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XENOPHILIC CONSUMER BEHAVIOR: THEORETICAL DIMENSIONS
AND MEASUREMENT

The University of Oklahoma

PH.D.

1980

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XENOPHILIC CONSUMER BEHAVIOR: THEORETICAL DIMENSIONS
AND MEASUREMENT

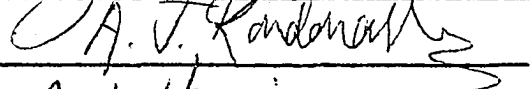
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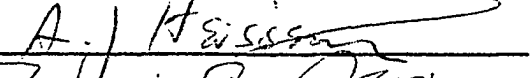
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1980

XENOPHILIC CONSUMER BEHAVIOR: THEORETICAL DIMENSIONS
AND MEASUREMENT

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DISSERTATION COMMITTEE

ABSTRACT

XENOPHILIC CONSUMER BEHAVIOR: THEORETICAL DIMENSIONS AND MEASUREMENT

by Peter G. Malliaris

Committee Chairman: Dr. Jack J. Kasulis

This dissertation is a macromarketing study on the topic of xenophilic consumer behavior (XCB). XCB is characterized by individuals who adopt or try to adopt alien life styles prevailing in developed economies. Discussed are the positive and negative consequences of XCB on a nation's economy, with particular emphasis on its negative aspects for lesser developed countries. The purpose of this dissertation was to examine the literature which pertained to XCB and to develop a theoretical framework, integrating concepts found in marketing and economics. In addition, a model of XCB was proposed and tested. The findings and implications of this study for practitioners and researchers are also presented.

XCB was measured as the ratio of imports to total consumption within several product categories. Income, dualism, exposure, education, and governmental intervention were used as independent variables in the hypothesized XCB model. Greece was selected as the case country for this longitudinal study. Aggregate data for 1952 to 1977 were collected from secondary sources. The model was tested as a predictive tool for these years in nine regressions representing nine product categories. The analysis showed that the actual observations for the nine categories were within the prediction intervals for each of the equations. Thus, the model was accepted as a predictor of short term XCB.

ACKNOWLEDGEMENTS

I think that this is the appropriate place to express my appreciation to all those who contributed towards the completion of my doctoral studies.

I am extremely grateful to Dr. Alexander Kondonassis for helping me to come to the U.S.A. for graduate studies and for encouraging and advising me throughout my entire Ph.D. program. I have to admit that it was because of him and my brother Tassos that I was convinced and redirected my goals to academia.

I feel deeply indebted to Dr. Jack Kasulis, my committee chairman, for providing invaluable guidance and advice. Dr. Kasulis read the various drafts of my chapters with utmost scrutiny and made numerous important suggestions. His kindness, patience, friendliness and expertise made possible the success of my program.

I wish to thank Dr. Rodney Evans and Dr. Marion Phillips for their continuous advice, encouragement and moral support.

My deepest gratitude goes to Dr. Theodore Skountzos, professor of the Piraeus Graduate School of Industrial Studies for granting me a three year sabbatical for doctoral studies.

I am extremely thankful to Mr. Phaeton Papadopoulos, systems analyst at CEMR, University of Oklahoma, for providing invaluable assistance with the statistical and computational methodology of the project.

I would like to express my appreciation to Mrs. V. A. Ospovat for the time she put forth, her patience and persistence in typing the manuscript.

To my parents I express my gratitude for their unending understanding and moral support.

Finally, I would like to dedicate this dissertation to General John Alexander Kondonassis, as an expression of my deepest respect for his contribution to the modern Hellenic military history.

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XENOPHILIC CONSUMER BEHAVIOR: THEORETICAL DIMENSIONS AND MEASUREMENT

CHAPTER I

INTRODUCTION

1.1 Some General Remarks

When someone visits prestigious department stores, shopping centers and specialty stores in major cities of Western Europe, he observes that some of the customers are different from the others who constitute the majority. This difference becomes obvious either when these customers visit the stores as groups or when they speak their own language or wear clothes with characteristic national styles. The customers I am referring to come from the less developed countries (LDCs) of Asia and Africa. Their number peaks during vacation season (summers, Christmas) or with some special events (exhibitions, fairs). In addition to these customers who come from LDCs, we can also see others who come from developing countries--the oil rich Middle East and even from the Eastern block. The common denominator of this subset of clientele is that they combine their travelling abroad for business or pleasure with preplanned purchasing of various goods and services. Some of them even travel exclusively

for shopping, with their favorite cities being London, Paris, Rome, Milan and Geneva.

If, instead of the glamorous environment of Europe, we visit some upscale-retailers in major urban areas of LDCs, we are likely to be surprised by the unexpected composition of their merchandising mix. A great deal of their assortment is imported. The stores not only have easily recognizable international brands but the instore promotional materials mainly emphasize the products' origin.

In changing our focus from retailing practice to advertising in LDCs, we observe the same orientation. If we study the printed media advertising of foreign final consumption goods, we observe that in most of the cases the theme and the content of the message rotates around a common point--the foreign origin of the goods. Expressions such as imported--packaged from . . . , the name . . . is enough, . . . first in global sales, are commonly seen. The copy-writers of these messages or the marketing managers of multinationals have concluded that when a product is manufactured in a developed country, this characteristic is a very powerful force in promoting the item in the markets of LDCs.

Another thing we observe, especially in LDCs, are slogans with the following general content: "Think nationally, buy the products of your country." The originators of this kind of slogan are the government itself and/or various governmental agencies such as chambers, federations, institutions,

etc. Sometimes the private sector uses and counts on these slogans as a vehicle to promote its sales or to publicize its contribution to social welfare, or both.

Slogans are tools heavily utilized by those involved in what is termed social marketing. This relatively new approach to marketing may pursue different objectives.

Kotler¹ lists four:

- (1) produce understanding (knowing the nutritional value of different foods);
- (2) trigger a particular one-time action (participating in a mass immunization campaign);
- (3) attempt to change behavior (auto seat-belt campaign);
- (4) change a basic belief (convincing people to prefer socialism).

From the above four objectives, the last two are relevant. With the slogans, their sponsors try to change the belief of consumers to recognize that buying foreign products is harmful to the economy of their country and therefore it is indirectly harmful to themselves. By changing to this belief these slogans are expected to elicit overt behavior favoring domestic production. If this desired behavior cannot be elicited via schemes of sporadic or continuous propaganda campaigns,² then additional measures of a more drastic nature (such as quotas, tariffs, taxes, etc.) are usually taken.

Both slogans and the other more tangible measures are examples of government intervention. Whether this intervention is appropriate or not is a matter of subjectivity, according to one of the founding fathers of nineteenth

century liberalism, Jeremy Bentham³, who argued that: "whether government should intervene depends on the extent of the power, intelligence, and inclination and therefore the spontaneous initiative possessed by the public and this will varies as between countries."

The above mix of government measures does indeed vary from country to country irrespective of their level of economic development. It is also found in developed economies, at least during periods of gloomy economic conditions, or prospects such as recession, inflation or stagnation. The 1980 automobile sales of U.S. manufacturers is a prime example. Another is the very recent Canadian decision to use the public sector as a lever to spur a "buy Canada" program.⁴ This preferential treatment for domestically produced products in the procurement process of the public sector represents a more vigorous and forceful side of the same coin. On the other side are slogans, which are targeted toward the consumers and only indirectly toward other buyers (institutional, industrial, commercial, etc.), or government restrictions, such as quotas, tariffs, etc. These examples of the U.S. and Canadian approaches have been imitated for a long time by the governments of other developed countries.

1.2 Defining the Phenomenon

In the previous section we gave some characteristic examples of the behavior of many LDC consumers. In view of

the consequences of this behavior, the national governments of LDCs continually monitor the extent of participation of their people and frequently take measures to eliminate or reduce their participation. We call this consumption phenomenon Xenophilic⁵ Consumer Behavior (XCB). XCB is characterized by individuals who adopt or try to adopt alien life styles prevailing in developed economies.

The above definition calls for further clarification of some of its basic elements. Adopting something means voluntarily choosing it, preferring it, perceiving and/or believing that it is relatively better than something else which is being replaced. Adoption has an ex post connotation. It is witnessed after the fact, and in this case the act of adoption can be studied easily by just finding what was before and what is now.

On the other hand, trying to adopt something reflects a dynamic (more or less), time consuming process. Adoption is a fait accompli, trying to adopt is a deliberate trend which can be ascertained after a thorough (if the trend is hidden, co-occurring, dubious) or a short (if the trend is obvious, clear-cut, autonomous) research. How long this trend will last is a matter of specific circumstances. Some organisms exhibit tremendous flexibility and adaptability which lead to rapid change and adoption of new elements or systems. Other organisms are extremely rigid. Between these two extremes lies the majority of the cases.

The word alien implies something totally different in nature or character. It is something which relates or belongs to a foreign country.

We supplemented the definition by adding prevailing in developed economies to make clear the following two points:

1. The model of consumer behavior which is targeted for adoption is the one of the developed economies--those with high per capita income combined with low illiteracy rates, strong industrial base and demanding and innovative consumers. It is a natural phenomenon to aspire to a better situation and to try to position oneself in it or at least parallel to it. This seems a logical assumption but in real life there are psychological forces which distort this fundamental law. Deep rooted xenophobia, religious fanaticism and pure Marxist ideology are representative examples of cases which reject the superiority or at least the unavoidability of the consumer behavior model of the developed economies.

2. The word prevailing implies that we acknowledge the fact that even in developed economies we have some pockets of lesser development, remnants of dualism (sharp or mild differences in producer and consumer behavior) mainly due to geographic determinism (inequalities in the availability of natural resources) or bastions of the "good and simple past."

We left the conceptual clarification of life style to the end because of its paramount importance, especially to this study. Life style has attracted the interest of

marketers because of its close association with the marketing concept and more importantly with market segmentation.⁶ As Boyd and Levy⁷ put it:

Marketing is a process of providing customers with parts of a potential mosaic from which they, as artists of their own life styles, can pick and choose to develop the composition that for the time seems the best. The marketer who thinks about his products in this way will seek to understand their potential settings and relationships to other parts of consumer life styles, and thereby to increase the number of ways they fit meaningfully into the pattern.

On a theoretical (conceptual) and empirical (operational-measurement) basis, life style has not been studied systematically and exhaustively, despite its crucial role in theory building and decision making. According to Nicosia and Glock,⁸ life styles can be conceptualized and subsequently measured using the following four dimensions:

1. Consumption expenditures
2. Content of basket of goods bought
3. Time allocation to different activities
4. Specific activities which consume time (survival, work, politics, religion and consumption).

Without underestimating the significance of Dimensions 1, 3 and 4, we will focus our attention on Dimension 2, because for the thrust of this study it was selected as most representative.

A basket of goods and services reflects the choices made, preferences, tastes and priorities of an individual consumer, a household, a specific market segment or a national economy. By aggregating a large number of small units the

concept is not changed, it is a matter of perspective (micro versus macro analysis). This basket content is synonymous with consumption patterns which can be viewed as a synthesis (array, combination) or a structure (organic interrelationship). At a more advanced theoretical level it can also be viewed as a system. In this case we have the elements of a system (the various groups of goods and services), an organic interrelationship and interdependence of these elements (the consumption of one good depends on the consumption of the other, positively or negatively--supplement or substitute goods--given the two most important constraints of time and income), a purpose (to maximize the utility of a consumer, household, etc.), and finally a relationship with other systems (for example with the environment).

The consumption patterns discussed above can be depicted using the following symbols and mathematical expressions:

Let q_1 = Quantities of food, beverages, and tobacco consumed,

q_2 = Quantities of clothing, footwear consumed,

q_3 = Quantities of rent, water, heating, light, telephones consumed,

q_4 = Quantities of durables consumed,

q_5 = Quantities of personal care and health goods and services consumed, and

q_6 = Quantities of various services (education, recreation, transportation, etc.) consumed.

The above division of final consumption goods and services into various groups is only one of the many available. In each group there is a large or small number of specific items which are consumed by the ultimate consumer.

Therefore,

$$q_1 = \sum_{a=1}^g q_{1a}$$

$$q_2 = \sum_{b=1}^h q_{2b}$$

$$q_3 = \sum_{c=1}^i q_{3c}$$

$$q_4 = \sum_{d=1}^j q_{4d}$$

$$q_5 = \sum_{e=1}^k q_{5e}$$

$$q_6 = \sum_{f=1}^l q_{6f}$$

The total consumption is comprised of $q_1, q_2, \dots, q_6$. This holds for any level of aggregation. Each one of

these q 's can be viewed as a vector with n elements as follows:

q_1 is vector V_1 with g elements

q_2 is vector V_2 with h elements

q_3 is vector V_3 with i elements

q_4 is vector V_4 with j elements

q_5 is vector V_5 with k elements

q_6 is vector V_6 with l elements

where $g, h, i, j, k, l \in N$ and $N = \{1, 2, 3, \dots\}$

So consumption patterns are an array of vectors with differing number of elements. These numbers will depend on the specific group of goods and services (usually q_1 , food-beverages-tobacco, has a relatively larger number), on the level of economic development of a national economy (the higher this level, the bigger the breadth and depth of assortment of the national product mix because economic development in the final end is synonymous with widespread diversification of national production), and on the degree of openness of the national economy (the more open, the bigger the international trade, exports-imports, and as a result the more goods and services that are available).

The consumption pattern measured in the above way (using physical units) gives an estimate and description of

the standard of living. Since no prices are involved, the well-known problems of international comparability (due to inflation and the exchange value of a national currency to another one) are totally eliminated. This is why in international statistics we selectively use this approach and compare the per capita consumption of goods and services across the countries of the world (for example, per capita consumption of meat, electricity, education services, T.V. sets per 100 households, etc.).

For each good or service the consumer has to pay a price. Taking the average price (P's) paid for each good or service included in each of the six groups, we can have:

$$P_1 q_1 = \sum_{a=1}^g \bar{p}_{1a} q_{1a}$$

$$P_2 q_2 = \sum_{b=1}^h p_{2b} q_{2b}$$

$$P_3 q_3 = \sum_{c=1}^i p_{3c} q_{3c}$$

$$P_4 q_4 = \sum_{d=1}^j p_{4d} q_{4d}$$

$$P_5 q_5 = \sum_{e=1}^k p_{5e} q_{5e}$$

$$p_6 q_6 = \sum_{f=1}^1 p_{6f} q_{6f}$$

Again, the first subscript (the numbers 1 through 6) represents the group of goods and services where the specific item is included. The second subscript (the letters a through f) represents the range or the number of specific, identifiable and distinct goods and services included in each group. For example, the range of e is from 1 to k where k can be any of the natural numbers.

The total consumption expenditures is comprised of $p_1 q_1, p_2 q_2, \dots, p_6 q_6$. This holds for any level of aggregation. Each one of these pq 's can be viewed as a vector with n elements as follows:

$p_1 q_1$ is vector V_1' with g elements

$p_2 q_2$ is vector V_2' with h elements

$p_3 q_3$ is vector V_3' with i elements

$p_4 q_4$ is vector V_4' with j elements

$p_5 q_5$ is vector V_5' with k elements

$p_6 q_6$ is vector V_6' with l elements

where $g, h, i, j, k, l \in N$ and $N = \{1, 2, 3, \dots\}$

If we let:

$$p_1 q_1 = c_1$$

$$p_2 q_2 = c_2$$

$$p_3 q_3 = c_3$$

$$p_4 q_4 = c_4$$

$$p_5 q_5 = c_5$$

$$p_6 q_6 = c_6$$

and $C = c_1 + c_2 + c_3 + c_4 + c_5 + c_6$

Consumption patterns can be expressed as follows:

$$\begin{vmatrix} \frac{c_1}{C} \\ \frac{c_2}{C} \\ \frac{c_3}{C} \\ \frac{c_4}{C} \\ \frac{c_5}{C} \\ \frac{c_6}{C} \end{vmatrix}$$

where $\frac{c_1}{C} + \frac{c_2}{C} + \frac{c_3}{C} + \frac{c_4}{C} + \frac{c_5}{C} + \frac{c_6}{C} = 1.00$

This is another vector, one column and six rows, with its six elements presented as percentages. Using percentages instead of raw numbers facilitates comparability in time series as well as in cross section analyses.

In the previous analysis we used total consumption expenditures as the important variable. If, instead of this, we like to use income (personal, family or national) we can proceed along the same lines.

Let $Y = \text{Income}$

$S = \text{Savings}$

then

$$\begin{array}{|l} \frac{c_1}{Y} \\ \frac{c_2}{Y} \\ \frac{c_3}{Y} \\ \frac{c_4}{Y} \\ \frac{c_5}{Y} \\ \frac{c_6}{Y} \\ \frac{S}{Y} \end{array} \quad \text{where } \frac{c_1}{Y} + \frac{c_2}{Y} + \frac{c_3}{Y} + \frac{c_4}{Y} + \frac{c_5}{Y} + \frac{c_6}{Y} + \frac{S}{Y} = 1.00$$

This vector depicts the income expenditure pattern which encompasses the consumption pattern and the savings pattern. The latter can be further analyzed to include every possible method by which savings can be disposed (investment goods, bank accounts, life insurance, precious metals, stocks, etc.).

The interrelationship between income (Y) and consumption (C) and consumption of major classes of goods and services (c's) has attracted an everlasting interest of social scientists. The nineteenth century German statistician Ernst Engel is believed to be the first social scientist to study this phenomenon. After comparing the budgets (income expenditure pattern) of many working class families he reached some conclusions which years later were called "Engel's Law." This law states that⁹:

1. As income increases, the percentage spent for food declines.
2. As income increases, the percentage spent for clothing, rent and home operation remains about the same.
3. As income increases, the percentage spent for all other goods and services increases.

The essence of Engel's Law is that income increases trigger a process of restructuring consumption patterns, with some classes of goods and services decreasing relatively in demand while others are increasing relatively. Assuming ever increasing income (something which before the oil crisis of 1973 was acceptable without any serious hesitation), then the process of restructuring is continuous.

Along with income, XCB contributes on a synchronous or unsynchronous basis towards the process of restructuring. The former means that as income increases, XCB follows the same direction simultaneously. An unsynchronous contribution means that there is a time lag between the increase in income

and the activation-strengthening of XCB. In cases where XCB is very limited to nonexistent, we can say that the time lag tends to reach infinity. The synchronous/unsynchronous characteristic originates from the peculiar conditions prevailing in a particular national economy (higher levels of aggregation-macro analysis) and/or the psychographics-demographics of the specific consumer (lower levels of aggregation-micro analysis).

1.3 Purpose of the Study and its Limitations

The purpose of this dissertation is to study the existing interrelationships between various environmental forces and XCB. The primary focus will be on the prediction of XCB. Explanatory relationships will also be examined to the extent permitted.

The focus of this study will be from a macromarketing perspective. This approach to studying marketing had its greatest surge in the literature in the late seventies. Since then its momentum has continued, including the preparation of a new journal under the same name. Among the pioneers of macromarketing are Moyer and Hutt,¹⁰ Schelling,¹¹ Fisk and Nason¹² and White and Slater.¹³ The prefix of macro connotes higher levels of aggregation. At these levels scientific inquiry is directed towards capturing, understanding and describing the holistic essence. The holistic view can be operationalized using the systems approach and generally systems thinking.

In describing macromarketing Bartels and Jenkins¹⁴

wrote:

. . . macromarketing has meant marketing in general and the data which depict marketing in general. It has meant the marketing process in its entirety, and the aggregate mechanism of institutions performing it. It has meant systems and groups of micro institutions, such as channels, conglomerates, industries, and associations, in contrast to their individual component units. More recently it has meant the social context of micromarketing, its role in the national economy. . .

The above description of macromarketing, lengthy as it might seem, is neither a formal definition nor a rigid framework. What is of practical necessity is a checklist with which we can classify studies into the micro/macro dichotomy. Despite the contributions of the founders and others, such a clear-cut and unambiguous set of criteria does not exist. As Fisk¹⁵ put it:

. . . no particular cluster of characteristics separate macro from micromarketing. . . a number of characteristics is commonly but not always present in phenomena that many investigators will accept as macromarketing.

The present study does not lie in the zone of "classification ambiguity." Since it tests theory using aggregate data of the highest level, it is examining the "marketing process in its entirety." Therefore, it belongs to the macromarketing area of inquiry.

This study is exploratory in nature in that it is the first one to use aggregate data to examine XCB. The methodology of this dissertation follows a totally different path in testing hypotheses on this topic. In the past, studies

on the topic of this dissertation used the traditional micromarketing approach of surveys to examine attitudes, perceptions, images, psychographics and demographics of the respondents. Although the methodology used here has several advantages, including the study of behavior (not attitudes or perceptions), the use of census data (not sample data), and an analysis over many years (not cross-sectional data), the macromarketing approach has its limitations. Although discussions of the strengths and weaknesses of alternative methodologies are present in the "Review of Past Literature" and "Methodology" chapters, the following summarizes some of the limitations of the approach used here.

In this study we use data for one case-country to test the hypotheses. The implications therefore are confined to this one country and cannot be generalized to others except as a preliminary indication of the relationships. Replications of this study in this case-country and across a large number of case-countries are needed to comprehensively address the external validity issue.

In addition, it is not an oversimplification to argue that in international marketing research each country is more or less a unique case with its own distinctively different set of environmental forces. This set of forces reflects the peculiar historical conditions under which the evolutionary process took place. As a result of this versatility, we cannot generalize the findings from one case-country to

another one without a substantial degree of caution. This is the most important limitation of this study and no matter how large the number of case-countries studied, this limitation will always be present in cross-cultural marketing research.

In the model proposed in this study, only a limited number of environmental forces is included. Although these forces are hypothesized to be the most influential ones affecting XCB, the scope of the study is correspondingly limited. The same applies to the types of goods and services which were selected as the most representative indicators of XCB. Since the number of goods and services is very limited, the scope of the study follows this limitation. On a related point, because this dissertation relies on secondary data, the research rests on the limitations, including the dependence on others, for the accuracy of the data collected, the particular operationalization of the variables and the availability of the data.

