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NOTES ON IMPORT DEMAND IN THE PHILIPPINES

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*These notes are based on a study of monograph length entitled "Import Demand in the Philippines" being written by Gerardo P. Sicat, Associate Professor of Economics, the School of Economics, University of the Philippines.

In the decade of the 1950's, Philippine economic policy was dominated by a conscious import substitution strategy characterized by import and exchange controls, domestic tax-free incentives for new industry, and a squeeze of export earnings to help finance the industrial effort. The result was a structural change in import demand over the years. The brief aim of these notes is to show the response of commodity imports to changes in income and to foreign exchange policies.

By 1960, the system of import and exchange controls had given way to a more market-oriented foreign exchange policy. The steps taken between 1960 to 1961 represented the gradual removal of controls. Except for a 20% retention rate imposed by the Central Bank on export earnings,

the major foreign exchange reform of January 20, 1962 completely freed the exchange rate of the peso to the dollar. The monetary authorities have supported this exchange rate successfully for some 5 years now.

The above historical background is recounted precisely for the reason that the import demand of the Philippines for the period 1953 to 1963 have been subjected to an analytical study. In this study, data of imports are analyzed by commodity groups in relation to price movements of these commodity groups within and outside the country, to income movements, to the availability of foreign exchange, and lastly to the institution of "controls" or lack of them.

These notes will emphasize the aspects of the findings of this study relating to income movements, to the period of controls or decontrol, and to some special characteristics displayed by particular commodity groups. The methodological issues concerning the analysis are too cumbersome to spell out here;[1] they are therefore laid aside in these notes.

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[1]Needless to say, these issues are treated in the study being written.

1 The aggregate time profile of imports and GNP. In terms of total imports, there was not much dramatic change. Beginning with imports of a little over than $450 million (f.o.b.) in 1953, imports rose to a peak of $620 million in 1957. Such a level was not exceeded until after 1963. On the other hand, from the export side, there was evident a fast rate of export growth, mainly because of the development of iron ore and logs exports to Japan during this period and the fact that to begin with, exports began at a much lower level compared to imports at the beginning of the period. It is well-known that the period was largely characterized by difficulties in the balance of payments.

We see a change in the pattern of import composition when broad commodity groups, however, are examined. For instance, we may take the ECAFE classification of Philippine imports which are the ones reported in United Nations economic surveys. While in 1953 consumption goods imports accounted for slightly over 65 per cent of total imports, by 1963 consumption goods imports were less than 55 per cent of total imports. This involved a reallocation of import components by about 10 per cent from consumption goods into capital goods imports.

Using a somewhat different, "official" Central Bank version for classifying imported commodities, "essential producer" imports accounted for slightly less than 40 per cent of total imports in 1954. By 1963, the same imports accounted for 60 per cent of total imports.

The gross national product (GNP) in current prices rose from a little less than ₱8 billion in 1953 to ₱17 billion in 1963. In terms of constant 1955 prices, GNP rose from ₱7.5 billion to ₱12.5 billion in 1963. These indicate a high rate of growth of gross national product in the period under consideration. Much of this growth has been observed, however, during the 1950's. A slackening of growth as the 1960's came was very noticeable. The slackening of economic growth up to 1963 was due in part to readjustments being made by sectors of the economy to the new foreign exchange policy.

Relation of certain commodity imports to movements in income

Results for a number of commodity groups are reported in the attached tables. These results are elasticities of import demand with respect to the movements of the gross national product in current prices as reported in the national

IMPORT DEMAND FOR 33 COMMODITY IMPORTS

OF THE PHILIPPINES, 1953-1963

	Income Elasticities of Import Demand	Effects of Control or De-control
Meat and Meat Preparations	5.107	*
Dairy Products, Eggs & Honey	3.168	NS
Cereals & Cereal Preparations (not rice)	2.146	NS
Fruits and Vegetables	-1.910	*
Sugar and Sugar Preparations	NS	NS
Coffee, Tea, Cocoa, Spice & Manufactures Thereof	2.830	*
Tobacco & Tobacco Manufactures	5.884	*
Pulp and Waste Paper	NS	**
Textile Fibers (not Manufactured into yarn, thread, or fabrics) and waste	-8.94	**
Crude Fertilizers and Crude Minerals, Excluding Coal, Petroleum & Precious Stones	1.38	**
Animal & Vegetable Crude Materials, Inedible	3.12	NS
Animal & Vegetable Oils (not Essential Oils) fats, greases, derivatives	1.58	NS
Chemical Elements & Compounds	1.78	*

