THE IMPACT OF THE SERVICE ON THE FOREIGN DEBT ON THE MONETARY STRUCTURE IN ARGENTINA: 1955-1965

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ABSTRACT

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By

Percy deForest Warner III

The hypothesis which this study set out to test is that external debt service requirements have been a major deterrent to economic development in Argentina particularly, but not exclusively, through effects on the internal monetary structure. The term "monetary structure" is not used here in the sense of financial institutions, but refers instead to changes in the money market. The hypothesis implies that the number of reactions in the monetary sector, and the degree and severity of the impact, should vary directly with the frequency and size of debt service payments.

Argentina's economic structure has been in the process of transition from a primarily agricultural to an industrial-agricultural orientation since 1945. The government of Juan Perón placed great emphasis on the continuation and expansion of the industrialization process begun in the 1930's. The

agricultural sector was forced to carry the burden of this policy but was otherwise ignored. As a result the income earning potential of the farm sector declined because of stagnation in production and falling prices in the world markets for agricultural products. Faced with persistent balance of payments deficits, and declining foreign exchange reserves, Argentina resorted to foreign borrowing to finance industrial growth.

A brief survey of Argentina's debt service requirements is an indication of the strain which these payments placed on the economy. The amounts, in U. S. dollars, due from 1961 to 1965 were: 1961, $372.5 million; 1962, $372.0 million; 1963, $435.7 million; 1964, $491.0 million; and 1965, $526.2 million. These payments represented between 30 and 40 per cent of the export receipts for those years, and approximately 3 per cent of Gross Domestic Product. Further, these figures represent only public debt service. The figures for private debt service are estimated to increase the total service due by between 50 and 75 per cent.

The increase in the level of Argentine indebtedness since 1955 can be traced to the interaction of two factors: the import requirements of the manufacturing sector, and the inability of the export sector to provide the financial support for these imports. Although the focus of this study is primarily on the impact of the service on the

foreign debt, the forces which acted to create the debt are also examined.

A major obstacle in the analysis of international indebtedness, however, is the lack of data. While data do exist, they are generally at such a high level of aggregation that meaningful analysis of debt service is difficult. It was necessary to extract the required information from the balance of payments. In this manner, data on Gross and Net Debt Service were developed.

The data were then regressed to changes in the real and nominal money supply in Argentina from 1955 to 1965. The results were negative, rejecting the hypothesis that foreign debt service had an impact on the internal monetary market in Argentina.

A review of the literature showed a continuing interest in the problems of capital flows and economic development. The emphasis, however, was placed on the capacity to service and the ability to absorb foreign investment by the recipient country. The emphasis in this study was shifted to the domestic repercussions of the service on foreign investment. The results indicate that the monetary repercussions are minimal, and we are now free to consider other aspects of the problem.

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Percy deForest Warner III

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To Mary--

who started it all so long ago.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION

Argentina's economic structure has been in the process of transition from a mainly agricultural to an agricultural-industrial orientation since 1945. The government of Juan Domingo Perón placed great emphasis on the continuation and expansion of the industrialization process begun in the prewar period. The agricultural sector, which was to support this policy by supplying the foreign exchange necessary for the import of capital goods, was neglected and was even forced to "carry" the burden of the development plan. As a result, the income earning potential of the farm sector declined because of stagnation in production and falling prices in the world market for agricultural products. In addition, large reserves of gold and foreign exchange which had accumulated during the Second World War were spent to achieve political rather than economic ends. Faced with persistent balance of payments deficits and declining foreign exchange reserves, Argentina resorted to foreign borrowing to finance industrial growth.

Argentina was not alone in choosing this approach to industrial growth. A study of debt servicing capacity and international debt after World War II showed that for 36

underdeveloped countries, debt service increased an average of 80 per cent from 1948 to 1955.[1] Argentina's economic performance in this period was described as having had "sluggish growth in per capita income, slow development or decline in the volume of exports, and . . . a virtual stagnation in savings rates."[2] While the performance of the Argentine economy during this period was undoubtedly affected by the policies of the Perón government, which were undertaken for political as well as economic reasons, Argentina's economy since 1955 has shown little improvement. A partial explanation of this behavior may be found in the recurrent pressures placed on domestic financial resources.

A brief review of Argentina's debt service requirements is indicative of the strain which these payments placed on the economy. The amounts, in U.S. dollars, due in the five year period 1961-1965 were: 1961, $372.5 million; 1962, $372.0 million; 1963, $435.7 million; 1964, $491.0 million; and 1965, $526.2 million. These amounts represented between 30 and 40 per cent of the export receipts for those years and approximately 3 per cent of Gross Domestic Product. Furthermore, these figures include only the public debt service. The service on the foreign

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[1] Dragoslav Avramovic, Debt Servicing Capacity and Postwar Growth in International Indebtedness (Baltimore, Md: The Johns Hopkins University Press, 1958).

[2] Ibid., p. 153.

private debt is estimated to be between 50 and 75 per cent of the public debt requirements.[3]

This dissertation will examine the relationship between the foreign debt service and economic growth in Argentia from 1955 to 1965. The hypothesis to be tested is that external debt service requirements have been a major deterrent to economic development in Argentina, particularly but not exclusively, through effects on the internal monetary structure. The term "monetary structure" is a broad one which includes both institutional changes and changes in the price and quantity of money. While institutional changes are briefly discussed, the changes in the monetary structure as indicated by the behavior of some of its component parts will be emphasized. The amount of credit, the availability of credit, the behavior of interest rates, and changes in the money supply are among those components which will be examined. The hypothesis suggests that the degree of change in these variables will vary directly with the frequency and magnitude of foreign debt service. If the hypothesis is correct, then large debt service will lead to a "tightening" of money--restrictions on credit, increases in the rates of interest, and contractions of the money supply. This could, ceteris paribus, lead to a slowdown in the rate of economic growth. If, on the other hand, the hypothesis is untrue, the impact of foreign debt service will have to be found elsewhere.

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[3]A more complete discussion of the growth of the foreign debt will be given in Chapter III.

There are a number of reasons for beginning the analysis in 1955. Several factors, (the level of gold and foreign exchange reserves, the size of the foreign debt, the amounts of debt service due, and the worsening balance of payments), began to emerge as serious constraints in the determination of economic policy in that year. These factors, coupled with stagnation in the industrial sector, reductions in agricultural output, and a combination of social and political pressures,resulted in the overthrow of Perón.

It was an explicit policy of the Perón government to "reduce the external debt and place foreign owned public services in the hands of [the Argentine people] . . ."[4] This resulted in a precipitous decline in Argentina's net reserves of gold and foreign exchange. Between 1946 and 1948, net reserves fell by more than one billion dollars.[5] It was during this period that Perón purchased the British-owned railroads, (which even at that time were losing money), and the telephone system from the International Telephone and Telegraph Company.[6] By 1955, when Perón was

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[4]Memoria Anual del Banco Central: 1948, Buenos Aires, 1949, p. 11. (Unless otherwise noted, all translations are by the author.)

[5]A more complete discussion of the concept of "net reserves" of gold and foreign exchange is included in Chapter IV.

[6]For the railroads, which would have become the property of the Argentine Government within five years, upon the expiration of their contract, Perón paid over $500 million.

overthrown, net reserves had fallen from $1,686.6 million to $119.0 million. While there had been an almost steady erosion of reserves from 1946, only once did the level of reserves fall below $357 million. This occurred in 1952 as a result of a crop failure which caused a fall in export earnings of almost $500 million. The following year net reserves rose to $377 million (see Table 1). During the 1955-1965 period, however, the level of Argentina's reserves of foreign exchange fell below the amount of her obligations in foreign exchange.

In 1955, furthermore, the size of these obligations began a rapid increase. The total foreign debt at the end of 1955 was estimated to be $757 million.[7] By 1965, the size of the foreign public debt had grown to an estimated $2,098.4 million. Moreover, the Central Bank estimated the foreign private debt to be approximately $1,114.1 million, making the total debt over 3 billion dollars, four times the size of the debt in 1955.[8]

Partly as a natural consequence of the growth in the total debt, and partly as a result of past debts on which payment had been deferred, the service on the foreign debt began to increase rapidly. Most of the debts contracted in

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[7]Of which $642 million were for imports of both the public and the private sector, payments for which had been deferred.

[8]The structure and composition of the foreign debt will be more thoroughly discussed in Chapters III and IV.

TABLE 1.--Reserves of gold and foreign exchange 1946-1965.
(in millions of dollars)

Year	Gross reserves of gold and foreign exchange	Gold	Foreign exchange	Assets convertible in foreign exchange[a]	Claims on foreign exchange	Net reserves of gold and foreign exchange
1946	1,733.4	1,090.3	643.1	-	46.8	1,686.6
1947	1,175.9	337.9	838.0	-	12.8	1,163.1
1948	772.3	142.6	629.7	-	98.7	673.6
1949	664.6	210.3	454.3	-	140.7	523.9
1950	843.2	210.3	632.9	-	152.7	690.5
1951	707.6	266.7	440.9	-	350.6	357.0
1952	608.0	286.7	321.3	-	423.8	184.2
1953	633.4	371.5	261.9	-	256.3	377.1
1954	654.3	371.5	282.8	-	283.4	370.9
1955	509.2	371.5	137.7	-	390.2	119.0
1956	433.6	224.1	209.5	-	334.1	99.5
1957	333.2	125.7	207.5	-	298.4	34.8
1958	179.1	59.5	119.6	-	358.5	-179.4
1959	396.5	56.1	334.1	6.3	392.2	4.3
1960	702.9	103.5	194.2	405.2	480.0	222.9
1961	501.9	189.6	141.3	171.0	397.5	104.4
1962	195.8	60.6	94.2	41.0	360.1	-164.3
1963	326.9	77.6	109.2	140.1	314.1	12.8
1964	198.0	71.0	55.8	71.2	208.4	- 10.4
1965	269.2	65.9	50.3	153.0	152.1	117.1

[a]This includes British and United States Treasury Credits, IBRD Bonds, and time deposits and bank acceptances.

Sources: 1946-1958, Memoria Anual del Banco Central: 1958, Buenos Aires, 1959, p. 5.
1959-1963, Memoria Anual del Banco Central: 1963, Buenos Aires, 1964, p.55.
1964-1965, Memoria Anual del Banco Central: 1965, Buenos Aires, 1966, p.73.

the early 1950's contained provisions for deferred payments of between seven and ten years. The result was that the debt service due more than doubled between 1955 and 1965. This meant that while at the end of 1955 Argentina was in the unenviable position of having $119.0 million in reserves with $260 million in debt service coming due in 1956, her position was much worse in 1965. Throughout the 1955-1965 period, Argentina's net reserves were never sufficient to "cover" the debt service liabilities of the current year.

In 1955, pressures on Argentina's balance of payments began to intensify. This is linked very closely with the behavior of the net reserves of gold and foreign exchange. In order to insulate the domestic economy from the seasonal nature of its exchange earning capacity, the authorities of the Central Bank try to keep 25 per cent of the previous year's import bill on hand.[9] This is due to the seasonal nature of Argentina's exports. The income from the major export, meat, is supplemented in three of the four seasons by exports of grain, cereal and wool. As is shown by Table 2, during the 1955-1965 period the year-end level of net

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[9]There is, apparently, no official statement of policy to this effect. It is, however, so much a part of the "folklore" at the Central Bank that it has become a sine qua non of Central Bank policy. James W. Foley, whose research deals with the impact of balance of payments pressure on import substitution industrialization, uses a technique based on this requirement to define balance of payments pressures. See James W. Foley, "The Balance of Payments and Import Substitution in Argentina, 1951-1961." (unpublished Ph.D. dissertation, Michigan State University, 1969).

TABLE 2.--Foreign exchange reserves as a percentage of the import bill 1955-1965.
(in millions of dollars)

Year	Net foreign exchange reserves	Import bill	Net reserves as a percentage of the import bill
1955	119.0	1,172.6	10.15
1956	99.5	1,127.6	8.82
1957	34.8	1,310.4	2.66
1958	-179.4	1,232.6	-14.55
1959	4.3	993.0	0.43
1960	222.9	1,249.3	17.84
1961	104.4	1,460.3	7.14
1962	-164.3	1,356.5	-12.11
1963	12.8	980.7	1.31
1964	- 10.4	1,077.4	- 0.97
1965	117.1	1,195.0	5.80

Sources: "Net Reserves" Table 1.

"Import Bill" Consejo Nacional de Desarrollo, "El Balance de Pagos en la Argentina" Mimeographed, 1966.

foreign exchange reserves never exceeded 18 per cent of the import bill. This meant that during this period the authorities, rather than being able to use foreign exchange reserves to amortize the foreign debt, were under pressure to increase the debt to support the level of imports.

Finally, 1955 marks the fall of the Perón government. The revolutionary government undertook to revise the institutional structure of the Perón regime and dismantle the apparatus of government intervention. The Central Bank was reorganized and given greater autonomy. Domestic investment was encouraged and foreign investment, an anathema to Perón, was actively courted. Negotiations were immediately begun for joining the International Monetary Fund and the International Bank for Reconstruction and Development. An economic mission was dispatched to Europe to consolidate the official and commercial debt, and arrange terms of payment more favorable to Argentina. The abrupt changes in the institutional and financial environment led to significant changes in economic policy.

Thus 1955 marked a turning point in the economic history of Argentina. The decline in the reserves of gold and foreign exchange, the growth of the foreign debt, the increased pressure on the balance of payments, and the revolutionary change in government are compelling reasons for beginning the analysis in 1955.

The first phase of the study is to estimate the size of Argentina's foreign debt for each year throughout the period. In order to do so, it is necessary to take into account debt outstanding which was incurred prior to 1955. Although Perón made it a policy of his government to retire all foreign obligations, the chief economic advisor to the new government found that at the time of Perón's overthrow in 1955 there were approximately $757 million in debts outstanding.[10] Taking this as a starting point, the total debt for each year is calculated. In addition, this phase of the study will necessitate the calculation of the service due on the debt, the gross service paid, and the net service paid for each year. This necessarily included a study of all renegotiations of the debt. These will be defined and developed in Chapter IV.

The study of the foreign debt was to have been considered in two parts: public and private. Information pertaining to the private debt, except those transactions which involved the Central Bank directly, is unavailable. In recent years, the Central Bank developed a research design which provided crude estimates for the amount of the private debt for 1964 and 1965. There are, however, no estimates of total foreign private debt for the preceding

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[10]Raúl Prebisch, "Informes del Señor Asesor Económico y Financiero de la Presidencia de la Nación," Memoria Anual del Banco Central: 1955, Appendix I, p. iv.

years. Service on the foreign private debt can be estimated from balance of payments statements, and this will be used in the calculations.

Information on the foreign public debt and part of the foreign private debt is available from the Central Bank. This debt includes government-to-government loans, loans from private corporations, supplier credits, and funds made available from international organizations such as the International Monetary Fund, (IMF), and the International Bank for Reconstruction and Development, (IBRD).[11] This information, while highly charged politically, is nonetheless available, as are the statements of debt service due and data on renegotiation of the public debt.

It is therefore possible to construct a schedule of total debt and debt service due for Argentina for the period 1955-1965. The Argentine balance of payments will be used to develop information on the amount of debt service paid in each year. As indicated earlier, this includes payments on the private debt as well, with the result that it is possible to calculate the total amount of payments made by Argentina on debts abroad each year.

The second phase of the study will focus on the monetary structure and its various component parts. The amount and availability of credit, the structure and level

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[11] While some Argentine public debt was held abroad privately, especially prior to World War I, this is no longer significant.

of interest rates, and the supply of money will be examined. The 1955-1965 period was marked by rapid inflation which will have to be taken into account. The role of the Central Bank in the process of money creation and money destruction will be examined, as will the part played by other financial institutions. All of these factors will be analyzed in order to establish the relationship, if any, to the service on the foreign debt.

The results of the investigation are organized and presented in six chapters. Chapter I provides some background information, sets out the hypothesis, and indicates the direction in which the dissertation proceeds. Chapter II will present an historical analysis of the reasons for the foreign debt and changes in it through time. Chapter III will discuss the balance of payments and the foreign debt in greater detail. In Chapter IV the concepts of the foreign debt, gross debt service, net debt service, and the money supply will be given operational definitions. Chapter V will present the reasoning, the method, and the results of the study. And in Chapter VI, the results of the investigation will be discussed in relation to other studies in the field.

CHAPTER II

AGRICULTURE, INDUSTRIALIZATION, AND THE BALANCE OF PAYMENTS

The increase in the level of Argentine indebtedness since 1955 can be traced to the interaction of two factors: the import requirements of the manufacturing sector, and the inability of the export sector to provide the financial support for those imports. Moreover, the requirements of investment in social overhead capital placed an additional burden on an already strained balance of payments, and the resulting balance of payments deficit led directly to the growth of the foreign debt. Although this study is focused primarily on the foreign debt and the monetary repercussions of the service on the debt, it is useful to examine the forces which acted to create the debt and to provide a broad background against which the problem may be set.

Significant changes have occurred in the structure and organization of the Argentine economy, if not the social fabric itself. There were radical changes in the distribution of income and, especially during the Perón era, changes in the political power bases in Argentina occurred.[1] The

[1]Portnoy shows that the share of national income going to labor rose from 45.9 per cent in 1945 to 55.0 per cent in 1955. Leopoldo Portnoy, La Realidad Argentina en el Siglo XX, Vol. II, pp. 92-93.

urban growth of the last twenty-five years created urban-rural tensions unknown at the beginning of the 1930's. The roots of these changes lie in the change in economic organization from that of a predominantly agricultural to a more industrially oriented economy.

For these reasons, this chapter is devoted to a brief discussion of the growth of industrialization, the behavior of the agricultural sector, and the balance of payments. While the emphasis in this study is on the 1955-1965 period, the problems are related to events which occurred, and attitudes which were shaped, further back in time. Some parts of this chapter, therefore, treat problems which began in the 1930's. An awareness of these factors, however, is essential to an understanding of the problem of the foreign debt.

By 1900, Argentina had already achieved some progress in industrialization. The census of that year showed a little over 18 per cent of the labor force classified as being employed in "manufacturing." The most important of these industries were those connected with agricultural exports--that is, meat packing and processing. Other industries were largely in the areas of furniture, construction (bricks), clothing (from imported as well as

domestic materials), and maintenance of machinery and equipment. Industry was not particularly diversified until World War I. Then traditional sources of manufactured goods were cut off and Argentine export prices rose. Under these conditions import competing industries flourished, some new industries were started, and established firms increased production.