1.4 Significance of the Study

It is the purpose of this study to shed some additional light on the phenomenon of XCB. Xenophilic Consumer Behavior has profound implications, both positive and negative, for the economies of all countries, regardless of the level of their economic development. Among the negative ones, the most important are the balance of trade, balance

of payments and the current account balance deficits with their corresponding negative effect on industrialization. On the positive side, we can include the strengthening of the competitive forces of the market, the availability of broader assortments of goods with the likely increase in consumer satisfaction, and the feasibility of indirect taxation and capital accumulation. A detailed discussion of these positive and negative implications is included in the next chapter.

While the value of studying in both developed and lesser developed countries is recognized, primary attention here is towards the LDCs. This is because it is believed that the negative implications far exceed the positive ones for these particular countries. Through the study of XCB, it is hoped that a contribution will be made to our understanding of the extremely complicated and delicate process of economic development.¹⁶ The need for a better understanding of this area is urgent as reflected in this statement by the World Development Report¹⁷:

. . . the fact that 800 million people are still in absolute poverty--with incomes too low to ensure adequate food or shelter, and without access to essential public services such as education or health care--is a stark measure of how much remains to be done.

CHAPTER II

REVIEW OF PAST LITERATURE

This chapter is divided into three major parts. In the first part we will review the literature which addresses the positive and negative results of XCB. In the second section we will describe some economic theories which can be used as partial explanations for the phenomenon of XCB. Finally, in the last section we will review the marketing literature which addresses XCB.

2.1 Negative and Positive Results of XCB

As mentioned earlier, XCB has both negative and positive effects on the economy of every country regardless of its level of economic development. However in considering LDCs, it is believed that XCB hinders more than enhances the process of economic development. As a consequence, it runs counter to the public policy goals of many LDCs.

In the following sections the negative and positive effects of XCB will be presented and discussed, starting with the negative implications. The frame of reference will be LDCs, the status of the overwhelming majority of countries in the world.

2.1.1 The Negative Results

If we assume that the ultimate goal of every society is to increase its productive capacity, both in the long run and on a sustained basis, so that every one of its members enjoys an ever-increasing supply of goods and services, then any factor which inhibits the accomplishment of this goal should be considered a negative one. Within this context most people would agree that XCB has negative consequences for LDCs. Consumers of LDCs buy foreign products to adopt the life styles prevailing in the more economically advanced countries. In doing so, they hurt the economy of their own countries. Perhaps in the short run these consumers will temporarily enjoy some elements of the standard of living of the advanced countries. Nevertheless in the long run, their behavior is detrimental to accomplishing the goal of bridging the chasm between LDCs and those that are more advanced. In a real sense, XCB is "socially irresponsible" consumer behavior. By pursuing the short term gratification of Western life styles, these consumers are hurting their country's economic development and as a consequence forestalling movement towards the desired standard of living. XCB pushes people away from long term vision to short term myopia. More specifically, XCB adversely affects their country's balance of payments and discourages the restructuring of the economy from an agricultural to an industrial one.

2.1.1.1 Balance of Payments

LDCs, with the exception of most OPEC members (which nominally seem developed but in reality are still far away from self-sustained development), face a dramatic trade imbalance with consequent negative effects on the balance of payments and the current account balance. These deficits are increasing over time. Table 1 depicts this deterioration during the 1970's for a number of LDCs. Skyrocketing oil import costs further aggravate the trade balance deficit. To finance energy imports, LDCs have to devote an increasing percentage of their earnings from their exports to supply their energy needs. Table 2 illustrates this deterioration. We should recognize that the figures in this table include only the 1973 shock increase in the price of oil. Since 1976 substantial price increases have taken place. Thus, the percentages in Table 2 should be viewed as being conservative compared to the present day situation.

The deteriorating trade balance of LDCs suggests that the classical concepts of comparative advantage (espoused by David Ricardo) and international specialization (espoused by Adam Smith) through the mechanism of unrestricted transborder trade, either are invalid or require a much longer time horizon than expected. Referring to this point, Hilgert¹⁸ argued:

The fact that many underdeveloped countries do not derive the advantages from modern transportation and commerce that theory seems to demand, is one of the

TABLE 1

CURRENT ACCOUNT BALANCE BEFORE INTEREST PAYMENTS
ON EXTERNAL PUBLIC DEBT
FOR A NUMBER OF LDCs

LDC	Current Account Balance in Million U.S. \$	
	1970	1977
Ethiopia	- 26	- 70
Somalia	- 6	- 31
Zaire	- 55	- 486
Burma	- 60	- 93
Sudan	- 30	- 443
Egypt	-116	- 529
Thailand	-234	-1,039
Philippines	- 22	- 724
Zambia	131	- 157
Morocco	-101	-1,743
Bolivia	- 17	- 120
Nicaragua	- 33	- 122
Tunisia	- 36	- 476
Turkey	- 28	-3,155
Chile	- 13	- 290
Brazil	-725	-3,787

Source: The World Bank, World Development Report,
1979, pp. 150-151.

TABLE 2

ENERGY IMPORTS AS A PERCENTAGE OF MERCHANDISE EXPORT EARNINGS
FOR A NUMBER OF LDCs

LDC	Percentage	
	1960	1976
Ethiopia	11	27
Somalia	4	13
Zaire	3	16
Burma	4	12
Sudan	8	26
Egypt	12	15
Thailand	12	28
Philippines	na	na
Zambia	na	5
Morocco	9	23
Bolivia	4	1
Nicaragua	na	na
Tunisia	15	23
Turkey	16	58
Chile	10	25
Brazil	21	43

na = data not available.

Source: The World Bank, World Development Report,
1979, pp. 138-139.

most pertinent facts in the present international situation and cannot be easily dismissed.

Hilgert's thesis along with parallel ones presented by Myrdal,¹⁹ Singer,²⁰ Prebisch²¹ and Nurkse²² should be viewed as challenging the merits of the classic free trade-comparative advantage model championed by Viner.²³ Myrdal²⁴ has gone even further in declaring that it is very doubtful whether today freer trade would necessarily lead to less international economic inequality or whether, in general, trade between developed and less developed countries has ever had that effect.

The dramatic trade imbalance situation is mainly attributed²⁵ to two factors. LDCs typically have a narrow assortment of products for export (raw materials, unprocessed or semi processed minerals, agricultural products, light industry products, etc.). Secondly, prevailing conditions in international markets include high price elasticities, low income elasticities, perfect competition, existence of perfect substitutes, etc. Thus, LDCs have a major dilemma. LDCs cannot substantially increase, at least in the short run, their foreign exchange earnings by boosting their exports nor can they decrease the importation of capital goods, and energy needed for economic development.

Given this situation and recognizing that other sources of foreign exchange (such as remittances from workers living abroad, receipts from tourism, inflow of foreign

private capital, foreign loans, grants, aid, etc.), are hopelessly inadequate the conclusion is obvious. The less spent on foreign produced nonessential consumption goods, the more LDCs will have to finance the importation of goods prerequisite to their economic development. It is this structural weakness in the economies of LDCs that makes XCB a major hindrance to their economic development.

2.1.1.2 Industrialization

The second major negative effect XCB has on LDCs is its limitation on industrialization. Although there are some opposing views, most economic development scholars seem to support the position that industrialization is the driving force for sustained and rapid economic development. Bean,²⁶ Chenery²⁷ and Kuznets²⁸ are representative of the group of economists who accept that the transformation of a society from rural-agricultural to urban-industrial has been empirically verified as accompanying growth as well as being a major factor in a country's economic development.

In studying the literature, we can see that the problem seems to rest not on whether to accept or reject industrialization as the primary factor of economic development, but rather what orientation the sector's product mix should take. As Streeten²⁹ pointed out:

. . . After a reorientation of goals, industrialization as the servant of development regains its proper place in the strategy. Industry should produce the simple

producer and consumer goods required by the people. . . In simple mass consumption goods, often produced in a labor intensive, capital saving way, the developing countries have a comparative advantage.

Regardless of the product mix, industrialization requires heavy imports of capital goods, raw materials, energy, etc., and a strong domestic market sufficient to absorb the produced volume. Because capital goods tend to be technologically sophisticated and technological progress is virtually monopolized by the developed countries, the importation of capital goods is a requirement. On this point, Singer³⁰ observed that:

The rich countries of today, with less than one third of today's population, account for pretty much 99% of total Research and Development expenditures. The same applies to the scientific and technological infrastructure expenditures.

The well-known "vicious circle" of low income leading to low savings, low investment, low labor productivity and low income depicts the predicament of LDCs. Any type of research and development is beyond their capacity. Capital goods simply have to be imported. If the country does not possess the raw materials or energy resources, these too have to be imported.

The need for a strong domestic market is another crucial factor for industrialization. Strong domestic markets are related to modern technology, mass scale production, standardization, scalar economies and optimum total cost per produced unit. XCB hurts the ability of LDCs to meet these

conditions. Because LDCs tend to have large populations and limited spending power, they cannot withstand the division of demand between domestic and foreign substitutes. Experience has shown that when foreign competition is too strong, domestic industrialization is hindered. It becomes another vicious circle--fewer sales, less production, higher per unit total cost, higher price, less demand, fewer sales, and so on. Thus by diverting demand, XCB results in limited profits and a disincentive to invest in the industrialization of the LDC.

2.1.2 The Positive Results

Although the negative effects of XCB are preeminent, XCB has some positive implications for the process of economic development. As in the case of the negative results, the positive ones are both short run and long run. The two most important positive factors are that XCB is a source of financing and a force for antimonopolization.

2.1.2.1 Source of Financing

Although it would be an oversimplification to regard economic development as a function of capital accumulation alone because other factors such as training and mobilization of human resources and entrepreneurship are also needed, these are seldom feasible without some increase in the stock of national capital. Therefore capital accumulation may be

regarded as the core process by which all other aspects of growth are made possible.³¹ Taxation is one of the few sources of capital for financing the development effort. The others are domestic borrowing, deficit spending-inflation, forced savings and foreign sources (loans, grants, aid, private investment, etc.). Without going into detail, it is sufficient to say that each source has its advantages and disadvantages. Taxation is singled out because LDCs use taxation very frequently as a source of financing as well as income redistribution. Indirect taxation (sales, tariffs, duties, etc.) tends to work better than direct taxation (income, property, profits, etc.). LDCs have widespread evasion of direct taxation as a result of the conditions common to LDCs (relatively big nonmonetarized sectors, weak legal framework, high illiteracy rates, inadequate records, low fiscal consciousness, bribes, etc.). Consequently indirect taxation is virtually the only alternative for taxation. The importation of foreign products is used by the fiscal authorities of LDCs as a source of capital accumulation. Using Latin America as an example, Hunter and Foley³² wrote that:

Still another key determinant of fiscal capacity is the size of the external sector (exports and imports) in relation to GNP. . . . evasion of taxes is a particularly serious problem in Latin America. Export and import taxes, however, are particularly difficult to evade, since exit and entry points are few and can be carefully watched. A country with a large trade sector will, therefore, have a greater fiscal capacity than one with a small trade sector.

It can be argued that heavy import taxes, duties, tariffs, etc., are a means for effectively discouraging imports and consequently the outflow of valuable foreign exchange, as well as a mechanism for protecting vulnerable domestic infant industries. While this is true, the fact remains that governments of LDCs find indirect taxation easier and more accessible than direct taxation and consequently use it as a source of financing. Thus, in this way XCB has some positive effect in the economies of LDCs.

2.1.2.2 Antimonopolization

The merits of a perfectly competitive market are well known. In the short run, competition acts as an obstacle to price increases. In the long run it constitutes a mechanism for an optimum allocation of resources.

LDCs have, ex definitio, a relatively limited product mix which is supplied by a small number of big firms and/or a large number of small ones. As the process of economic development progresses, no matter how slow it is, industrialization sooner or later emerges. Small firms grow, emerge or vanish. The same happens to the big ones, and eventually the supply side of the market is controlled by the few. Very frequently, the economic planning boards of governments encourage this consolidation through various incentives. In addition, high import barriers imposed on

foreign products, in the name of protecting local industry, support this trend. These strategies typically lead to oligopolies, or even monopolies. In the long run these non-competitive forces nourish production inefficiencies and frequently facilitate the adoption of unreasonable pricing policies.

Thus no matter how urgent the need to industrialize, LDCs should never forget the healthy dynamism of competition. As Haberler³⁴ put it:

Increased competition is also important for the under-developed countries, especially inasmuch as the size of their market is usually small. . . . A reservation has nevertheless to be made. The first introduction of new industries, on infant industry grounds, may justify the creation of monopolistic positions, depending on the size of the country and the type of industry. But the problem will always remain how to prevent the permanent establishment of inefficient exploitative monopolies even after an industry has taken root and has become able to hold its ground without the crutches of import restrictions.

In summary XCB can produce positive effects by promoting a competitive market. If LDCs can combine the opening of developing industries with flexible entrance requirements for foreign goods to serve XCB, there are several desirable consequences. These include: (1) increased consumer satisfaction because of the greater freedom of choice resulting from the expanded breadth and depth of product assortments, (2) powerful obstacles to the emergence of oligopolies or monopolies, thereby promoting long run production efficiencies and reasonable prices, and (3) reference or comparison

models for domestic producers and consumers. Unfortunately, few LDCs have been successful in their attempts at the intricate blend of protection from imports and import encouragement. Without this the negative implications of XCB are left to dominate.

2.1.3 Summary

For LDCs the negative aspects of XCB far exceed the positive ones. Balance of payments and industrialization problems are important constraints on the crucial process of economic development. Without alleviating these problems, the economy is not likely to prosper. On the other hand, sources of finances and antimonopolization measures may be accomplished, though perhaps not as easily or effectively, through other means than XCB. This is in contrast to developed countries where balances of payments and industrialization are lesser problems and the value of broadened assortments and a competitive environment may be more important because the consumerism movement is one of the strongest parameters of the economic life.

For consumers in LDCs, XCB is an opportunity to assimilate aspects of the standard of living of the developed countries. It is hard for these consumers to imagine that their limited purchases could have any impact on the economy of their country. Yet in aggregate, XCB can have a disruptive effect. If economic development is a primary goal of

a particular country, individual want-satisfaction may have to suffer. Many LDCs place quotas and/or high tariffs on imported goods to control XCB. They do this without much knowledge of the forces related to XCB, and quite often instead of decreasing it they strengthen it. High priced goods, due to tariffs, become status symbols and their demand curves get positive slopes. Shortages, due to quotas, lead to black markets and illegal importation of goods.

XCB is a phenomenon societies have to cope with. A better understanding of XCB will inevitably lead towards the minimization of the negative results and the maximization of the positive ones. Each country perceives this optimum combination differently and as a result the study of XCB should be done on a one case-country basis.

2.2 Economic Theories and XCB

In this section we will review economic theories which describe and explain XCB. Two of them are from macro-economics and the third from microeconomics.

2.2.1 A Macroeconomic View

Dualism and the International Demonstration Effect are the two macroeconomic theories which will be reviewed in this section.

2.2.1.1 Dualism

The father of the theory of dualism is the Dutch economist J. H. Boeke. Building upon previously related work done by Indian economists, Boeke based his theory on the Indonesian experience. Though it is based on a one case-country empirical investigation, it does not eliminate the general applicability of the theory. It is believed that dualism, under various forms and degrees, exists in every country of the world. This widespread existence is also witnessed by the variability of views expressed by those who study dualism. As it was pointed out:³⁵

There are many views of dualism, ranging from vaguely stated hypotheses regarding sectoral differences in social, political and economic behavior to formal statements implying well defined predictions about the course of economic development and structural change.

Dualism, as the word implies, refers to the existence of differences within one country or within regions (e.g., East-West, European Economic Community). These differences can be based on social systems,³⁶ on racial or ethnic backgrounds,³⁷ on production conditions,^{38,39,40,41} on demographic characteristics,⁴² or on the profile of the domestic and foreign sectors.⁴³

In view of its multidimensionality, it would be an oversimplification to isolate one aspect (dimension) and examine it, ignoring its interdependence with the other aspects. Instead, dualism should be treated "globally" for

a better understanding of the phenomenon, and most importantly to produce better policy making. Only through valid measures and appropriate policies can dualism be eliminated over time, and therefore the differences can diminish or even disappear.

For the purpose of our study two specific aspects of dualism are of great significance. For the theoretical part, social dualism can be used to describe the condition which triggers XCB. For the empirical part, spatial dualism can be used as a means to operationalize and measure the phenomenon. Boeke gave the following definition of social dualism:⁴⁴ "Social dualism is the clashing of an imported social system with an indigenous social system of another type. Most frequently, the imported social system is capitalism."

The source of this dualism, which constitutes a force of national disintegration, coincides with the appearance of capitalism in precapitalistic countries.⁴⁵ In most cases this appearance took place under the auspices of imperialism. We should always keep in mind that LDCs, where the aspects of dualism are more profound (sometimes even reaching devastating proportions), were decolonized relative recently, and the consequences of imperialism are still "alive." The importance of this foreign factor for a specific geographic region is emphasized by Sunkel⁴⁶ in these words:

In Latin America countries, it becomes quite clear that external links and relationships have exercised a fundamental influence on the shaping of the structure

in those countries and, therefore, on their functioning and outcome as well as on the process of structural transformation.

These external links can be viewed as forces which create, and subsequently sustain, a status of international polarization on a global basis (the poor remain poor and the rich, rich). This is also characterized in the domestic situation of any LDC as internal polarization.⁴⁷ This internal polarization is evidenced by the growing division between modern, dominant and advanced economic activities, social groups and regions on the one hand and backward, marginal and dependent activities, groups and regions on the other.⁴⁸ Internal polarization eventually leads to national disintegration. Social dualism inescapably evolves to an economic one, and therefore the combined social-economic dualism emerges as "a clash between two social and economic systems, between two divergent styles of life."⁴⁹

The divergent styles of life can be viewed as two poles. On the one extreme we have life styles featuring "limited needs."⁵⁰ On the other, in sharp contrast, we have life styles featuring "unlimited needs." This dichotomy in consumer behavior is based on psychological and not physiological factors. Keynes⁵¹ proposed a similar thesis:

The amount that the community spends on consumption obviously depends . . . partly on the subjective needs and the psychological propensities and habits of the individuals composing it and the principles on which the income is divided between them.

Dualism can be evidenced by tangible as well as by intangible effects. The latter, as mentioned above, are of a more or less psychological nature. The prevailing belief of the developed (modern) social subset that it has many more commonalities with their Western counterparts instead of with their fellow citizens belonging to the less developed (traditional) subset constitutes the behavioral dimension of the problem. This, by all means, is the most important dimension. As Boeke described it:⁵²

In each of the countries concerned a larger or smaller stratum of the people is Westernized, has become Western which, expressed in the scientific terminology of economics, means that this stratum has acquired the capitalistic conception of life, harbors capitalistic aspirations, or at least has adopted the habits and customs of capitalistic peoples.

If we have to summarize the assumptions under which a capitalistic system exists, operates and thrives, the best approximation would be that it assumes "limitless needs in comparison with which means are always limited."

Spatial dualism, as measured by regional economic inequalities, represents an aspect of dualism existent in nature and relatively easy to operationalize, especially on an aggregate level. In every LDC, its territory can be divided into the traditional, indigenous, rural sector populated by consumers with limited needs and the modern, Western, industrialized, urban sector where consumers exhibit unlimited needs. Since the first sector usually covers the overwhelming majority of the territory, it would be useful to treat the

second sector also as an "enclave." Since the urban and the rural sectors are engaged in transactions and exchanges (inputs, outputs) on a regular basis, then conceptually and economically they are sectors. But when it comes down to using behavioral attributes as the basis of analysis, the urban social subset, because of its size and because it exhibits such profound differences with the rural one, feels like an enclave.

In most of the cases the urban sector is located in the capital city which, due to internal immigration and expansion, becomes the major metropolitan center. The selection of the capital city as the locus of the Westernized enclave is not accidental. Throughout history, capitals have been equipped with adequate infrastructures which, among other things, have allowed faster communication and transportation access to the international trade centers of the developed world. This accessibility and proximity have been historically the major elicitors of transborder movement of life styles.

Referring to the spatial dualism in Greece, Papan-dreou⁵⁴ wrote that:

The per capita income of Athens is probably 5 times the per capita income of mountain communities. Thus, while Athens enjoys a standard of living comparable, say, to that of Italy, the standard of living of mountain communities is closer to that of Asiatic countries. Such evidence as is available on personal distribution points to a highly skewed income distribution.

For the purposes of this study the existing differences and the trends in life styles and more specifically in consumption patterns are of great importance. The following symbols can illustrate the situation.

Let:

d_1 = consumption pattern (CP) prevailing in the relatively less developed sector of a developed country, or alternatively, the market segment with this CP

d_2 = CP prevailing in the developed sector of a developed country, or alternatively, the market segment with this CP

ℓ_1 = CP prevailing in the traditional sector of a LDC, or alternatively the market segment with this CP

ℓ_2 = CP prevailing in the modern sector (enclave) of a LDC, or alternatively, the market segment with this CP

The following propositions, in the form of relationships, can be made:

$d_1 \neq d_2$ (dualism exists everywhere)

$d_2 - d_1 = d$ (the difference)

$\ell_1 \neq \ell_2$ (dualism)

$$l_2 - l_1 = l \quad (\text{the difference})$$

$$l > d \quad (\text{difference more profound in LDC})$$

Since l_2 will imitate (or try to imitate) d_2 , similarities between l_2 and d_2 will be observed. Since LDCs are *ex definitio* unable to produce and supply the appropriate product mix to satisfy l_2 imports of foreign goods, similar if not identical to those preferred by d_2 , will become necessary. XCB therefore can be hypothesized as depending on the size of l_2 , $l_2 - l_1$, and $d_2 - l_2$. As l_2 increases, in terms of number of people and purchasing power, aggregate demand for imported goods and services will increase correspondingly. As $l_2 - l_1$ increases, the similarities in consumption patterns between the two sectors decrease; thus the need and drive of l_2 to associate itself with d_2 increases, and simultaneously, the need of l_2 to disassociate itself from l_1 also increases. Finally as $d_2 - l_2$ increases, l_2 will accelerate its efforts to close the gap.

