,621
*	Approximate World Total	26,500
*	Hyundai (South Korea)	78
*	Daewoo (South Korea)	15

⁹²Altshuler et al. (1984)

APPENDIX 10
CONSUMER PRICE INDEX (1985=100)⁹³

<u>Year</u>	<u>S.Korea</u>	<u>Mexico</u>	<u>Japan</u>	<u>USA</u>
1970	15.7	2.0	36.9	36.1
1971	17.8	2.1	39.3	37.6
1972	19.9	2.2	41.2	38.9
1973	20.6	2.5	46.0	41.3
1974	25.6	3.1	56.7	45.8
1975	32.0	3.6	63.3	50.0
1976	36.9	4.1	69.3	52.9
1977	40.7	5.3	74.9	56.3
1978	46.6	6.3	78.1	60.6
1979	55.1	7.4	81.0	67.5
1980	70.9	9.3	87.2	76.6
1981	86.1	11.9	91.6	84.5
1982	92.2	19.0	94.1	89.7
1983	95.4	38.3	95.8	92.6
1984	97.6	63.4	98.0	96.6
1985	100.0	100.0	100.0	100.0
1986	102.8	186.2	100.6	101.9
1987	105.9	431.7	100.7	105.7
1988	113.5	924.6	101.4	109.9
1989	119.9	1,109.6	103.7	115.2
1990	130.2	1,405.4	106.9	121.4

⁹³IMF Yearbook, various years

APPENDIX 11
EXPORT PROMOTION MEASURES⁹⁴

<u>Type of Incentive</u>	<u>Duration</u>
Business Tax Exemption	January 1962-
Tax credit for foreign market development expenditure	August 1969-
Tax credit for losses due to operations in foreign markets.	March 1973-
Tariff payments in installments for imported capital equipment used in export production.	January 1974-

⁹⁴Cho and Kim (1991)

APPENDIX 12
GTC CHARACTERISTICS⁹⁵

Period of Qualification:

- | | |
|-------------|----------------------------------------------------------------|
| Before 1981 | Annual requalification required at the beginning of each year. |
| After 1981 | Qualification effective as long as not canceled by government. |

Minimum Requirements:

- | | |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before 1981 | Should export 2% or more of the country's total commodity exports. Have 20 or more overseas branches. Have 5 or more export items. Must have some form of public ownership. |
| After 1981 | Same as above except not required to have minimum number of overseas branches or export items. |

Conditions for Cancellation:

1. Failure to meet requirements for two consecutive years.
2. Engaging in unlawful or unfair trading practices.
3. Mismanagement and financial insolvency.

Trade and Administrative Incentives:

1. Preferential treatment in international bidding.
2. Easy access to imports of raw materials.
3. Membership in trade and export associations.

Financial Incentives:

1. Preference in obtaining bank loans within limit of past export performance.
2. Allowed local trade credit for domestic purchase of products within the limits of one-third of the firm's export records for the previous year.

Foreign Exchange Incentives:

1. Overseas letters of credit guaranteed by the government.

⁹⁵Cho and Kim, 1991

Other Incentives:

1. Refund of value-added taxes on purchases.
2. Exemption of business income tax up to 24% of the increase in capital.
3. Allowed to consult with other GTCs.

APPENDIX 13
LOCAL CONTENT RATIOS IN LEADING DEVELOPING COUNTRIES⁹⁶

<u>Country</u>	<u>Local Content Ratio, 1988</u>
South Korea	95%
Mexico	60% (30% for exports)
Argentina	90%
Brazil	90%
India	62%
Taiwan	60%

⁹⁶O'Brien (1989)

APPENDIX 14
AUTOMOTIVE INDUSTRY EMPLOYMENT IN DEVELOPING COUNTRIES⁹⁷

<u>Country</u>	<u>Employment, 1987</u>
South Korea	50,000
Mexico	36,000
Argentina	20,000
Brazil	128,000
India	75,000
Taiwan	10,000

⁹⁷O'Brien (1989)

APPENDIX 15: COMPARATIVE TARIFF BARRIERS IN 1987⁹⁸

	<u>South Korea</u>	<u>Mexico</u>
Tariff Rate:	40-80%	20%
Other Import Charges:	Value-added Tax (10%)	Customs Surcharge (2.5%); Export Promotion Tax (2.5%)
Non-tariff Measures:	Import Authorization	Discretionary Licensing

⁹⁸O'Brien (1989)