The stimulus for industrialization was lost at the end of World War I. As the European countries began their economic recovery, European goods began to reenter the world market. Argentina, during the postwar period, had no effective barriers to foreign competition. Tariffs were low and designed to provide revenue, not protection for domestic industry. As a result, during this period European goods and investment capital entered Argentina in large amounts. Domestic production, unable to compete with imported goods, soon declined to a position of relative unimportance.

Moreover, most of the new industries which had sprung up during the war had been started by immigrants whose position on the socio-economic scale was very low.[2] The real power rested with the large landowners in Argentina who advocated "free" trade, feeling that this could only

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[2]Hugh H. Schwartz, "The Argentine Experience with Industrial Credit and Protection Incentives, 1943-1958" (unpublished Ph. D. dissertation, Yale University, 1967), p. 15.

benefit Argentina's exports while providing them with desired imports.

The first impulse to industrialization--the substitution of imports made unavailable by wartime shortages--was subsequently negated by the pressure of foreign competition. This decline in domestic industry coupled with the world wide depression of the 1930's brought the Argentine economy, which had been expanding, to a standstill. The inflow of foreign funds stopped and Argentina was left with little domestic industry and declining prices for her exports in world markets.[3]

Thus the Argentine economy entered the decade of the 1930's faced with a wide range of problems. The fundamental problem was one of changing from an agricultural-commercial orientation to an industrial-commercial-agricultural complex. There were few sources of foreign capital. Argentina, unable to compete in domestic markets with imported goods, had an untrained, uncommitted, and inadequate labor force, and an underdeveloped financial structure which was incapable of supporting industrial development because of its inability to channel savings into manufacturing. Argentina, moreover, had to face these problems in the decade of the 1930's which had a much more unfavorable climate for international trade and, as a

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[3]The index of world trade fell from 100 in 1929 to 59 in 1931, and 34 in 1934. Portnoy, op. cit., p. 145.

result, ". . . in Argentina . . . [the industrialization] . . . process took the form of compensation for unfavorable agricultural production and export conditions."[4]

In spite of, (or rather "because of"), these difficulties the process of industrial expansion began in the 1930's. This process took the form of the development of light industries, especially the substitution for imported finished consumer goods, of which textiles were the most important. During the 1930's the import-substitution process continued as policies were implemented which provided a measure of protection. Exchange controls, retained until 1959, multiple exchange rates, import restrictions, and quotas were imposed although these were used to treat balance of payments difficulties rather than as protectionist devices to promote industrialization.[5] The primary purpose of these policies was to reduce imports in general in the face of drastically reduced export income. The effect was protective, but the policies were often irrational and indiscriminate as a result of the haphazard manner in which they were applied.[6]

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[4]United Nations, Economic Bulletin for Latin America, Vol. 1, March 1965, p. 64.

[5]Wheelwright and Ferrer, Industrialization in Argentina and Australia: A Comparative Study. Documento No 23, Instituto Torcuato Di Tella, Buenos Aires, 1966, p. 2.3.

[6]Wheelwright and Ferrer, op. cit., p. 2.4.

During World War II, Argentina underwent a period of accelerated industrial development which, while it produced a marked change in the relationship of the industrial and the agricultural sectors, did not have any lasting effect on the economy.[7] The effect of the Second World War was the same as the first, to raise the world prices of Argentina's exports while cutting off the supply of imports. The resultant growth in foreign exchange reserves combined with protection against imports provided massive stimulus to industrial growth. In spite of what one might think, however, what occurred was an extension and accelaration of the trend of industrialization begun in the 1930's, i.e. the further development of light industry of an import substituting nature.[8]

With the end of World War II, the authorities, who were by this time Peronists, were determined not to repeat the mistakes of the inter-war period. High tariff barriers were erected and inflows of foreign capital were subjected

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[7]Although if the critical point in the transformation of an agricultural economy is the point where the industrial labor force exceeds the rural labor force, this point was reached during the Second World War. Wheelwright and Ferrer, op. cit., p. 1.6.

[8]Carlos F. Diaz Alejandro, Stages in the Industrialization of Argentina. Documento Interno No. 18, Instituto Torcuato Di Tella, Buenos Aires,1966, p. 29. Díaz Alejandro goes on to point out that between 1925-29 and 1959-61, the majority of the growth in manufacturing (estimated at about 90 per cent) "can be accounted for by the reduction of the import coefficient . . . i.e. by import substitution."

to close scrutiny. From 1943 to 1953, the attitude toward foreign capital was one of indifference if not hostility. But as Díaz Alejandro's study indicates, up to 1948 ". . . plentiful foreign exchange plus the remaining possibilities of import substitution in . . . manufacturing where the cooperation of foreign 'know-how' does not seem to be of critical importance, were able to offset the detrimental effects of this policy."[9]

Perón and "Peronismo" are generally identified with industrialization because of the emphasis which was placed on the growth of the manufacturing sector during the 1945-1955 period--often, say critics, at the expense of the agricultural sector. Perón's power base lay with the urban work force whose ranks were swelled by immigrants from abroad after the war and by internal migration to the cities. His policy, therefore, was one of stimulating the growth of "light" industries, which could absorb large numbers of workers in a relatively short time with relatively small amounts of foreign capital. The government regarded industrialization more as a way of providing jobs and raising per capita income than as a way of reducing dependence on imports. This attitude naturally led to a policy which favored those branches of manufacturing which could most

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[9] Ibid., p. 54.

readily absorb the largest amounts of labor.[10] These policies encouraged the establishment of a great many new firms and resulted in inefficiencies in many sectors of industry, which "were sheltered from the consequences . . . by all out protection against foreign competition."[11] It was not until 1950 that the emphasis was shifted to the more expensive, "heavier" industries. As a result, during the 1940's the growth in industry continued to be of the light, consumer oriented, and import-substituting kind, consolidating trends which had begun in the 1930's.

After 1950 there was a radical change in the relative importance of "light" and "heavy" industries. Further expansion of import-substituting consumer goods industries was limited by the slow growth of the economy, lack of increased market size, and large increases in labor costs. Prior to 1950, consumer goods accounted for 59 per cent of the total increase in value added in manufacturing. After 1950, however, the percentage of value added in manufacturing

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[10]This policy may have had some unanticipated consequences. One student of Argentina, Geoffery Maynard, argues that "if industrialization is carried on without regard to the rate at which agriculture is developing, acute and persistent inflationary pressures may be set up . . . ." This, he suggests, is the result of an imbalance in the development process which "forces the community to consume more industrial goods and less agricultural goods than its level of real income would normally lead it to do at unchanged relative prices." See G. Maynard, "Inflation and Growth: Some Lessons to be Drawn From Latin American Experience," Oxford Economic Papers, August 1961, pp. 185, 198.

[11]Díaz Alejandro, op. cit., p. 60.

attributable to consumer goods production fell to 14 per cent reflecting the decline in the relative importance of the production of consumer goods.[12] There was a shift from textiles, food, and beverages, to metallurgical industry, petroleum refining, motor vehicle production, machinery and electrical appliances. In other words, from more traditionally based industries to metal-based industries. Semi-manufactured and capital goods industries increased their share of "value added" from 49 to 84 per cent; which gives an indication of the magnitude of the shift in industrial orientation. During this period the composition of imports changed to include more raw materials and the foriegn sector remained an important source of inputs.[13]

Argentina's import substitution possibilities may be approaching their limits.[14] Some consider the import substitution process to have over-expanded relative to the rest of the economy, and to have expanded in indiscriminate fashion, i.e., into high cost industries. Others argue that one of the reasons for high costs is that industry has not expanded far enough and that what is needed is further

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[12]Banco Central de la República Argentina, Origen del Producto y Composición del Gasto Nacional. Suplemento del Boletín Estadístico No.6, p. 31.

[13]Wheelwright and Ferrer, op. cit., p. 4.7.

[14]"By the mid 1950's much of the most feasible import substitution already had taken place. . . ." Schwartz, op. cit., p. 209.

integration, i.e., expansion into heavier industry and capital goods production. There are merits to both points of view. The ultimate decision depends upon the industry in question.[15]

Furthermore, Wheelwright and Ferrer point out that costs of factors of production were significantly higher than in industrialized countries. They cite a United Nations study which shows that:

> for the whole manufacturing sector materials represented 70.6 per cent of the total plant cost. For comparable steel items, Argentine costs were double those in the United States; this was also true of mineral chemicals, and for organic chemicals they were over three times . . . [the cost in the United States]. . . .[16]

The reasons for high costs given by Wheelwright and Ferrer, were partly high tariffs (on steel materials from 45 to 142 per cent and on mineral sulfur 130 per cent). However,small scale production, poor plant utilization, and the lack of regional integration were also contributory factors.[17] Other factors which contributed to high costs were: the cost of freight and loading, the low volume of

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[15]Jorge Sakamoto, staff economist at the Instituto Torquato Di Tella, will test the hypothesis in a dissertation to be presented at Yale University that further expansion of import substitution industrialization is limited by the size of the market; and further that one possibility, if the process is to be continued, lies in the economic integration of Latin America.

[16]Wheelwright and Ferrer, op. cit., p. 8.5.

[17]Wheelwright and Ferrer, op. cit., p. 8.7.

purchases (which means higher per unit costs), the need to purchase semi-finished imputs instead of raw materials (due to the low degree of vertical integration), and the need to maintain higher inventories than in the United States because of the uncertainty of supply. The United Nations study also pointed out that there was a higher level of gross profits in Argentina than in the United States--32 per cent of factory prices as opposed to 19 per cent in the United States.[18]

The industrialization process in Argentina since 1930, then, has produced an industrial complex consisting of high cost, inefficient, consumer oriented industries whose common denominator is high import requirements. Import substitution policies during the 1930-1950 period were adopted as a reaction to stagnation in export income. In addition, since the Second World War, domestic policy has concentrated on import substitution and tended to neglect the promotion of exports. This combination of policy measures "has had a negative influence on the over-all rate of growth by aggravating the foreign exchange bottleneck which has been the main obstacle to Argentine expansion since 1925-29."[19]

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[18]United Nations Economic Commission for Latin America, The Chemical Industry in Latin America, United Nations, N. Y. 1965, cited in Wheelwright and Ferrer, p. 8.6.

[19]Díaz Alejandro, op. cit., p. 30.

Evidence of the scarcity of foreign exchange reserves is seen in the public sector. Argentina has neglected the public sector to the point where publicly-owned capital is in a serious state of disrepair because it has had to compete with the industrial sector for foreign exchange resources. The failure to maintain and to expand the structure of publicly owned capital can be traced to the inability to substitute, generally speaking, domestic capital for the foreign capital which has historically played such an important role in public utilities in Latin America. Other reasons are the lack of adequate tax revenue and a general reluctance on the part of Argentine investors to provide the necessary funds. Furthermore,

> Increasing and unnecessary employment in certain parts of the public sector and the expansion of current expenditure have reduced public savings; nationalization and increasing deficits in public enterprises, caused in part by supplying their services at too low a price, have resulted in a further financial deterioration of the public sector.[20]

For these reasons, essential components of the social overhead structure in Argentina have fallen into a state of disrepair.[21] There is no need for documentation of this decline for it is a common fact of everyday life in Argentina. Evidence to support this contention, however,

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[20] Wheelwright and Ferrer, op. cit., p. 9.25.

[21] In 1954, for example, of 4,133 steam locomotives almost one half were 45 years or older. Portnoy, op. cit., p. 95.

can be found in the low proportion of total investment going to the public sector,[22] and, for example, in the fact that the railroads were reported to be losing large sums of money.[23]

Public utilities in general, in Argentina, have been operating on a crisis-to-crisis basis. Capital goods requirements in the railroads and the electric power complex were heavy and large scale assistance from abroad was needed. With the growth in the urban centers of Buenos Aires, Córdoba, and Rosario, the demand for public services increased at a rapid rate. The demands of the public sector, therefore, placed an additional burden on Argentina's limited amounts of foreign exchange and served to underline existing deficits in the balance of payments.

Argentina has traditionally been an exporter of agricultural products, chiefly meat, wool, grain, and cereals. As pointed out earlier, when faced with declining world market prices for her exports, Argentina began to produce domestically what she could no longer afford to buy abroad. As the industrialization process continued the external prices of Argentina's exports began to rise

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[22] Ferrer asserts that "public investment, while fluctuating throughout the (1930-1950) period, did not increase appreciably over the 1925-29 level." Aldo Ferrer, La Economia Argentina, 2nd. ed., Fondo de Cultura Económica, Mexico 1965, p. 194.

[23] La Nación, March 28, 1967, p. 6. (Editorial).

independently, providing the exchange income needed to further expand the manufacturing sector. Since 1948, however, Argentina's export income has fallen while the needs of the industrial sector have continued to expand.[24]

Export income is a function of volume and price. A substantial proportion of the fall in export income is a result of stagnation in the agricultural sector. This is particularly true of the Pampa region which provides the bulk of produce for export. This region, which constitutes only 23 per cent of Argentina's productive land, generates almost 60 per cent of its total agricultural produce. The dominance of the Pampa region in livestock production (chiefly cattle) is even more pronounced, amounting to 80 per cent of total production. In the years preceding 1939, agricultural gross product rose by a little less than one per cent per year. From 1939 through the 1950's, growth was negligible.

The rest of the country tends to concentrate more on the production of agricultural goods for domestic consumption, and the adaptation of production to local industrial and consumption needs. For this sector, postwar figures show that the area under production increased by almost 100

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[24]Export prices rose in 1946 and 1947, but in 1948 they began to decline; and except during the Korean War period, prices continued to fall.

per cent and the yield per hectare increased by almost 50 per cent.[25]

Wheelwright and Ferrer show that "the stagnation in the dominant area of production [the Pampa] is the main cause of the decline in the volume of exports because the volume of production did not keep pace with population increase."[26] They go on to say, using data supplied by the National Accounts Section of the Consejo Nacional de Desarrollo (CONADE); that in 1925-1929 when agricultural production increased by 1.2 per cent per year, population was increasing by almost 2 per cent per year, yielding a net decline in output per inhabitant of .8 per cent per year. More recently, the data show further deterioration in output per capita. Between 1935-1939 and 1960-1964, production in the zona pampeana increased annually by only .4 per cent while population increased by 1.8 per cent showing a decrease of 1.4 per cent per year in per capita production. The proportion of output consumed domestically increased and the proportion of production going for export declined. In 1925-1929 approximately 51 per cent of agricultural production was exported. This percentage fell to 43 per cent in 1935-1939 and to less than 25 per cent in 1960-1962.

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[25] Wheelwright and Ferrer, op. cit., p. 5.13.

[26] Ibid.

The stagnation in agriculture is therefore a long run phenomenon and may be traced to a variety of factors: social, political, and economic.[27] The economic causes include:

1. Frequent and drastic changes in the ratio of prices between industrial and agricultural goods,
2. Continuous changes in agricultural policy,
3. The lack of adequate research and extension facilities, (Until the Instituto Nacional de Tecnologia Agropecuaria was established there were few organized agricultural programs),
4. The infrequent use of fertilizers and pesticides, (despite a growing chemical industry), and
5. The low incidence of mechanization.[28]

In addition, factors such as inadequate marketing facilities, the high cost of transportation, the land tenure system, and the political emphasis on industrialization and urban growth of the Perón era, certainly operated to discourage increases in agricultural production.

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[27]For a description of the political and social factors in Argentine agriculture see: James R. Scobie, Revolution on the Pampas: A Social History of Argentine Wheat, 1860-1910, Austin, The University of Texas Press, 1964; Tomas Roberto Fillol, Social Factors in Economic Development: The Argentine Case, Cambridge, The M.I.T. Press, 1961; Guido J. Di Tella, "Economic History of Argentina: 1914-1933." (unpublished Ph. D. dissertation Massachusetts Institute of Technology, 1960), and Gino Germaini, Politica y Sociedad en una Epoca de Transicion: de la Sociedad Tradicional a la Sociedad de Masas, Buenos Aires: Editorial Paidos, 1962.

[28]Wheelwright and Ferrer, op. cit., p. 5.14.

In the 1946-1948 period, it was the deliberate policy of the government to prevent the agricultural sector from obtaining the benefit of high world market prices for its exports.[29] This drastically affected the internal terms of trade and, as a result, net dis-investment in agriculture, which had begun in 1930, was accentuated during Perón's regime. During the 1945-1955 period investment in agriculture represented a much lower percentage of capital formation than at any other time since 1900.[30] It is probable that private entrepreneurs in agriculture saw their investment incentives significantly reduced by the evolution in the prices of capital goods. While the prices of agricultural output, (which are dependent on world market prices), declined during this period; the prices of agricultural inputs, especially of machinery and other capital goods showed great increases. The prices of agricultural inputs increased largely as a result of high tariffs for imported goods and high costs of production, (in labor and imported raw material costs especially).

While the internal terms of trade were moving against agriculture, the external terms of trade were behaving in

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[29]Portnoy, op. cit., p. 135.

[30]Consejo Nacional de Desarrollo, Cuentas Nacionales de la República Argentina, Buenos Aires, Mimeographed, 1964.

similar fashion (see Table 3). Despite a substantial increase in the world market price of beef, the terms of trade for Argentine exports show a deterioration from 1939 to 1957.[31]

The ability of the Argentine agricultural sector to finance industrial development and import requirements was limited by stagnation in agricultural output which resulted in a smaller proportion of total production being placed on the world market. This was accompanied by a decline in absolute prices in the world market for Argentine products without a corresponding reduction in price of imports.[32] These effects were compounded by the fact that while Argentina's export income could be drastically affected by changes in climatic conditions, this was less true of her import requirements.

In the early stages on industrialization, manufactured exports are unlikely and the burden of supplying the export income needed to maintain or increase the level of industrialization falls on the agricultural sector. If more resources are not diverted into agriculture, or if the productivity per unit of labor or land in agriculture cannot

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[31]Consejo Nacional de Desarrollo, Cuentas Nacionales de la República Argentina, cited in Wheelwright and Ferrer, op. cit., p. 5.22.

[32]This can also be traced to a change in the import "bundle of goods." Imports of more sophisticated capital goods have a higher per unit cost.

TABLE 3.--The internal and external terms of trade for Argentine agricultural products.

Period	Internal terms of trade	External terms of trade
1935-39	100.0	100.0
1940-44	70.1	77.8
1945-49	68.4	115.5
1950-54	70.3	88.6
1955-57	82.6	77.2

Source: Wheelwright and Ferrer, Industrialization in Argentina and Australia: A Comparative Study, Documento No. 23, Instituto Torquato Di Tella, Buenos Aires, 1966, p. 5.22.

be increased, (both of which could provide export surpluses) then the only way the industrialization process can be maintained is through foreign borrowing.