2.2.1.2. International Demonstration Effect

Consumers do not live in a vacuum. Their tastes, preferences and generally their purchasing behavior reflect the effects of the environment upon the decision making process. Consumers are constantly exposed to environmental influences regardless of whether they want it or not. As Bettman⁵⁵ put it:

Learning about the environment can occur under conditions of low involvement and low attention and under conditions where stimuli are passively rather than actively processed.

This overwhelming role of environment on consumer behavior can be demonstrated by the fact that there are models of behavior which periodically dominate on a massive scale. Consumers receive information, select, process, accept and adopt solutions to existing problems. The diffusion of these models is accelerated by widespread imitation. Marketers usually stimulate this diffusion process by publicizing these models. Other starting points can also be possible, such as highly visible and/or credible people, the government, institutions, etc. Once the model is presented, imitation makes sure that diffusion will be fast. As Bandura and Walters⁵⁶ argue:

Relevant research demonstrates that when a model is provided, patterns of behavior are typically acquired in large segments or in their entirety rather than through a slow gradual process based on differential reinforcement.

From the above we can see that what motivates consumers to buy goods and services is imitation and learning in conjunction with the environment. On this point Hayek⁵⁷ was very explicit by arguing that:

Very few needs are "absolute" in the sense that they are independent of social environment or of the examples of others, and that their satisfaction is an indispensable condition for the preservation of the individual or of the species. Most needs which make us act are needs for things, which only civilization teaches us exist at all, and these things are wanted by us because they produce feelings or emotions which we would not know if it were not for our cultural inheritance.

Duesenberry's theory of consumer behavior placed great significance on what we said earlier. Accordingly, the individual consumption functions are interrelated and not independent. This interrelationship which Duesenberry⁵⁸ called the "demonstration effect," originates from the desire for "social emulation by means of conspicuous consumption." As Makin⁵⁹ described it: ". . . households watch what other 'similar' households are buying and try to 'keep up with the Jones'."

Duesenberry's Relative Income Theory has been suggested as a resolution of the paradox:⁶⁰

. . . the relationship of income and consumption seems to be quite different when one looks at historical data on national income and consumption (time series data), and if one looks at households budgets at any one point of time (cross section data). The latter show very clearly that the higher a household's income, the smaller the proportion of income it consumes, and thus seems to confirm the absolute income theory. But time series data tell a very different story: the great increase in income since 1870 has not been accompanied by a decline in the proportion of income consumed.

Relative income theory suggests that the consumption of a household depends not on its absolute income but on its relative income, relative to the income of other households and relative to its own previous income. Duesenberry explained why other households influence the consumption of any specific household in terms "reminiscent of Veblen's notion of conspicuous consumption."⁶¹ As to the second aspect of relativity, it is easy to understand that once

consumption patterns are established it becomes difficult and time demanding to change them following changes in income (both upward and downward).

Using symbols to depict the utility function according to Duesenberry's theory, we have:⁶²

$$U = U \left(\frac{C_O}{R_O}, \dots, \frac{C_t}{R_t}, \dots, \frac{C_T}{R_T} \right)$$

where R's are a weighted average of the rest of the population's consumption. This says that utility increases only if the individual's consumption rises relative to the average."

In the above function, the consumer's utility increases only if the consumption of a good or service ($C_O, \dots, C_t, \dots, C_T$) increases while simultaneously the consumption of the same good or service by other consumers ($R_O, \dots, R_t, \dots, R_T$) stays unchanged, decreases or increases at a slower rate. The result will be the same if the C's stay unchanged and the R's decrease or if the C's decrease but the R's decrease faster. If the above changes happen, then the fractions $C_O/R_O, \dots, C_t/R_t, \dots, C_T/R_T$ increase. In other words, the fact that a product is demanded and consumed by many people and in big quantities (if R_O increases) will create two alternatives for the specific consumer, who tries to maximize his utility. Either he has to increase the consumption of C_O faster or

switch to C_t or C_T . In the next paragraph we will examine the first alternative.

The second alternative will be preferred, if by switching products, the marginal utility is positive for the same marginal cost. Assume that a segment of consumers will choose the second alternative because they perceive it as maximizing their total utility for a given level of total cost. In this case, we can say that there is a negative functional relationship between the demand for a specific good or service by a specific consumer and the demand for the same good or service by the rest of the consumers. In other words, when a product is in big demand, this is enough to discourage a market segment from buying it.

Let us examine how this alternative course of action fits in the analysis of dualism. LDCs plagued by dualism have very populous traditional sectors (ℓ_1) and modern sectors (ℓ_2) with relatively few members. When ℓ_2 observes that ℓ_1 consumes some specific product categories or brands, it will prefer switching to others. By doing so, ℓ_2 perceives its utility function as tending toward maximum.

In LDCs, domestic production of final goods and services is almost exclusively targeted towards the domestic market, because these products have no chance of competing

against similar ones produced and/or exported by developed countries. Presumably, the market segment ideal to buy these products is the ℓ_1 , low income consumers with "prema-
ture" tastes, preferences, and quality evaluations. The fact that ℓ_1 buys the domestic product mix is enough to convince ℓ_2 that it should not buy it. Instead, ℓ_2 will search for other sources of supply. Since the production of their country is inelastic due to the unavailability of the required productive resources, the only thing left is foreign markets. XCB therefore can be hypothesized as depending on the extent to which ℓ_2 wants to differentiate from ℓ_1 (or how far the difference $\ell_2 - \ell_1 = \ell$ can go). Differentiation is another way of viewing the switching of product categories or brands in order to maximize the perceived total utility. If ℓ increases XCB follows and vice versa.

The first alternative, to consume more, will be preferred if certain conditions exist. Duesenberry⁶³ described these conditions as follows: "Any individual's desire to increase his expenditures is governed by the extent to which the goods consumed by others are demonstrably superior to the ones which he consumes."

What this hypothesis states is that if R_0 , for example, increases, C_0 will also increase (from zero or some positive value) if the consumer perceives the goods

or services consumed by others (R_o) are demonstrably superior to the ones he consumes. In order to use the same symbols, C_s and R_s should be viewed as product categories. If they are viewed as specific brands, then this hypothesis becomes identical with the previously analyzed alternative (switching).

The consumer, first of all, has to be exposed to these goods and services. Exposition can take place via advertising, sales promotion, interaction with other consumers, word of mouth, travelling abroad, visiting of foreign tourists, expressed preferences by high credibility and/or visible sources, etc. These new goods and services, which if bought will eventually change the consumption patterns of the consumer, can be new articles satisfying either old needs and wants or new ones. The newly established consumption patterns, generally speaking, widen the horizon of alternative sources of utility and they increase the experience of consumers by providing answers to previously unanswered or unrecognized problems.

Exposition still is not enough. The goods and services must also be demonstrably superior to the old ones. In perceiving new goods and services, the consumer goes through a routinized process of evaluating them. As Reynold⁶⁴ put it:

It is the mental construct developed by the consumer on the basis of a few selected impressions among the

flood of total impressions; it comes into being through a creative process in which these selected impressions are elaborated, embellished and ordered.

From the many impressions a new good or service can create, the consumer processes a few and bases his evaluation on the results of this process. This selective emphasis on a few of the goods or service attributes reflects the personal points of attention but also the inability for a global and more objective evaluation (multiattribute evaluation needs time and effort and most consumers are forced to economize in both of them).

Products have both functional (relatively easier to measure) and symbolic (relatively more difficult to measure because they fluctuate from consumer to consumer) values. The specific consumer selects a combination of functional and symbolic values and makes his evaluation and purchase decision. It might be argued that the consumer's income is the constraint to his spending plans. Income is indeed a significant factor but it should not be treated as a deterministic one. As Friedman⁶⁵ pointed out:

Obviously, income is always a constraint to consumption, but, in itself, it is not sufficient to explain consumption decisions. Two other factors are involved--the potential consumer must want the new items enough to be interested in purchasing them, he must aspire to buy; and he must feel it is a good time to buy.

If a consumer believes that the purchase of a specific product will increase his utility he will try to

increase his income, borrow money, elicit a gift, liquidate assets, minimize his savings, etc., if his present income/consumption relationship does not allow the purchase of his "idealized" product.

For the vast majority of consumers there is a positive relationship between quality and price. When product X has a higher price tag than its substitute Y, *ceteris paribus*, the average consumer perceives X as being of better quality than Y. This positive relationship can be hypothesized as being a continuous and monotonic function. In LDCs, imported final consumption goods are usually more expensive than their domestically produced substitutes. They are more expensive because the transportation, insurance, tariffs, taxes, duties, marketing related costs in the consuming country and the very high net profit margins for the importer should be added in the price charged by the exporter (FOB price). Regardless of the scalar economies and advanced technology, it is unrealistic to assume that a product exported from a developed country and overburdened with a big array of various costs and expenses will sell for less than a substitute produced in the importing LDC. The few exceptions, involving "dumping" cases, do not change the rule.

This "excellent" image of imported goods is further enhanced by other factors: (1) the association of high

credibility/high visibility celebrities with foreign products (for example movie stars of LDCs dress almost exclusively with high fashion, ultramodern clothes from Western Europe), (2) effective advertising and sales promotion (usually done in collaboration and with the technical assistance of the exporting company), (3) other sources of exposure, and (4) the general attitude of the consuming public towards the locally produced goods and services. (LDCs lack the resources and technology to produce the right combination of price/quality, and consumers living in "lethargy" react when they are exposed to alternative solutions.)

Since income is not so important, both ℓ_1 and ℓ_2 sectors can switch to superior (imported) goods if they are exposed to them. XCB therefore can be hypothesized as depending on the extent and intensity with which ℓ_1 and ℓ_2 are exposed to alternative goods and services imported from abroad and the perceived quality differential between foreign and domestic substitutes. More exposure and a bigger quality differential, other things being equal, will result in increased levels of XCB. With the rapid advancement of communication and transportation networks, with the slow but steady increase in the educational level of the average consumer, with the opening of national economies as a result of their global economic involvement and multilateral agreements, exposure becomes more extensive and intensive. In

regard to quality differentials, we observe that LDCs are desperately slow in upgrading the quality of their products. The best evidence for this is the inability of LDCs to substantially increase the exports of their manufacturing products. This export inelasticity can be mainly attributed to the prevailing economic condition of LDCs. Producers enjoy high levels of productive capacity utilization, high profit margins, low taxation, weak competition and ample governmental support. Producers "feel" the marvelous results of a sellers' market. Their target markets are composed of local consumers who are unable to evaluate (due to low levels of exposure, education, motivation, aspiration, etc.). Producers have no strong incentive to modernize unless they feel the painful consequences of international competition. And even then it is doubtful that they will prepare for the market battle. Chances are that they will blackmail the government for assistance (e.g., taxes, financial) or protection (e.g., quotas, tariffs), they will merge-collude-make monopolies for passive resistance, they will sell their companies to foreign interests or simply go bankrupt.

Nurkse expanded the consumer behavior theory of Duesenberry by incorporating the international dimension. The frame of reference now is not what happens inside one country in isolation from the rest (the dynamics of ℓ_1 and

ℓ_2) but in the whole world (d_1 and d_2 are included). Nurkse described the new synthesis of forces shaping the behavior of consumers in LDCs as follows:⁶⁶

The intensity of attraction exercised by the consumption standards of the economically advanced countries--the demonstration effect on the international plane--is determined by two factors. One is the size of the disparities in real income and consumption levels. The other is the extent of people's awareness of them.

Exposure or awareness still remains one of the determining factors. The other factor is the real income differential (consumption as dependent on real income) between a developed country and a LDC. In terms of sectors, using again the dualism related terminology, Nurkse makes it clear that both ℓ_1 and ℓ_2 are subject to the international demonstration effect. He writes:⁶⁷

The attraction of consumption standards of the advanced countries may exert itself unevenly in different income groups in underdeveloped areas. It may be concentrated among the upper income group, in the cities; but it need not be confined to them by any means. It may be diffused, though faintly, even among the lower income groups, thanks to education and mass media of communication.

As a result of this widespread attraction of advanced standards of living, both ℓ_1 and ℓ_2 try to be modelled after d_1 and/or d_2 . Obviously ℓ_2 by virtue of its income superiority over ℓ_1 will be more successful in imitating d_1 and/or d_2 .

Nurkse saw the results of the international demonstration effect as affecting the average and marginal propensity to save⁶⁸ and eventually the capital accumulation

which is badly needed for economic development. He also admitted that "the strength of the demonstration effect varies a great deal as between countries,"⁶⁹ and these countries need not be only less developed because "even within the group of high-income countries the demonstration factor may be operative: it probably affects Western Europe in relation to the United States."⁷⁰ Finally he defended the various measures taken by LDCs against the importation of final consumption goods because "what is more important [is] to offset the deleterious effect of foreign consumption patterns upon domestic capital formation."⁷¹

Along with Nurkse, Prebisch⁷² also recognized that consumers in LDCs are attracted by the consumption patterns of the developed countries. Johnson, on the other hand, referring to Duesenberry's relative income hypothesis, wrote that:⁷³

. . . [it] has been suggested as an explanation of balance of payments problems in underdeveloped countries. They try to live up to consumption patterns in the developed world but do not have the resources to maintain the desired standards.

XCB therefore can be hypothesized as depending on the differences between d_1 , d_2 and ℓ_1 , ℓ_2 , respectively, and on how many consumers in ℓ_1 and ℓ_2 know these differences. As these differences increase and as more and more people living in LDCs realize how low their standards of living are, XCB will increase. Recent historical experience

teaches us that post World War II global efforts for economic development were not a total failure. Despite the demographic explosion and the extremely unfavorable conditions, LDCs achieved relatively satisfactory growth rates. According to the most recent available data,⁷⁴ during the period 1960-1977, the industrialized countries (per capita GNP from U.S. \$2,880 to \$9,970) had a 3.4% average annual growth of GNP per capita, measured in U.S. dollars. This compares to 3.6% for middle income countries (per capita GNP from U.S. \$320 to \$3,190) and only 1.4% for low income countries (per capita GNP from U.S. \$80 to \$300). Based on these data, we can say that middle income countries made a further step in closing the gap which separates them from the materially privileged ones. This success increased the aspirations of the people living in these countries. It was not only the tangible economic results that contributed to those increased aspirations, but mainly the propaganda done by their governments. We should not forget that true democracy is unknown in LDCs. Dictatorships of every type are the norm. These regimes, in order to solidify their power, use every possible occasion to propagandize. Major and minor economic events are not exceptions. The preparation of economic plans, the inauguration of a big project, the discovery of natural resources are examples of events where propaganda exploits them. Exaggeration or lies are very common. The silent majority of people believe

that their government is telling the truth. Few who can understand better know the reality. This propaganda, in one respect, is extremely helpful. It helps in eliminating centuries old and deep-rooted fatalism, it gives hopes, it promises change and betterment. It increases the aspirations of the people. Katona⁷⁵ gave the following basic hypotheses about aspirations:

1. Aspirations are not static; they are not established once for all times.
2. Aspirations tend to grow with achievements and decline with failures.
3. Aspirations are influenced by the performance of other members of the group to which a person belongs and by that of reference groups.

So, aspirations continuously increase as long as the government admits that the economic situation is good and is becoming better. Aspirations increase as long as people see other people ameliorating their standards of living. For ℓ_1 the reference group is ℓ_2 and for ℓ_2 it is the d_1 and/or d_2 . These inherent aspirations dynamically created by environmental forces are being reinforced by the emergence of reference groups and the motivation for group identity. This process leads eventually to new forms of consumption patterns or, generally, life styles. As Zaleznik and Moment⁷⁶ put it:

The experiences of individuals in and through a culture determine member behavior in groups. At the same time, groups create new forms of behavior that over time result in cultural change.

In the process of economic development, cultural change is considered a sine qua non. The only problem is the timing of occurrence. If cultural change fueled by over-spending surpasses the ability of a national economy to meet the expectations of its consumers, then the process of economic development will be retarded and in some cases, perhaps extreme, totally jeopardized. Rather, aspirations should increase in balance with the rhythm of GNP increases. If they do so, they contribute to economic development, because aspirations are reflected in the consumption pattern and generally in the life styles and "changes in the structure of final demand are likely to assume an important role."⁷⁷ These changes in the consumption patterns as a result of income increases are inevitable because the demand for various categories of products and/or brands changes at different rates. Extensive empirical evidence^{78,79} shows the variations in income elasticity of demand across a large number of products (primary and industrial).

2.2.2. A Microeconomic View

In an article published in 1950, Leibenstein synthesized some new directions for explaining consumer behavior. All these directions have a common characteristic. They emphasize the importance of interdependency of the individual utility functions, a thesis parallel to Duesenberry's. This interdependency is described as follows:⁸⁰

. . . the utility derived from the commodity is enhanced or decreased owing to the fact that others are purchasing and consuming the same commodity, or owing to the fact that the commodity bears a higher rather than a lower price tag . . .

Liebenstein classified⁸¹ demand, according to motivation, into two categories: functional and nonfunctional. Functional is where the consumer demands the good or service because of its qualities. Nonfunctional is where demand is due to factors other than quality. These factors include the bandwagon, snob and Veblen effects as well as speculation and irrationality.

The bandwagon effect was described as follows:⁸²

. . . the extent to which the demand for a commodity is increased due to the fact that others are also consuming the same commodity. It represents the desire of people to purchase a commodity in order to get into "the swing of things"; in order to conform with the people they wish to be associated with; in order to be fashionable or stylish; or, in order to appear to be "one of the boys."

Using the same symbols as before, ℓ_2 will imitate d_1 and/or d_2 (international dimension), and perhaps ℓ_1 will imitate ℓ_2 (national dimension). This last imitation depends on the degree of dualism. The greater it is, the weaker the drive for imitation and vice versa.

The snob effect, on the other hand, refers to:⁸³

. . . the extent to which the demand for a consumers' good is decreased owing to the fact that others are also consuming the same commodity (or that others are increasing their consumption of that commodity). This represents the desire of people to be exclusive; to be different; to disassociate themselves from the "common herd."

The snob effect will direct ℓ_2 to avoid the purchase of certain commodities because ℓ_1 prefers them (national dimension) and perhaps because d_1 also prefers them (international dimension). This last course of behavior depends on who is the reference group for ℓ_2 . If it is d_2 , then ℓ_2 will avoid the commodities bought by d_1 .

Finally, the Veblen effect refers:⁸⁴

. . . to the phenomenon of conspicuous consumption; to the extent to which the demand for a consumers' good is increased because it bears a higher rather than a lower price.

The Veblen effect presumably will affect both ℓ_1 and ℓ_2 (the former to a lesser extent).

Combining the bandwagon, snob and Veblen effects, we can hypothesize that XCB depends on (1) the extent to which ℓ_2 has as a reference group d_2 and/or d_1 , (2) the extent to which ℓ_1 has as a reference group the ℓ_2 (bandwagon, snob), and (3) on the price differential between a domestic and a foreign substitute. If the reference group for ℓ_2 is d_2 and for ℓ_1 , ℓ_2 , and the price differential is big, XCB reaches its peak value.

2.3 Marketing Related Literature

The purpose of this section is to describe a series of marketing research works related to the topic of this dissertation. It is not coincidental that this research was done during a set of years when there were major changes

in the global economic environment. Therefore, in order to have a better understanding of this research, including the reasons that necessitated it as well as the significance of its findings, it is desirable to briefly discuss these changes and the outcomes they elicited in the sphere of marketing.

2.3.1 Internationalization of Markets

The driving force behind the appearance and subsequent expansion of a new "family" of research projects, articles and books was the tremendous growth of international business. The decades of the 1960's, and to a lesser extent the 1970's, experienced unprecedented peacetime growth rates of merchandise trade and movement of capital. Regardless of its level of economic development, as measured by the per capita GNP, every country participated in the internationalization of markets. This massive participation can be viewed as a powerful drive to the division of labor on a global basis. Open economies, division of labor, specialization by country and comparative advantage are all terms synonymous with lucrative opportunities for profits, and marketers did not hesitate to exploit them. Table 3 gives the growth rates, in median values by groups of countries, which represent the new *modus operandi* for international marketers. In terms of absolute figures, the total value

TABLE 3

GROWTH OF MERCHANDISE TRADE

	Average Annual Growth Rates (%) [*]			
	Exports		Imports	
	1960-70	1970-77	1960-70	1970-77
Low Income Countries ^a	5.0	-1.7	5.0	2.3
Middle Income Countries ^b	5.4	5.1	7.1	5.9
Industrialized Countries ^c	8.7	6.2	9.4	4.7

^{*}In median values.

^a37 countries with per capita GNP in 1977 from \$80 to \$300.

^b55 countries with per capita GNP in 1977 from \$320 to \$3,190.

^c18 countries with per capita GNP in 1977 from \$2,880 to \$9,970.

Source: The World Bank, World Development Report, 1979, pp. 140-41 and 126-27.

of world trade reached \$343 billion in 1971, a figure more than double the corresponding one of 1961. By 1974 it was \$848 billion.⁸⁵

This expansion of merchandise trade was paralleled by the internationalization of corporations. This globalization is best reflected by the number of affiliates controlled by U.S. and non-U.S. multinationals as well as their sales. In 1969 the number of foreign affiliates controlled by U.S. multinationals was over 4,000 versus less than 2,000 in 1959.⁸⁶ In 1970, the total global sales of U.S. multinationals (controlling 5,490 affiliates) was \$65.3 billion compared to \$82.5 billion sales of non-U.S. multinationals (controlling 5,640 affiliates).⁸⁷

2.3.2. New Approaches to the Study of Marketing

Since the central distinguishing characteristic of international business is the involvement of two or more nations,⁸⁸ it becomes apparent that for managerial decision making as well as for theory building there is a need to find, isolate and carefully examine relevant variables and/or to assign different "weights" to known variables.