BIBLIOGRAPHY

- Altshuler, A., Anderson, M., Jones, D., Roos, D., and Womack, J. (1984), The Future of the Automobile: The Report of MIT's International Automobile Program, Cambridge: The MIT Press.
- Amsden, A.H. (1989), Asia's Next Giant: South Korea and Late Industrialization, New York: Oxford University Press.
- Bae, K. (1987), Automobile Workers in Korea, Seoul: Seoul National University Press.
- Baldwin, R.E. (1988), Trade Policy Issues and Empirical Analysis, Chicago: The University of Chicago Press.
- Bennett, D.C. and Sharpe, K.E. (1985), Transnational Corporations versus the State: The Political Economy of the Mexican Auto Industry, Princeton: Princeton University Press.
- Borrus, M., Tyson, L.D., and Zysman, J. (1986), "Creating Advantage: How Government Policies Shape International Trade in the Semiconductor Industry", in Krugman ed., Strategic Trade Policy and the New International Economics, Cambridge: The MIT Press.
- Brander, J.A. (1986), "Rationales for Strategic Trade and Industrial Policy", in Krugman ed., Strategic Trade Policy and the New International Economics, Cambridge: The MIT Press.
- Cho, L. and Kim, Y.H. (1991), Economic Development in the Republic of Korea: A Policy Perspective, Honolulu, Hawaii: East-West Center.
- Chu, Yun-han (1987), "Authoritarian Regimes Under Stress: The Political Economy of Adjustment in the East Asian NICs," doctoral dissertation, Department of Political Science, University of Minnesota.
- Deyo, F.C., ed. (1987), The Political Economy of the New Asian Industrialism, Ithaca: Cornell University Press.
- Dornbusch, R. and Helmers, F.L.C.H. (1988), The Open Economy: Tools for Policymakers in Developing Countries, New York: Oxford University Press.

- Dunn, J.A. (1987), "Automobile in International Trade: Regime Change or Persistence", International Organization, v.41, Spring 1987, pp. 225-252.
- Economist Intelligence Unit (EIU), International Motor Business, "Review of Mexico's Automotive Industry and Market", July 1991.
- , International Motor Business, "Review of Mexico's Automotive Industry and Market", July 1990.
- , International Motor Business, "Mexico's Automotive Industry to the Mid-1990s", April 1989.
- Encarnation, D.J. (1989), Dislodging Multinationals: India's Strategy in a Comparative Perspective, Ithaca: Cornell University Press.
- Feenstra, R.C., ed. (1988), Empirical Methods for International Trade, Cambridge: The MIT Press.
- Gereffi, G. and Wyman, D.L., eds. (1990), Manufacturing Miracles: Paths of Industrialization in Latin America and East Asia, Princeton: Princeton University Press.
- Gilpin, Robert (1987), The Political Economy of International Relations, Princeton: Princeton University Press.
- Gomes, Leonard (1987), Foreign Trade and the National Economy: Mercantilist and Classical Perspectives, New York: St. Martin's Press.
- Haggard, S. (1990), Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries, Ithaca: Cornell University Press.
- Hamilton, Alexander ([1791], 1929), Documents Relating to American Economic History: Selections from the Official Reports of Alexander Hamilton, Berkely, California: University of California Press.
- International Labour Organization (ILO), ILO Yearbook, various years.
- International Monetary Fund (IMF), IMF Yearbook, various years.

James, W.E., Naya, S., and Meier, G.M. (1989), Asian Development: Economic Success and Policy Lessons, Madison: The University of Wisconsin Press.

Jenkins, R.O., (1987), Transnational Corporations and the Latin American Automobile Industry, Pittsburg: University of Pittsburg Press.

-----, (1977), Dependent Industrialization in Latin America: The Automotive Industry in Argentina, Chile, and Mexico, New York: Praeger Publishers.

Jones, D.T. and Womack, J.P. (1985), "Developing Countries and the Future of the Automobile Industry", World Development, v.13, no.3, pp. 393-407.

Jones, L.P., and Sakong, I. (1980), Government, Business, and Entrepreneurship in Economic Development: The Korean Case, Cambridge, Massachusetts: Harvard University Press.

Kierzkowski, H., ed. (1987), Protection and Competition in International Trade: Essays in Honor of W.M. Corden, New York: Basil Blackwell.

Kronish, R. and Mericle, K.S. (1984), The Political Economy of Latin American Motor Vehicle Industry, Cambridge: The MIT Press.

Krugman, Paul (1990), Rethinking International Trade, Cambridge, Massachusetts, The MIT Press.

-----, ed. (1986), Strategic Trade Policy and the New International Economics, Cambridge, Massachusetts: The MIT Press

List, Friedrich ([1885], 1966), The National System of Political Economy, New York: Augustus M. Kelly Publishers.