One of the major motives for industrialization was import replacement. The prevailing view was that if imports could be produced domestically, the demand for imported goods would be reduced and the pressure on the balance of payments could be reduced. From 1930 to 1950 there was a sharp reduction in the ratio of imports to Gross Domestic Product, from 35 to 10 per cent, reflecting a fall in the average propensity to import. These figures would seem to indicate a high degree of dependence on imports during the 1930's but they also indicate a degree of import substitution.[33] By 1950, however, this process seems to have come to an end, since by 1950 over 90 per cent of the import bundle consisted of items essential to the continued functioning of the manufacturing sector (see Table 4). During the 1950's, therefore, there was little room for import reduction without cutting off supplies essential for industrial operation and development.

The question of "irreducible imports" and declining exports leads to some interesting applications of the theoretical framework of international trade. For example, the propensity to import of the economy is described as a

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[33]Wheelwright and Feerer, op. cit., p. 5.5. This is only a rough measure of import substitution since it assumes no change in tastes.

TABLE 4.--The composition of imports.
(in percentages)

Imports	1953	1957	1962
Consumer Goods	7.5	5.7	4.7
Fuel and Lubricants	24.4	24.2	6.7
Producers Materials	41.9	47.4	50.9
Capital Equipment	26.2	22.7	37.7
TOTAL	100.0	100.0	100.0

Source: Consejo Nacional de Desarrollo, Cuentas Nacionales de la República Argentina, Table 7.

function of nation income: $M = m(Y)$. The propensity to import schedule, when graphed, need not pass through the origin "because at zero national income some imports may still be bought from abroad out of reserves," that is: $M = a + m(Y)$.[34] Further, it is reasonable to suggest that the income elasticity of demand changes over the propensity to import schedule as the composition of imports changes to include a smaller proportion of luxury (income elastic) goods. In other words, as income falls, the marginal propensity to import approaches zero, and the income elasticity of demand for imports, $\frac{dm/dy}{m/y}$ approaches infinite income inelasticity. This is demonstrated diagrammatically in Figure 1.

This implies that reductions in the level of national income will not, beyond some point, have a significant impact on the level of imports since the level of imports is, in this case, determined by technological factors. The technological determination of the level of imports can be seen more clearly in the light of a United Nations study which suggests that full utilization of existing productive capacity was prevented by the limitations on imports of fuel and industrial raw materials during the 1950's.[35] The

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[34] C. P. Kindleberger, International Economics, 4th ed., Homewood, Illinois, 1968, p. 274.

[35] United Nations, Economic Bulletin for Latin America, Vol. I, No. 1, p. 33.

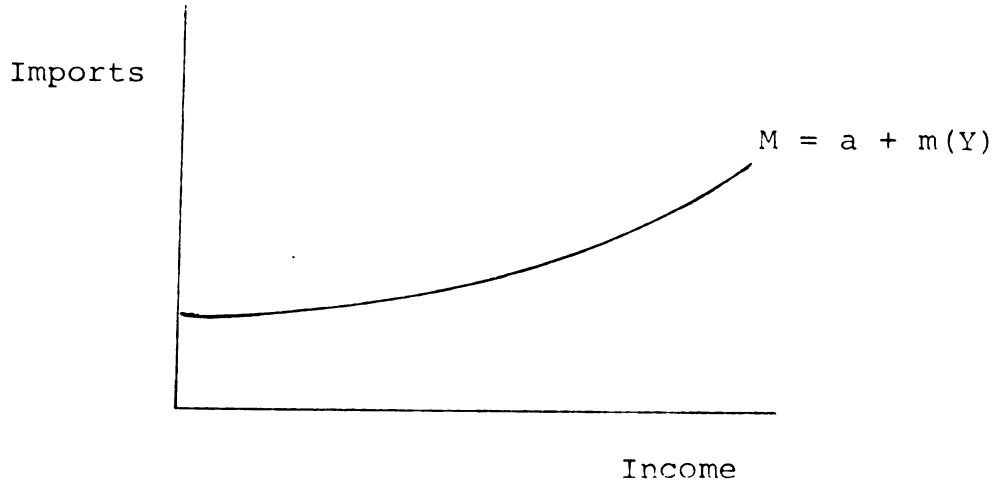

Figure 1.--The Propensity to Import Schedule.

evidence in Table 4 indicates that this was still true in 1962. Reductions in the level of imports would likely have resulted in a dramatic reduction in the level of economic activity in the manufacturing sector.

This analysis does not preclude the operation of the foreign trade multiplier. The foreign trade multiplier will still operate at higher levels of income, but its effect at lower levels of national income will be mitigated by the marginal propensity to import and the income elasticity of demand. Other things being equal, an increase in the level of exports will increase national income and raise the level of imports. The reverse is also true--to the point where further reductions in imports begin to have serious repercussions in the domestic sector.

During the 1951-1963 period, Argentina was unable to increase the volume of exports while faced with an import bill which averaged over $1.1 billion annually. In fact this problem was further aggravated by continued deterioration in the terms of trade. This caused the value of exports to "settle" at a level significantly below that of the value of imports. In fact Argentina's commercial balance was negative in every year from 1951 to 1965 with the exception of 1953 and 1954, when restrictive fiscal and credit policies imposed by the Perón government caused a fall in public investment and a decline, in general, of current expenditure on goods and services.[36] In addition, manufacturing output fell by 6 per cent from 1951 to 1952 and remained at this level for 1953. Industry was forced to work well below capacity--at the 50 per cent level in some cases--and bankruptcies were widespread.[37] Over the period 1951-1963, as a result, Argentina had a deficit in her trade balance of $2,393.3 million (see Table 5).

Given the elasticities of demand and supply of agricultural products,[38] and the inflexibility of Argentina's

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[36]Eprime Eshag and Rosemary Thorp, "Economic and Social Consequences of Orthodox Economic Policies in Argentina in the Post-War Years," Bulletin, Oxford University Institute of Economics and Statistics, February 1965, p. 11.

[37]Maynard, op. cit., p. 193.

[38]Díaz Alejandro, Devaluación de la Tasa de Cambios en un País Semi-Industrializado. Editorial del Instituto Torquato Di Tella, Buenos Aires, 1967, p. 46.

TABLE 5.--The Argentine trade balance 1951-1965.
(in millions of dollars)

Year	Exports	Imports	Balance
1951	1,169.4	1,480.2	-310.7
1952	677.5	1,179.3	-501.7
1953	1,101.5	795.1	306.4
1954	1,026.6	979.0	47.6
1955	928.6	1,172.6	-244.0
1956	943.8	1,127.6	-183.8
1957	974.8	1,310.4	-345.6
1958	993.9	1,232.6	-238.7
1959	993.0	1,009.0	- 16.0
1960	1,079.2	1,249.3	-170.1
1961	964.1	1,460.3	-496.2
1962	1,216.0	1,356.5	-140.5
1963	1,365.5	980.7	384.8
1964	1,410.5	1,077.4	333.1
1965	1,488.0	1,195.0	293.0

Source: Consejo Nacional de Desarrollo, "El Balance de Pagos en la Argentina," Mimeograph, 1966.

import requirements, traditional methods of balance of payments manipulation by currency devaluations and internal monetary and fiscal operations may not be successful without severely inhibiting the process of industrial development, as in the 1952-1954 period.[39]

The interruptions in the growth and development of the Argentine economy since 1930, therefore, can in large measure be attributed to the constraints imposed by the behavior of the balance of payments.[40] The most important limiting factor was the lack of foreign exchange to purchase raw materials and capital equipment, creating a "foreign exchange bottleneck." Whenever industrial growth occurred at a faster rate than the overseas inputs of materials and equipment could be externally financed, a balance of payments crisis occurred and a cutback in imports followed.

Wheelwright and Ferrer show that periods of growth and depression are closely tied to balance of payments problems.[41] In 1952, for example, a severe drought reduced

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[39] Eshag and R. Thorp, op. cit., pp. 11-15. See also Díaz Alejandro, Stages in the Industrialization of Argentina, pages 29 and 47, and Wheelwright and Ferrer, op. cit., p. 9.5.

[40] See for example: Díaz Alejandro, Stages in the Industrialization of Argentina, p. 29, and Devaluacion de la Tasa de Cambios en un Pais Semi-Industrializado, Chapter III; Wheelwright and Ferrer, op. cit., Chapter 9; and Portnoy, op. cit., Chapters II and III.

[41] Wheelwright and Ferrer, op. cit., Chapter 4. See also Moyano Llerena, Panorama de la Economía Argentina, various issues.

exports by almost 50 per cent. The following year imports fell over 30 per cent. In 1958, the government of President Frondizi undertook a "stabilization program" which included, among other things, a free exchange rate and restrictive monetary and fiscal policies. The result was a fall in imports of over 20 per cent. This was combined with a decline of over 5 per cent in Gross Domestic Product in 1959. It appears, then, that economic growth in general, and industrial development in particular, suffered in the post-war period from the effects of policies which were designed to alleviate balance of payments difficulties.

It appears, also, that these policies merely acted to delay or postpone demand. As soon as the restrictive measures were lifted there commenced a spurt of buying abroad and an increase in foreign borrowing. And on at least one occasion foreign borrowing was carried out in anticipation of restrictive measures. Either way, there is no doubt of the close link between the rate of industrial expansion and the balance of payments.

In the twenty-five year period from 1930 to 1955, then, industrial development made significant progress largely because of extremely high levels of protection. This development, however, created additional demands for imports of capital and raw materials which were not matched by equivalent increases in exports or export income. There was, especially in the period since 1946, a persistent

decline in the area under cultivation in principal export crops and in cattle and beef production, coupled with a decline in world prices after 1948.

The reduced activity in export production was only partly caused by climatic conditions, as in 1952; the greater part resulted from a withdrawal of factors of production provoked by a state agricultural pricing policy which prevented the producers from benefiting from improvements in world prices while failing to insulate them from deteriorations in world prices. Furthermore, increases in population and *per capita* consumption of beef and cereal products reduced the amount available for export.

This meant that export receipts were not sufficient to cover the import of essential materials: petroleum, coal, steel, and semi-finished manufactures for industrial inputs. On the other hand, the value of imports (mostly capital goods) even though limited to the most essential goods, remained at high levels, which could only partially be covered by export receipts. Other imports were deferred when possible and paid for out of diminishing stocks of reserves when deferred payments were not possible. The results were manifest in balance of payments deficits and increases in foreign borrowing. When foreign borrowing was not permitted and foreign investment discouraged, as under General Perón, capital goods were "consumed" with the result that when the restrictions on foreign borrowing

and investment were removed much of the capital stock had to be replaced or up-dated and the stage was set for large increases in the foreign debt.

CHAPTER III

THE GROWTH OF THE ARGENTINE FOREIGN DEBT

The purpose of this chapter is to examine in greater detail the growth of Argentina's foreign debt and related factors in the 1955-1965 period. The almost constant refinancing which characterized Argentina's international financial policy during this period is an important consideration in the study of her foreign debt. Among the other variables to be studied in addition to the growth of the foreign debt are: the size and frequency of the service on the debt, the impact of the service on the debt on the level of foreign exchange reserves, and the behavior of the balance of payments.

Argentina has historically been closely linked to the world economy. Unlike the majority of Latin American countries--in which foreign capital did not play an important part in the process of capital formation until after the First World War--foreign investment had achieved significant proportions by the beginning of the twentieth century. Investment from abroad amounted to almost 38 per cent of total investment between 1900 and 1909, and was more than 50 per cent of total investment between 1910 and

1913.[1] The amount of foreign investment in dollars in Argentina in 1900 was estimated to be $1,120 million. Thirty years later the amount of foreign investment had grown to $3,661 million.[2] The greater part of the foreign investment in this period was used for the construction of social overhead capital. Investments in railroads and other public services alone accounted for almost 45 per cent of total foreign investment in 1909.[3]

Foreign investment was concentrated in large scale public services with high technological and capital coefficients. This concentration of investment occurred for several reasons. First, investment in industries with high capital coefficients almost always has a high import content and strong linkages with the investing country. If, in addition, a high degree of technological competence is required, this is more easily supplied by the investing nation than by the receiving country. Second, large investments of this type are conspicuous and add prestige to local governments. The local government, moreover, can easily regulate the operation of public services, making this kind of foreign investment even more desirable for

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[1]United Nations Economic Commission for Latin America, El Desarrollo Económico de la Argentina; Anexo: Algunos Estudios Especiales y Estadísticas Macroeconómicas Preparados Para el Informe, Santiago de Chile, 1958. Mimeograph, p. 246.

[2]United Nations Economic Commision for Latin America. op. cit., Table 1, p. 251.

[3]United Nations Economic Commision for Latin America. op. cit., Table 3, p. 252.

the host country. As a consequence, foreign investment was responsible for a large part of the public services built in the first half of the twentieth century. This included railroad construction, port facilities, telephone and telegraph facilities, and electric power plants. The principal source of foreign investment in Argentina in the early twentieth century was Great Britain, whose share of foreign investment amounted to approximately 60 per cent of the total.[4]

By the end of 1949, however, total long-term foreign investment in Argentina had fallen to $1,255 million (see Table 6). Almost $1,400 million had been repaid between 1946 and 1949 as part of a concerted effort by the Peron government to reduce foreign obligations and foreign ownership of public utilities.[5] This was accomplished by drawing down the reserves of gold and foreign exchange accumulated by large trade balances earned during 1946 and 1947. The most outstanding example of this kind

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[4]American capital also showed significant interest in public utilities. The telephone and light and power companies "were sold to American companies with increasing frequency, and even railroad stocks began to fall into their hands." H. E. Peters, The Foreign Debt of the Argentine Republic, Johns Hopkins University Press, 1934, p. 135.

[5]The United Nations study of foreign investment in Argentina cited above shows that the following foreign owned public services (excluding railroads) which were

TABLE 6.--Long term foreign investment in Argentina 1900-1965.
(in millions of dollars)

Year	Great Britain	United States	Other Countries	Total
1900	912	-	208	1,120
1909	1,423	19	733	2,176
1913	1,860	39	1,237	3,136
1917	1,882	82	1,269	3,233
1920	1,761	72	1,206	3,040
1923	1,906	193	989	3,088
1927	2,002	487	984	3,474
1931	2,026	654	981	3,661
1934	1,813	743	929	3,485
1940	1,679	629	856	3,164
1945	1,414	565	672	2,651
1949	243	323	689	1,255
1953	284	393	810	1,487
1955	324	466	747	1,537

Source: United Nations Economic Commission for Latin America, El Desarrollo Económico de la Argentina; Anexo: Algunos Estudios Especiales y Estadísticas Macroeconomicas Preparado Para el Informe; Santiago de Chile, Mimeographed, p. 251.

of debt reduction was the purchase of the British owned railroads.

The railroads, whose nominal value was approximately $1,000 million, were purchased by Perón for 150 million pounds sterling ($600 million). The "bargain basement" price was determined by several factors; among them the British financial position after the war, and the fact that earnings, which were averaging around 5 per cent during the 1920's, had fallen to 1.5 to 2 per cent during the 1930's. In addition, after fifteen years of depression and world war, the capital equipment was in an "advanced state of obsolescence."[6] The British were anxious to sell and the Argentines were anxious to buy.

Between 1946 and 1948, Argentina, through the purchase of foreign-owned utilities or through repayment of loans,

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nationalized between 1946 and 1948 had a total value of $240.6 million (values in millions of dollars).

1. Telephone Company (U.S. owned)	110.6
2. Subway System (British owned)	50.0
3. Gas Service (British owned)	36.0
4. Gas Service, Province of Buenos Aires (British owned)	1.5
5. Port Facilities (British and French owned)	19.1
6. Municipal Services of Rosario (British owned)	8.8
7. Electric Power (U.S. owned)	14.6
	240.6

This indicates the extent to which foreign funds were active in the operation of public utilities. See United Nations Economic Commission for Latin America, op. cit., p. 265.

[6]United Nations Economic Commision for Latin American, op. cit., p. 264.

reduced the level of foreign indebtedness by approximately $960 million. By the end of 1949, however, as a result of a combination of a reduction in the volume and a decline in the international price of exports, Argentine export income fell. As a result, Argentina temporarily suspended all payments to the "foreign sector." This marked the first time since 1890 that Argentina failed to meet her external obligations and was a severe blow to her international prestige. In the long run the effect was counter-productive as foreign credit was curtailed and additional pressure was placed on the reserves of foreign exchange.[7]

During the period immediately preceding 1955, industrial development prospered under a policy of official protection. The growth in the industrial sector, however, created an additional demand for imports, for both capital goods and raw materials. This, however, did not coincide with an equivalent increase in exports, or in the ability to pay for new imports. In fact, there was a persistent decline in the area under cultivation in principal export crops which was accompanied by a post-war decline in world prices for Argentina's export crops.[8] Under these two

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[7] Raúl Prebisch, op. cit., p. v.

[8] The reduction in "export production" was only partly due to climatic conditions (as in 1952 for example). The greater part of the reduction in export production can be attributed to the reaction of producers to the policies of the official marketing board, IAPI, an agency of the Perón Government. This agency did not permit the growers to enjoy the profits when world market prices were high while

TABLE 7.--The economic distribution of foreign investment in 1909 and 1953.
(in millions of dollars)

	1909		1953	
	dollars	percentage	dollars	percentage
Government Bonds	667	30.7	8	0.4
Railroads	776	35.6	-	-
Public Services	166	7.6	391	26.3
Agriculture	146	6.7	47	3.1
Oil	-	-	40	2.7
Manufacturing	28	1.3	470	31.6
Commerce	193	8.9	217	14.6
Banks	36	1.7	95	6.4
Financial Enterprises	-	-	128	8.8
Others	165	7.5	91	6.1
TOTAL	2,176	100.0	1,487	100.0

Source: United Nations Economic Commission for Latin America, El Desarrollo Económico de la Argentina; Anexo: Algunos Estudios Especiales y Estadísticas Macroeconómicas Preparados Para el Informe, Mimeograph, Table 3, p. 252.

conditions the export receipts needed to finance additional imports showed a decline. These were the factors which affected the balance of trade and, through it, the balance of payments. This also meant that there were insufficient amounts of foreign exchange reserves to cover the "minimum" level of imports. Imports of such essentials as petroleum, coal, raw or semi-finished materials for industrial inputs, drugs, and especially private consumption imports were curtailed because reserves had been reduced.