Although managerial consideration prevailed, the need to develop marketing theory should not be underestimated. It was the youth of marketing and its drive towards scientification that motivated marketing scholars in theory

development. And since among the essential quality of theories are their generality and resolution of differences,⁸⁹ the introduction of new approaches in studying marketing related phenomena became indispensable. The old ones such as the commodity, functional and managerial approaches were not the most appropriate to simultaneously integrate and expand knowledge. It was because of the above described conditions that the environmental and comparative approaches emerged.

2.3.2.1 Environmental

Essentially, environmentalism recognizes that producing and consuming units do not live and operate in a vacuum. The environment, with all its dimensions, is the domain of activity. Terpstra⁹⁰ gave the following composition of grouped forces that shape this environment:

Economic (employment, income, GNP, foreign exchange risk, etc.)

Physical (population, climate, natural resources, geography, ecological systems, etc.)

Cultural (language, religion, values, attitudes, education, social organization, technology, material culture, politics, and law)

The environmental approach was introduced to marketing by scholars such as Holloway and Hancock^{91,92} and Scott and Marks.⁹³ Referring to this approach, Bartels gave the following description:⁹⁴

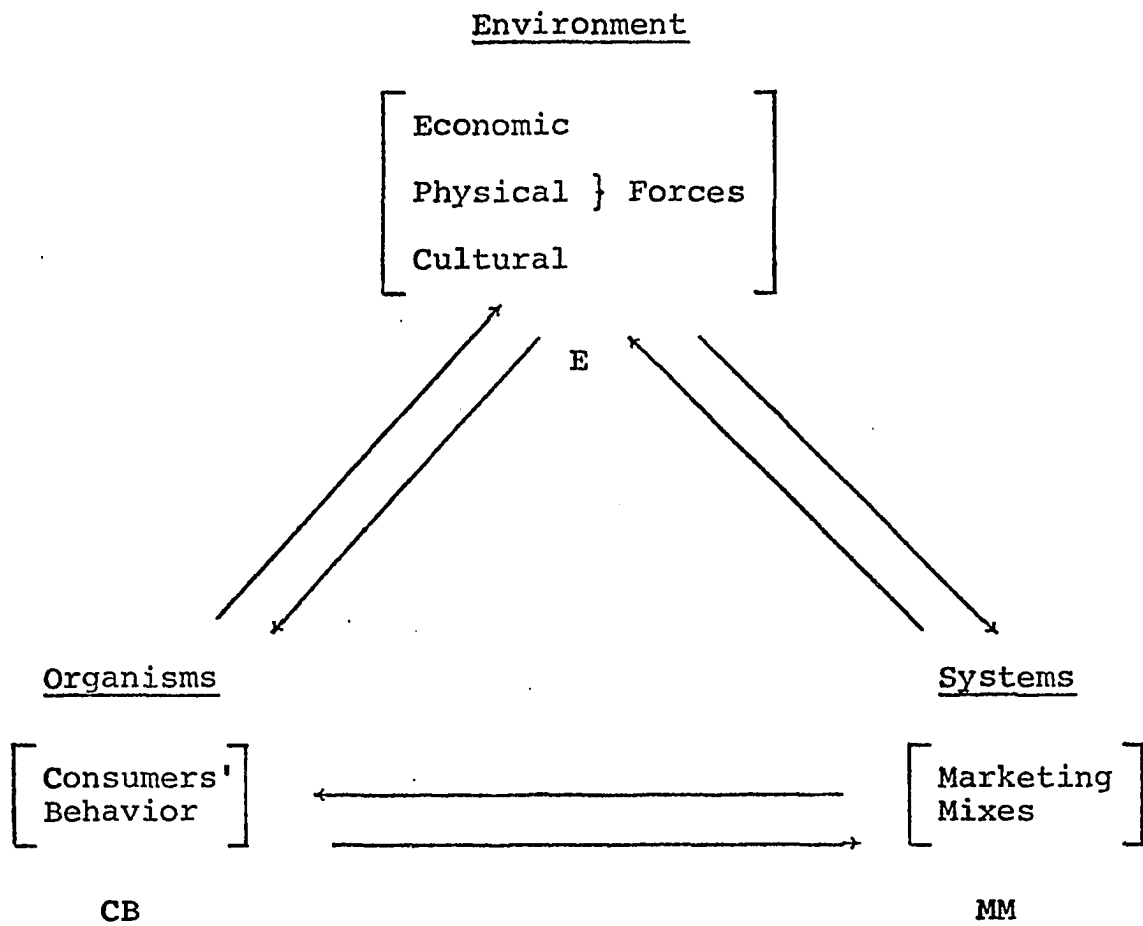
Environmentalism generally refers to the influence of environment upon the development of systems or organisms, and in Marketing it is understood particularly to refer to the relationship between environment and the practice and development of marketing.

Using Bartel's terminology, we can view as systems the producing legal entities and as organisms the consumers. A producer's set of responses to environmental forces is encompassed in its marketing mixes (consisting of product, distribution, promotion and price mix). The marketing mix is the best indicator of the prevailing strategic, tactical and operational direction of a producing unit. It reflects what management perceives as the most appropriate course of action given the environmental parameters. Consumers' set of responses on the other hand are usually referred to as consumer behavior. In broad terms what they buy, their tastes, preferences, from where they buy, when they buy, etc., are all aspects of the behavior of consumers responding to environmental stimuli.

Combining Terpstra's and Bartel's descriptions we can immediately see that both stimuli and responses are two sides of the same coin. Organisms and systems are parts of the environment, and therefore the existing interrelationship becomes mutual interdependence. Figure 1 describes this interdependency.

In this figure, the two way arrows represent the interdependency between E, CB and MM. Having identified

Figure 1. Interrelationship between Environment, Organisms and Systems



this interdependency let us examine in which situations it is strong or weak. To do this we can use the conceptual model suggested by Kotler⁹⁵ and developed by Hunt.⁹⁶ According to this model, all marketing related phenomena, issues, problems, theories, etc., can be categorized using the three dichotomies of (1) profit sector/nonprofit sector, (2) micro/macro and (3) positive/normative.

Let: i = individual or household living in country X

n = the number of individuals or households in country X

f = firm (producing, distributing, etc., operating for profit in country X

m = number of firms in country X

g = firm (producing, distributing, etc.) operating not for profit in country X

r = number of not for profit firms

ms = a market segment of country X

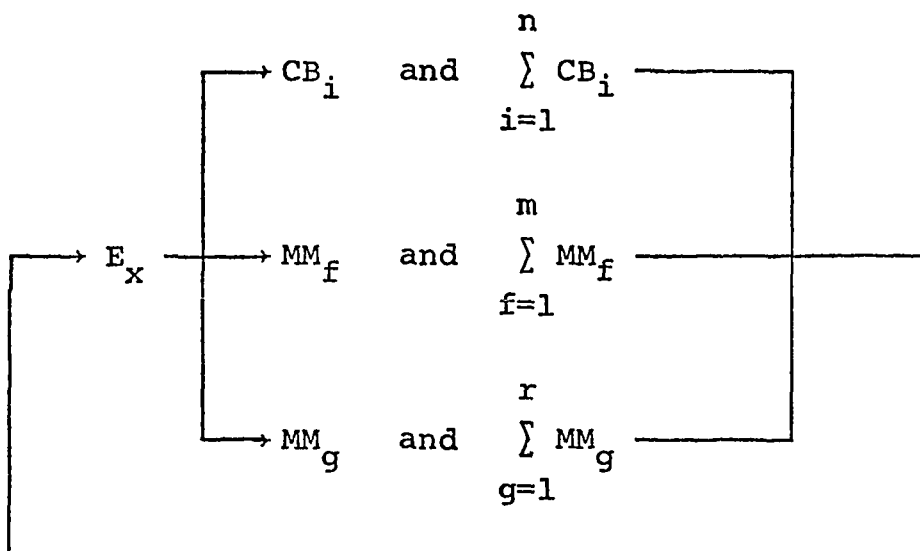
s = an industry or a sector of the economy of country X

E_x = environment of country X

If i is an average consumer/household and f and g small firms, we can hypothesize that E_x influences them and i , f and g taken individually (low levels of aggregation) cannot influence E_x . On the contrary, if all consumers/households and firms (f , g) are taken together (high levels

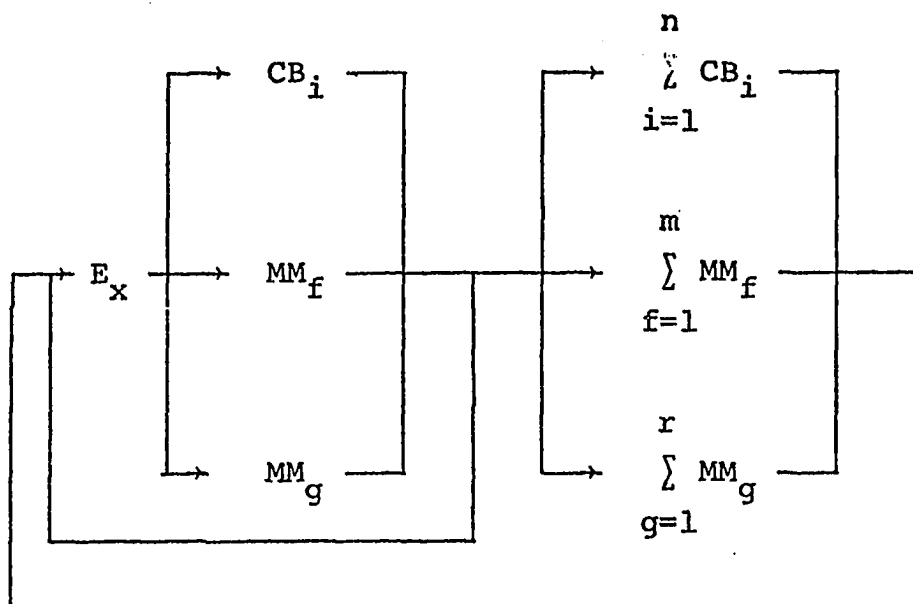
of aggregation) then the influence becomes two way and in this case we can refer to interdependency. This relationship is depicted in Figure 2.

Figure 2. Interrelationship between E_x , CB and MM in low and high levels of aggregation



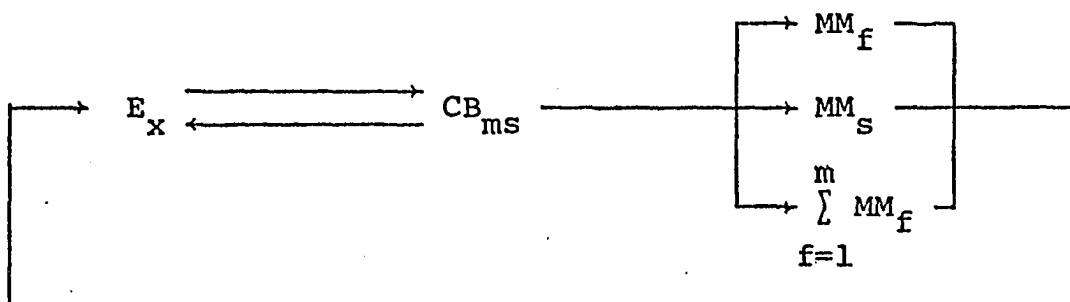
In cases where i is a highly visible and/or credible consumer, we can expect a noticeable impact on E_x . For example some movie stars set a trend in fashion, hairdressing, etc. In LDCs, the fact that person A wears a particular brand of shirts is enough to trigger emulation if A is a recognized personality. The same can be expected if f or g are very innovative firms. Their MM can have some impact on E_x (e.g., instant camera, disposable razor). Figure 3 refers to this interrelationship.

Figure 3. Interrelationship between E_x , CB and MM in special cases where i , f , and g can have some impact on E_x



In medium levels of aggregation we can hypothesize that there is a two way influence, interdependence. Going back to dualism, we can view ℓ_1 and ℓ_2 as two market segments striving for homogeneity (Duesenberry) and heterogeneity (Boeke). Figure 4 reflects this interrelationship.

Figure 4. Interrelationship between E_x , CB and MM in medium levels of aggregation



In this research, the environmental approach will be used as the basic one. One of the strengths of this approach is its ability to tackle inquiry problems at any level of aggregation. The three levels mentioned earlier are the following:

a. Low (micro)

$$CB_i$$

$$MM_f$$

$$MM_g$$

b. Medium (segments, industries, sectors)

$$CB_{ms}$$

$$MM_s$$

c. High (macro, national, domestic)

$$\sum_{i=1}^n CB_i \quad (\text{equivalent to national demand pattern, national expenditure, aggregate consumption-investment pattern})$$

$$\sum_{f=1}^m MM_f \quad (\text{equivalent to the product of the private sector})$$

$$\sum_{g=1}^r MM_g \quad (\text{equivalent to the product of the public sector})$$

$$\sum_{f=1}^m MM_f + \sum_{g=1}^r MM_g \quad (\text{equivalent to gross domestic product})$$

2.3.2.2 Comparative

The 1957 National Conference of the American Marketing Association was devoted to comparative marketing.⁹⁷

Since then, a number of studies have appeared ranging from single country studies to multicountry comparisons. They have included descriptive studies as well as analytical ones.

In defining comparative marketing, Carson⁹⁸ wrote: "Comparative Marketing involves the study of marketing systems, operations and practices in various parts of the world."

Terpstra, on the other hand, defined comparative marketing emphasizing more the analytical element and less the descriptive task. Comparative marketing is:⁹⁹ ". . . the organized study of marketing systems in many countries--the similarities, differences, and reasons therefore."

So, in order to operationalize the comparative approach (Terpstra's version) we need at least two countries. Then we proceed with the following steps:

- a. Describe the marketing structure (MS) in country X (MS_X) and country Y (MS_Y).
- b. Find similarities and differences of MS_X and MS_Y .
- c. Explain these similarities and differences.
- d. Draw conclusions about trends, phenomena, problems, issues, etc.
- e. Enrich Marketing Theory by conceptualizing the findings.

Which are the preconditions for the successful application of the comparative approach? Comparison, which follows the evaluation, is a difficult task requiring the possession of penetrating talent. This task becomes progressively difficult when the number of MS_s increases. And there is an obvious need to increase this number in order to make generalizations. How for example can you draw valid conclusions about the existing interrelationship between the role of merchant wholesalers in marketing channels and the degree of industrialization, if your study involves two or three countries? But as the number of MS_s increases, setps a. and c., in particular, become very difficult. It is at this specific point where the previously described environmental approach intervenes and joins the comparative. The utilization of the environmental approach as a vehicle in describing, and most important, in explaining various MS_s , is inescapable. Based on what we said in the previous paragraph, we have the following interrelationships:

$$E_x \longrightarrow MS_x \quad \text{where } E_x = \text{environment of country } X$$

$$E_y \longrightarrow MS_y$$

$$E_z \longrightarrow MS_z$$

and since in most of the cases, if not all,

$$MS_x \neq MS_y \neq MS_z$$

it is likely that

$$E_X \neq E_Y \neq E_Z$$

It is because of this last inequality that the dilemma between standardization and adaptation has not been settled and tends to dominate most of the time of scholars involved in international marketing. In defining these two diametrically different corporate strategies, Buzzell,¹⁰⁰ who started the academic debate on this issue, wrote the following:

Standardization of marketing activities refers to the development of a common strategy for a particular product on a national, regional or worldwide basis, while marketing adaptation refers to policy and practice changes made by a firm in response to local differences.

A number of articles, primarily using empirical data, appeared in the literature. Scholars like Aylmer,¹⁰¹ Terpstra,¹⁰² Boddewyn and Hansen,¹⁰³ Moyer,¹⁰⁴ Sorenson and Wiechmann,¹⁰⁵ Keegan,¹⁰⁶ Britt,¹⁰⁷ Sethi and Holton,¹⁰⁸ and Wind and Douglas,¹⁰⁹ wrote about the standardization versus adaptation dilemma.

In summing up the above mentioned research, we can conclude the following:

- a. The consensus is that various corporate activities can be the object of standardization or adaptation.

- b. All these activities are included in the marketing mixes of the firms (e.g., target markets, product, packaging, distribution channels, physical distribution, advertising media, advertising message, pricing).
- c. Several models, ranging from simple ones (involving few variables) to relatively more complex (with more variables) have been suggested as aiding the decision making process of managers.
- d. The empirical studies basically used European subsidiaries of U.S. multinationals. Given the equalities and similarities which exist among the Western industrialized countries, any generalizations referring to global, rather than to regional scales, can be misleading.
- e. An attempt was made to develop a typology to include most of the world countries. This clustering is more indicative than definitive, because the environmental variables which were used as the decisive factors have varying degrees of importance to the marketing mix elements of a specific firm.
- f. Any generalization should be avoided. The dilemma, standardize-adapt, can be answered only by separate cost/benefit analyses referring to the specific elements of the marketing mix of

the specific firm expanding to a number of specific countries. This should happen because there is no systematic, coherent, integrated framework with universal applicability.

The above conclusions underscore the importance of the comparative approach as a vehicle which, with the assistance of the environmental approach, can lead to a satisfactory settlement of the debate between standardization and adaptation. But they also remind us either of the "immaturity" or the inherent difficulties in using this approach. From the existing literature we can separate two different groups of articles-books. In the first group, the comparative approach is, more or less, "confused" with the environmental one. The task of the researcher who belongs to this group is to examine carefully and in breadth the marketing in one country. This group perceives comparative marketing exactly the way Bartels¹¹⁰ noted: ". . . the term comparative marketing has become associated with any type of study made of marketing outside the United States."

Representative work of this group is the research done by Anderson,¹¹¹ Greer,¹¹² Goldman,¹¹³ Mallen,¹¹⁴ Neelamegham,¹¹⁵ Saddik,¹¹⁶ Wilhelms and Boeck¹¹⁷ and Yoshino.¹¹⁸ The contribution of these researchers lies in their scientific publication of what is going on inside these countries in terms of marketing and why. It remains

up to the reader of these works to compare the MS_X and MS_Y , etc., and to derive conclusions.

In the second group of articles and books the comparative task is pronounced. The researcher selects two or more countries and examines carefully and in depth one or more elements of their MS_s . The trade-off between the first and the second group is obvious, breadth versus depth. It was this second group that best portrays the usefulness and applicability of the comparative approach. Representative work of this group is the research done by Bartels,¹¹⁹ on wholesaling in fifteen countries (although this work does not integrate conclusions), Douglas and Urban,¹²⁰ on life styles, Goodhardt and Ehrenberg,¹²¹ on repeat buying habits, Green and Langeard,¹²² on consumer habits and innovator characteristics, and Wadinambiaratchi,¹²³ on channels of distribution.

Having described these two groups, we can go back and attempt to answer the question: How can the comparative approach be successful in capturing the accurate dynamics of the real world? The following table can sum up and synthesize the pluses and the minuses of one country versus multi-country comparative approach.

By breadth is meant the variety of marketing related phenomena, activities, institutions, functions, etc., which are being studied. When the number of countries

TABLE 4

ADVANTAGES AND DISADVANTAGES OF THE TWO VERSIONS OF THE COMPARATIVE APPROACH

Attribute	Version One	Version Two	
	One Country	Two Countries	More than two Countries
1. Breadth	High-Very high	Low-Very low	Very low
2. Elements of MS studied	Many-All	Few-Very few	Very few
3. Depth	Low-Medium	High-Very high	High-Medium
4. Importance in assessing E	Very high	Medium-Low	Very low
5. Need for familiarity with E	Very high	Low	Very low
6. Generalizability of findings	Very low	Low	Very high
7. Need for further research	Very high	High	Very low
8. Source of data	Secondary	Secondary-Primary	Primary

increases, breadth decreases because of the research constraints (time, effort, ability, etc.). By elements of MS we refer to the specific number of the elements (consumers, producers-manufacturers, middlemen-government and other environmental factors) of the marketing system which are being studied. Attributes 1 and 2 are similar and the only difference is that in 2 marketing is viewed as a system with the elements and the structure. Depth refers to the detail with which the study is done. More information, more data, more interrelationships, analyses, synthesis, explanation, etc., leads to more depth. Depth and breadth are complementary for the same reason as 1 and 2; i.e., research constraints.

Attribute 4 addresses the role of environment as an integral part of the study. The importance of assessing E parallels the breadth element. The more phenomena, etc., we study, the more we realize that the common denominator (E) is intervening across all of them and therefore can contribute to a more complete explanation and description. The more important the assessment of E, the greater the need for familiarity with E. By familiarity we mean the extent to which a researcher feels confident that he knows enough and the data are accurate on the E. This feeling does not come unless much study was involved. Attributes 6 and 7 refer to the well-known problems of sampling. Finally,

attribute 8 refers to the sources of data usually used. As the breadth increases, we shift from primary to secondary due to research constraints.

The above table is indicative and the attributes are expressed in relative terms. It was based on the past research using the comparative approach.

The present study follows version one of the comparative approach. The strengths and the weaknesses, therefore, need not be repeated, they are tabulated and explained.

2.3.3 Foreign Products and Consumers

A small number of studies using both the environmental and comparative approaches has been done in the field of consumer behavior. More specifically they measure and explain consumers' perceptions and attitudes towards foreign made products. These studies include those by Schooler, Reiersen, Gaedeke, Nagashima, Dornoff, Etzel, Walker, Lillis, Narayana, Darling, Anderson, Cunningham, Bon, Ollivier, White, Cundiff, Yaprak and Wang.

2.3.3.1 Schooler: Preconceived Images

Schooler along with Reiersen are considered the pioneers in this area of study. Schooler wrote his doctoral dissertation in international consumer behavior. A very short summary of his work appeared in 1965 as an article.¹²⁴ Schooler undertook research to "test primarily for precon-

ceived images of products on the basis of national origin and secondarily to determine if attitudes toward national sectors or travel experience are key variables in existing preconceptions."