Lowry, T. (1987), The South Korean Motor Industry: A Rerun of Japan?, London: The Economist Intelligence Unit.

McDermott, M., and Young, S., South Korea's Industry: New Directions in World Markets, London: The Economist Intelligence Unit.

- Middlebrook, K.J. (1991), "State Structure and the Politics of Union Registration in Postrevolutionary Mexico", Comparative Politics, July 1991, pp. 459-476.
- O'Brien, P. (1989), The Automotive Industry in the Developing Countries: Risks and Opportunities in the 1990s, London: The Economist Intelligence Unit.
- Odell, J.S. and Willett, T.D. (1990), International Trade Policies: Gains from Exchange between Economics and Political Science, Ann Arbor: The University of Michigan Press.
- Ogle, G.E. (1990), South Korea: Dissent within the Economic Miracle, London: Zed Books Limited.
- Park, C.K., ed. (1980), Macroeconomic and Industrial Development in Korea, Seoul: Korea Development Institute.
- Pemberton, M. (1988), The World Car Industry to the Year 2000, London: The Economist Intelligence Unit.
- Richardson, J.D. (1990), "The Political Economy of Strategic Trade Policy," International Organization, v.44, Winter 1990, pp. 107-135.
- Reynolds, L.G. (1985), Economic Growth in the Third World, 1850-1980, New Haven: Yale University Press.
- Rhee, Yung Whee, Ross-Larson, B., and Pursell, Garry (1984), Korea's Competitive Edge: Managing the Entry into World Markets, A World Bank Research Publication, Baltimore: The Johns Hopkins University Press.
- Ricardo, David (1881), The Works of David Ricardo, London: John Murray.
- Robertson, I.L. (1990), South Korea's Motor Industry: Prospects to 2000, London: The Economist Intelligence Unit.
- Rodrik, D. (1988), "Imperfect Competition, Scale Economies, and Trade Policy in Developing Countries", in Baldwin ed., Trade Policy Issues and Empirical Analysis, Chicago: The University of Chicago Press.

- Roxborough, I. (1984), Unions and Politics in Mexico: The Case of the Automobile Industry, Cambridge: Cambridge University Press.
- Ruggie, J.G. (1983), The Antinomies of Interdependence: National Welfare and the International Division of Labor, New York: Columbia University Press.
- Schlagheck, James L. (1980), The Political, Economic, and Labor Climate in Mexico, Philadelphia: Industrial Research Unit, The Wharton School.
- Sinclair, S.W. (1982), Motorising the Third World: Prospects to 1990, London: The Economist Intelligence Unit.
- Smith, Adam ([1776], 1948), An Inquiry into the Nature and Causes of the Wealth of Nations, New York: Richard R. Smith.
- Song, Byung-Nak (1990), The Rise of the Korean Economy, Hong Kong: Oxford University Press.
- Spencer, B.J. (1986), "What Should Trade Policy Target?", in Krugman ed., Strategic Trade Policy and the New International Economics, Cambridge: The MIT Press.
- Stegemann, K. (1989), "Policy Rivalry Among Industrial States: What We Learn from Models of Strategic Trade Policy," International Organization, v.43, Winter 1989, pp. 73-100.
- Stern R.M., ed. (1987), U.S. Trade Policies in a Changing World Economy, Cambridge: The MIT Press.
- Tan, A.H.H. and Kapur, B., eds. (1986), Pacific Growth and Financial Interdependence, Sydney: Allen and Unwin.
- Thursby, M. (1988), "Strategic Models, Market Structure, and State Trading: An Application to Agriculture", in Baldwin ed., Trade Policy Issues and Empirical Analysis, Chicago: The University of Chicago Press.
- Todar, E.J. (1978), Trade Policy and the US Automobile Industry, New York: Praeger Publishers.
- Wade, R. (1990), Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization, Princeton: Princeton University Press.

Womack, J.P., Jones, D.T., and Roos, D. (1990), The Machine that Changed the World, New York: Maxwell Macmillan International.

World Bank, World Development Report 1991: The Challenge of Development, New York: Oxford University Press.

VITA

Ajay Tandon was born in Jodhpur, India on July 27th, 1967 and grew up in New Delhi, India. He received his Bachelor's degree from St. Stephen's College, University of Delhi, India in 1987. In the Fall of 1988 he began his studies at the Virginia Polytechnic Institute and State University. After initially majoring in International Business, he reoriented his academic career to focus on the subdiscipline of Political Economy in the Department of Political Science. He completed the course requirements for a Master's degree in Political Science in May 1992.

Ajay Tandon