	Income Elasticities of Import Demand	Effects of Control or De-control
Mineral Tar & Crude Chemicals from Coal, Petroleum, & Natural Gas	NS	NS
Medicinal & Pharmaceutical Products	NS	*
Essential Oils (all kinds) & Perfume Materials, Toilet, Polishing & Cleansing Preparations	2.97	*
Manufactured Fertilizers	-5.69	NS
Explosives & Miscellaneous Chemical Materials & Products	1.543	**
Leather, Leather Manufactures, n.e.s. dressed furs	-1.52	NS
Rubber Manufactures	NS	NS
Wood and Cork Products	1.502	**
Paper, Paperboard, & Manufactures Thereof	3.01	**
Textile Yarn Fabrics, Made-Up Articles & Related Products	1.61	**
Non-metallic Mineral Manufactures, n.e.s.	6.48	**
Base Metals	5.53	**
Machinery	5.97	**
Other Machinery, Apparatus & Appliances	3.90	**
Transport Equipment	4.72	**

	Income Elasticities of Import Demand	Effects of Control or De-control
Prefabricated Buildings, sanitary plumbing, heating, lighting fiXtures & fittings	-2.16	NS
Travel Goods, Handbags & Similar Travel Articles	NS	NS
Clothing (Exclusive of Used Clothing)	4.817	*
Footwear	-2.81	**
Professional Scientific & Controlling Instruments: Photographic & Optical Goods, Watches	NS	NS

* The period of controls (1953-59) characterized somewhat higher importations of the commodity.

** The period of decontrol (1960-1963) characterized higher importations of the commodity concerned.

NS Not statistically significant.

income accounts. They are chosen from a number of statistical multiple regressions of imports involving variables such as home and import prices of the commodities, foreign exchange supplies, level of the gross national product and a special variable distinguishing the period of foreign exchange controls, 1953-1959, from that of decontrol. All the above data were converted into indexes using 1955 as the common base year. There are 42 subgroups of commodities for whichsimilar computations have been performed, but the results for these are not reported in these notes. Reference to a few of these results may be made in the discussion below. The elasticities reported are derived from the best results from a statistical viewpoint. Therefore, the elasticity coefficients are statistically significant. Whenever this is not the case, due notation is made.

Varying income elasticities of import demand are observed. The most common pattern is a positive value for the elasticity, which is to be expected. An increase in income increases the importation of a commodity, unless the commodity is being rapidly substituted by domestically produced commodities or by competing imports, or else some other important variable swamps the effect of income. The

elasticities have relatively high values, that is, the commodity imports appeared very responsive to changes in imports. The highest elasticity computed is for non-metallic mineral manufactures, which has an elasticity value of 6.48. Other commodities with high income elasticities of import demand are: base metals, machinery, meat & meat preparations, transport equipment, clothing, and tobacco & tobacco manufactures, dairy products, cereals & cereal preparations, the commodity group of coffee, tea, cocoa & spices, animal & vegetable crude materials, and paper & paper manufactures.

Commodity groups with moderate income elasticities are crude fertilizers and crude minerals, animal vegetable oils, chemical elements & compounds, explosives, wood & cork products, and textile yarn fabrics. Most of the imports mentioned are intermediate goods, not designed for final consumption. The elasticities of these goods are still elastic and they range in value from 1.5 to 2.

There are commodity groups which had negative income elasticities of import demand, the most negative of which is the demand for (unmanufactured) textile fibers, prefabricated buildings, sanitary plumbing, heating, lighting fixtures &

fittings, and fruits & vegetables. Some of the refinements in particular commodity behavior is lost because of aggregation. The explanations for some of these peculiar results are found elsewhere. It is obvious that since these commodities are hardly what are technically known in economic theory as inferior goods, their income elasticities taken for the commodities as a whole are positive in value. But their corresponding income elasticities of import demand can have negative values. Suppose the commodity which used to be imported is produced domestically so that some effective import substitution takes place. Then as income grows, the import of the commodity need not increase. Because of a change in the components of the commodity group and the changing structure of import substituting industries, such negative income elasticities for some commodity groups are not entirely unexpected.

Foreign Exchange Controls, Decontrol, and Import Demand

It has been pointed out that a special variable distinguishing the period of foreign exchange controls (1953-1959) from the period of decontrol (1960-63) has been introduced into the analysis. It is now necessary to remark on the apparent effects of the institution of controls and their dismantling on the importation of the commodities studied.

Whereas some of these commodities may have been imported under the import and exchange licensing regime of the 1950's, it is important to ask the question as to whether such importations still continued into the period when these stringent import and exchange controls no longer existed. It may also be pointed out that perhaps the period of controls was just a convenient setting under which most of the important variables determining import demand were operating. If this was the case, then controls did not play a significant role in the determination of some commodity import demand.