Methodology

Test countries: Central American Common Market members (Guatemala, El Salvador, Costa Rica) and Mexico for control purposes

Test products: Juice and fabric

Respondents: 200 students of a Guatemalan University

Experiment: a. The students were randomized into 4 groups of 50. Each one received the two products which were identical in all respects except the name of the country appearing on the label (made-in). A semantic differential was used to measure attitudes.

b. Respondents were also asked to rate the country of product origin as "better than average in Central America" or "worse than the average in Central America" in terms of (1) Government; (2) Business structure; (3) Labor organizations; and (4) People. Each one also indicated if he had travelled to the country of product origin.

Findings: "Significant differences in the evaluation of products identical in all respects except the name of the country appearing on the label were found . . . the attitude toward people of a given country is a factor in existing preconceptions regarding the products of that country."¹²⁵

Schooler termed this type of product bias the "informal" or "invisible" barrier. Along with tariffs, quotas and other more tangible measures, they hinder the expansion of international trade.

2.3.3.2 Schooler and Wildt: Elasticity of Product Bias

In a subsequent study, Schooler and Wildt,¹²⁶ repeated a modified and expanded version of the Guatemalan experiment. Having found in the early study that consumers have preconceived images of foreign products, the question became "to measure for a single product the effect on the selection decision of the interaction between product bias and price differential, thereby establishing the concept and measure of the elasticity of product bias."

Methodology

Test countries: U.S.A. and Japan

Test products: Piece of glassware

Respondents: 236 students at the University of Missouri

- Experiment:**
- a. The students were randomized into 6 groups. Each group received two identical pieces of glassware, one labeled "made-in Japan" and the other "made-in U.S.A." At this point students examined the products and evaluated them on a comparative, equal interval, ordinal scale questionnaire.
 - b. After the first part was completed, prices were given to the products. The U.S. made was always \$4.00 but the Japanese made was \$4.00, \$3.50, \$3.00, \$2.50, \$2.00 and \$1.00, depending on the group. With these different pairs of prices, respondents were asked to indicate a purchase preference.

Findings: "Many American consumers are biased against foreign products because of their national origin. . . . For most consumers the effect of bias on the selection decision between similar, alternative domestic and foreign goods can be offset with price concessions of varying amounts."¹²⁷

2.3.3.3 Reiersen: Stereotyping Attitudes

Reiersen's research¹²⁸ came to solidfy the findings of Schooler. Although not exactly along similar lines,

Reiersen's task was to find the respondents' opinions about the products of a group of countries and how these opinions differ. He also used three levels of product aggregation, one specific product, a class of products and a country's products in general.

Methodology

Test countries: U.S.A., W. Germany, Japan, France, Canada, Italy, England, Sweden, Belgium, Denmark

Test products: a. Products in general (everything)
b. Classes of products (mechanical, food, fashion)
c. A large variety of specific products (furniture, shoes, washing machines, T.V., refrigerators, radios, drinks, candies, cheese, suits, chinaware, sweaters, automobiles, cameras, spaghetti, rice, office machines)

Respondents: 155 students of two Texas universities

Questions asked: Respondents were asked to rank on a three point scale (high, medium, low) the quality of the products in general, of classes of products and of specific products of the 10 countries. No product was shown.

Findings: The results "showed a statistically significant difference in the estimate of quality

of foreign products, whether products in general were considered or classes of products, or specific products."¹²⁹

These findings support the conclusion, reached also by Schooler for Central America, that consumers tended to stereotype the quality of foreign products.

2.3.3.4 Reiersen: Stereotyping Attitudes Change

Given the above described stereotyping attitude, it is of great interest to find out how strong these attitudes are. In the case of favorable attitudes, the exporting country has an obvious advantage, but if this attitude is unfavorable, is there any way to change it? To answer this question, Reiersen¹³⁰ investigated the "various forms of communication media that possibly influence the foreign product image of the American consumer." He also tested the hypothesis that "a nation's products can be made more favorable by associating these products with the names of reputable retailers in the United States."

Methodology

Test countries: Italy, Japan

Test products: Various consumer durables and nondurables

Respondents: Students at two Texas universities

Experiment: Students were exposed to the following communication media: (1) Film presentation,

(2) Magazine advertising and brochure,
 (3) Publication distribution (the publications were supplied by Italian and Japanese organizations describing the high quality of the countries' products), (4) Window display (with no retailer mentioned),
 (5) Window display at Niemann-Marcus.
 Respondents' attitudes (5 point scale) were compared to those of a control group (not exposed to any of the above media).

Findings:

"The foreign product image held by American consumers exposed to specified communication media differs significantly from the foreign product image of American consumers not exposed to these media: the image of nations' products can be made more favorable by associating these products with the names of prestige retailers in the U.S."¹³¹

2.3.3.5 Gaedeke: Attitudes Toward Products from LDCs

In the previous studies, where respondents were living in the U.S., test countries were selected from the family of developed or industrialized. Gaedeke preferred to include less developed ones. More specifically, his research¹³² tried to answer the following two questions:

"(1) What are the opinions of consumers toward the quality of products 'made-in' various developing countries? (2) To what extent are consumer attitudes toward quality of products from developing countries changed when widely known United States brand names are used?"

Methodology

Test countries: U.S.A., Philippines, Hong Kong, Argentina, Brazil, Taiwan, Mexico, S. Korea, India, Singapore, Turkey, Indonesia

Test products: a. Products in general (everything)
b. Classes of products (food, electronics, textiles)
c. A large variety of specific products (leather jackets, dress shirts, corned beef, transistor radios, toys, canned meat, tape recorder, canned mushrooms, cotton shirts, dress slacks, T.V., shoes, canned peaches)

Respondents: 200 students of Sacramento State College

Questions asked: a. A group of 100 students was asked to rank on a five point quality rating scale the quality of products in general, of classes of products and of specific products from the 12 countries.
b. A group of 100 students was asked

about the quality of widely known U.S. brand names (e.g., Zenith, Del Monte, Sears), without country of origin information.

c. Another group of 100 was asked their opinion about the same branded products as in b. but with the additional information of the country of origin.

Findings:

The results showed that "significant differences of opinions toward the quality of products from developing countries exist. This is true whether imported products in general, classes of products or specific product items are considered . . . also . . . the country of origin information does not significantly affect opinions about the quality of branded products in general."¹³³

The results of the first part of this research coincide with those of Reiersen's (2.3.3.3). On the second part, the findings are of particular importance to multinationals (sourcing strategies) as well as to mass retailers (private branding). In Reiersen's second study (2.3.3.4), it was reported that by associating foreign products with prestigious names in retailing we can enhance the quality image of these products. This enhancement becomes doubtful,

however, when we associate foreign products with well-known U.S. brands. Thus the quality image can be strengthened or weakened.

2.3.3.6 Nagashima: Japanese versus U.S. Product Images

In the previous studies, respondents belonged to one nationality. Nagashima followed initially the same path,¹³⁴ using a sample of Minnesota businessmen. At a later stage, he repeated the same study in Japan and then compared the attitudes toward foreign products of Japanese versus American.¹³⁵

Methodology

Test countries: U.S.A., Japan, W. Germany, England, France, Italy

Test products: a. Products in general
b. A large variety of specific products (durables, nondurables, capital goods)

Respondents: 70 Minnesota businessmen and 100 Tokyo businessmen

Questions asked: a. Using a seven point scale, subjects were asked to answer a large number of questions profiling the 'made-in' concept. These questions were distributed into four groups (price & value, service & engineering, advertising & reputation, design & style, consumers' profile).

b. An unaided recall question was also asked. Respondents listed brands for a series of products, which came first to their minds.

c. Finally, respondents were asked which country produces the best autos, electrical appliances, textiles, cosmetics, foods and pharmaceuticals.

Findings:

Significant differences were found in the "made-in" images of the products of the 6 countries. American and Japanese respondents both agreed that the U.S.A. produces the best automobiles and electrical appliances and England the best textiles.

In a subsequent study, Nagashima,¹³⁶ following exactly the same methodology, examined what changes, if any, have occurred in the attitudes of Japanese businessmen toward the products of the U.S.A., Japan, W. Germany, England, and France. In relation to U.S. products, it became "clear the U.S.A. image has deteriorated in many ways during the eight years 1967-1975."¹³⁷

2.3.3.7 Dornoff, et al.: Consumers' Perceptions of Imports

In 1974, Dornoff, Tankersley and White¹³⁸ repeated an expanded version of Reiersen's research. Their aim was to examine what consumers' perceptions of imports are and

how they differ, and also to include socio-economic characteristics as possible factors affecting the differences in perceptions.

Methodology

Test countries: U.S.A., France, W. Germany, all the rest of the world

Test products: a. Products in general (everything)
b. Classes of products (mechanical, food, fashion, electronic equipment)

Respondents: 216 subjects living in Cincinnati

Questions asked: a. Respondents were asked to express on a four point scale if they agreed or not with a number of statements. They were also asked to rank on a three point scale the quality of classes of products imported or produced in the U.S.A.

b. Respondents stated their sex, age, and educational level.

Findings:

-Attitudes toward goods imported varied significantly.

-No significant differences were indicated between males' and females' perceptions of imports.

-Consumers in the 30-50 age category had more negative perceptions in relation to the younger ones.

-Perceptions of imports were more favorable as the educational level increased.¹³⁹

In this study, demographic characteristics of respondents were asked for the first time, and this constitutes a major step forward. Although the authors' intention was to find a basis for market segmentation clearly defined, sex, age and education can be also theorized as independent variables affecting consumers' perceptions, opinions and attitudes toward foreign products.

2.3.3.8 Other Related Studies

A number of studies followed similar lines to those described above. Their task, basically, was either to further refine accepted knowledge or expand it. Schooler and Sunoo,¹⁴⁰ elaborating on the concept of product bias evidenced in American consumers, suggested that regional labeling (e.g., made-in Asia) is preferable to the national (e.g., made-in India) as a strategy which decreases consumers' bias on the basis of products' national origin. Two years later, Schooler¹⁴¹ questioned the findings of his previous study by inferring that neither one of them is better than the other and biases relate to sociodemographic characteristics.

In another study, Etzel and Walker¹⁴² tried to examine if the consumers' perceptions toward the products in general of a country differ from those toward the specific

products of that country. The results of their research showed (with the exception of W. German products versus W. German cars) that there are significant differences in the way consumers perceive the products in general of one foreign country and the specific products from that country.

In a 1974 study, Lillis and Narayana¹⁴³ repeated the research work of Schooler, Reiersen, Gaedeke, and most important, of Nagashima. They compared the attitudes of Japanese and U.S.A. consumers toward the products of the U.S.A., Japan, England, France and W. Germany. Their findings support those of previous studies. Significant perceptual differences do exist, regarding various product or marketing in general attributes.

In the same year, Darling¹⁴⁴ studied the attitudes of Finnish consumers toward the products of the U.S.A. and the U.S.S.R. as well as toward the various aspects of marketing practices associated with these products. As expected, these attitudes differed. Finnish consumers were more favorable toward U.S.A. made products and their accompanying marketing practices.

The first study to follow another direction was done by Anderson and Cunningham.¹⁴⁵ Instead of searching for consumers' perceptions toward imported products, they tried to identify through discriminant analysis the characteristics (demographics and selected personality attributes) of

American consumers exhibiting high preference for foreign products. According to their findings, the objective variables (demographics), which included (1) Occupation of the household head, (2) Annual family income, (3) Educational level of the household head, (4) Social class, (5) age of household head and (7) Stage in family life cycle, alone, were not successful in distinguishing between the two groups (group one: American consumers with high foreign product preference, group two: American consumers with low foreign product preference). The only exception was the demographic variable educational level of the household head. On the other hand, the personality variables, which included (1) Status concern, (2) Conservatism, (3) Attitude toward big business, and (4) Dogmatism, appeared to have some degree of success in distinguishing the two groups. The only exception was the variable attitude toward big business. Based on the above interrelationships, the authors prepared the following profiles: "The consumer displaying high foreign product preference . . . is . . . an individual of relatively low status concern, low conservatism and dogmatism, with a college degree, perhaps an advanced one. Alternatively, consumers exhibiting low foreign product preference may be characterized as relatively high in status concern, high in conservatism and dogmatism, with less than a completed college education."¹⁴⁶ These findings have profound implications for the marketing mixes of foreign

companies attempting to enter the U.S.A. market, ranging from market segmentation criteria to theme and message content of advertising.

In 1979, two French scientists¹⁴⁷ reported on how Iranians perceive the quality and efficacy of French goods. According to their findings, factors other than the quality and efficacy of the goods contribute heavily to the goods' image. The nationality of the good, the government of the good's origin and its cultural institutions contribute to this image. This image can be advantageous or detrimental to the exporter. If the second is the case, only a few industrial giants are able, with the assistance of their governments and institutions, to change consumer perceptions.

Finally, in 1977 and 1978 two studies investigated the attitudes of industrial buyers toward foreign made products. In the first study,¹⁴⁸ White examined the attitudes of U.S.A. purchasing managers toward industrial products manufactured in England, France, W. Germany, Italy and the U.S.A. According to the results of his analysis, significant differences in the attitudes were found. In the second study White and Cundiff¹⁴⁹ researched whether the product quality perceptions of industrial buyers are affected by the price of products and the country or their origin. Their analysis showed that industrial buyers' perceptions about the quality is influenced by the country of manufacture. On the other hand, for industrial buyers, higher price is not associated with higher quality.

2.3.3.9 Two Recent Studies

Of special interest are two very recent studies. Both of these studies, building upon the previous research experience on the subject, expanded the analysis by including an additional number of variables.

In the first study, Yaprak¹⁵⁰ attempted to enrich the theory of the newly developed Multinational Marketing. This attempt followed the well-established research avenues of standardization versus adaptation of marketing strategies across national markets and cross national consumer behavior.

The two basic research hypotheses to be tested were the following:

- "1. A given consuming-country's consumers' intentions to purchase a chosen source-country's products are a function of their attitudes toward that country and their evaluation of the nature and quality of products in general from that country.
2. A given consuming-country's consumers' intentions to purchase a given source-country's products are a function of their evaluation of selected specific attributes of the test products in question."¹⁵¹

Methodology

Test countries: W. Germany, Japan, Italy

Test products: Cars (VW Rabbit, Honda Civic, Fiat 128),

Cameras (Leica, Canon, Ferraria), Calculators (Royal, Canon, Olivetti)

Respondents: 158 American executives living in Atlanta, Georgia, and 202 Turkish executives living in Istanbul, Turkey

Questions asked: a. Respondents were asked to express their attitudes toward a given source country and their perceptions of the nature of products in general from that country, using a five point scale (total 24 questions).

b. Respondents were also asked to express their perceptions-attitudes toward the specific attributes of chosen source-country products using a six point scale (total 27 questions).

Findings: "In summary, it appears that both general country and specific product attributes affect purchase intentions of consumers in both consuming countries, although specific product attributes seem to be relatively stronger influences in shaping purchase intention behavior."¹⁵²

The finding that general country characteristics affect purchase intentions coincides with the one reported

in Schooler's pioneering study.¹⁵³ In the case of Schooler's study, general country characteristics included, as mentioned earlier, government, business structure, labor organization and people. In Yaprak's study, on the other hand, these characteristics were much more specific and easily understood and included such things as the education of the people, their attitudes toward work, art and creation, their friendliness toward other countries, their desire to raise the standard of living, the country's involvement in international affairs and various attributes of the country's national marketing mix (to whom the products are sold, breadth of the product mix, distribution advertising), etc.

In the second study, Wang¹⁵⁴ combined the research directions of Schooler, Dornoff, et al., and Anderson and Cunningham and came up with a very detailed design which included many variables. The purpose of this study was to measure the effects of: (a) foreign economic, political and cultural environments and (b) consumers' socio-demographics, on their willingness to buy foreign products.

Methodology

Test countries: A total of 36, from developed to less developed, from free democracies to totalitarian regimes

Test products: In general, products

Respondents: 273, living in Bryan College Station, Texas

Questions asked: a. Respondents were asked to state their willingness to buy products made in 36 countries. A five point scale was used.

b. They were also asked to express their beliefs about the level of economic development of the 36 countries (poor; neither poor nor rich; rich), about the political and civil freedom of people living in each of the countries (not free; partly free; free), and about which cultural region of the world each country belonged to.

c. Finally, the demographics of the respondents were asked (sex, age, level of education, total income, race, nationality or ethnic background, occupation, political affiliation, state or country born/raised, and years in Texas).

Findings:

"American consumers' willingness to buy foreign products were strongly affected by the variations in the level of economic development, political climate, and culture of the products' country of origin. More specifically, American consumers appeared to give more positive responses to the foreign products from highly economically developed, free countries with European,

Australian or New Zealand culture. . . .

[The] image of the consumer who displayed high foreign product acceptance [is] that of an individual of low political conservatism, with an educational level above high school--perhaps an advanced degree--and family income above \$5,000."¹⁵⁵

Given the large number of variables examined in this study, the findings were also rich and very detailed (e.g., which countries are preferred by the age group 34-65), so the above describes only a small portion, but an important one, because it came to reconfirm previous findings, thus making generalizations possible.

2.3.4 Synthesizing and Assessing the Previous Research

What seems to be the state of the art in the field of Consumer Behavior and specifically on how consumers behave when they are faced with choices between domestically produced goods and imported substitutes can be summarized in the following statements:

a. Foreign products (in general, classes, or specific) are conceived as images, evaluated and perceived differently depending on the country of their origin. At any given point of time, in any national market, there is a finite number of final goods from which the consumer, living in this country and participating in this market,

can select a combination which he thinks will maximize his utility. This can be expressed as follows:

$$\sum_{i=1}^n q_i = \sum_{d=1}^o q_d + \sum_{f=1}^p q_f$$

where q_i = final good

n = number of final goods (national product mix)

q_d = domestically produced final goods

o = number of domestically produced final goods
(domestic product mix)

q_f = foreign produced final goods

p = number of foreign produced final goods (import
product mix)

$$n = o + p$$

Since every country imports final goods from many countries around the world, we have:

$$\sum_{f=1}^p q_f = \sum_{f_1=1}^{p_1} q_{f_1} + \sum_{f_2=1}^{p_2} q_{f_2} + \sum_{f_3=1}^{p_3} q_{f_3} + \dots + \sum_{f_r=1}^{p_r} q_{f_r}$$

where q_{f_1} = foreign final goods produced in country f_1
and imported

q_{f_2} = foreign final goods produced in country f_2
and imported, and so on

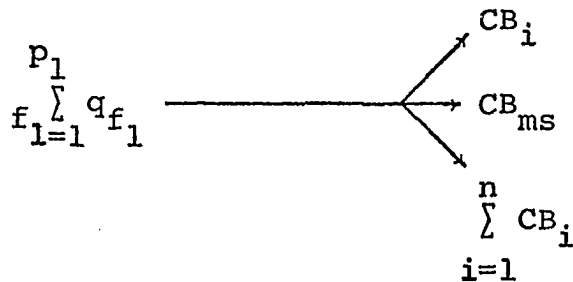
p_1 = number of foreign final goods produced in
country f_1 and imported

p_2 = number of foreign final goods produced in
country f_2 and imported, and so on

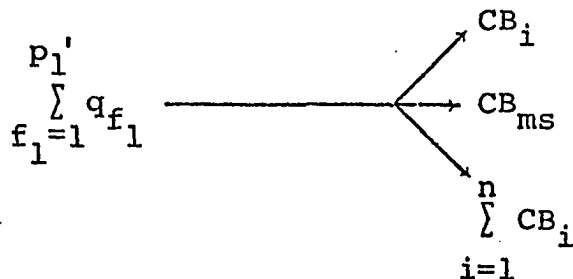
$$p = p_1 + p_2 + p_3 + \dots + p_r$$

For the specific consumer, a market segment, or the total population of a given importing country, foreign products are discriminated on the basis of origin and the specific needs they satisfy. Assuming that evaluations, conceptions, perceptions, and images elicit corresponding attitudes and eventually overt behavior, and using the same symbols written earlier (2.3.2), we have the following relationships:

The products in general of one country--

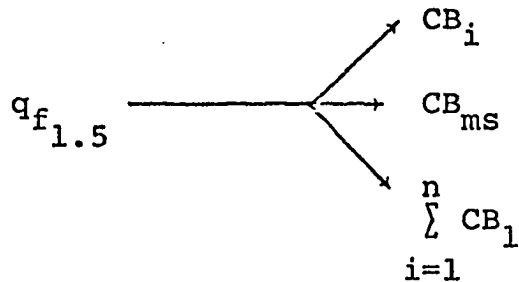


A class of products of one country--



where: $p_1' + p_1'' + p_1''' + \dots + p_1'''''' = p_1$

A specific product of one country--



Foreign products (in broad terms, to include the overall marketing mix, marketing practices, etc., of a foreign country), constitute a type of environmental force affecting consumer behavior at all levels of aggregation. This environmental force can be analyzed into a vast number of contributing forces, each one of them representing only one combination of country of origin of a specific product, a class of products or products in general. Table 5 on the following page gives us, in the form of a matrix, all possible combinations.

Each nest (N_{ij}) of the above matrix is a separate contributing environmental force. For example, N_{1j} , products in general from Afghanistan, N_{10j} , Cognac brand X from France, N_{15j} , heavy industrial machinery from W. Germany, have varying degrees of influence for a specific consumer, a market segment or the total number of consumers of a specific importing country.