In order to maintain the desired rate of industrial expansion, Argentina in the 1949-1954 period had to contact some $600 million in new debts for imports of goods, chiefly imputs for the industrial sector. The scarcity of foreign exchange, however, made it necessary to postpone needed imports of capital goods. These two reactions had the effect of slowing down the growth and development of the Argentine economy.[9]

Under Perón, moreover, there was a large increase in short-term debt as reserves were drawn down and imports had to be financed on a short-term basis. Over 70 per cent of the expenditure of reserves was connected with the

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subjecting them to the losses incurred when the world market price fell below par. The problem was compounded by an over-valued peso which further depressed agricultural sales. Prebisch, op. cit., p. vii.

[9]United Nations Economic Commission for Latin America, El Financieamiento Externo de America Latina; New York, 1964, p. 148.

purchase of foreign-owned enterprises. In addition, most of the concessions under which foreign investment had been allowed to enter stipulated that upon termination of the contract the ownership of fixed capital assets would be transferred to the government. The remainder of the debts which were retired during this period were of a long-term nature and would have matured between 1948 and 1972.[10]

The new debts which were contracted in the 1948-1955 period were largely of a short-term nature. Over 80 per cent of the new debts were of short-term (less than one year) and intermediate term (one to three years) duration.[11] The pressure on the balance of payments was intensified, therefore, for two reasons. First, because of the short-term nature of the new debts, repayment was concentrated in a relatively short period of time. Second, because Argentina was forced to use supplier credit for lack of foreign exchange, she had to buy where credit was available (which was not necessarily where prices were lowest), and paid interest which further raised the price of imports.

By 1955, when Perón was overthrown, Argentina's international economic relations were in a fairly serious state of disrepair. Reserves of gold and foreign exchange

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[10]United Nations Economic Commission for Latin America, Annexo, op. cit., p. 268.

[11]United Nations Economic Commission for Latin America, El Financiamiento Externo de America Latina, op. cit., p. 152.

were at the lowest level in over fifteen years. The peso was considerably overvalued as indicated by subsequent devaluations.[12] Foreign investment was notably absent, and Argentina's contractual arrangements with other countries, which were in the form of bilateral agreements, proved inconvenient, inflexible, and uneconomical. In addition, by staying out of the International Monetary Fund and refusing to subscribe to the International Bank for Reconstruction and Development, Argentina isolated herself from the international financial community.

Upon assuming power in September, the revolutionary government of President Leonardi requested a survey of the economic situation from Raúl Prebisch, its chief economic advisor. Commenting on Argentina's economic relations with the rest of the world, Prebisch suggested itemization and consolidation of debts held abroad, an examination of the value of the peso in order to better establish the "true" value of the peso in international markets, and immediate negotiations preparatory to joining the official international financial institutions, specifically the International Monetary Fund and the International Bank for Reconstruction and Development.[13]

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[12] In 1955 the official peso rate went from m$n 5 to the dollar to m$n 18 to the U.S. dollar.

[13] Prebisch, op. cit., pp. i-vi.

With specific reference to the foreign debt, Prebisch reported that the amount of the foreign debt was $757 million, (excluding direct equity investment), of which the major portion consisted of payments due for imports of capital equipment (see Table 8).

TABLE 8.--Argentina's foreign debt as of December 1955. (in millions of dollars)

Use of bilateral credits (with Europe and Japan)	233
Imports of goods with deferred payments (mostly capital equipment)	409
Debts with the Export-Import Bank	57
Other Debts	58
TOTAL	757

Source: Raúl Prebisch, "Informes del Señor Asesor Económico y Financiero de la Presidencia de la Nación," Memoria Anual del Banco Central: 1955 Appendix I, p. iv.

Furthermore, some $260 million in service on the debt was due the following year, while reserves of gold and foreign exchange totaled only $119 million.[14] This underlines both the short-run nature of the debt and the strain to which the balance of payments in general, and foreign exchange reserves in particular, were subjected. Prebisch goes on to note that as the payments were then scheduled, $578 million was to have been repaid between 1956 and 1958. In view of the difficulties of trading in agricultural produce,

[14] Ibid., p. v.

the consequent instability of exchange receipts, and the import requirements of the industrial sector, this was more than Prebisch thought the Argentine economy was able to sustain.

During 1955 Argentina's reserves of gold and foreign exchange, which had begun to show signs of recuperating after a disastrous fall in 1952, once again declined--to the lowest level since before World War II. As was suggested in Chapter II, the balance of payments deficit had become a chronic problem due to, (among other factors), the rigid structure of imports. As a result, the only way to maintain the desired rate of expansion was to undertake additional loans, or to continue the utilization of "supplier credits"--that is import now and pay later.

Imports with deferred payments, apart from adding to an increasingly large and inconvenient foreign debt, represented a surcharge on the price which Argentina had to pay for continued economic growth. Also contributing to the additional cost of economic policies and performance during this period were the system of bilateral agreements, which served to divide foreign trade into a series of compartments with the expected result that prices were often higher than the world market price. This was more true of Argentina's imports than her largely agricultural exports. Prebisch calculated that the increases in costs amounted to not less than 20 per cent during the Perón regime.[15]

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[15] Ibid., p. vii.

Prebisch summarized his findings in a report to President Leonardi and attributed the decline in foreign exchange reserves to:

1. a decline in the volume of exports coupled with a fall in world market prices of her products,

2. the policies and practices of various institutions in the Argentine Government--specifically those of I.A.P.I.--which tended to restrict exports in an attempt to force higher prices in the international market, and

3. the increase in Argentina's petroleum imports which was directly related to the increased demand for petroleum products and the total lack of development of Argentina's own petroleum resources.

The disequilibrium in the balance of payments, of which a decline in which the reserves of gold and foreign exchange is only a symptom, resulted from the need to maintain imports of raw materials and semi-finished products (and petroleum) in the face of declining exports. These imports were a major factor in the growth of Argentina's semi-industrialized economy and any reduction in the level of imports would have caused severe repercussions throughout the industrial sector, chief among which would have been an increase in unemployment. Hence one of the major policy constraints imposed on the Central Bank was the necessity of maintaining the level of imports.

Toward the end of 1955, it became increasingly difficult for Argentine firms to buy abroad both because of the accumulation of debts to her major suppliers, and

because of the shortage of foreign exchange reserves.[16] Relations with Western Europe were approaching the "breaking point." One of the first acts of the new government, therefore, was to dispatch a mission to Paris in early 1956 charged with two main objectives: to determine the extent of Argentina's commercial indebtedness and fix the terms of the liquidation of that debt, and to lay the foundation for placing Argentina's foreign trade on a multi-lateral instead of a bi-lateral basis. The agreement, known as the Paris Agreement, became effective on July 2, 1956, and provided that debts in any currency could be repaid in any other currency at an exchange rate consistent with the realtive strengths of the two currencies. All of Argentina's debts, including debts to governments, Central Banks, and private firms were consolidated. The terms of repayment were adjusted to take account of Argentina's precarious balance of payments and foreign exchange reserves situation. The repayments were progressive in nature, (from $50 to $55 to $60 million), and the debt was to be retired over a 10 year period.

The decision to convert to a multi-lateral system of payments was precipitated by two basic factors: first, by 1955 Europe was almost entirely on a multi-lateral system and 60 per cent of Argentina's trade was with Europe; and

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[16] Memoria Anual del Banco Central: 1956, Buenos Aires, 1957.

TABLE 9.--Annual payments on the consolidated debt; Paris Agreement 1956-1957.
(in millions of dollars)

Year	Germany	Italy	Great Britain	Japan	France	Low Countries	Total
1	18.4	11.6	6.6	6.5	3.1	3.8	50.0
2	16.0	12.6	7.2	7.1	3.4	3.7	50.0
3	17.4	13.7	7.8	7.7	3.7	4.6	55.0
4	17.1	13.5	7.6	7.6	3.6	5.5	55.0
5	18.9	13.9	8.4	8.3	4.0	5.4	60.0
6	20.8	16.4	9.3	9.2	4.4	-	60.0
7	20.8	16.4	9.3	9.2	4.4	-	60.0
8	20.8	16.4	9.3	9.2	4.4	-	60.0
9	7.2	18.2	9.8	11.3	2.8	-	49.4
10	1.2	-	-	-	-	-	1.2
Sub-total	158.6	133.6	75.2	76.2	33.9	23.0	500.6
interest	10.6	19.9	10.8	12.2	3.3	2.0	59.0
Total	148.0	113.6	64.4	64.0	30.6	21.0	441.6

Source: Memoria Anual del Banco Central: 1956. Buenos Aires, 1957, p.27.

TABLE 10.--Total consolidated debt as of June 1956.
(in millions of dollars)

Country	Commercial	Official	Total
Germany	124.9	23.1	148.0
Italy	23.7	89.8	113.5
Great Britain	11.2	53.2	64.4
Japan	8.9	55.0	63.9
France	27.9	2.8	30.7
Low countries	-	20.9	20.9
TOTAL	196.7	244.9	441.6

Source: Memoria Anual del Banco Central: 1956, Buenos Aires, 1957, p. 28.

second, bi-lateral trading agreements force participating countries to take into account not only the amount, but the distribution of foreign exchange reserves. This latter point meant that Argentina, for example, with a system of bi-lateral trading agreements, was forced to import from those countries where reserves of foreign exchange were available, rather than where the best price or quality of imports could be had. A change to multi-lateral payments provided greater flexibility and relieved some of the strain on the balance of payments. The bi-lateral trading system led to extensive use of deferred payments, however, and an increasing foreign debt.

There were other encouraging signs during this period, both in Argentina and abroad. First, preliminary preparations were made to join the International Monetary Fund and the International Bank for Reconstruction and Development. Membership became effective on April 19, 1956, ending Argentina's isolation from the international banking community. Second, the Export-Import Bank entered into negotiations with the Central Bank which made available $60 million to the Sociedad Mixta Siderurgica Argentina (SOMISA) to finance the purchase of steel making equipment; and another $100 million to the Argentine Ministry of Transport for the purchase of transportation equipment. These credits made it easier for Argentina to acquire additional financing from suppliers. Third, in late 1955 and throughout

1956 there was a steady increase in the amount of foreign private investment. Behring Bros. Ltd., representing a consortium of British banks, offered to finance the purchase of capital equipment to satisfy the specific needs of the new government, and in fact financed a total of $14 million for the purchase of replacement parts for the publically owned railroads. The Central Bank (which still had jurisdiction in these matters) authorized a total of some fifty different foreign investment projects for a total of $24.4 million; the major part being invested in the production and development of pharmaceuticals. Toward the end of 1956 an additional $20 million was authorized for the same general kinds of investments.

These imports, however indicative of support and encouragement, continued the pressure on the balance of payments. Argentina's exports are almost entirely agricultural, subject to climatic conditions and wide fluctuations in price in international (as well as domestic) markets. The variation in export income in the face of constant and irreducible imports had placed the balance of payments and foreign exchange reserves in an already precarious position, and increasing imports only served to aggravate the balance of payments situation.[17] Despite the balance

[17] By irreducible imports is meant that the level of imports cannot be reduced without cutting supplies of raw materials or semi-manufactured products which are necessary to maintain the industrial sector, i.e., the imports necessary to maintain the industrial growth rate (see Chapter II).

of payments constraint, however, restrictions on imports were lifted, making imports more competitive than since the early days of the Perón administration. Estimates of import requirements ranged from $1,200 million (a figure which included the private sector) to $1,400 million for the public sector alone. During 1956 and 1957 external financing in the amount of $500 million was obtained, mostly for expansion in the steel industry, the petroleum industry, and public utilities projects. The amount of foreign private investment totaled over $40 million. Export income, meanwhile, failed to show a significant increase, and the deficit in the balance on current account increased from $183.8 million to $335.6 million as capital equipment imports were purchased with the new lines of credit.[18]

The government of President Arturo Frondizi, which took office in 1958, immediately acted to correct the balance of payments problem by abolishing the dual exchange rate system. By abandoning the artifically low "official" rate, (with a "parallel" black market rate), and fixing the foreign exchange rate at a higher "official" level, the intense demand for imports (and the consequent pressure on both the current account and foreign exchange reserves)

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[18] A factor contributing to the increase in the deficit in the commercial balance was an increase of over $50 million in the cost and freight of petroleum products as a result of the Suez Crisis.

would be partially offset by the higher price of foreign exchange.

There is little question about the fact that the consolidation of debt under the Paris Agreement helped to ease the immediate pressure on the balance of payments. While the size of the trade deficits continued to grow, (from $30.6 million in 1955 to $263.0 million in 1958), the deficits in 1957 and 1958 were due to large imports of capital and equipment which were financed largely by medium and long term loans.

In addition to the financial arrangements mentioned above, the Argentine Government received additional financial support. A total of $75 million was obtained from the I.M.F., of which $42.5 million was used immediately. Another $75 million came from the United States Treasury and the Development Loan Fund. The Export-Import Bank allocated $24.75 million for imports of machinery and equipment of U.S. origin, with an additional $100 million in credit for support of the Argentine peso. In addition a group of private United States banks made a loan to the Central Bank of Argentina of $54 million. In all, the amount of credit received totaled $328.5 million, of which $171 million was available for immediate use.

The balance of payments continued to show trade deficits with the multilateral trading area. This was due to a decline in exports while the level of imports was

maintained. In view of the behavior of the Argentine balance of payments the authorities decided to renegotiate the Consolidated Debt. The result was a postponement of the service on the debt for one year and the period of amortization was increased from 9 to 10 years.

By 1959, by official decree, the official "pegged" exchange rate was dropped and the rate of exchange was allowed to seek its own equilibrium. The government retained control over the amount of imports by levying duties of between 20 per cent and 300 per cent on imports of non-essential items. Surcharges were also imposed on export receipts to prevent a situation in which exporters in one or two "favored" sectors would make tremendous profits. Exports could take place at the free rate but the surcharges amounted to between 14 and 20 per cent. Surcharges, deposit requirements, and other regulatory activities were not designed to restrict the movements in foreign exchange, but rather to regulate the flow of imports and exports.

By 1959, however, there was a significant reduction in the pressure on the balance of payments. This was due both to the foreign exchange relief and the behavior of imports. There was a notable reduction in the value of imports during 1959 while the level of exports remained the same, resulting in a deficit of only $16 million (see Table 5). The decline in the value of imports was a

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function of both price and quantity: the value of imports fell 20 per cent from the 1958 level while the volume was off only 10 per cent from the previous year. The decline in the volume of imports can most likely be traced to the institution of ad valorem tariffs and "down-payment" deposits. Thus while the liquidity of the import sector was reduced by the "down-payment" requirement, the price of imports was raised by the tariff mechanism.

Also aiding in the improved balance of payments picture was a shift from short-term to long-term debt. This movement reflects a number of factors: a favorable exchange outlook, a new sense of stability in the economy, and a feeling of confidence in the Frondizi Government. On capital account there was a net inflow of $77 million in short- and long-term capital. Although the large amounts of short-term capital which entered during the first quarter were undoubtedly speculative in nature, there were significant movements of long-term capital as well, and these continued through the second half of the year. Argentina contributed a total of $35 million in gold and foreign exchange as part of her subscription to various international agencies, but there was a significant inflow of credit from various international and United States institutions (see Table 11).

Meanwhile, Argentina began to repay the debts consolidated under the Paris Agreement in June of 1959.

TABLE 11.--Amounts of credit received by the Argentine government in 1959.

	Source	Millions of U.S. Dollars	
I.	International Monetary Fund		
	a. Stand by (1958)	42.5	
	b. Stand by (1959)	30.0	72.5[a]
II.	U.S. Banks (1958)		54.0
III.	The Export-Import Bank (1958)		24.7
IV.	U.S. Treasury (1958)		20.0[a]
V.	Development Loan Fund (1958)		13.7
VI.	Subtotal		189.9
VII.	Credit from the Export-Import Bank for imports of transportation equipment, etc.		41.0
VIII.	Shell Petroleum Agreement		14.9
			245.8
IX.	Minus Amortization of previous loans		29.5[b]
X.	Total Capital Inflow		216.3

[a]Represent short term capital movements.

[b]Also includes $19 million of "short term capital."

Source: Memoria Anual del Banco Central: 1959, Buenos Aires, 1960, p.30.

Table 12 indicates the amounts of repayment of official debts (and estimates of the commercial debts) with these countries.

During 1960, Argentina's reserves of gold and foreign exchange increased considerably. In 1959, her reserve position had improved because of a favorable trade balance coupled with an inflow of capital from abroad. In 1960, however, the balance of trade was negative and the improvement in the reserve holdings was due entirely to capital inflows. This period marked the beginning of an investment boom which was reflected in large imports of capital goods. The size of the capital inflow was so great (in both long-term and short-term capital movements) that it enabled Argentina to finance her trade deficit and increase her international reserves at the same time. This inflow of foreign capital, which began in 1959, continued throughout 1960, showing an increase of over 30 per cent over the previous year. Estimates of imports with deferred payments totaled $232 million, much of it in machinery and equipment.[19]

A significant factor in the behavior of international capital movements was the government's attitude toward foreign investment. The Frondizi Government approved approximately $312 million in direct foreign investment. The apparent decline from 1959 to 1960 ($195 million in

[19] Memoria Anual del Banco Central: 1960, Buenos Aires, 1961, p. 26.

TABLE 12.--Amortization of debts under the Paris Agreement.
(in millions of U.S. dollars)

Country	Payments		
	Official	Commercial[a]	Total
Federal Republic of Germany	2.2	12.8	15.0
Italy	9.6	4.8	14.4
United Kingdom	5.6	1.6	7.2
France	-	2.5	2.5
Japan	4.7	1.7	6.4
Low Countries	4.6	-	4.6
Total	26.7	23.4	50.1

[a]Estimated.

Source: Memoria Anual del Banco Central: 1959, Buenos Aires, 1960, p. 52.

1959 compared with $117 million in 1960) is because of investments in oil and electric power which are not included in the data because they are subject to special regulations.

While the year-end 1960 position was favorable, even the Central Bank authorities were concerned about the extraordinary amount of debt service due between 1961 and 1963 and about the possible effects on the balance of payments. The total amounts due on both direct liabilities of the Central Bank and on loans which the Central Bank had guaranteed in the 25 month period between December 1, 1960 and December 31, 1963 was $826.2 million. In 1964, however, the debt service due would amount to only $101.7 million, and in 1965 the payments--seen from the perspective of mid-1960--would decline even more sharply. To correct this imbalance in the yearly distribution of payments, and to conserve its reserve position, the government began negotiations with the United States and the countries of Western Europe in order to establish a more "appropriate" distribution of payments. The results of the negotiations were:

1. The $75 million loan granted by the consortium of European banks was to be repaid in eight equal semi-annual installments, beginning in April 1961, instead of in four semi-annual installments as originally agreed.