Of the 33 commodity import groups which are reported in the table, only 8 commodity groups appeared to have affected importations significantly during the period of controls. By this is meant that there was a somewhat larger importation in these commodity groups than during the period of decontrol. These 8 commodities are: (1) meats and meat preparation, (2) fruits and vegetables, (3) coffee, tea, cocoa, spice & manufactures thereof, (4) chemical elements & compounds, (5) medicinal & pharmaceutical products, (6) clothing (exclusive of used clothing), (7) tobacco & tobacco products, and (8) essential oils like perfume materials, toilet, polishing & cleansing preparations. There were 13 commodity groups that

appeared to have been helped by decontrol. These were: pulp & waste paper, explosives, chemical materials & products, wood & cork products, paper & paperboard products, non-metallic mineral manufactures, base metals, machinery (not electric), other machinery, apparatus & appliances, transport equipment and footwear.

To the other commodity groups, the effects of controls or the period of decontrol were swamped by other more important variables. Thus they were not significantly affected by the presence or absence of controls. Among these commodity groups are: dairy products, cereals & cereal preparations, sugar & sugar preparation, animal & vegetable crude materials, leather & leather manufactures, travel goods, handbags & similar articles, and professional scientific materials like photographic & optical goods.

Some Special Characteristics of Commodity Groups

Many of the results reported in the table did not show characteristics that may be discovered by an examination of the more detailed results when sub-commodity groups are examined. (Recall that, in addition to the 33 groups of imported commodities, 44 commodity sub-groups are also the subject of the study which is being discussed.)

Here are some brief notes on some interesting findings which are not reported in the tables.

(1) Goods which were subject to manipulation by government price stabilization agencies. These goods appeared to be unwieldy in import behavior. Their behavior as commodity groups appeared not to be well related directly with the economic factors studied here. The conclusion one gets out of studying the more detailed results is that these commodity groups do not show a clear response to, say, income or price movements. This conclusion is only with reference to most goods that were in large part the subject of importations by NAMARCO. However, the commodities referred to -- largely meats & meat preparations and dairy products also had imports that were made through regular private channels. The impression from the table shown is that these commodity groups are highly income responsive. Incidentally, rice imports were not included in the study.

(2) Imports which were being substituted by domestic production. The most interesting case perhaps to illustrate these types of imports are tobacco products. The results shown in the tables presented here show a high response of tobacco products importation to GNP changes. But clearly when the tobacco products were divided into un-

manufactured and manufactured tobacco it is clear that the overwhelming response to growth of GNP is due to importation of unmanufactured tobacco (with an elasticity value of 10.6) which was the raw material of the cigarette manufacturing industry. The income elasticity of import demand of manufactured tobacco is -6 (negative!).[2]

Similar cases apply to the importation of cork products and of pulp & waste paper, taken by themselves separately. These imported commodities were inputs to the paper manufacturing industry that were set up in the country. Another example is the importation of petroleum products. The income elasticity of import demand for this commodity group is 6.6 according to the more detailed tables not reported in the study. Pharmaceutical and medicinal products imports also illustrate the commodities that have been replaced by import substitutes.

Another dramatic case of a commodity which was increasingly being substituted domestically is fertilizer.

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[2]Such a result, however, has to be seen in the context of the highly protective tariff and domestic excises on cigarettes. The period under which this study is made was not characterized principally by very excessive smuggling of cigarettes. However, that some smuggling existed for this commodity even then should make this elasticity estimate perhaps somewhat too unrealistic still.

The value of the elasticity computed for this import is negative. Imported rubber manufactures also did not have any significant response to GNP movements, largely because rubber goods were being substituted domestically. Textile imports still showed substantial response to GNP changes, but such elasticity responses are largely due to the yarn imports which were being used as inputs to the clothing and apparel manufacturing industry as well as to Philippine textile mills which were established in the 1950's. It is to be noted that importation of textile fibers of finished types did not have any significant income elasticity of import demand.

(3) Durable Imports. The income elasticities computed for durable imports, which were largely capital goods, are generally high in value. Construction material elasticities have been in the order of 4.3, imports of power generating machinery 2.1, agricultural machinery 4.5, tractors other than steam 5.1, office machinery 5.4, metal working machinery 5.6, construction and other industrial machinery 6.0, and electrical machinery 4.5. All these rough measures shown are taken from the more detailed commodity results.

Concluding Remarks

The above results are still tentative findings from a study which is still being written. But since all the computational burden has been finished and the selection of results which give the "best representation" of economic reality almost finished, the general findings stated above may be taken as a likely description of import demand in the Philippines from 1953 to 1963. Such findings have very useful policy implications. In fact, they give an important clue to the workings of the import demand structure to the Philippines of the present decade.

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