TABLE 5

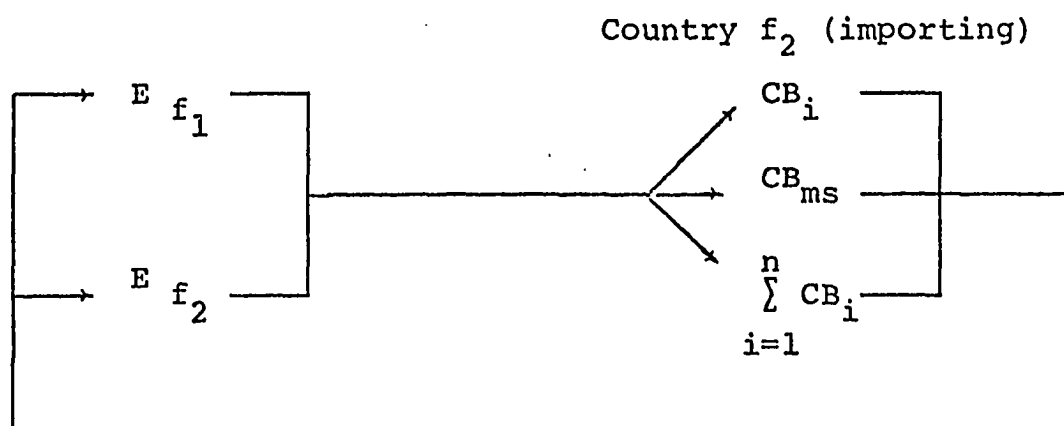
MATRIX OF CONTRIBUTING ENVIRONMENTAL FORCES
IN RELATION TO FOREIGN PRODUCTS

Countries		Specific Product	Class of Products	Products In General
1	Afghanistan			N_{1j}
2	Albania			
.	...			
10	France	N_{10j}		
.	...			
15	W. Germany		N_{15j}	
.	...			

b. The attitude of consumers of an importing country toward the people of an exporting country as well as the general characteristics and the economic, political and cultural environment of the exporting country affect the purchase intentions and the willingness to buy of the consumers of the importing country.

The environmental influence, therefore, becomes a force beyond geographic boundaries and tends to acquire global dimensions. These interrelationships can be reflected in the following figure:

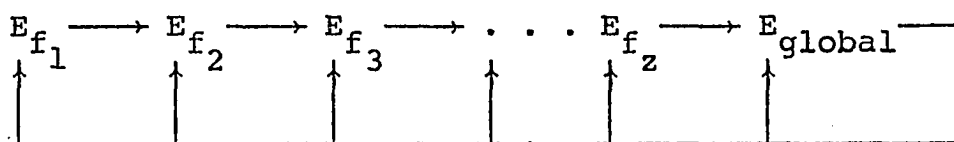
Figure 5. Interrelationship between Environments and CB at three levels of aggregation



where: E_{f_1} = Environment of foreign country f_1 (exporting)

E_{f_2} = Environment of foreign country f_2 (importing)

and



c. An unfavorable attitude of the consumers of an importing country toward the products of an exporting country can be changed by: (a) Price concessions (lower the price of imported product for effective competition against domestic or other imported substitutes), (b) Using specific communication media, and, (c) Distributing the products through channels which include prestige retailers.

This is true not only for imported products but also for the domestically produced. By taking successful decisions

about the specific elements of the marketing mix, the management of a company can eventually reduce market resistance. It would be an oversimplification to generalize and suggest specific solutions which are preferable when preparing the elements of the marketing mix. The dynamic nature of the problem calls for situation specific and "custom tailored" optimal suggestions.

d. Selected demographic and psychographic characteristics of the consumers of an importing country affect their perceptions and attitudes toward the products of an exporting country. The profile of the consumer who, in relative terms, displays higher foreign product acceptance can be portrayed as follows: Younger, educated above high school, with low political conservatism and family income above \$5,000.

In trying to assess the contribution of previous research to the problem of understanding consumer behavior, we can make the following points:

a. Generally speaking, the number of studies is extremely limited and as a result the breadth and depth research is correspondingly limited. Only cautious generalizations can be made until much more light can be shed.

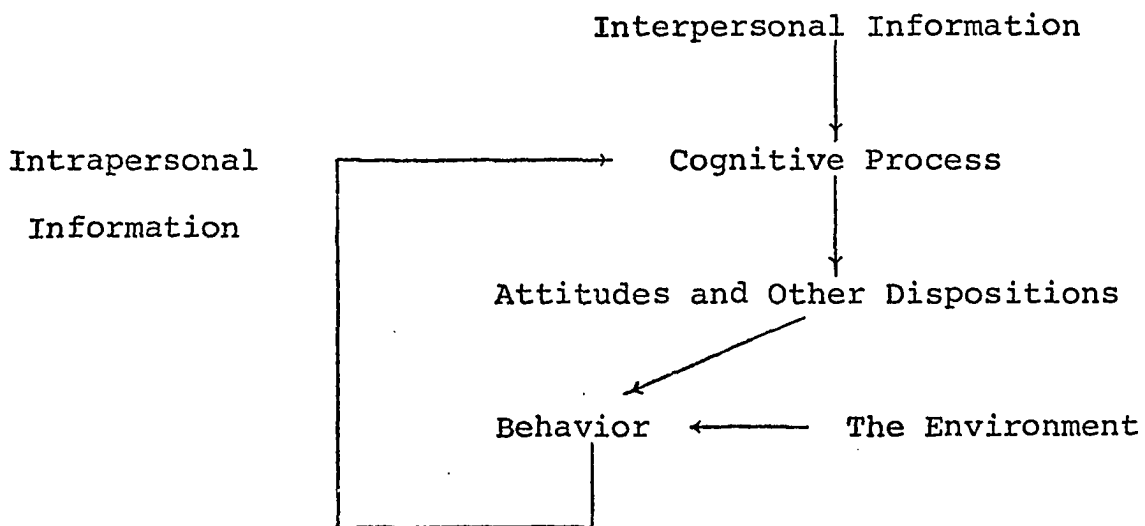
b. The sampling problem is obvious. Students, who have been used as respondents in most cases, do not adequately represent "real" consumers. On the other hand, business executives are more "alert" to international com-

petition and the national market place and therefore do not represent the "average" consumer. Finally, consumers of a small Texas city cannot be representative because of their location (cosmopolitanism is lacking and as a result they should tend to be more xenophobic and less xenophilic).

c. On an international scale, the studies involved a very limited number of case-countries.

d. In the previous studies, actual consumption per se was not examined. Instead, perceptions, images, evaluations, conceptions and attitudes were used presumably as proxy measures of overt behavior. How do attitudes and behavior relate to each other? Tybout gave the following figure reflecting this relationship:¹⁵⁶

Figure 6. Interrelationship between Attitudes and Behavior



Of particular interest is the role of environment on behavior. Measured attitudes can reflect overt behavior if we assume a stable environment, something which is unrealistic. Dynamism is the norm and consumer behavior is a dynamic phenomenon calling for appropriate research methods. As Jacoby, et al., noticed:¹⁵⁷ "while consumer behavior is routinely conceptualized and discussed in terms of a decision process, research methodologies appropriate for investigating dynamic processes are not generally utilized."

In relation to the predictive value of attitude, Fishbein and Ajzen argued that:¹⁵⁸ ". . . our approach has been to suggest that attitude toward an object will usually have at best a low relation to any given behavior with respect to that object."

Attitudes, therefore, are just rough measures of the behavior to follow, and should be avoided whenever more accurate substitutes are available.

d. With the exception of one study, all the others were cross sectional. An analysis incorporating time can reveal more clearly not only the changes of consumer behavior toward foreign products but also the factors that are related (perhaps on a cause-effect basis) to these changes.

e. Most of the studies were done in developed countries, primarily the U.S. The need for more studies in LDCs is obvious, for both theory and practice.

For these basic reasons, the methodology proposed in this study follows a different approach. The sampling problem is totally out. Instead of measuring indications of what is to follow (*ex ante*), we observe the overt behavior as evidenced by the purchase of foreign goods (*ex post*). With long period of time as the time horizon, the study and analysis is released from the effects of short run environmental changes which tend to disrupt the pattern. Finally, factors related to this behavior are hypothesized and subsequently tested.

CHAPTER III

RESEARCH METHODOLOGY

In the first part of this chapter we will discuss the case-country. In the second, we will present the hypothesized model of XCB and then we will analyze each one of the variables and how they will be operationalized. Finally, the statistical method which will be used to test the hypothesis will be discussed in the third part.

3.1 The Case-Country

For the purpose of this study, Greece was selected as the case-country. This selection is the result of the following reasons: (1) familiarity with the environment, (2) availability of the required data and, (3) existence of desirable conditions, such as the openness of the Greek economy and its transition from a less developed status to a developed one, thus making the study of XCB more realistic.

The geographic location of Greece, its three thousand years of history and the fact that foreign powers periodically dominated it, have created a peculiar force which has vastly affected the life styles of the Greek people and shaped

Greek culture. Values reflect national culture as well as the forces which underlie market behavior. Lipset¹⁵⁹ and Talcott¹⁶⁰ isolated six categories to help identify the relevant values. According to these authors, cultural patterns can be distinguished by the degree to which people:

1. are either egalitarian or elitist,
2. are prone to lay stress on accomplishment or inherited attributes,
3. expect material or nonmaterial rewards,
4. evaluate individuals or products in terms of objective norms or subjective standards,
5. focus on the distinctiveness of the parts (intensiveness) rather than the general characteristics of the whole (extensiveness), and,
6. are oriented toward personal rather than group gain.

XCB is directly related to these six categories of values. Elitism, accomplishment, material rewards, subjective evaluation, distinctiveness of the part and personal gain are all cultural values which are likely to nourish XCB. These values, throughout the history of Greece, have characterized its culture. From the endless wars among the city-states of ancient Greece to the spectacular financial success of Greek shipowners in our times, these values have always been the driving forces of the rises and declines of the Greek civilization.

To better understand the xenophilic attitude (from which XCB follows) which is exhibited by a subset of the Greek society, we have to go back and study the recent history of Greece. After the collapse of the Byzantine Empire in 1453 A.D., Greece became a part of the Ottoman Empire. This subordination lasted until 1821 when the Greeks, with the assistance of foreign volunteers (philhellenes) and foreign governments, started a revolution which lasted a few years and caused great human suffering. During the Ottoman domination, social dualism emerged. The developed social subset consisted of those who lived in Phanari, a rich suburb of Constantinople, and the islanders. Petropulos gives the following discription of what happened and why:¹⁶¹

Many of the Phanariots and the islanders, being in closer contact with the West, often knew a foreign language, usually French, wore European attire, and liked to cultivate European mannerisms. The mainland Greeks, on the other hand, generally knew only their local dialect, dressed in the native attire of the area and cared little for the frills of Western civilization.

These two enclaves of xenophilia proved to be very effective in spreading, deliberately or undeliberately, their attitudes. Xenophilic behavior¹⁶² became very popular. In the meantime, Athens became the capital of the new state and the spatial locus of the developed social subset, the subset which turned to the West to get answers for everything, from consumption patterns to mannerisms, from savoir vivre to education, from loans to military hardware.

This almost total dependence on foreigners was, to some degree, justified. Western Europe was living the first industrial revolution. Three centuries ago, the Renaissance and then the Enlightenment took place, at a time when Greece was struggling to survive. So there was a big distance between Greece and Western Europe. For the developed Greek social subset, this distance could be covered by the rapid adoption of everything which was Western European. This unconditional surrender to foreign superiority was attacked by nationalistic politicians and became a source of inspiration for romantic poets. Pericles Giannopoulos was the most famous Greek intellectual who saw the unrestricted xenophilia as a menace to his country. Giannopoulos argued that:¹⁶³

. . . it was his fellow nationals who looked to the West for everything from wisdom to wearing apparel, who were the real problem. They were attacked by him as Xenomaniacs, worshippers of everything foreign, who represented a dual evil. In the first place they regarded everything Greek as backward. Second, they desired to imitate and copy everything and anything the West had to offer.

Giannopoulos' thesis was an extreme one and should be viewed only as an indicator reflecting the xenophilic attitudes of the Greek people during the turn of the 20th century. His deep rooted xenophobia led him to advocate that the classic hellenic civilization should be the source of inspiration.

Taking a more pragmatic and moderate thesis, Ion Dragoumis, a career diplomat and politician of the same

period, viewed the interaction of civilizations as a dynamic mechanism of competing influences. The results of these interactions create the winners and the losers of human history. As Dragoumis¹⁶⁴ put it:

A nation must not simply be civilized, but it must have a civilization of its own. Of course, every civilization, however original it may be, is in reality influenced either by foreign cultures or by older ones born in the same nation, or by both of them. It is one thing to be influenced by foreign cultures, but quite another for a [foreign] civilization to be transplanted into a nation. There are nations which cannot create culture, but simply accept foreign ones and modify them according to their own nature. There are others that are not able to do even that . . . But there are also such nations that can assimilate all the foreign and old civilizations, which then motivate them to advance . . . , and which become the seed in order for them to give birth to their own indigenous civilization

Dragoumis' perspective was much broader and philosophical. Life styles not only contribute towards the creation of civilizations, but also they reflect them. In international politics, economic (in which life styles dominate) and military influences are the most tangible evidence of the "quality" of a national civilization.

The debate on what should be the role of foreign influence, in general, in Greek life has never been settled. With the full membership of Greece in the European Economic Community (effective January 1st, 1981), the battle between the forces supporting and opposing xenophilia will become more intense and critical. The outcome of this battle is still uncertain, but as Kondonassis¹⁶⁵ put it: "There may be

sufficient cause of optimism if one reads the future of Greece on the basis of its creative past."

Turning our focus to recent developments in the Greek economy, we can support the position that 1953 was the turning point when a new economic era started. During the 1940's, prolonged wars and unsuccessful economic policies devastated everything and marked the gloomiest period of modern Greek history. The generations which lived through this period where "strongly inflationary environment was not conducive to economic development,"¹⁶⁶ probably still remember the suffering. As a result, their behavior as consumers reflects these traumatic experiences.

In 1953, the Greek national currency (drachma) was devalued by 100%, external trade was substantially liberalized, and foreign private capital (under the law 2687) was welcomed under relatively attractive terms of freedom and guarantees. The 1950's can be considered the period of psychological, institutional and infrastructural preparation for rapid economic development. During the decade¹⁶⁷ of 1960-70, the average annual rate of increase in GNP (in constant 1967 prices) was 7.5%. During 1970-78, the per capita GNI at factor cost, at constant 1970 prices, increased at an average annual rate of 4.66%.¹⁶⁸ As a result of this growth, the per capita GNI increased, in constant 1970 prices, from drachmas 11,330 in 1952 to 46,474 in 1977 (more than 400% increase in 26 years).

The relatively fast increase in personal income substantially raised both the standard of living of the Greek consumers as well as their aspirations. A continuously rising proportion of the personal income was directed towards discretionary spending (purchases of goods and services to satisfy wants, purchases of nonessentials, luxuries, durables, etc.). Imports also followed this trend. Tables 6 and 7 depict the growth and structural changes in the international trade of Greece.¹⁶⁹ From these tables we can see a clearcut trend towards the industrialization of the Greek economy (exports of manufactured goods increased from 1962 to 1974 by approximately 8,200% while imports of capital goods for the same period increased by approximately 900%). We can also see that the fast increase in imports of manufactured consumer goods (from 1962 to 1974 they increased by 250%) can be mainly attributed to the rising discretionary spending power of Greek consumers as well as their XCB.

3.2 The Hypothesized-Model

In this section we will discuss some general remarks about methods for studying XCB. Then the proposed model will be presented and analyzed, followed by the way with which the variables will be operationalized. Finally, we will discuss the statistical method with which we will test the hypothesized XCB model.

TABLE 6

GREEK EXPORTS BY MAJOR CATEGORIES
AND TRADING AREAS
(In Millions of U.S. Dollars)¹

Categories	1962		1968		1974	
	World	EEC ²	World	EEC ²	World	EEC ²
1. Food and Beverages	69.8	22.6	150.5	56.6	403.3	157.4
2. Tobacco	68.0	27.0	104.6	42.3	158.4	48.8
3. Raw Materials	63.0	17.8	56.6	12.4	121.1	24.2
4. Minerals and Ores	15.6	8.1	34.1	14.3	103.1	51.2
5. Petroleum Products	--	--	9.7	.013	123.5	31.0
6. Manufactured and Handicraft Products	11.4	1.6	107.9	55.5	822.5	278.6
7. Other ³	14.9	7.1	1.6	1.1	42.3	10.3
Total	242.7	84.2	465.0	182.2	1,774.2	601.3

¹Figures are rounded.

²EEC of the Six.

³NATO procurements are included.

Source: Bank of Greece.

TABLE 7

GREEK IMPORTS BY MAJOR CATEGORIES
AND TRADING AREAS
(In Millions of U.S. Dollars)¹

Categories	1962		1964		1968	
	World	EEC ²	World	EEC ²	World	EEC ²
1. <u>Food</u>	85.3	14.8	180.4	36.9	581.7	122.0
Basic	75.0	12.2	156.0	28.6	518.0	102.5
Not basic	10.3	2.6	24.4	8.3	63.7	19.5
2. <u>Raw Materials</u>	151.2	83.4	249.3	98.8	885.6	329.8
For consumption	83.0	40.5	130.1	45.1	491.9	179.9
For Construction	68.2	42.9	119.2	53.7	393.7	149.9
3. <u>Fuel-</u>						
<u>Lubricants</u>	48.1	3.9	102.9	7.2	863.0	50.0
Coal	2.9	.7	4.7	1.5	39.0	20.4
Petroleum products	45.2	3.2	98.2	5.7	824.0	29.6
4. <u>Capital Goods</u>	135.9	84.4	270.2	158.0	1,221.0	742.0
Machinery	98.8	60.4	201.1	116.7	843.2	540.4
Transport Equipment	37.1	24.0	36.1	19.2	267.3	139.0
Other	--	--	33.0	22.1	110.5	72.6
5. <u>Manufactured Consumer Goods</u>	188.0	97.7	352.1	184.9	923.1	469.9
Total ³	608.5	284.2	1,154.0	485.9	4,474.3	1,713.7

¹Figures are rounded.

²EEC of the Six.

³Does not include unallocated freight costs.

Source: Bank of Greece.

3.2.1 General Remarks

In Chapter II, in reviewing the past marketing related literature, we saw that the only approach used previously was opinions, attitudes, perceptions and images as determinants and predictors of XCB. In a dynamic (with frequent changes) market environment, these variables do not accurately predict the overt behavior to follow (the actual purchase). The same happens if the lead time between the measurement of these variables and the subsequent purchase is long. In both cases, by being exposed to new stimuli, information, data, etc., the consumer undergoes a new decision making process that might result in different solutions to old and/or new purchase problems.

An alternative method for studying XCB on an ex post basis is to estimate the marginal propensity to import (MPM). This purely economic concept (from International Trade Theory and Policy or generally from International Economics)¹⁷⁰ depicts "the proportion of a change in national income translated into a change in imports. . ." If in country X income increases by, say, 100 million monetary units in 1979 and its total imports for the same year increased by 30 million, then MPM will be $30/100 = .30$. Another concept which is also used in economics is income elasticity of demand for imports (ϵ_Y). This concept¹⁷¹ "differs from MPM in that it represents a ratio of percentages: the ratio of the percentage

change in imports to the percentage change in income." Using the same numbers, if in 1978 income were 1,850 and the imports 350, then

$$\Sigma_Y = \frac{30/350}{100/1,850} = \frac{8.57}{5.40} = 1.58.$$

The general equation is

$$\Sigma_Y = \frac{\Delta M/M}{\Delta Y/Y},$$

where ΔM is the change in imports, M is imports during the last year, ΔY is the change in income and Y is income during the last year. Both of these concepts¹⁷² are very important tools for aggregate economic policy, but fail to capture the pluralistic nature of factors that direct consumers towards the purchase of foreign goods. Income, more likely, is the most important factor, but other factors also participate in the structure of environmental forces (macroeconomic level) that elicit XCB. Demographics (where income is included) should be complemented by psychographics in order to have a clear picture of why the individual consumer (microeconomic level) exhibits XCB. This study bases its research methodology on this premise.

In Chapter I we saw that life styles have four dimensions. XCB is modeled after all four dimensions of life style, but it is believed that one dimension, namely consumption patterns, is the most decisive because it influences

directly or indirectly the other three dimensions. In this respect, for the purpose of this study, XCB will be measured using only one dimension, the pattern of consumption. So, in a narrower sense, XCB characterizes those who adopt or try to adopt alien consumption patterns.

As a result of XCB, demand is directed towards the following categories of final goods and services: (1)

Category A: Imported, without any domestically produced substitute. (2) Category B: Imported, with domestically produced substitutes. These substitutes are produced with local supply of all productive factors needed, such as raw materials, machinery, know-how, etc. (subcategory B1).

These substitutes are produced with total or partial importation of the productive factors (subcategory B2). If B1 is the case, XCB has minimum negative effects (no outflow of foreign exchange, industrialization enhanced), and medium positive ones (some taxes are collected through direct taxation, competition increased). If B2 is the case, XCB has moderate negative results (some outflow of F.X., some industrialization) and moderate positive ones (some taxes, direct and indirect, competition increased). Finally, if A is the case, XCB has maximum negative effects (large outflows of F.X., no industrialization) and maximum positive ones (much indirect taxation, competition peaks).

In the above discussion about the categories, the critical and decisive criterion is the concept of substitution.

On this concept, Stigler¹⁷³ argued that:

There is no simple "technological" measure of substitution; not only it is difficult to compare heterogeneous things (is radio a better substitute for television than for a theater or a newspaper?) but substitutability varies with circumstances (a tractor is a substitute for a horse to a farmer, less so to a riding academy). This is only one of many places where economists have reached a general position without formal evidence. . . . This sort of intuitive estimate of substitutability will be encountered often in economic literature.