2. The $75 million loan granted by the United States was to be repaid on the same terms.

3. The payments to the Paris Club due in June 1961 and June 1962 were reduced to $27.3 million and $30 million respectively from the $60 million payments which were originally scheduled.

4. The International Monetary Fund agreed to put off the final repayment of funds withdrawn in 1959 and 1960 for five years.

Confidence in the credit position of the Frondizi Government and the Argentine Economy was such that in early 1961 it was possible to arrange an additional long-term loan from Europe as a first step in a long range plan to convert all short-term debt to long-term debt. Several long-term arrangements were refinanced over longer periods of time and new long-term loans were obtained. When combined with the total amount of credit extended from suppliers and shipping agents for the imports of machinery over the course of the year, a picture of prosperity and confidence emerged. There were, however, a few signs of trouble also emerging.

The economic boom during the 1960-1961 period was having a serious impact on the balance of payments. The accelerated pace of economic growth and the concomitant increase in investment increased both the need and the desire to import. The capacity to import on the other hand, as indicated by export receipts, did not increase because of droughts which affected crops in certain areas. Argentines, however, continued to use whatever credit was available without apparent concern for the growing international debt. The maintenance of the stability of the exchange rate--referred to by all the authorities as "irrevocable"--forced the Central Bank to provide the

exchange market with the foreign currencies which were in short supply. In addition to the "current drain" on foreign exchange reserves, which was a function of the economic boom, there was the "built-in drain" on reserves as a result of the payments due on the short-term loans for imports whose payment had been deferred from previous years. Furthermore, there were payments due on the government obligations undertaken prior to 1959. These factors combined to apply extraordinary pressure on the foreign exchange reserves and the balance of payments.

Another factor was the change in the rate and direction of economic growth. The transition from an agricultural-commercial to an agricultural-industrial economy necessitated larger and larger amounts of imports of capital goods and raw materials. Loans from international agencies were designed to correct balance of payments deficits but they turned out to be at least partly counter-productive in that they also led to changes in the composition of imports. This was probably the main reason for the failure to narrow the trade deficit, and the failure to expand or diversify exports was an additional result. Increased consumer demand, based upon an increased standard of living, not only raised the level of import demand, but also reduced the supply of domestically produced goods available for export.

While imports might be expected to rise under boom conditions, this was compounded by an increase in the level

of domestic costs and prices. As stated above, imports of raw materials and intermediate goods showed a sizable increase while the imports of capital goods exceeded the unusually high level of the previous year. The level of exports declined during the year while payments of interest and dividends remained at about the same level as in 1960.

The deficit in the current account, which totaled $204.3 million in 1960, rose by almost three times to $584.7 million in 1961. This deficit was only partially covered by movements of private capital. This resulted in excess demand in the exchange market for the major part of 1961. To maintain the rate of exchange without limiting the availability of exchange, the Central Bank was forced to provide the additional reserves needed to the exchange market. This drained off approximately $96 million in foreign exchange reserves. The total reduction in gold and foreign exchange reserves in 1961 amounted to over $201 million. Thus the deficit in the current account was financed in three ways: by a reduction in the holdings of gold and foreign exchange, by long- and short-term credit from abroad, and by direct investment of foreign capital.

In view of the growing concern over the balance of payments and its related problem of foreign exchange reserves, the Central Bank again went to the International Monetary Fund and negotiated additional "standby" credit

of $100 million. The agreement was for the period December 1961 to December 1962 and stipulated that repayments would begin three years from the date of utilization.

All of these factors pointed to an end of the boom which came in 1962. The accelerated decline in the level of economic activity which characterized this period does not have a single explanation. While there were a variety of non-economic and social problems, and 1962 was a year of considerable political instability, it was probably a combination of these factors which brought an end to the boom. There were, for example, exceptionally large increases in salaries towards the end of 1961. This increased the size of the federal deficits, there were major disruptions in public services, and there was intense pressure on the exchange market as a result of the high levels of imports.

While the external value of the peso remained stable from mid-1959 to April 1962 internal costs and prices continued to rise.[20] Exporters during this period were caught in a price squeeze which could have been relieved by a series of reductions in retenciónes or export taxes.

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[20]"In Argentina, after a period of exchange rate stability between May, 1959 and March, 1962; and of near price stability between January, 1960 and March, 1961 (there was an 8 per cent rise in the cost of living in this period), the dam broke, and by 1962 accelerating inflation and exchange depreciation were again underway." David Felix, "Monetarists, Structuralists, and Import Substituting Industrialization: A Critical Appraisal," in Baer and Kerstenetsky, Inflation and Growth in Latin America, Richard D. Irwin, Inc., Homewood, Ill., 1964, p. 371.

The fact that these reductions did not occur led to the widespread belief that an adjustment in the rate of exchange was forthcoming. Continuing balance of payments deficits, in addition to increased speculative demands for foreign currency, required the Central Bank to expend a considerable portion of its reserves ($161 million between January and April 1962) in order to maintain the rate of exchange. In April 1962 the inevitable devaluation occurred. The result was that the bulk of the short-term loans extended in 1961 were withdrawn or cancelled without the usual option to renew. The withdrawal of these funds, in turn, served only to aggravate the economic crisis and worsen the deteriorating exchange position. (By the end of 1962, the Central Bank's reserves were down by $340 million from year-end 1961).[21]

As the debts incurred in previous years began to reach maturity it became more apparent that the Central Bank would have to do something to arrive at a level of indebtedness of "managable proportions." Indeed this was

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[21]Another indication of the pressure on the reserve position of the Central Bank is seen in a letter from Eustaguio A. Mendez-Delfino, President of the Central Bank to the Minister of Economy in which he mentions that during a 16 day period from 19 January 1962 to 4 February 1962 (only 12 working days), the Central Bank suffered reserve losses of almost $41 million. "During the year thus far (the letter is dated 8 February 1962) the decline in reserves amounted to $88.3 million while during the same period in 1961 the loss in reserves amounted to only $17.6 million." Cited in the Memoria Anual del Banco Central: 1962, Buenos Aires 1963, p. 21.

a preprequisite laid down by the International Monetary Fund for further refinancing of Argentina's debt with the I.M.F. which postponed the maturation date from 1962 to 1963 and 1964. In further action, to avoid the proliferation of short-run foreign fund financing, the Central Bank decreed that from 1963 on private banks would not be allowed to assume new obligations which would draw on the reserves of foreign exchange of the Central Bank.

The continuing and pronounced balance of payments deficit was recognized as "one of the major problems" facing the government. This is especially true when seen against the background of the long list of imports for which payment was deferred and which were now coming to maturity. The accumulation of "deferred demand" payments in 1962 far exceeded the supply of foreign exchange on hand and required the intervention of the Central Bank. The result was a further erosion of confidence in the value of the peso.

There is no question that a development program requires large quantities of imports. Estimates of net payments abroad by the automobile industry alone, according to a study made by the Central Bank, show that for 1961 and 1962 the sums of $233.2 million and $322.2 million respectively were paid out and projections for 1963 and 1964 reached $336.9 million and $258.4 million for those

years.[22] The foreign debt increased by $149 million in 1959, $172 million in 1960, and $313 million in 1961.

During the year, on the other hand, there were some signs of improvement in the balance of payments deficit. Imports began to fall off--partly in reaction to the general slow-down of the economy and partly as a result of Central Bank action. Many of the imports, however, were those which had been ordered far in advance by state owned enterprises and had been ordered as part of a coordinated development plan under long-term finance plans. These changes were reflected in the figures which show a reduction in the total amount of imports (from $1,460.4 million in 1961 to $1,356.5 million in 1962), while certain items--notably capital goods imports--increased. The reductions came in raw materials imports,(inputs into the industrial sector),and in "combustibles and lubricants." The reduction in this last item occurred as domestic production began to take hold.[23] While imports were declining exports increased (chiefly in cereals and grains) by almost $252 million.

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[22] Ibid., p. 15. These figures include a hypothetical figure for the costs of financial transactions.

[23] Domestic production of crude petroleum increased from 7,084 thousand cubic meters in 1959 to 13,403 thousand cubic meters in 1962. See James W. Foley, op. cit.

The current account continued to show a deficit for 1962. During 1961 the deficit amounted to over $580 million but this was largely compensated for by a net inflow of capital. In 1962, on the other hand, the net inflow of capital was negative. The net inflow of capital from foreign institutions and supplier's credits (largely long-term) totaled $223.1 million while the short-term capital outflow totaled $284.0 million--leaving a net outflow of $60.9 million. Reserves were depleted by $340.3 million during the year ($309.3 from the Central Bank's holdings and $31 million from private banks).

In addition to the credit received from the I.M.F., the authorities negotiated a credit agreement with the United States Treasury for $50 million and used $25 million in the month of September.[24] Other loans made during the year were with the World Bank ($95 million), the United States Agency for International Development ($20 million), and the Interamerican Development Bank ($45 million).

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[24]The agreements with the Fund had some unanticipated side effects, however. One of the credit conditions agreed to with the Fund was to restrict loans to the private sector "severely," by raising the marginal reserve ratios of the commercial banks. "The effect was felt most acutely, evidently, by less profitable firms. In Argentina . . . this led to a serious credit crisis in June 1962, during which the Central Bank had to undertake the emergency rediscounting of industrial paper to enable firms to meet wages and other commitments. Earlier in the same year, the Minister of Economy had appealed to the automotive industry to obtain funds for retail financing in order to relieve pressure on the local credit market." Bank of London and South America, Fortnightly Review, March 24, 1962, p. 233.

The decline in the level of economic activity began to be seen statistically in 1963. During that year the Gross Domestic Product fell (in constant peso terms) to 5.1 per cent below the 1962 level. Manufacturing production declined by over 6 per cent and the volume of residential construction fell by 13 per cent, while inventories were 18 per cent lower than in 1962. The same general picture emerges from the balance of payments. Increased value and unchanged volume of exports, coupled with a decline in imports, indicate the impact of the slump in business activity on the balance of payments as the current account showed a surplus for the first time in three years.

The volume of exports remained practically unchanged from the previous year. There was, however, an increase in the level of international prices, which increased the value of exports by 12.3 per cent. As already mentioned, the Government in this period was pursuing a policy of export promotion, using bank credit and tax incentives as stimulants. The program was not spectacularly successful because of climatic conditions which caused a drop in agricultural production of almost 22 per cent. This was offset in the export sector by increases in cattle and "other" production (i.e., sugar, hunting and fishing, etc.). There was also a discernible rise in the export of processed agricultural produce.[25]

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[25] Memoria Anual del Banco Central: 1963, Buenos Aires, 1964, p. 47.

The volume of imports, by contrast, showed a decline of 26.5 per cent. There was also a fall in the import price index of approximately 1.6 per cent which reduced the import bill to $980.7 million, the lowest figure since 1954. This occurred for two reasons: the decline in the level of aggregate demand (which reduces the demand both for finished imports and for raw material imports), and the increased production of domestic substitutes for imports--chiefly petroleum, steel, automobile parts, and chemical products. Petroleum imports declined 37.3 per cent from the 1962 level, and were down over 55 per cent from the 1961 level.[26]

The movements of capital (long-term and short-term) showed a net outflow, since long-term capital inflows were once again unable to offset short-term capital flight. The long-term capital inflow totaled $160.1 million ($82.2 million in credits to private and state owned institutions, and $77.9 million in direct investment in Argentine industries). Short-term private capital movements showed an outflow of $243.1 million as debts to suppliers were reduced.

Throughout the year Argentina continued the process of making payments and refinancing the foreign debt. The best estimate of the public and private foreign debt at the end of 1963 was $3,794.4 million, which is probably

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[26] Ibid., p. 48.

less than the total actual amount. During the year the Central Bank paid out a total of $209 million in interest and amortization of official debts held by the International Monetary Fund, the United States Treasury, and the Consolidated Debt with Europe and Japan. But during the same period:[27]

1. The authorities concluded an agreement with the International Monetary Fund to postpone to October the repayment of $100 million due in June. (In January, Argentina owed $218 million to the Fund, an additional $50 million was borrowed and $36 million repaid, leaving a balance at the end of 1963 of $232 million.)

2. The Central Bank received new credits of $21.8 million for refinancing the debt with European nations, $37.3 million from a consortium of European and North American Banks, $16.1 million from the United States Treasury, and $38.0 million from the Instituto Español de Moneda Extranjera and the Banco de Santander.

3. In addition to the credit from the International Monetary Fund the reserves of foreign exchange were increased by loans from the Treasury of the United States ($25 million) and private United States Banks ($21.8 million).

4. Argentina also negotiated loans from the United States Agency for International Development totalling $96.4 million ($20 million for imports of "essential raw materials" and $76.4 million for a variety of development projects).

5. Furthermore, at the meeting with her creditors in Paris in October 1962, Argentina had arranged that the debts coming due in 1963 and 1964 would be refinanced and consolidated into long-term agreements in order to alleviate the strain on the balance of payments.

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[27] The following are taken from the Memoria Anual del Banco Central: 1963, Buenos Aires, 1964, various pages.

These steps were taken to insure that the reserves of foreign exchange would not be depleted in 1963, and to try to avoid similar problems in 1964 and 1965. Other measures included both import restriction (of articles which could be produced domestically without too much difficulty) and exchange control. "Official" purchases of capital goods and services were limited and the private sector was required to "suspend" imports of capital goods from abroad. Neither of these latter provisions seemed to prove particularly effective in view of the activities mentioned above. By the end of 1963, however,Argentina had accumulated an additional $147.2 million in reserves.

Argentina, in a real sense, was beginning to pay the price for the large quantities of capital (both physical and financial) which had been injected into the economy in the 1958-1961 period. The problem was intensified in 1960 and 1961 when large amounts of capital flowed in and repayments were scheduled for the following three years (1963-1965) without taking into consideration the possibility that the economy might not be able to sustain such heavy payments. The private sector, for example, amortized loans amounting to $191.6 million in 1963, and $230.0 million in 1964. When added to the obligations retired by the public sector of $208.2 million in the 1963-1964 period, the amount totaled almost $630 million, which completely absorbed the surpluses

earned on the current account and depleted the accumulated reserves of foreign exchange.

As is indicated on Table 13, the current account continued to show a surplus of exports over imports during 1964. While the value of imports in that year increased by almost 10 per cent over the previous year most of that increase, (6.5 per cent), was due to an increase in prices. The real increase in imports was due to an increase in the purchase of raw material and intermediate (semi-finished) imputs and reflects the increased level of manufacturing activity. The most significant increases in imports, for example, were for imports of metals (up 91 per cent), chemical products (up 42 per cent), fuel and lubricants (up 46 per cent), and rubber (up 59 per cent).[28] Imports of capital goods were down to the lowest level in five years, undoubtedly reflecting both the existence of excess capacity and the impact of a federal decree restricting the import of capital goods (to "coordinate . . . the . . . [level of] . . . foreign commitments and the balance of payments for the next few years").[29] Meanwhile, the value of exports rose by 3.3 per cent to $1,410.5 million, the highest level since 1945. The increase in the value of exports, as with the value of imports, can be largely attributed to price movements. Livestock exports were

[28] Ibid., pp. 17-19.

[29] Ibid., p. 19.

TABLE 13.--Summary of specific items in Argentina's balance of payments: 1960-1964.
(in millions of dollars)

Item	Period				Total
	1960-1961[a]	1962	1963	1964	1960-1964
Goods and Services	-769.3	-268.0	234.0	35.9	-767.4
A. Goods	-666.3	-140.5	384.8	333.1	- 88.9
B. Services	-103.0	-127.5	-150.8	-297.2	-678.5
Gross Payment of Long Term Credits	410.9	254.9	279.9	349.9	1,295.6
A. Private	243.5	180.2	191.6	230.0	845.3
B. Official	167.4	74.7	88.3	119.9	450.3
Variation in Reserves	-114.8	+340.3	-147.2	+111.5	+189.8

[a]Total figures for the two year period.

Source: Memoria Anual del Banco Central: 1964, Buenos Aires, 1965, p.65.

down due to a program of rebuilding depleted herds, for example, but the increase in prices for livestock exports was enough to offset the drop in volume. Increased production led to increased exports of wheat (which increased by 104 per cent), corn (up 36 per cent), and other feed grains (up by 165 per cent). Despite the heavy surplus in the balance of trade of $333.1 million), the overall balance on the current account was only $35.9 million due to large amounts of interest and amortization charges paid by the private sector.

On the capital account, however, the performance of ten preceding years was repeated. Private capital flows showed a surplus in long-term movements, although the surplus was reduced by repayments on purchases made in previous years and by a reduced amount of direct foreign investment. The gross inflow of long-term capital to the private sector totaled $239.7 million ($130 million of which were in the form of credits to importers). Repayments of deferred loans were almost equally large ($230 million). The short-term capital outflow, while less than in 1962 or 1963, still amounted to $39.1 million. The reduction in the amount of short-term capital outflow was due to increased amounts of short-term supplier credits for capital and raw material goods imports.

The authorities at the Central Bank made spacing the payments on the official foreign debt a policy guideline

to prevent the pressure of foreign payments from causing adverse reactions in the domestic sector. This resulted in the reopening of negotiations for refinancing the debt with Europe and Japan, and with the United States. The purpose was to design a schedule of repayments which would be coordinated to development needs and balance of payments constraints. The Government, meanwhile, proceeded with the amortization of the foreign debt (a total of $350 million in 1964 for long-term debt alone). This was possible only because of the high level of export earnings and because of new credits which were obtained for the financing of capital imports.

Long-term "official" capital movements showed a net outflow of $31.5 million in 1964. Interest and amortization payments to the Paris Club ($53.4 million), and to the consortium of United States and European banks ($37.8 million) were among the more important payments. These payments, however, were partially offset by inflows resulting from the refinancing of debts with some European nations and Japan in accord with the agreements of 1962. These inflows came to $65.1 million. Additional funds were made available by the Interamerican Development Bank (in excess of $18 million) and the United States Agency for International Development ($9 million). Short-term capital movements also showed a net outflow, largely due to the repayment of debts held by the International Monetary

Fund ($42.0 million), the Treasury of the United States ($33.6 million), and the Instituto Español de la Moneda Extranjera ($10 million). In addition, the Argentine Government paid $43.5 million to European and American Banks in interest and amortization, $34.5 million to the Treasury of the United States, $48.5 million to the International Monetary Fund, and $58.4 million on the Consolidated Debt with Europe and Japan. This tended to reduce the level of foreign exchange holdings to a point lower than 1963, but not to the critical level of 1962.[30]

Summary

This study of the balance of payments and the foreign debt suggests a number of points which can be generalized in the following way:

1. Continuing balance of payments crises have resulted from the need to maintain the level of imports despite the fact that export receipts were sufficient to pay for imports in only four years, (the 11 year balance of trade shows a deficit of $842.0 million).

2. The trade deficit was financed by foreign borrowing which occurred not only in the 1955-1965 period but in the years preceeding 1955.

3. Foreign borrowing was undertaken without sufficient thought being given to the terms of repayment, specifically the dates of maturity. The result was that unusually large payments were due in 1962, 1963, 1964, and 1965. The terms of repayment were renegotiated in 1958, 1960, 1962, 1963, and 1964.

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[30] Ibid., p. 67.

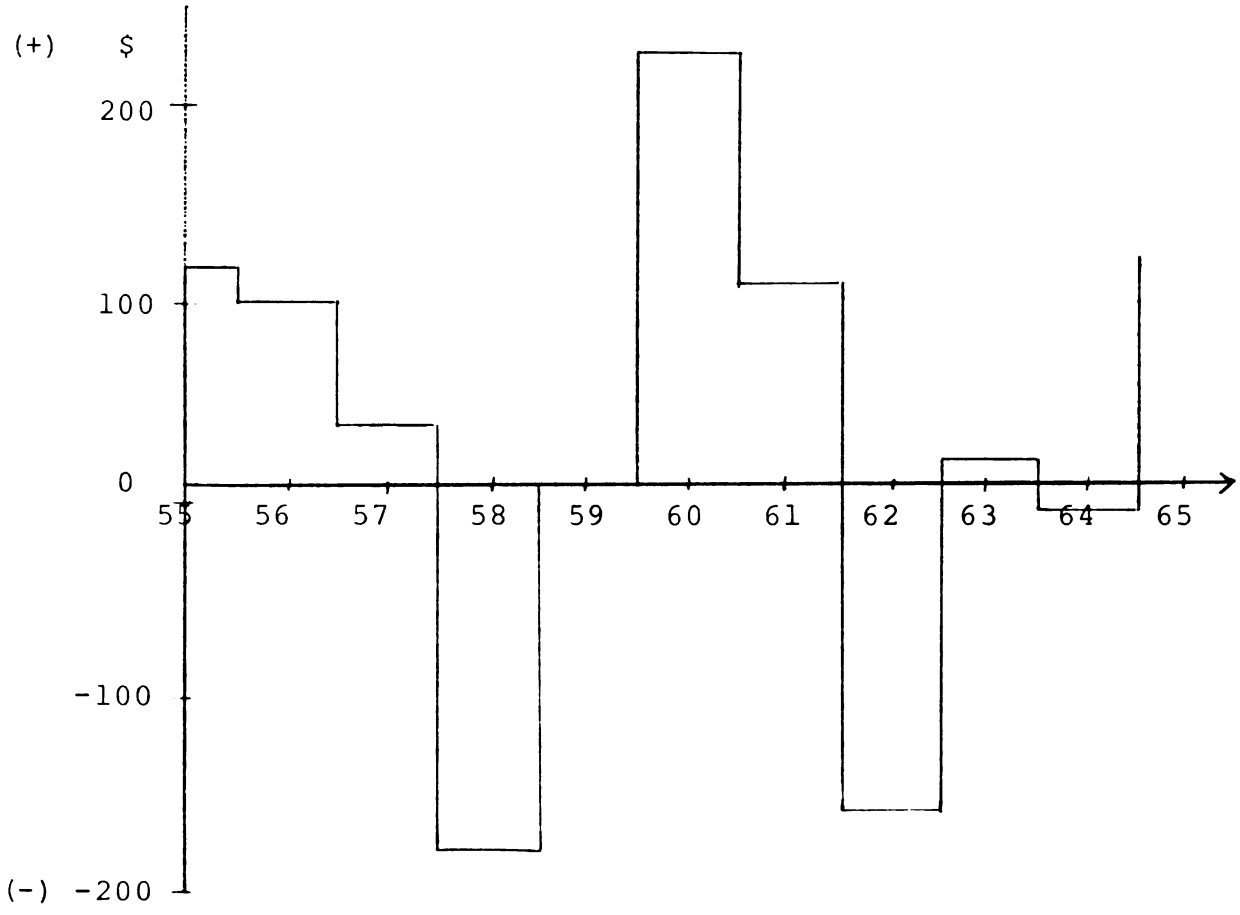

Figure 2.--Net Reserves of Foreign Exchange.

Source: Table 1, Chapter I.

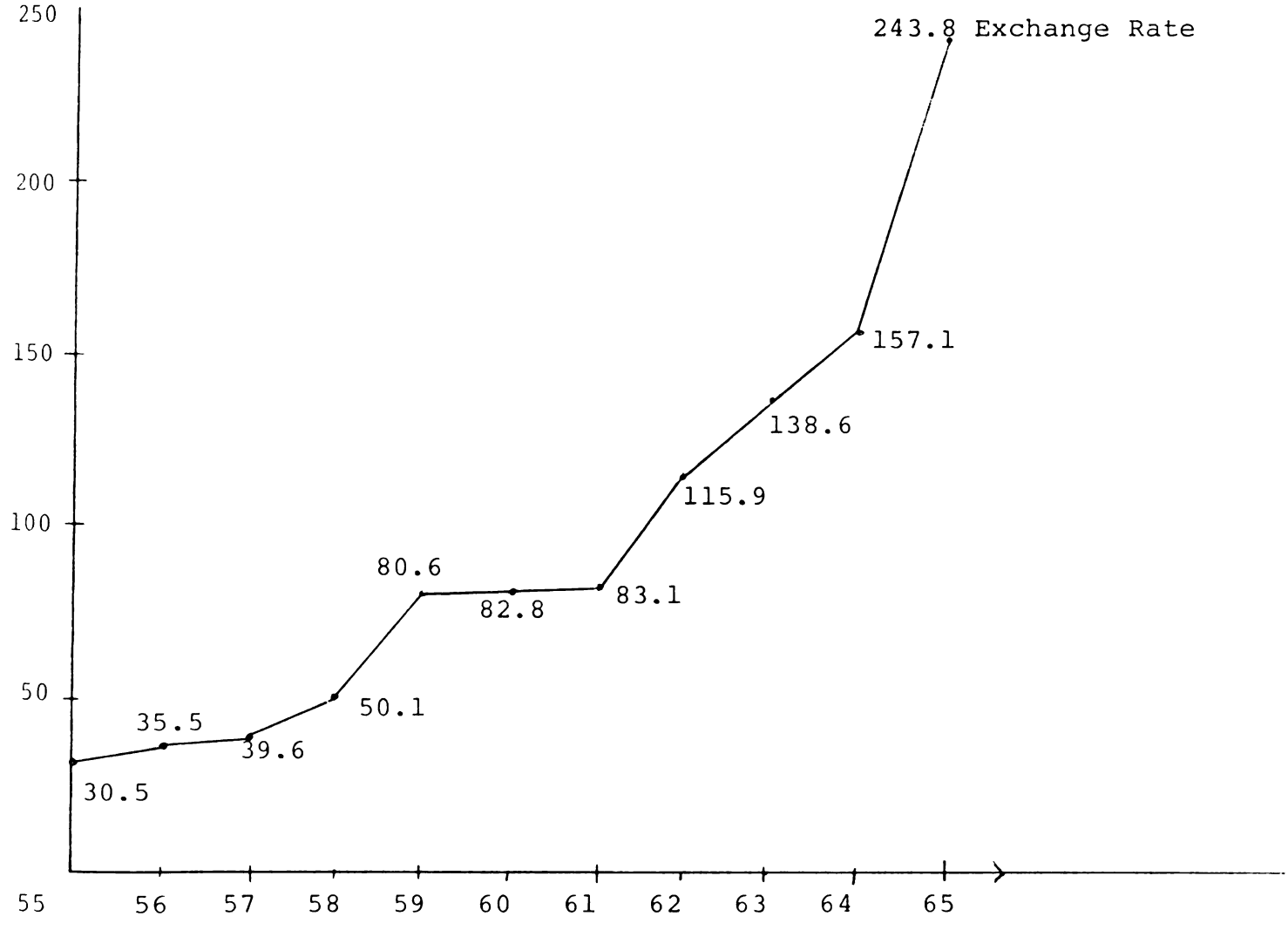

Figure 3.--The Exchange Rate: 1955-1965.

Source: Picks Currency Yearbook and Central Bank data cited in TECHINT Boletin Information No. 156, December 1966. Figures are yearly averages of end-of-month quotations for buyers of foreign exchange.

4. The impact of items 1, 2, and 3 on the reserves of foreign exchange is important but unpredictable since much of the foreign borrowing was undertaken in order to supplement exchange reserves and make payments on other debts. (The behavior of foreign exchange reserves is shown on Figure 2.)

5. The rate of exchange rose from 30.5 pesos per U.S. dollar to 243.8 pesos per U.S. dollar in the 1955-1965 period, indicating to some degree the amount of pressure on foreign exchange reserves (see Figure 3).

In order to discuss the impact of the behavior of these variables with greater precision a clearer definition of foreign debt and debt service is needed. A discussion of the data, operational definitions of concepts, and related problems is included in the next chapter.

CHAPTER IV

DEFINITION AND DEVELOPMENT OF THE DATA

The purpose of this chapter is to develop operational concepts and to assign them specific meanings to be used subsequently. The foreign debt, debt service due, gross debt service, and net debt service are among those to be examined.

Since there does not even exist a precise estimate of the total debt, precision in calculating and estimating the service on the debt cannot be expected. For example, a member of the Argentine delegation to Paris in 1957, whose mission was to negotiate the terms of repayment of Argentina's debt with several European nations, indicated that the delegation arrived in Paris without knowing how large the Argentine debt was. The lack of definite information about the size of the debt makes the development of debt service data difficult. It becomes important, therefore, to have a clear understanding of the way in which each of the series were developed and quantified.

With respect to the money supply the problems are slightly different. The data are, for the most part, unchallenged. The problems arise in the definition of the

money supply,(what to include and what not to include) and in the use of a price deflator to put the money supply in constant peso terms. It is for these reasons that this discussion is included.

Data on the size of the foreign debt and the service due on the foreign debt are incomplete and their reliability is open to question. While there are several sources of information on foreign financial relations, all of the statistics are based on data supplied by the Central Bank.[1] Even so, the data are not always in agreement. An additional problem exists because of the fact that the amount of service which is due does not always agree with the amount of service which is paid. Here the problem is simply conceptual; service due is ex ante, while service paid is ex post. It may therefore prove useful to include a discussion on the availability and reliability of the data in order that "confidence limits" may be established.

There are several reasons for presenting the data for the foreign sector in dollars, the most important being related to the rate of inflation and exchange rate devaluation. Given an exchange rate devaluation which has averaged

[1]There are several organizations which have studied the foreign sector in recent years. Among government organs, perhaps the most important, besides the Central Bank itself, is the Consejo Nacional de Desanollo (CONADE). Among private institutions, the Centro de Investigaciónes Económicas del Instituto Torcuato Di Tella, the Fundación para Investigaciónes Económicas Latinoamericanas (FIEL), and the Oficina de Estudios para la Colaboración Económica Internacional (OECEI) of Fiat Industries, are the most important.

roughly 20 per cent per year (24.8 per cent on the "parallel" market),the peso amount of a debt contracted in 1959 will be a good deal less than a debt of the same dollar size contracted in 1963. This can vary from month to month as well. Keeping the data in dollars makes it easier to maintain some degree of comparability between the figures.[2] Moreover, the longer the time span involved, the greater the changes in the value of the peso and the greater are the corresponding benefits from keeping the data in dollars.

Furthermore, if the debt was contracted in pesos or convertible currency, and the Central Bank has converted the figure into dollars, then a re-conversion into pesos would result in unnecessary complications. There is also the risk that the figures will be distorted because the original conversion rates and the re-conversion rates will be different. If the debt was contracted in dollars, of course, there is no need to convert it at all.

An additional problem arises when the rates of conversion into dollars are considered. The Central Bank keeps all balance of payments data in U.S. dollars as well as in pesos. During most of the period under study, however, more than one exchange rate existed. Which of the

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[2]Between January and December of 1962, for example, the peso underwent a devaluation of 39 per cent. Since the dollar remained relatively stable during that year (as throughout the 1955-1965 period) keeping the data in dollars insulates them from inflation or other changes in the economy which affect the purchasing power of the peso in international markets.

rates was used to convert the peso figures into dollars? No answer is readily available, but the rate of conversion used undoubtedly affects the "confidence limits" of the data. Where foreign borrowing is concerned, however, the effect of the "conversion problem" is probably minimal since foreign borrowing is initially undertaken in U.S. dollars or equivalents. The problems of "convertibility" will be more important in other areas of analysis where balance of payments data are needed.

The data on gold and foreign exchange reserves for recent years are readily available from the Annual Reports of the Central Bank. The data on reserves of gold and foreign exchange are kept by the Central Bank in dollars for three reasons. First, what gold is held is easily converted to dollars. Second, other national currencies, (pounds, francs, etc.), are convertible into dollars at rates of exchange which are inclined to be more stable than the exchange rate between pesos and other currencies. Third, most of the foreign exchange held is dollars since much of the growth of Argentina's trade is in the "dollar area." There are, however, two classifications which should be explained: "Assets Convertible in Foreign Exchange" held by the Central Bank of Argentina, and "Claims on Foreign Exchange" which are held by other Central Banks.[3]

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[3]See Table 1.

"Assets Convertible in Foreign Exchange" includes time deposits with private commercial banks and bank acceptances, bonds issued by the International Bank for Reconstruction and Development (I.B.R.D.), and short-term government securities issued by the British and United States Treasury Departments. The relative importance of each can be seen from Table 14. Bank Acceptances, which are held by the Central Bank of Argentina and comprise roughly 45 per cent of the total assets convertible into foreign exchange, are deposits in foreign banks which are then transferred to the Central Bank.[4] Short-term public bonds issued by the United States or British Treasuries and bonds issued by the I.B.R.D.,are bonds held by the Central Bank which can be cashed in dollars and/or converted into other currencies as the need arises. These bonds are in the form of loans and are given for "balance of payments support" or "stabilization [of the exchange rate] programs."

Claims on foreign exchange consist of obligations resulting from bilateral agreements, payments on the consolidated debt, stabilization loans, and short- and medium-term debts. Here, the largest item by far is the consolidated debt. These debts, which resulted from supplier credits, originated in 1951 when Argentina was running

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[4] In the case of agricultural exports, for example, the Central Bank registers a bank acceptance when the sale is made, and the funds are actually transferred when the merchandise is delivered.

TABLE 14.--Assets convertible into foreign exchange 1959-1965.
(in millions of dollars)

Year	Assets Convertible in Foreign Exchange	Time Deposits and Bank Acceptances	Short Term Public Bonds[a]	I.B.R.D. Bonds
1959	6.3	-	6.3	-
1960	405.2	182.4	216.8	6.0
1961	171.0	130.4	40.6	-
1962	41.0	25.1	15.9	-
1963	140.1	67.7	64.4	8.0
1964	71.2	26.7	34.5	10.0
1965	153.0	10.7	142.3	-
TOTAL	987.8	443.0	520.8	24.0

[a]Bonds issued by the U.S. and British Treasuries.

Source: Memoria Anual del Banco Central, various issues.

persistent deficits with the dollar area "which could not be covered with other reserves."[5] As will be discussed below, however, claims on foreign exchange are not the same as service due on the foreign debt.

Gross Reserves are equal to the reserves of Gold and Foreign Exchange plus the Assets Convertible in Foreign Exchange. Net Reserves are equal to Gross Reserves less Claims on Foreign Exchange.[6]

Although the data for the total foreign debt are taken from a wide variety of sources, all are based on data from the Central Bank. Nevertheless it proved impossible to obtain accurate estimates of the total amount of debt due to the fact that a substantial proportion of the foreign private debt is unrecorded. The debt contracted abroad by or through the Central Bank is all duly recorded and accurate to the dollar. There were, however, periods when

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[5] Memoria Anual del Banco Central: 1958, Buenos Aires, 1959, p. 5.

[6] Some of the problems involved in the calculation of "gross" and "net" reserves are discussed by Professor Machlup in a recent monograph. "That most statistical tables of international liquidity report gross reserves, rather than net reserves is fully consistent . . . . Calculating the total of net reserves raises hard questions, for it is not clear just what kinds of foreign liabilities should be deducted from the total reserve assets of a country. These are (1) official liabilities to official foreign creditors (such as debts of the central bank to other central banks, or Treasury securities held by foreign monetary authorities); (2) private liabilities to official foreign creditors (such as deposit liabilities of commercial banks to foreign monetary authorities); (3) official liabilities to private foreign creditors (such as Treasury notes held by foreign banks); and (4) private liabilities to private foreign creditors (such as deposit liabilities of commercial

the Central Bank had no control over certain types of foreign borrowing. During one such period, (1959-1964), for example, it was possible for the provincial governments as well as private organizations to borrow directly from foreign banks, to award contracts to foreign construction firms, and accept credit from foreign suppliers without clearing their actions through the Central Bank. The result was that reporting was sketchy, and the authorities at the Central Bank are unable to say with any certainty what the total amount of these obligations was. Estimates have been made, however, and these will be used whenever other data are absent.

A major definitional problem regarding the private foreign debt is differentiating between direct investment and portfolio investment. Portfolio investment carries

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banks to foreign private banks). Should only the first kind of liabilities be deducted from the gross reserves of a country, or the first two, or the first and the third, or the first three, or all four? It may be worth pointing out that, by the second method of computation, (that is, deducting all current liabilities to official creditors), the net reserves of the United Kingdom are minus $4,700 million and those of the United States are minus $650 million.