Apart from the evident difficulties, "The economist's measure of economic (not technological) substitution is the cross elasticity of demand which is the relative change in the quantity of X over the relative change in the price of Y."¹⁷⁴ Mansfield¹⁷⁵ described the measurement process as follows:

Holding constant the commodity's own price (as well as the level of money incomes) and allowing the price of another commodity to vary, there may be important effects on the quantity demanded in the market for the commodity in question. By observing these effects, we can classify pairs of commodities as substitutes or complements and we can measure how close the relationship (either substitute or complementary) is.

Positive values of cross elasticity demand reflect substitutability of two goods and services. If this elasticity becomes infinitely positive, then we can say that the two goods or services are identical. On the other hand, if the cross elasticity is small, then the good or services involved are poor substitutes.

In this study, a limited sample of final consumer goods and services (ready to satisfy needs and wants as they

do not need any further major transformation) was carefully selected. The selection was based on the following conditions: (1) the availability and consistency of statistical data over a long period of time, (2) the various products should have positive income elasticities¹⁷⁶ of demand, both high and low, and, (3) the availability of substitutes. The satisfaction of condition (3) requires the overwhelming task of calculating the cross elasticities of demand for a large number of products. This task is beyond the scope of this study. Instead, the selected products are believed to have substitutes of the B1 and B2 subcategories. This belief is based on an analysis of the Greek exports, the national production and generally the Greek market.

In national accounting, the private domestic (PDC) and private national (PNC)¹⁷⁷ consumption expenditure is divided into categories. According to the Greek national accounting, we have the following division: (1) Food, (2) Beverages, (3) Tobacco, (4) Clothing-footwear, (5) Rent-water, (6) Fuel-light, (7) Furniture-furnishings-household equipment, (8) Household operation, (9) Personal care and health expenses, (10) Transportation, (11) Communications, (12) Recreation and entertainment, (13) Education, and (14) Miscellaneous services.

Categories 5, 6, 11 and 14 are excluded because they include goods and services which by their nature are either very difficult or impossible to be replaced either by foreign

products (5, 11, 14) or generally by any other products (6) because the state monopolizes or controls the supply. Category 3 was also excluded because the imports of cigarettes and other tobacco related products is insignificant.

This leaves 9 categories. In each one of them, a large or small number of goods and services is included. More specifically, each category includes, in summary, the following expenditures:¹⁷⁸

Food (C_1), for the consumption of food, also for food consumed in restaurants, hotels, etc.

Beverages (C_2), for the consumption of alcoholic or nonalcoholic beverages (except coffee, tea, etc.), also for beverages consumed in restaurants, hotels, etc.

Clothing-footwear (C_3), for the consumption of clothes, shoes, watches, gloves, etc.

Furniture-furnishings-household equipment (C_4), for the consumption of durables such as furniture, utensils, radios, etc.

Household operation (C_5), for the consumption of the services of servants, soaps, cleansing, matches, bulbs, maintenance of durables, etc.

Personal care and health expenses (C_6), for the consumption of drugs, cosmetics, hospital and doctors' services, haircuts, etc.

Transportation (C_7), for the consumption of the services of public transportation means (buses, ships,

trains, taxis, etc.) and the purchase and usage of private cars.

Recreation and entertainment (C_8), for the consumption of hotel, theater services and the purchase of newspapers, books, magazines, cameras, etc.

Education (C_9), for the consumption of private educational services.

Knowing what goods and services are included in each of the above 9 categories is important because, as we shall see in the next section, the imports of specific products will be compared to the domestic expenditures for these categories in order to have a measure of XCB.

3.2.2 The Model

In reviewing the past literature in Chapter II, we saw that some factors affect what we called XCB. Building upon this previous experience, the proposed model is the following:

$$XCB = f(Y, Ex., D, Ed., G)$$

where:

Y = Income

Ex. = Exposure of consumers to alternative substitutes,
both domestic and foreign

D = Degree of dualism prevailing in the country

Ed. = Level of education

G = government intervention to encourage or discourage imports.

In the following sections, we discuss how each of the above variables will be measured in order to operationalize the model.

3.2.2.1 The Dependent Variable

XCB is measured by the following index:

$$\frac{\text{Imports/Total Population}}{\text{Private Domestic Consumption/Total Population}} =$$

$$\frac{\text{Imports}}{\text{Private Domestic Consumption}} = \frac{I}{PDC}$$

Since PDC refers to the consumption by individuals and households of domestically produced products (P_D) plus imported foreign ones (P_F), XCB can be also expressed as follows:

$$XCB = \frac{I}{P_D + P_F}$$

Governments regularly publish the imports in CIF (Cost, Insurance, Freight) values. What the ultimate consumer pays for a final good is higher than the CIF value because of taxes, tariffs and value added¹⁷⁹ by the various channel members. In most of the cases, no value is added by

manufacturing. The few exceptions refer to simple functions such as breaking the bulk, standardization, packaging, etc. The final price paid by the ultimate buyer usually has the following cost components:

	Price CIF at the point of entry
+	Taxes, tariffs, duties, etc.
+	Physical distribution cost (storage, transportation, etc.)
+	Promotion cost (advertising, sales promotion, etc.)
+	Financing, administrative cost
+	Profits for the channel members
+	Sales taxes

Final price paid by the ultimate consumer

As a result of these values added, taxes, etc., I is always smaller than P_F . In LDCs, for the reasons we described in Chapter II, the difference $P_F - I$ is much higher in comparison to the same difference for the same goods in developed countries. Assuming¹⁸⁰ that over time taxes, tariffs, etc., and the value added by channel members remain relatively stable, an increasing index of I/PDC reflects increasing XCB.

Instead of taking PDC in total values, PDC will be divided by object and the 9 categories mentioned earlier will be used instead. The same will be done for I . The imports for a number of final consumer goods and services

were selected. More specifically, for each category of goods and services which is included in the division of PDC by object, the imports of the following products were assigned:

- For C_1 Fresh meat, canned meat, vegetable oil,
milk and cream, cheese (F_1)
- C_2 Alcoholic beverages (F_2)
- C_3 Clothing (F_3)
- C_4 Glassware, sanitary-heating-lighting
apparatus (F_4)
- C_5 Soaps-cleansing-polishing (F_5)
- C_6 Perfumery-cosmetics (F_6)
- C_7 Personal transport equipment (F_7)
- C_8 Tourism abroad, printed matter (F_8)
- C_9 Studies abroad (F_9)

Therefore, the dependent variable XCB will be measured by 9 indices, each one of them having the following formula:

$$= \frac{\text{Imports of specific final consumer goods and services}}{\text{Private domestic consumption by object}} = \frac{F_j}{C_j}$$

For example, for beverages this index will be:

$$\frac{\text{Imports of alcoholic beverages}}{\text{Private domestic consumption of beverages}} = \frac{F_2}{C_2}$$

Since imports are recorded at current values, PDC was also expressed in current value for comparability.

The above described method for operationalizing XCB applies for C_1 up to C_6 . For category C_7 , because data on imports of F_7 were not available for the time period covered by this study, instead of imports we used the actual final expenditure for personal transport equipment. In national accounting this figure was available, because it is relatively easy to estimate it. For categories C_8 and C_9 , due to the nature of the services involved (tourism abroad, studies abroad), instead of the PDC by object we used a new variable (index) which equals the PDC by object plus the expenditure for tourism abroad (for C_8) and plus the expenditure for studies abroad (for C_9). These changes do not affect the outcome of our research as long as the consistency in measuring the indices remains.

3.2.2.2 The Independent Variables

The independent variables of the model will be measured as follows:

Income, using the per capita gross national income at market prices, at constant 1970 prices. Constant prices were preferred instead of current ones, in order to have a clearer picture of the real purchasing power of the average consumer.

Exposure consists of three indices. Each of these indices represents an existing opportunity for consumers to be exposed to alternative products, basically foreign. This exposure facilitates the evaluation process and leads to product and/or brand loyalties. Consumers are exposed to foreign products via the mass communication media, by travelling abroad, by seeing foreign consumers who visit their country, etc. For Greece, data on radio and T.V. are not available for the time period of interest. This leaves the printed media as the only mass communication. Since the Greek government controls the supply of newsprint for printing newspapers and magazines all over the country, accurate data are available. Therefore, the index

$$\frac{\text{Quantity of newsprint supplied}}{\text{Total population}}$$

gives a proxy for advertising. The arrival of Greeks who travelled abroad (for tourism, education, work, etc.) is the second index of exposure. This index was weighted using the expenses made by those who went abroad for tourism and came back; the more they spent, the more exposure they had. The index was estimated as follows:

$$\frac{\text{Arrivals of Greeks who travelled abroad}}{\text{Total population}} \times \frac{\text{Expenses for tourism}}{\text{Total population}}$$

Finally, the third index, following similar lines as the previous one, was estimated as follows:

$$\frac{\text{Arrivals of foreign tourists}}{\text{Total population}} \times \frac{\text{Receipts from tourism}}{\text{Total population}}$$

Dualism, using the percentage of Greek population which is urbanized. By definition,¹⁸¹ Standard Metropolitan Statistical Areas refer to "cities of 50,000 population or larger and including one country or two or more contiguous counties." In Greece, 6 cities exceed 50,000 but two of them (Iraklion and Canea) are not on the mainland. They are on the island of Crete and as a result it is reasonable to assume that because of their relative isolation they are not as cosmopolitan as the other 4 cities (Athens, Salonika, Patras, Volos). The index, therefore, will be

$$\frac{\text{Population of the 4 cities}}{\text{Total population}}$$

Education, using the following index:

$$\frac{\text{Number of graduates of higher education living in Greece}}{\text{Total population}}$$

Government, using the balance of current accounts.

This figure is the best indicator of the external equilibrium of an economy. If the BCA (which includes the trade balance and the balance of invisible earnings--tourism, remittances, shipping, etc.--and payments--tourism, etc.) is unfavorable, the government intervenes and through various measures discourages imports.

3.2.2.3 Two Assumptions of the Model

In the hypothesized model of XCB, we did not include as independent variables domestic production, its structure, and the exchange value of drachmas. It might be argued that consumers buy foreign products simply because domestic production is unwilling or unable to supply local substitutes. It might also be argued that consumers spend more for foreign products (XCB index increases) not because they buy more in volume but because their prices went up as a result of the devaluation of drachmas. Both of these points deserve some further explanation.

It has been established in economic growth theory that import substitution enhances economic development. Healey¹⁸² and especially Chenery^{183,184} addressed this issue and reached similar conclusions. For the case of Greece, Malliaris and Ramenofsky¹⁸⁵ found that even in industries where Greece had an obvious comparative advantage (e.g., food, clothing) production did not utilize its potential capacity. Import substitution as a growth policy has the advantage of product loyal customers, and the only thing it has to do is to persuade consumers to change brands (from the imported to the domestic). Since there is no need for market development, import substitution becomes a relatively attractive growth policy. If in a period of 26 years (the period covered by this study) producers do not exploit this

advantage, then it is reasonable to assume that one of the most important reasons why they did not exploit it is XCB. Producers are reluctant to invest, because they think that consumers are not only product loyal but also brand loyal (to foreign brands).

In reference to the second point, we can argue that in studying the available data we can assume that no major devaluations of the drachma occurred during the period. The only exceptions are the 100% devaluation of 1953, mentioned earlier, and the gradual devaluation which started in 1974 as a result of the oil crisis and other factors. Since the import figure was in 1952 relatively very small, the effect of this year's devaluation is insignificant. For the rest of the years (years where the gold exchange standard and the fixed exchange values, both outcomes of the Bretton Woods agreement, were working effectively), the exchange value of drachmas remained constant (1 U.S. \$ = 30 Dr.). It should also be mentioned that the U.S. dollar is the most frequently used currency in the international trade of Greece. Fluctuations of the U.S. dollar in respect to European currencies did occur during the 26 years, but since they are both upward and downward, it is reasonable to assume that the overall effect did not significantly affect XCB.

3.2.2.4 The Data

The data used in this study are from secondary

sources, provided by the official publications of the Greek government. These publications include the Statistical Yearbook of Greece, the National Accounts of Greece (both published by the Ministry of Coordination), the Monthly Statistical Bulletin and the Annual Economic Report, published by the Bank of Greece. In the Statistical Yearbook of Greece, which was first published in 1954, frequent revisions (additions-deletions) took place. This necessitated the estimation of some variables for some years.

3.3 Statistical Methodology

Data were collected covering a twenty-six year period (1952-1977). As we mentioned earlier, nine separate indices will be examined as the dependent variable. Thus, the relationship between XCB and the independent variables (Income, Exposure, Dualism, Education and Government) will be tested through nine interactions.

This replication process is represented by the following:

$$\begin{array}{c}
 \left| \begin{array}{ccccccc}
 \frac{F_{1.1.}}{C_{1.1.}} & \frac{F_{1.2.}}{C_{1.2.}} & . & . & . & . & \frac{F_{1.9.}}{C_{1.9.}} \\
 \frac{F_{2.1.}}{C_{2.1.}} & . & . & . & . & . & \frac{F_{2.9.}}{C_{2.9.}} \\
 \vdots & & & & & & \vdots \\
 \frac{F_{26.1.}}{C_{26.1.}} & . & . & . & . & . & \frac{F_{26.9.}}{C_{26.9.}}
 \end{array} \right|
 \end{array}$$

$$= f(Y, Ex., D, Ed., G).$$

For each cell, the numerator of the index F_{ij} represents the imports of a specific item or a group of items during a specific year,¹⁸⁶ where i is the year (row) and j is the specific item or group of items (column). The denominator of the index C_{ij} represents the consumption by object during a specific year, where i is the year and j is the consumption by object. C_{ij} is measured at current market values. F_{ij} is measured in current CIF values. XCB is biased, therefore, both upward and downward. Upward, because not everything imported is consumed during the year (some might be stored, destroyed, reexported, etc.). Downward, because what the ultimate buyers finally pay to the retailers is much higher than the CIF value, as mentioned earlier. However, the negative consequences of this bias are diminished due to the longitudinal type of analysis.

Linear multiple regression was selected as the statistical method. Kim and Kohout¹⁸⁷ described this method as follows:

Multiple regression is a general statistical technique through which one can analyze the relationship between a dependent or criterion variable and a set of independent or predictor variables. Multiple regression may be viewed either as a descriptive tool by which the linear dependence of one variable on others is summarized and decomposed, or as an inferential tool by which the relationships in the population are evaluated from the examination of sample data.

From the description, we see that regression can be used as a predictive tool, which is exactly the purpose of

this study. The hypothesized model of XCB will be tested by regressing the variables for a period of 25 years (1952-1976) and then comparing the estimated results with the actual ones for one year (1977) and reporting the significance level of acceptance and the test that was used (i.e., once the regression coefficients are estimated $\hat{Y}_{1977}$ will be tested against the actual Y_{1977}).

Since XCB is measured for nine different categories of goods and services, an equal number of separate regression equations will be estimated (based on 25 observations) and then tested as predictive tools (based on one observation). This separation is based on the premise that there is no interaction among the various categories of goods and services, i.e., that the consumption of, say, C_2 , does not depend on the consumption of, say, C_7 . In microeconomic theory, this premise is called the "utility tree." According to this theory,¹⁸⁸ "the first step in budgeting is commonly allocated to expenditure among broad groups of commodities," or to use the symbols of this study the consumer decides to allocate his income (Y) among $C_1, \dots, C_9$, which in the utility tree are called branches. After this decision has been reached, then the second step is¹⁸⁹ "making independent decisions as to how best to spend each branch allocation on the commodities within the branch," or to use the same symbols the consumer decides between an imported brand of, say, cheese and a domestic one. In general terms, the food branch

decision is between imported (P_F) or domestic (P_D) food related commodities.

Since we are dealing with time series analysis, the phenomenon of autocorrelation might be present. Referring to this point, Chatterjee and Price¹⁹⁰ wrote:

One of the standard assumptions in the regression model is that the error terms U_i and U_j , associated with the i th and j th observations, are uncorrelated. Correlation in the error terms suggests that there is additional explanatory information in the data that has not been exploited in the current model. When the observations have a natural sequential order, the correlation is referred to as autocorrelation.

To test autocorrelation we use the Durbin-Watson¹⁹¹ statistic. It tests the null hypothesis $H_0: (\rho = 0)$ against the alternative $H_1: (\rho > 0)$. It is approximately estimated by $d = 2(1 - r)$, where r is an estimate of ρ . Its range is from 0 to 4. The problem with determining the sampling distribution of d is that it depends on the X values. Thus it was only possible for Durbin and Watson to establish upper (d_u) and lower (d_l) limits for the significance levels of d . If $d < d_l$ the hypothesis of non-autocorrelated U is rejected in favor of the hypothesis of positive autocorrelation. If $d > d_u$ the null hypothesis is not rejected. If $d_l < d < d_u$ the test is inconclusive. This is a Durbin-Watson test for positive autocorrelation only. The reason we did not perform a test for negative autocorrelation as well is because the "usual alternative hypothesis in economic relations is that of positive autoregression."¹⁹²

Had autocorrelation been detected, "the estimated regression equation should be refitted taking autocorrelation into account."¹⁹³ One of the commonly used methods to correct autocorrelation is the Cochrane-Orcutt¹⁹⁴ method. This method will be used in this study if needed.

In the model we included a dummy variable which will account for the war and nonwar years. This inclusion was necessary because in the period of 1973-1974 Greece experienced political instability, war preparation as a result of the Cyprus crisis, and sudden increase in inflation. Dummy variables are "specially constructed variables which may be used to represent various factors such as temporal effects, spatial effects, qualitative variables, (and) broad groupings of quantitative variables."¹⁹⁵ We denoted the crisis years with 1 (war years) and the non-war years with 0.¹⁹⁶

Since this study is longitudinal and "the main characteristic of time series . . . is that its observations have some form of dependence on time,"¹⁹⁷ we included a time variable which will account for the time factor by estimating its separate effects. This time variable (a dummy one) will appear in the model as the four digits of each year of study (1952-1977).

Although the main emphasis is on testing the model as a predictive tool, a structural analysis of the regression results will also be included. It is acknowledged that the problem of multicollinearity¹⁹⁸ exists in the equations.

Consequently, the reader should accept the structural analysis with caution. The actual statistical run was done on an IBM-370-158 machine using the SPSS statistical package.

CHAPTER IV

ANALYSIS OF FINDINGS

In this chapter we will report, in detail, the findings of the statistical analysis. This report will include the XCB indices, the F value for the regression equations, the multiple correlation coefficients (R^2), the Durbin-Watson values, the prediction table, and the regression equations. We used the following abbreviations and symbols:

PCGNI = X_1 = Per Capita Gross National Income (Y)

NEWS = X_2 = Newspapers (Ex.)

FT = X_3 = Foreign Tourists (Ex.)

GA = X_4 = Greeks Abroad (Ex.)

D = X_5 = Dualism

ED = X_6 = Education

BCA = X_7 = Balance of Current Accounts (G)

WAR = X_8 = Dummy Variable 1

YR = X_9 = Dummy Variable 2

4.1 XCB Indices

Table 8 gives the XCB indices across the nine categories of products for 25 years. From this table, we can

TABLE 8

INDICES OF XCB FOR THE NINE CATEGORIES

Year	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈	C ₉
1952	.0061	.0001	.0034	.0261	.0004	.0003	.0230	.0319	.0666
1953	.0110	.0010	.0027	.0274	.0009	.0005	.0230	.0439	.0866
1954	.0094	.0016	.0048	.0341	.0023	.0013	.0230	.0570	.1002
1955	.0171	.0018	.0030	.0291	.0027	.0014	.0230	.0599	.1052
1956	.0250	.0016	.0032	.0289	.0055	.0027	.0230	.0677	.1136
1957	.0209	.0021	.0034	.0297	.0101	.0046	.0230	.0745	.1248
1958	.0242	.0030	.0037	.0344	.0078	.0051	.0171	.0695	.0960
1959	.0157	.0029	.0038	.0353	.0067	.0043	.0091	.0621	.1009
1960	.0174	.0032	.0034	.0384	.0034	.0062	.0148	.0734	.1022
1961	.0228	.0031	.0028	.0307	.0034	.0033	.0236	.0718	.1006
1962	.0220	.0035	.0029	.0358	.0038	.0027	.0432	.0784	.0916
1963	.0283	.0052	.0039	.0343	.0047	.0021	.0564	.0931	.0885
1964	.0308	.0053	.0040	.0347	.0054	.0022	.0651	.1199	.0871
1965	.0491	.0065	.0036	.0351	.0059	.0024	.0710	.1169	.0893
1966	.0386	.0076	.0041	.0376	.0068	.0030	.0733	.1009	.0880
1967	.0397	.0079	.0044	.0335	.0067	.0026	.0764	.0883	.1038
1968	.0382	.0085	.0045	.0287	.0082	.0022	.0674	.0870	.1005
1969	.0377	.0096	.0052	.0266	.0088	.0024	.0615	.0891	.0954
1970	.0488	.0090	.0044	.0239	.0085	.0021	.0639	.0776	.1314
1971	.0469	.0120	.0032	.0215	.0086	.0020	.0660	.0923	.1358
1972	.0395	.0158	.0046	.0225	.0071	.0031	.0807	.1036	.1670
1973	.0528	.0316	.0076	.0225	.0091	.0032	.1074	.0978	.1905
1974	.0255	.0189	.0092	.0197	.0083	.0019	.0769	.0888	.1785
1975	.0264	.0108	.0046	.0220	.0105	.0019	.1278	.0941	.1808
1976	.0424	.0149	.0048	.0184	.0118	.0022	.1759	.0882	.1751

observe the following. First, XCB varies across the nine categories. For some (e.g., C_7 , C_8 , C_9) it is relatively high and for others (e.g., C_3 , C_5 , C_6) relatively low. This variation probably can be attributed to the fact that some product categories appeal relatively very strongly to consumers. As a result, the purchase probabilities increase (e.g., foreign cars, education in foreign universities, visits to foreign countries). For these categories, it is believed that the consumer perceives domestic substitutes as imperfect and prefers to spend more in buying foreign ones because he perceives that his utility is increased. In cases where XCB is relatively very low, we can assume the contrary. The consumer perceives domestic products (of both B1 and B2 sub-categories) as being perfect substitutes for the foreign ones and he prefers them. Secondly, the rates of change vary across the nine categories. For some (e.g., C_2 , C_7) the rate is relatively more stable and positive for most of the years. For some (e.g., C_1 , C_6) the rate is relatively unstable. A positive and stable rate of change is believed to reflect positive income elasticities and lack of perfect domestic substitutes (e.g., foreign alcoholic beverages, foreign cars). An unstable rate of change, where both the size of change as well as their signs vary, is believed to reflect variations in the supply of domestic substitutes and the prices of foreign products (e.g., meat production, prices of foreign cosmetics-perfumery). Thirdly, generally speaking for the

period as a whole, XCB has increased across all nine categories. This overall long run tendency for increased XCB indices is believed to be the result of economic growth and the expansion of the international sector (opening of the national economy). If this evolution is combined with increased levels of consumer education, exposure (with the most important being advertisement), and aspirations as well as urbanization (all of them are highly correlated--see Table 21), then we can see why XCB increases in the long run, despite short run fluctuations. It is interesting to note that this increase pertains even to categories where Greece has a comparative advantage (e.g. clothing, tourism).