"One may, however, point to . . . [an] analogy in national statistics, that of commercial bank reserves. Some banking specialists prefer to make two distinctions: one between required and excess reserves, and another between borrowed and free reserves. The first . . . because excess reserves are a basis for measurements of the unused lending capacity of the banking system . . . . [It] . . . happens that the notion of free reserves of the commercial banks in a national economy is in many respects similar to the concept of net reserves in the international economy." F. Machlup, The Need for Monetary Reserves, Reprints in International Finance No. 5, October 1966, Princeton, N. J., p. 2.

with it a rate of return (interest) which is contractual, and increases in portfolio investment are possible only through an explicit increase in the amount of investment. Reductions in portfolio investment occur through a series of regularly scheduled payments which include both interest and amortization. Direct investment, on the other hand, is primarily equity and may be reduced or withdrawn at any time. The value of direct investment increases with increases in the value of equity, and this is not shown on the balance of payments. This study is primarily concerned with portfolio investment since direct investment does not technically refer to debt. It is not possible, however, to separate portfolio from direct investment because the data in the balance of payments are not sufficiently refined.

The data come from several sources, each of which will be discussed in turn. The foreign debt for 1955 is given by Raúl Prebisch and is probably a reasonably accurate estimate of the foreign official debt, but Dr. Prebisch made no attempt to estimate the foreign private debt.[7] The same is true of the figures given for 1956 and 1957, which are cited in the Annual Reports of the Central Bank as indicated in "Sources" for Table 15. The only source for the debt figure for 1958, is Argentina Económica y Financiera,

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[7]Prebisch, op. cit., p. vi.

TABLE 15.--Total foreign public debt for Argentina 1955-1965. (in millions of dollars)

Year Ending	Total Foreign Public Debt	Export Receipts	Foreign Public Debt as a Percentage of Export Receipts
1955	757.0	928.6	81.52
1956	686.0[a]	943.8	72.68
1957	1,824.0[a]	974.8	187.11
1958	1,613.0[b]	933.9	172.72
1959	1,423.8	1,009.0	141.11
1960	1,672.6	1,079.2	154.98
1961	2,201.5	964.1	228.45
1962	2,649.3	1,216.0	217.87
1963	2,652.7	1,365.5	194.27
1964	2,423.6[c]	1,410.5	171.83
1965	2,098.4[c]	1,488.0	141.02

[a]Includes credits which at the end of the year may have been totally or partially used.

[b]Estimated from the only source available for that year. See text.

[c]Excluding foreign private debt which was estimated by the Central Bank to be $1,370.8 and $1,114.1 million in 1964 and 1965 respectively. If these estimates are correct, total indebtedness for 1964 was $3,794.4 million and in 1965 it was $3,212.5 million.

Sources: "Foreign Debt: 1955"; Raúl Prebisch "Informes del Señor Asesor Económico y Financiero de la Presidencia de la Nación." Memoria Anual del Banco Central: 1955, Buenos Aires 1956, Appendix 1, p. iv.
"Foreign Debt: 1956-1957": Memoria Anual del Banco Central: 1958, Buenos Aires, 1959, pp. 3-6.
"Foreign Debt: 1958"; Argentina Económica y Financiera, FIAT Oficina de Estudios para la Colaboración Económica Internacional. Buenos Aires, 1966, p. 302.
"Foreign Debt: 1959-1965"; Boletín Estadístico del Banco Central, various issues.
"Export Receipts"; Consejo Nacional de Desarrollo. "El Balance de Pagos en la República Argentina." Mimeograph, 1966.

a publication of the Oficina de Estudios para la Colaboración Económica Internacional of FIAT.[8] Only two of the other figures given in the FIAT publication agree with the data published by the Central Bank and the tendency is to regard Central Bank data as more authoritative. On the other hand the amount cited by the FIAT publication, $1,613 million, is very close to the midpoint between $1,824.0 (1957) and $1,423.8 million, (1959).[9] The figures for 1959 through 1965 are taken from the Boletín Estadístico del Banco Central and may be assumed to be accurate within the limits of the discussion above.

Each year since 1959, the Central Bank has published a statement of foreign obligations in the Boletín Estadístico which contains an official statement of the debt, classified by the agency which incurred the debt, the schedule of repayment, and a breakdown of the total debt into interest and amortization charges. As can be seen in Table 16 the amounts of service due on the official foreign debt are substantial. For example, the debt service due ranged from almost 9 per cent to over 37 per cent of the total official debt. And, as a percentage of export receipts (one measure of Argentina's ability to pay), from 1961 to 1965 the debt service was over 30 per cent of exchange earnings. This

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[8] Argentina Económica y Financiera, FIAT, Oficina de Estudios para la Colaboración Económica Internacional. Buenos Aires, 1966.

[9] The mean being $1,623.9 million.

TABLE 16.--Service on the foreign debt due for Argentina 1955-1965.
(in millions of dollars)

Year	Debt service due	As per cent of the total debt	As per cent of export debt receipts
1955	-	-	-
1956	260.0	37.90	27.55
1957	173.0	9.48	17.75
1958	145.0	8.99	15.53
1959	183.0	12.85	18.14
1960	251.5	15.04	23.30
1961	372.5	16.91	38.64
1962	372.0	14.04	30.59
1963	435.7	16.42	31.91
1964	491.0	20.26	34.81
1965	526.2	25.08	35.36

Sources: "Debt Service Due 1956-1958": Raúl Prebisch, op. cit., p. v.

"Debt Service Due 1959": Memoria Anual del Banco Central: 1958, Buenos Aires, 1959, p. 4.

"Debt Service Due 1960-1965": Boletín Estadístico del Banco Central, various issues; the figure taken from the year end statement of the previous year.

suggests that the service due on the official debt alone was of considerable magnitude.

While the statements of service due are as accurate as possible given the conditions described above with respect to the size of the total foreign debt, the data cannot be taken as an ex post statement of service paid. Nor can this statement be taken as an accurate reflection of service due for more than the year immediately following.

The statement of foreign obligations as of 31 December, 1959, for example, may be considered to be accurate for the year 1960 but not for 1961 or 1962. This is because of almost constant renegotiation of the debt.[10] An example of what has happened as a result of renegotiation can be seen from Table 17, which shows the amount of service due in 1966 and 1967, as indicated at the end of the years 1959-1965. The debt service due in 1966, computed at the end of 1961 was $189.3 million. By the end of 1965, however, the amount due in 1966 had increased by almost $700 million to $988.6 million. It is also notable that the debt service due in 1966 increased by more than 100 per cent from the statement at the end of 1964 to 1965 and that the service due in 1967 almost doubled during the

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[10] As, for example, with the Paris negotiations of November, 1956 et passim.

TABLE 17.--Foreign debt service due in 1966 and 1967 at year-end of 1959-1965 inclusive.
(in millions of dollars)

At the end of	Debt service due in 1966	Debt service due in 1967
1959	42.7	32.0
1960	62.9	45.5
1961	189.3	122.1
1962	272.4	190.6
1963	367.2	256.8
1964	417.8	278.7
1965	988.6	536.2

Source: Boletín Estadístico del Banco Central, various issues.

same period.[11] It is difficult, therefore, to use these statements for periods of longer than one year, since the amounts of debt service increase yearly with increases in the total debt.

In view of the difficulties involved in using the debt service due statements of the Central Bank, the alternative of using balance of payments data was considered. The balance of payments data are also collected by the Central Bank, but represent an ex post view the problem of debt service. Balance of payments data, however, say

[11]The figures for debt service due refer only to service on the public debt, plus that part of the private debt in which the Central Bank in some way acted as an intermediary. Not until 1965 did the Central Bank include estimates of the private debt in its calculations. This accounts for the tremendous increase in debt service due for 1966 and 1967 from 1964 to 1965.

nothing about what should have been paid, what might have been paid, or what will be paid. For these purposes the total debt and debt service were needed.

The use of balance of payments data is difficult and requires great care. The majority of data are taken from the Capital Accounts, but while data on long-term capital movements are very carefully itemized, short-term capital movements are difficult to analyze because they are highly aggregated. There is the risk, therefore, that the data for short term capital movements include transfers of capital which should not, for the purposes of this study, be considered. It is almost impossible, however, to distinguish these movements because of the lack of sufficient information.

There is also the problem of hidden capital movements, both in the long- and short-term capital accounts. The authorities are forced to rely upon the reports made to them by various sectors. There is no way, however, to check against over- and under-invoicing. The former occurs when an importer receives an invoice which by prearrangement is in excess of the value of the imported goods. The amount of the bill is then remitted, the excess being deposited in a foreign bank in the name of the importer. The reverse is true for an exporter. The exporter will send a bill less than the amount due and the sum on the invoice is remitted while the difference between the actual

and the invoiced value is deposited in a foreign bank. There is no way of estimating accurately the amount of over- and under-invoicing. The Central Bank must accept the stated values as actual values and balance of payments data are based on this assumption. While the balance of payments data should be used with these qualifications in mind, it appears that these data are the best and most accurate of the data available on foreign debt service, but they must be used with the knowledge that they do not reflect hidden capital movements.

Gross debt service for each year was computed simply by taking from the balance of payments data all reductions in foreign liabilities, including interest charges. Thus for 1955, for example, Official Long Term Capital shows a debt service of $13.8 million of which $9.6 million was paid toward amortization of the Argentine debt with the Export-Import Bank and $4.1 million is a payment on the debt owed to the International Telephone and Telegraph Company. In the same fashion the Official Long-Term Capital account shows a total debt service of $119.9 million for 1964, of which $53.4 million was paid to amortize the consolidated debt with Europe and Japan, $19 million was paid to United States banks, $18.8 million was paid to European banks, $4.4 million was paid to the U.S. Agency for International Development,and the balance was paid to amortize debts to the Shell Petroleum Company The American

Foreign Power Company, The Interamerican Development Bank, and the Frankfurt-Main Reconstruction Credit Institute. On the Private Long-Term Capital account, however, the problem of identification of capital movements becomes more apparent. Movements of private capital are presented in aggregate form. In 1964, for example, the accounts indicate that of the $230.0 million figure representing the total reduction in accounts payable, only $0.3 million is specifically identified as amortization of debts with the Interamerican Development Bank. The remaining $229.7 million was a reduction in "accounts payable" stemming from previous imports which had been purchased on account.

The analysis of short-term capital movements presents a similar problem. Once again the official accounts reveal item by item the amount of debt reduction in each year. The private account, however, is broken down into three components: Credits for Imports, Credits for Exports, and Other Short-Term Capital Movements. This last category may also include unidentifiable long-term capital movements in 1962, 1963, 1964, and 1965.[12] For the short-term accounts, any reduction in liabilities outstanding is regarded as a payment of interest or amortization. From 1955 to 1961 there were no reductions of outstanding liabilities in the short-term private account. Neither

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[12] Memoria Anual del Banco Central: 1962, Buenos Aires, 1963, p. 93.

TABLE 18.--Gross foreign debt service.
(in millions of dollars)

Year	Long-Term Capital		Short-Term Capital		Interest[a]	Total
	Private	Official	Private	Official		
1955	35.5	13.8	-	-	24.1	73.4
1956	29.0	9.6	-	80.9	19.1	138.6
1957	49.0	10.5	-	0.7	27.3	87.5
1958	69.6	11.7	-	2.0	42.1	125.4
1959	36.6	46.1	-	39.0	61.1	182.8
1960	37.5	72.6	-	6.8	88.4	205.3
1961	206.0	94.8	-	20.1	166.1	487.0
1962	180.2	74.7	184.5	1.0	80.1	520.5
1963	191.6	88.3	224.1	8.4	71.5	583.9
1964	230.0	119.9	33.9	87.1	113.2	584.1
1965	176.4	90.4	160.9	33.7	94.8	556.2

[a]The figures for "Interest" are taken from the Current Account of the Balance of Payments and include the profits of the exchange market as well as "direct investment and other uses of capital" (Inversión directa y otras colocaciónes de capital).

Source: Balance of Payments data from the Central Bank. Published annually in the Memoria Anual del Banco Central.

was there a reduction in liabilities in 1955 on the official account. It must be recognized, however, that when discussing gross debt service only reductions in foreign indebtedness are examined; inflows of capital (foreign investment or loans) do not show up in the computation of these figures.

The data which refer to interest payments are taken from the current account of the balance of payments. These figures include profits from transactions on the exchange market and profits from "direct investment and other uses of capital" as well as interest payments.[13] Here, as in the case of the capital movements described above, only reductions in foreign liabilities are considered.

In Table 20, the gross debt service is shown as a percentage of what was officially due in each year, and as a percentage of the total foreign debt in each year. The figures show that for the first five years gross debt service was less than the service due, while the period 1961-1965, gross debt service exceeded the service due. This undoubtedly reflects the movements of short-term private capital. The percentage of the total foreign official debt being serviced in this period suggests that despite increasingly large payments, (gross debt service), the total foreign debt continued to grow.

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[13] Memoria Anual del Banco Central: 1959, Buenos Aires, 1960, p. 92.

Because of the difficulties of drawing any conclusions about the internal impact of the service on the external debt using the gross debt service data, figures for net debt service were calculated. Clearly if Argentina owed $500 million in 1956 (debt service due) and borrowed $700 million in order to meet these obligations and purchase additional imports, the net effect is a negative reduction in the debt--even though the service on the debt was paid (gross debt service). Thus while gross debt service takes account of reductions in liabilities, net debt service deals with changes in both liabilities and assets and the long-term private capital account. For the period 1955-1965, therefore,there is a negative debt reduction of $1,228.9 million in total, while gross debt service during the same period amounted to $1,241.4 million including interest. This means that during this period there was an inflow of capital amounting to $2,470.3 million. Of this total, $1,241.4 million was offset by repayment of the debt.

The same is true for the short-term capital account. In 1962 there was gross debt service amounting to $184.5 million, i.e., a reduction in liabilities of that amount. However, when combined with a diminution of assets the total debt reduction amounted to $329.3 million.[14] Similarly,

[14] If the diminution of assets was negative, that is if assets increased, net debt service would be less than gross debt service.

the data for interest payments (net) combine increases in assets with reductions in liabilities. Thus for 1965, for example, while credits increased by $5.6 million, liabilities decreased by $94.8 million, leaving a balance, or a reduction in debt of $89.2 million.

The total net debt service reduction is the sum of the various components in the capital account plus the interest payments from the current account. From Table 19 it can be seen that for six years during the eleven year period under discussion net debt service was negative, which indicates simply that more capital came in than went out (an approximation of the amount of capital inflow is given in Table 21). For 1963, 1964, and 1965, however, net debt service was positive, due largely to the behavior of capital movements in the short term account. The difficulty in using net debt service movements is that they include foreign credit for the import of capital goods, while the gross debt service figures represent only movements of liquid capital. Thus,although net debt service data indicate the direction of movements of capital, it is gross debt service which is more likely to have an impact on the monetary markets in Argentina.

The data for Table 19 were developed from the expanded version of the balance of payments published by the Central Bank. It should be noted, however, that what is shown is net debt service, not capital flows as in the balance of

TABLE 19.--Net foreign debt service.
(in millions of dollars)

Year	Long-Term Capital		Short-Term Capital		Interest	Total
	Private	Official	Private	Official		
1955	- 42.4	13.8	11.5	-216.3	21.2	-212.2
1956	-110.6	77.1	- 90.0	127.1	16.6	20.2
1957	- 53.8	118.5	- 6.2	-263.9	12.6	-192.8
1958	- 60.4	- 49.3	73.8	-173.1	31.1	-177.9
1959	- 72.0	11.8	- 5.0	79.5	40.3	54.6
1960	-245.7	-138.9	29.9	209.9	57.0	- 87.8
1961	-158.9	- 77.0	-125.5	-311.6	101.9	-517.1
1962	-297.9	74.8	329.3	-256.6	72.0	-169.0
1963	-161.1	20.7	243.1	119.6	68.4	269.5
1964	- 10.4	31.5	39.1	- 18.1	102.7	144.8
1965	- 15.7	- 17.1	176.8	44.4	89.2	277.6

(-) Indicates net inflow of capital.

Source: Balance of Payments data from the Central Bank. Published annually in the Memoria Anual del Banco Central.

TABLE 20.--Net and gross foreign debt service as a percentage of service due and total debt.

Year	Net debt service	As per cent of service due	As per cent of total debt	Gross debt service	As per cent of service due	As per cent of total debt
1955	-212.2	-	- 28.03	73.4	-	9.70
1956	20.2	7.77	2.94	138.6	53.31	20.20
1957	-192.8	-111.44	- 10.57	87.5	50.58	4.80
1958	-177.9	-122.69	- 11.03	125.4	86.48	7.77
1959	54.6	29.84	3.83	182.8	99.89	12.84
1960	- 87.8	- 34.91	- 5.25	205.3	81.63	12.27
1961	-571.1	-153.52	- 25.93	487.0	130.74	22.11
1962	-169.0	- 45.43	- 6.38	520.5	139.92	19.65
1963	269.5	61.85	10.16	583.9	134.01	22.01
1964	144.8	29.49	5.97	584.1	118.96	24.10
1965	277.6	52.76	13.23	556.2	105.70	26.51

Sources: Tables 15, 16, 17, and 18.

payments. Thus, where on the balance of payments a negative sign (-) indicates an outflow of capital, in Table 19 it represents just the reverse. In Table 19 a negative sign (-) indicates a negative reduction in debt or an increase in debt. This is because the discussion is cast in terms of debt service and not capital movements.

Total capital movements are shown in Table 21. These represent the combined total of gross debt service and net debt service. Net debt service shows the inflow of capital net of actual payments to foreigners. By adding the net and gross figures the total amount of capital inflow can be determined.

As with the data on the foreign debt, the data on the money supply come from the Central Bank. The chief source of this kind of information is, of course, the Boletín Estadístico which is published monthly by the Central Bank. In view of the legendary care taken by bankers in recording their transactions the problems encountered with the data on the foreign debt do not arise.[15] A problem which does present itself, however, is the problem of what should be included in the definition of the money supply.

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[15]This may also reflect the non-controversial (and non-political) nature of the data on the money supply as compared with similar data on the foreign debt.

TABLE 21.--Estimated total capital inflow.
(in millions of dollars)

Year	Gross debt service	Net debt service	Estimated inflow of capital
1955	73.4	-212.2	285.6
1956	138.6	20.2	118.4
1957	87.5	-192.8	280.3
1958	125.4	-177.9	303.3
1959	182.8	54.6	128.2
1960	205.3	- 87.8	293.1
1961	487.0	-571.1	1,058.1
1962	520.5	-169.0	689.5
1963	583.9	269.5	314.4
1964	584.1	144.8	439.3
1965	556.2	277.6	278.6

Sources: Tables 18 and 19.