4.2 The F Value for the Regression Equation

Table 9 gives the F values and the level of significance for the nine regression equations. From a table of F Distributions,¹⁹⁹ we can see that for 9 degrees of freedom for the regressor and 15 for the residuals (i.e., numerator and denominator) the critical points are 2.59 for a 5% level of significance and 3.89 for a 1% level of significance. Based on these critical points, the regression equations are statistically significant for seven product categories at the 1% level and for one product category at the 5% level. One regression equation (C_6 , personal care and health expenses) is not significant. The statistical insignificance for C_6 means that the model may be a weak predictor for this

TABLE 9

THE F VALUES FOR THE REGRESSION EQUATIONS

Category	F Value	Level of Significance
C ₁	18.057	S* at 1%
C ₂	48.189	S at 1%
C ₃	8.486	S at 1%
C ₄	18.655	S at 1%
C ₅	3.635	S at 5%
C ₆	2.534	I**
C ₇	82.7316	S at 1%
C ₈	12.839	S at 1%
C ₉	28.838	S at 1%

*Significant.

**Insignificant.

specific category. Of any of the equations we expected this to happen because many foreign companies which produce the C_6 related products established some form of local production (this evolution is not included in the model).

4.3 The R^2 and the Durbin-Watson Values and Test

Table 10 gives the R^2 , the D-W values, and the D-W test. High R^2 means that much of the total variation of XCB may be explained by knowledge of the regression coefficients and the values of the independent variables of our model. The difference between $1.00 - R^2$ is the percentage of the variation of XCB which is estimated to be due to other factors such as chance, and variables which are not included in the model. R^2 does not measure causation but only the strength of association between XCB and the Xs. A low R^2 usually means that the regression model might be a poor predictor. In our case the R^2 for C_5 and C_6 are relatively low, but in the other seven equations it is high. Low R^2 is believed to be associated with the fact that both C_5 and C_6 refer to product categories where foreign firms which produce them have established production facilities in Greece.

In reference to the D-W test, from the Table²⁰⁰ we can see that the critical points of d_ℓ and d_u for the 1% significance level and for 5 regressors (the highest number included) and sample size $n = 25$, are $d_\ell = .75$ and $d_u = 1.65$.

TABLE 10

MULTIPLE CORRELATION COEFFICIENTS (R^2) AND THE
DURBIN-WATSON (D-W) VALUES AND TEST

Category	R^2	D-W Values	D-W Test
C_1	.91550	1.9727	NA*
C_2	.96657	1.8799	NA
C_3	.83584	2.3786	NA
C_4	.91799	2.4787	NA
C_5	.68567	1.1469	IN**
C_6	.60324	1.7113	NA
C_7	.98025	1.8099	NA
C_8	.88510	1.2395	IN
C_9	.94536	2.3163	NA

*No autocorrelation.

**Inconclusive.

If a D-W value is smaller than the d_L , then there is autocorrelation. If the value is between d_L and d_U , then the test is inconclusive, and finally if the D-W value is bigger than d_U , there is no autocorrelation. Based on these values, seven of the nine equations are deemed to have no autocorrelation. Only the C_5 and C_8 equations are in the inconclusive area at the 1% significance level and no equation was determined to have autocorrelation. Consequently, it was decided that no adjustments needed to be made for an autocorrelation problem.

4.4 The Prediction Table

Table 11 gives the prediction interval²⁰¹ for Y_{1977} for two confidence intervals, the $\hat{Y}$, and the Y_{1977} . The 90% prediction interval, based on the used formula, represents an interval above and below the estimated regression line which is smaller in comparison to the one for 95%. According to this Table, all actual values of XCB for 1977 across the 9 categories are included in the prediction intervals (8 in the 90% and 1 in the 95%). The successful predictions in all nine categories demonstrate the predictive power of the hypothesized model of XCB for a one year time frame.

From Table 10 we saw that for some C_s the R^2 's are relatively low. From Table 11 we see that for the same C_s the predictive power of the regression equation was not weak.

TABLE 11

PREDICTION TABLE

Category	Prediction Interval for the Individual Y_{1977}		$\hat{Y}$	Y_{1977}
	90%	95%		
C_1	.02452	.08578	.05515	.04080
C_2	.00353	.02411	.01382	.01380
C_3	.00011	.00953	.00482	.00704
C_4	-.00042	.02644	.01301	.02172
C_5	.00778	.03464	.02121	.01119
C_6	-.00652	.00678	.00013	.00243
C_7	.20604	.29456	.25030	.28422
C_8		-.05345 .08253	.01454	.07223
C_9	.14177	.27233	.20705	.18375

This can be explained by the fact that we forecasted for only one year. We would expect that over long periods of time, or even for different years, the equations with higher R^2 's would be better predictors.

In the next group of tables (12-20), we report the regression equations and the level of significance for the various coefficients. In many cases, these coefficients are not statistically significant, something which also seems to weaken the predictive power of the model. One explanation for these results is that the analysis is based on only twenty-five observations. Another concerns multicollinearity. Referring to this case (high R^2 , none of the b_i 's significant), Maddala²⁰² wrote:

. . . [it] occurs often in econometric application and is referred to as multicollinearity. The problem is that though the explanatory variables as a group can explain the dependent variable well, the effect of each variable separately cannot be estimated with any reasonable degree of precision. This problem occurs usually in cases where the explanatory variables are highly intercorrelated. . .

The above explains why the regression equations for some C_s with statistically insignificant coefficients, were strong predictive tools.

4.5 The Regression Equations

The following Tables 12 through 20 give the regression equations for the 9 C_s , the standard error of the coefficients (B), the F value of the coefficients, and the

level of significance for each coefficient. The level of significance was estimated with the same method described in 4.2.

From these tables we see that many Bs are statistically insignificant. As mentioned earlier, this may be the result of multicollinearity and/or the small sample size.

Table 21 refers to the correlation matrix of the independent variables. From this Table we can see high to very high correlations, representing a multicollinearity problem.

There are many methods²⁰³ available to solve the problem of multicollinearity. However, since our proposed model was intended to be tested only as a predictive tool, nothing was done to solve this problem. Only if a structural analysis was performed would the multicollinearity problem be an issue. Regarding the sample size issue, we are constrained by the limitations of the data that are available.

As a result of these two points, any structural analysis should be avoided. The findings of such an analysis would probably be meaningless. The individual parameters of the regression equation are sufficiently unstable for this type of analysis to be productive.

TABLE 12

REGRESSION EQUATION FOR C_1

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
-14.253	--	--	--
.0000034977 x_1	.000	1.654	I**
- .0017204 x_2	.003	.303	I
.000044530 x_3	.000	.439	I
.00062216 x_4	.002	.098	I
.75953 x_5	.667	1.295	I
-27.125 x_6	11.211	5.854	S* at 1%
.000031360 x_7	.000	2.513	I
.0097334 x_8	.032	.092	I
.0073606 x_9	.003	6.473	S*at 1%

*Significant.

**Not significant.

TABLE 13

REGRESSION EQUATION FOR C_2

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
-1.939217	--	--	--
.0000020434 X_1	.000	4.987	S* at 1%
.00067765 X_2	.001	.415	I**
- .0000078611 X_3	.000	.121	I
- .000049424 X_4	.001	.005	I
- .59466 X_5	.224	7.016	S at 1%
.93955 X_6	3.771	.062	I
- .000016792 X_7	.000	6.366	S at 1%
- .0069386 X_8	.011	.414	I
.0010490 X_9	.001	1.162	I

*Significant.

**Not significant.

TABLE 14

REGRESSION EQUATION FOR C_3

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
.32523	--	--	--
-.0000000071921 X_1	.000	.000	I**
-.00034936 X_2	.000	.530	I
-.0000018047 X_3	.000	.031	I
-.00010190 X_4	.000	.112	I
.036283 X_5	.102	.125	I
.095455 X_6	1.721	.003	I
-.0000076580 X_7	.000	6.359	S* at 1%
-.00096734 X_8	.005	.039	I
-.00016994 X_9	.004	.146	I

*Significant.

**Not significant.

TABLE 15
REGRESSION EQUATION FOR C_4

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
-8.8435	--	--	--
- .0000018880 X_1	.000	2.519	I**
.00075059 X_2	.001	.301	I
- .000022128 X_3	.000	.567	I
.0014634 X_4	.001	2.845	S* at 5%
- .090219 X_5	.292	.096	I
-4.6580 X_6	4.903	.903	I
- .0000067916 X_7	.000	.616	I
- .0074421 X_8	.014	.282	I
.0045954 X_9	.001	13.190	S at 1%

*Significant.

**Not significant.

TABLE 16

REGRESSION EQUATION FOR C_5

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
-3.8177	--	--	--
.0000018899 x_1	.000	2.513	I**
- .0010467 x_2	.001	.583	I
.000034214 x_3	.000	1.348	I
- .00062145 x_4	.001	.511	I
- .059125 x_5	.292	.041	I
-5.8398 x_6	4.914	1.412	I
- .0000047868 x_7	.000	.305	I
.017159 x_8	.014	1.492	I
.0019901 x_9	.001	2.462	I

**Not significant.

TABLE 17
REGRESSION EQUATION FOR C_6

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
-3.2444	--	--	--
.00000086679 X_1	.000	2.146	I**
- .00092924 X_2	.001	1.867	I
- .0000081742 X_3	.000	.313	I
.00027435 X_4	.000	.404	I
- .53327 X_5	.145	13.495	S* at 1%
1.5301 X_6	2.439	.394	I
- .0000043255 X_7	.000	1.010	I
- .0020555 X_8	.007	.087	I
.0017152 X_9	.001	7.428	S at 1%

*Significant.

**Not significant.

TABLE 18

REGRESSION EQUATION FOR C_7

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
- 9.267577	--	--	--
- .0000066066 X_1	.000	2.833	S* at 5%
.010357 X_2	.004	5.270	S at 1%
.00021228 X_3	.000	4.789	S at 1%
.00014269 X_4	.003	.002	I**
5.6112 X_5	.963	33.949	S at 1%
-60.392 X_6	16.178	13.934	S at 1%
.000003001 X_7	.000	.011	I
.057327 X_8	.046	1.536	I
.0044629 X_9	.004	1.143	I

*Significant.

**Not significant.

TABLE 19

REGRESSION EQUATION FOR C_8

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
- 33.633	--	--	--
- .0000053575 X_1	.000	1.164	I**
- .0012346 X_2	.006	.047	I
- .00027203 X_3	.000	4.914	S* at 1%
.011764 X_4	.004	10.550	S at 1%
- 1.4358 X_5	1.218	1.389	I
- 5.8010 X_6	20.467	.080	I
- .000039188 X_7	.000	1.177	I
- .099359 X_8	.058	2.884	S at 5%
.017499 X_9	.005	10.977	S at 1%

*Significant.

**Not significant.

TABLE 20

REGRESSION EQUATION FOR C_9

Regression Coefficients B	Standard Error Of B	F Value	Level of Significance
-23.721	--	--	--
.000027084 X_1	.000	21.866	S* at 1%
- .0098213 X_2	.007	2.176	I**
.00011558 X_3	.000	.652	I
- .0023526 X_4	.004	.310	I
- 6.2994 X_5	1.421	19.647	S at 1%
- 2.2664 X_6	23.875	.009	I
- .000043564 X_7	.000	1.069	I
.10177 X_8	.068	2.223	I
.012847 X_9	.006	4.348	S at 1%

*Significant.

**Not significant.

TABLE 21
CORRELATION MATRIX

	PCGNI	NEWS	FT	GA	D	ED	BCA	WAR	YR
PCGNI	1.000	0.966	0.749	0.878	0.996	0.988	-0.860	0.450	0.980
NEWS	0.966	1.000	0.759	0.891	0.960	0.964	-0.932	0.516	0.932
FT	0.749	0.759	1.000	0.951	0.745	0.810	-0.811	0.344	0.683
GA	0.878	0.891	0.951	1.000	0.878	0.926	-0.913	0.548	0.818
D	0.996	0.960	0.745	0.878	1.000	0.992	-0.857	0.481	0.989
ED	0.988	0.964	0.810	0.926	0.992	1.000	-0.897	0.527	0.971
BCA	-0.860	-0.932	-0.811	-0.913	-0.857	-0.897	1.000	-0.651	-0.799
WAR	0.450	0.516	0.344	0.548	0.481	0.527	-0.651	1.000	0.429
YR	0.980	0.932	0.683	0.818	0.989	0.971	-0.799	0.429	1.000

CHAPTER V

SUMMARY, IMPLICATIONS OF THE STUDY AND RECOMMENDATIONS

In this chapter we will briefly summarize the findings of this study, describe the implications of these findings and make some recommendations for further research.

5.1 Summary of Findings

According to the test results, the hypothesized model of XCB was accepted as a short run predictor. The actual 1977 values of XCB were included within the prediction intervals. For 8 categories this interval was 90% and for one (C_8 , recreation and entertainment) the interval was 95%.

According to the findings of the statistical analysis, we have strong indications of multicollinearity. This finding, combined with the fact that the number of the degrees of freedom is very small (the number of observations is relatively small compared to the number of independent variables), indicates that the regression coefficients are unstable. Therefore any structural analysis of the regression

results should be done with extreme caution. Keeping this in mind, it is interesting to note that if all 9 regressions are taken together, all variables of the hypothesized model were statistically significant in at least one equation. More specifically, each of the independent variables was statistically significant in the following product categories:

$X_1: C_2, C_6, C_8$

$X_2: C_6$

$X_3: C_6, C_7$

$X_4: C_4, C_7$

$X_5: C_2, C_5, C_6, C_8$

$X_6: C_1, C_6$

$X_7: C_2, C_3$

$X_8: C_7$

$X_9: C_1, C_4, C_5, C_7, C_8$

The fact that none of the proposed variables consistently failed to be statistically significant indicates that the model has merit.

Finally, a very important finding was that XCB increases over time across every product category.

5.2 Implications of the Study

This study has some implications for marketing

related theory and practice. The unavoidability of increasing XCB over time is something which creates opportunities for international marketers and problems for economic decision makers of the growing economies, especially of LDCs. Market opportunities are translated into easier market development and penetration. With increasing XCB, it appears that international marketers can improve their chances of success by increasing the exposure of their products to the consumers of other countries.

On the other hand, increasing XCB creates problems. As mentioned earlier, XCB has negative consequences, particularly for LDCs. The typical governmental response to this situation is not likely to be successful. Instead of trying to curtail XCB, governments should concentrate their efforts on coping with it. The more productive policies would seem to be increasing the earnings from exports, creating a favorable environment so that multinationals would produce locally, encouraging joint ventures and signing agreements for know-how, patents and brands. Thus, by highlighting the trend of increasing XCB, this dissertation may encourage international marketers to pursue new opportunities and governments to form new policies.

The proposed model itself can be used for short run forecasting of the imports of various products. This forecasting will indicate the foreign exchange requirements in advance and will give some time to the authorities to find

ways to balance their inflows and outflows of F.X. In short, the model proposed in this dissertation is helpful as a planning device.

The above described practical implications of this study are supplemental to its main purpose which was concerned with theory building. The dissertation served to integrate diverse concepts into a cohesive model which was tested. The economic theories of dualism and the international demonstration effect were introduced to marketers and integrated with other factors. In the past they were not used in the study, explanation or prediction of the phenomenon which we called XCB. Also, demographic and psychographic variables were identified and integrated to give a better picture.

The dissertation also served to enrich the developing macromarketing field. We proposed and subsequently tested a model which was based strictly on aggregate figures. Aggregate data are seldom used by marketers. The success of this dissertation may increase interest in using aggregate data in other studies. Furthermore, the operationalization of the variables constitutes a contribution to the environmental approach to marketing. Finally, the findings of this study can be used as input which the comparative approach can process further in order to reach solid generalizations.

5.3 Recommendations for Further Research

To further expand our knowledge on XCB we need to do additional research which should be oriented towards the following. First, efforts should be made to find variables that do not have a problem of multicollinearity so as to have stable regression coefficients. This will allow a thorough structural analysis of the regression results which will lead to the isolation of the most important determinants of XCB.

Secondly, some additional variables might also be included in the model to improve its value. Possible variables are domestic production, exchange values and import tariffs. Recognizing the difficulties of operationalizing a model which will include these additional variables, we suggest that it might be easier to study the XCB across a very limited number of products.

Thirdly, subsequent research in this area should seek to refine the operationalizations of the variables studied. Being a first attempt, the operationalizations used were acceptable, but "richer" variables are needed. This is particularly true for the exposure variable. Since exposure is a very important variable in our model, a more accurate operationalization is recommended. This might include the number of T.V. sets and radios or the advertising expenses of foreign products. The reader will recall that data availability was a problem here.

Fourth, XCB should be measured across an additional number of products. This will permit more solid generalizations on the issue of where XCB is stronger or weaker. In addition, more narrowly defined product categories would be helpful for more specific predictions.

Fifthly, more case countries are needed for comparative purposes. Only by studying diverse environments can we better understand the relative importance of each of the variables included in the model.

Sixthly, the model should be tested for its predictive value over a longer time horizon. If it were to prove successful in predicting two, three, or four years hence, as well as the one year prediction period examined here, the model would enhance its worth to government planners.

Finally, the usual call for additional research and replication is forwarded here. However, this is particularly important in this case because of the dearth of marketing studies in LDCs, macromarketing, research, studies with a longitudinal design, and making research using aggregate data.

FOOTNOTES

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¹⁷⁷ The difference between private national consumption (PNC) and private domestic consumption (PDC) is due to the fact that for a given country some of its citizens reside and therefore consume abroad as well as foreign citizens reside in this country. The following formula gives this relationship:

	PDC
Plus	Consumption expenditures of citizens abroad
Minus	Consumption expenditures of foreign citizens
Equals	PNC

¹⁷⁸ Ministry of Coordination, National Accounts of Greece, 1948-1959 (Athens, 1961), pp. 23-24. In Greek.

¹⁷⁹ The general formula of value added by a specific producing unit is the following:

	Value of output sold
Minus	Value of products purchased from other companies
Equals	Value added

¹⁸⁰ For the case of Greece, this assumption is more or less realistic because during the last 26 years, no major changes occurred in the structure of distribution channels. Taxes, tariffs and duties, on the other hand, gradually decrease, mainly as a result of the association of Greece with EEC. This contractual obligation is ignored when the balance of current accounts is unfavorable, something which happens frequently. In these situations, the Greek government discourages imports by non-tariff barriers such as quotas, required monetary reserves, other taxes, etc.

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¹⁸⁶As mentioned earlier, in the consumption of transportation services category, instead of the CIF value of imports of personal transport equipment, we took the final value at market prices. On the other hand, studies abroad and tourism abroad, although they are not customarily reported as imports, in this model they are treated as imports. Their value is expressed in final market prices.

¹⁸⁷Jae-On Kim and Frank J. Kohout, "Multiple Regression Analysis: Subprograms Regression," in N. H. Nie, C. H. Hull, J. G. Jenkins and K. Steinbrenner and D. H. Bent (eds.), Statistical Package for the Social Sciences, SPSS, 2nd ed. (New York: McGraw-Hill Book Co., 1975), p. 321.

¹⁸⁸W. M. Gorman, "Separable Utility and Aggregation," Econometrica, Vol. 27, No. 3 (July 1959), p. 469.

¹⁸⁹Robert H. Strotz, "The Empirical Implications of a Utility Tree," Econometrica, Vol. 25, No. 2 (April 1957), p. 269.

¹⁹⁰Samprit Chatterjee and Bertram Rice, Regression Analysis by Example (New York: John Wiley & Sons, 1977), p. 123.

¹⁹¹Ibid., pp. 125-127.

¹⁹²Jan Kmenta, Elements of Econometrics (New York: The MacMillan Co., 1971), p. 294.

¹⁹³Chatterjee and Price, op. cit., p. 128.

¹⁹⁴Ibid., p. 128.

¹⁹⁵J. Johnston, Econometric Methods, 2nd ed. (New York: McGraw-Hill Book Co., 1972), p. 176.

¹⁹⁶Thomas H. Wonnacott and Ronald J. Wonnacott, Introductory Statistics, 3rd ed. (New York: John Wiley & Sons, 1977), p. 385.

¹⁹⁷Ibid., p. 603.

¹⁹⁸Robert B. Miller and Dean W. Wichern, Intermediate Business Statistics (New York: Holt, Rinehart and Winston, 1977), pp. 287-291.

¹⁹⁹T. H. Wonnacott and R. J. Wonnacott, op. cit., pp. 421-422.

²⁰⁰Ibid., pp. 427-428.

²⁰¹Ibid., pp. 259-261.

²⁰²G. S. Maddala, Econometrics (New York: McGraw-Hill Book Co., 1977), p. 123.

²⁰³Ibid., pp. 190-194.

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