The definition which will be adopted for the purposes of this study is that the money supply represents the total supply of money created by public institutions (i.e., currency) and by private institutions (i.e., demand deposits) less that portion held by the banking system (as reserve requirements). That part of the total output of money of the government and held by the public is generally referred to as C or currency; and that portion of the money supply which originates in the commercial banking system and held by the public is referred to as D or demand deposits. The sum of the currency held by the public plus the demand deposits held by the public is then the money supply or M. Thus

$$M = C + D$$[16]

This definition has the advantage of having the data readily available. Currency, or circulante, is defined as currency outside banks. This is a residual obtained by subtracting commercial banks' holdings of Central Bank notes and coin from the total amounts issued.[17] The data also include holdings of currency by official organs of

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[16]This definition, then, excludes time deposits and other depósitos de poca movilidad, or illiquid assets, from the money supply.

[17]This information is based on a description of the principal end of month monetary series published in a supplement to the Boletín Estadístico by the Central Bank in June 1962. Cited in an early draft of A. Diz, "Money and Prices in Argentina: 1935-1962" (unpublished Ph. D. dissertation, University of Chicago, May 1966).

the government as well, which is important for the purpose of this study, since reactions of official organizations to debt service payments are likely to be stronger than the reaction in the private sector. Demand deposits are simply the amounts of commercial banks' demand deposits held by the non-bank and non-government public. This series excludes inter-bank deposits, government deposits and items in the process of collection.[18] The data are taken from the year end figures published in the Boletín Estadístico, and are given in current peso figures (see Table 22).

The data for the money supply are also presented in real terms, i.e., adjusted for changes in the price level. Changes in the nominal (non-adjusted) money supply are likely to be more closely related to the rate of inflation than to other factors. In order to abstract from that proportion of change in the nominal money supply which is due to inflation, the nominal money supply is corrected for changes in the price level.[19]

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[18] Ibid., p. 81.

[19] There is also the problem of money as an index of value. If the money in circulation in year 2 commands fewer goods or services than in year 1 because the price level has risen (or because the percentage increase in the price level was larger than the percentage increase in the nominal money supply), then the holders of money are worse off than before. This is the same as a reduction in the supply of money in circulation. Correcting the money supply for changes in the price level is now accepted practice (see Patinkin, Don, Money, Interest, and Prices, 2nd ed. Harper & Row, New York, 1965, p. 172; and Thorn, R. S., Monetary Theory and Policy, Random House, New York, 1966, p. 4.

TABLE 22.--The supply of money 1955-1965.
(in millions of current pesos)

Year	Currency[a]	Demand Deposits	Total
1955	27,016.0	18,864.7	45,880.7
1956	31,455.7	22,706.0	54,161.7
1957	36,616.4	26,802.2	63,418.6
1958	45,031.7	31,965.8	76,997.5
1959	66,251.3	51,619.5	117,870.8
1960	86,273.5	70,211.2	156,484.7
1961	101,748.9	84,143.4	185,892.3
1962	118,808.3	90,056.2	208,864.5
1963	136,352.8	104,912.5	241,265.3
1964	176,280.9	153,588.1	329,869.0
1965	232,677.9	197,547.0	430,224.9

[a]Currency outside banks.

Source: Boletín Estadístico del Banco Central, various issues.

TABLE 23.--The supply of money in 1960 pesos: 1955-1965.
(millions of pesos)

Year	Money Supply	Index of Implicit Prices	Money Supply in 1960 Pesos
1955	45,880.7	20.9	219,525
1956	54,161.7	26.0	208,314
1957	63,418.6	30.9	205,238
1958	76,997.5	42.4	181,598
1959	117,870.8	85.2	138,346
1960	156,484.7	100.0	156,485
1961	185,892.3	110.5	167,228
1962	208,864.5	140.5	148,658
1963	241,265.3	178.8	134,936
1964	329,869.0	228.6	144,300
1965	430,224.9	289.7	148,507

Source: Table 22 and the Dirección Nacional de Estadísticas y Censos, Boletín Mensual de Estadísticas, various issues.

The index used to deflate the nominal money supply was the Index of Implicit Prices which is used by the Dirección Nacional de Estadísticas y Censos to deflate the figures for Gross Domestic Product. What is needed in an inflationary economy is an index which will not incorporate speculative prices (i.e., prices which try to anticipate changes in prices) but one which reflects as accurately as possible real changes in prices. While the Consumer Price Index and the Wholesale Price Index are more commonly used as price deflators, both to a certain extent incorporate changes in prices which are at least partly speculative--rents, for example. The Index of Implicit Prices does not entirely eliminate the problem of speculation but it is closer to non-speculative price increases than any other index available.

Summary

In this chapter the concepts of gross debt service, net debt service, the nominal money supply, and the real money supply have been discussed. Included in the discussion was an elaboration of the way in which the data were put together. The concepts were defined in operational terms and the data were presented. These concepts will be used in the following chapter to test the hypothesis.

CHAPTER V

DEBT SERVICE AND THE MONETARY STRUCTURE

The hypothesis which this study set out to test is that external debt service requirements have been a major deterrent to economic development in Argentina particularly, but not exclusively, through effects on the internal monetary structure. In this connection the term "monetary structure" was not used to mean changes in the structure of institutions but to refer to changes in the money market. (There were, of course, changes in the structure of fininancial institutions but these appear to be more closely related to other factors.) Changes in the "monetary structure," therefore, would be indicated by the behavior of interest rates (both long- and short-term), the amount and availability of credit, and changes in the money supply. The hypothesis implies that the number of reactions in the monetary sector, and the degree of severity of these reactions should vary directly with the frequency and size of debt service payments.

As the study progressed, however, a number of complicating factors became apparent. The rate of interest, for example, for those banking institutions which were subject to Central Bank regulation was fixed by law at an

annual rate of 15 per cent for loans to industry and business and 8 per cent paid on savings deposits. The official rate of interest was something less than that for mortgage and other loans.[1] This policy of fixing rates different from the "market" rate of interest had several implications. First, in an economy where the annual increase in the cost of living averaged 45.7 per cent from 1962 to 1966, the "official" rate of interest resulted in a real rate of interest which was negative.[2] Second, and this was implied by the negative real rate of interest, the rationing of funds, which was normally at least partly performed by the interest rate, became dependent on other factors. Supplementary rationing criteria were used by banks which could, therefore, exercise a good deal of arbitrary discretion. The banks allocated their funds to older, more established and presitgious businesses where risks were minimal, or to enterprises with which the bank had familial or other relationships. Third, there was extremely rapid growth in non-bank financial intermediaries.[3] The chief characteristic of non-bank financial intermediaries, aside from their rapid

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[1] Rolf R. Mantel, "La Tasa de Interés Bancaria y el Desarrollo Económico," Instituto Torquato Di Tella, Buenos Aires, 1967, mimeograph, p. 2.

[2] Banco Central, Informe Económico 1967, Buenos Aires, 1967, Table D, p. viii.

[3] Samuel I. Itzcovich, "Los Intermediarios Financieros Extra-Bancarios en La República Argentina," Documento Interno No. 26, Instituto Torquato Di Tella, mimeograph, 1966.

growth, was their large number and their rates of interest, which were significantly higher than the "official" rate. The rates of interest for selected non-bank financial intermediaries are given in Table 24. The picture which emerged was one in which the "official" rate of interest did not reflect the "tightness" or "ease" of money.

There were, in addition, several factors which precluded the use of the non-bank rate of interest as the "representative" market rate. According to estimates of the Central Bank, the non-bank financial intermediaries which functioned in the automobile, home appliance, and mortgage markets supplied over 70 per cent of the volume of non-bank credit.[4] Data on the remainder of non-bank financial intermediaries was unavailable. Thus the data available covered only credit in the consumer durables sector. The suppliers of credit in this sector operated under the supervision, and with the financial support, of the manufacturers of the goods which were financed. This suggested that the decision to supply credit, and the level of the interest rate, might have been influenced by variables which were not, strictly speaking, monetary. If, for example, large inventories existed the manufacturers might have wished to ease credit and stimulate sales. Since the manufacturers were supplying the financial support for this kind of credit, the availability of credit and the

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[4]Cited in Itzcovich, op. cit., p. 4.

TABLE 24.--Effective annual rates of interest charged by non-bank financial intermediaries from 1955-1965.
(in percentages)

Year	Type of Loan		
	New Car	Used Car	Household Appliances
1955			(24) 40.5
1956			(24) 40.5
1957			(24) 40.5
1958	(10)[a] 46.7	(10) 55.5	(24) 40.5
1959	(10) 67.2	(10) 67.2	(24) 40.5
1960	(15) 53.3	(10) 67.2	(24) 40.5
1961	(20) 41.5	(15) 51.0	(22) 55.5
1962	(20) 46.7	(15) 60.1	(22) 55.5
1963	(24) 42.6	(18) 57.8	(22) 55.5
1964	(21) 46.7	(15) 60.1	(26) 48.9
1965	(20) 57.8	(15) 79.6	(26) 48.9

[a]The numbers in parentheses indicate the number of months duration of loan.

Source: Samuel Itzcovich, "Los Intermediarios Financieros Extra-Bancarios en la República Argentina." Instituto Torquato Di Tella. Documento Interno Number 26, Buenos Aires 1966, Table II, p. 45.

level of the interest rate, might also have reflected the level of profits. These are testable hypotheses, but the issue is sufficiently clouded so as to discourage the use of the non-bank rate of interest until additional information is available.

The same analysis, applied to the amount and availability of credit yielded basically the same conclusion with this important exception. If the hypothesis is correct, and the foreign debt service payments acted as an "absorber" of bank credit, then the tremendous expansion of financial intermediaries could have been taken as a positive indicator of the validity of the hypothesis.[5] Another interpretation would suggest that the growth of financial intermediaries reflected the rate of expansion of domestic production of consumer goods, and that this was a natural "horizontal" expansion of these industries which supplemented the expansion of bank credit. Either way, the existence of exogenous variables made meaningful analysis in terms of the stated hypothesis difficult.

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[5]Raymond W. Goldsmith, for example, would not put too much emphasis on the growth of non-bank financing, (let alone the interest rates charged) because . . . "it is to some extent an inflationary phenomenon which will become less important as, if, and when the peso is stabilized." This would also be true if banks were freed from "official" supervision. Notes on Conversation with Prof. Goldsmith during his visit to Buenos Aires in the Spring of 1967.

The use of the money supply as an indicator of changes in the monetary sector must be carefully qualified. It is unquestionably affected by, (and probably contributed to), the rate of inflation. Yet the money supply can be corrected for changes in the price level, and the corrected value is more likely to be an accurate reflection of the changes in the level of debt service than, for example, the corrected rate of interest. The money supply, moreover, influences the rate of interest and the amount and availability of credit. Thus, while the use the supply of money as a proxy variable for changes in the monetary structure is a sub-optimal solution, it should provide some insights into the changes which took place over the 1955-1965 period.

In understanding the relationship of the foreign debt service and the domestic money supply it is first important to understand the difference between internally and externally held debt. If individual A, an Argentine, buys a tractor worth $1,000 from individual B, an Argentine, then A's cash reserves are reduced by $1,000 (a reduction in assets) and he acquires a tractor worth $1,000 (an increase in assets). His supply of money has been reduced but his total assets (or wealth) remain the same. Individual B's cash reserves (or demand deposits) have been increased by $1,000 while his inventory (or stock of goods) has been reduced and his net wealth remains the same. Meanwhile

the total money supply has remained unchanged because the entire transaction took place within Argentina. This means that there is no problem of re-injecting the money into the system through payments of wages, rent, interest, or profits; or through simple consumption on the part of the former owner of the tractor.

If, on the other hand, individual A purchases a tractor from individual C, who is an overseas manufacturer, a different process occurs. His demand deposits are reduced by $1,000 in pesos and paid to the Central Bank in exchange for $1,000 in dollars (the Central Bank being the only authorized seller of foreign exchange).[6] Individual A's assets remain unchanged. The Central Bank's assets (of gold and foreign exchange) have been reduced by $1,000 in dollars, and its liabilities (in pesos) have also been reduced by the equivalent of $1,000. Individual A then exchanges the $1,000 for the tractor. His total assets are still unchanged as are the total assets of C who has one less tractor and an additional $1,000 in his bank--outside Argentina. While the net wealth of the two countries remains the same (the exporting country has given up a tractor and acquired $1,000, and in Argentina the reverse has happened), the question of the money supply in the paying and the receiving country arises.

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[6] A simplifying assumption which can be easily discarded later on.

The supply of money in the receiving country--demand deposits plus currency in the hands of the public--has increased by the amount of C's deposit.[7] The supply of money in the paying country has been reduced by the amount of $1,000 in pesos. The money supply in Argentina remains at the lower level unless and until the Central Bank re-injects the pesos into the money supply.

For example, suppose that the Central Bank initially holds assets of $2,000 in foreign exchange and $8,000 in pesos of domestic debt, and has liabilities of $10,000 in pesos in circulation. Suppose also that Individual A has $2,000 in assets. After the transaction, A's assets remain the same. But the Central Bank has reduced both its liabilities (in pesos outstanding) and its assets (in foreign exchange) by the peso equivalent of $1,000. The money supply, cash held outside banks and demand deposits, has been reduced (see Table 25).

Should the Central Bank desire to raise the money supply to its former level again, all that is necessary is to purchase the equivalent of $1,000 in pesos in additional domestic debt. In this case the assets are increased by the peso equivalent of $1,000 and the liabilities are increased by the same amount as additional currency is injected into the income stream (see Table 26). This process can take place despite the absence of a fixed foreign exchange/domestic

[7]Following the definition of the money supply discussed in Chapter IV.

TABLE 25.--Changes in assets and liabilities of the Central Bank, Commercial Banks, and the Non-Bank Public: Case 1.

Central Bank		Commercial Banks		Non-bank Public	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
(-)Reserves of Foreign Exchange	(-)Bank Deposits	(-)Reserves Deposited with the Central Bank	(-)Demand Deposits	(-)Demand Deposits (+)Tractor	

TABLE 26.--Changes in assets and liabilities of the Central Bank, Commercial Banks, and the Non-Bank Public: Case 2.

Central Bank		Commercial Banks		Non-bank Public	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
(+)Domestic Debt	(+)Bank Deposits	(+)Reserves Deposited with the Central Bank	(+)Demand Deposits	(+)Demand Deposits	(+)Debt

currency ratio (which in this example has fallen from 2/10 to 1/10), and regardless of reserve requirements or other internal institutional regulations.

When the analysis is expanded to include the operation of commercial banks the impact of the transfer of funds out of the country is intensified. When individual A keeps his liquid assets in a commercial bank and the transaction occurs, the demand deposit liabilities of the commercial bank are reduced by $1,000 and its assets are also reduced by $1,000 (see Tables 25 and 26). If the reserve requirement is less than 1.1, and the bank is loaned up, this may cause the bank to recall some of its loans, thereby reducing the money supply by a multiple of the reserve requirement.

It is clear then, that the payment by a private citizen or corporation to a foreign creditor will have the effect of reducing the domestic money supply by at least the amount of the payment, in the absence of any compensatory policy on the part of the Central Bank.

The impact on the money supply of a similar payment by a government or other official agency is somewhat more difficult to determine. Under a gold or gold exchange standard, the "price-specie flow analysis" indicates that what will occur in response to an outflow of gold (or foreign exchange) is a direct decline in the domestic money supply (in gold or its equivalent), a fall in domestic prices, and a reduction in imports and an increase

in exports. The trade surplus which results will cause a flow of gold or specie back into the domestic economy until equilibrium is reached. A rigid gold or gold exchange standard in which currency issue is directly related to the supply of gold, however, is needed to make the mechanism work. A different mechanism was suggested by the Keynes-Ohlin controversy of the late 1920's.[8] The export surpluses needed to provide the foreign exchange (in this case to pay German reparations after World War I) were to be generated by imposition of a domestic tax, which reduces consumption thereby either freeing resources formerly used in the production of domestic goods for use in the production of export goods, or providing a surplus of domestic goods for sale in foreign markets. The increased production of goods for export, and the reduction of imports would provide foreign exchange for the payment of reparations.[9]

In Argentina, however, neither of these two systems of adjustment operate. While the Central Bank charter specified a ratio of gold and foreign exchange to currency in circulation of 1:4, this regulation as formal requirement

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[8]See the Keynes, Ohlin, and Metzler articles in The American Economic Association, Readings in the Theory of International Trade, Blakiston Co., Philadilphia, 1950, pp. 161-201.

[9]Keynes also pointed out that the success or failure of this policy depended on the elasticity of demand for German exports. Ibid., p. 161.

has not been enforced for some time.[10] In the absence of this formal requirement a direct relationship between the reserves of gold and foreign exchange and the money supply will be more difficult to establish.

If, however, the authorities of the Central Bank are influenced in their policy decisions by the level of reserves which the Bank holds, this will have an effect on the money supply which could be classified as indirect. As reserves of foreign exchange are drawn down through payments to foreign creditors, the monetary authorities may be reluctant to expand the money supply and/or increase the reserves of commercial banks. The reverse is undoubtedly true: when reserves are increasing, the mood is optimistic and money is "easy." In the extreme case; if reserves are depleted, the Central Bank would reduce the rate at which the money supply was allowed to expand.

There is an additional reason to expect the money supply to be affected by extensive debt service abroad. Suppose that the government budget for the various agencies is allocated on the basis of operating costs (plus expansion) on a year-to-year basis. Suppose further that operating expenses are fixed in the sense that no special

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[10] "The Bank will maintain at all times . . . free . . . reserves sufficient to assure the value of the peso, whether in gold or in foreign exchange, equivalent to a minimum of 25 per cent of the amount of bills in circulation . . ." Law 12,155 of April 5, 1935. Banco Central de la República Argentina.

allowance is made for overseas expenditure. The purchase of goods and services abroad reduces the amount remaining to be spent domestically. This, too, would lead to a reduction in the rate at which the money supply would be expanded.

Once again, the differences between externally and internally held government debt, and the impact of each on the supply of money, must be clearly defined. When Aerolineas Argentinas, the nationally owned airline, buys fuel and lubricants from domestic producers, the amount of the purchase is drawn against its account in the Central Bank and transferred to another account either in the Central Bank or to a commercial bank. From there it becomes part of the money supply as it is paid out in the form of wages, interest, or payment for other factors of production. If, however, the same amount is to be paid to a foreign supplier (for parts and equipment), then the process is similar to that described earlier. The Central Bank debits the account of Aerolineas Argentinas by the amount necessary to purchase sufficient foreign exchange. This is then credited, or paid, to the foreign supplier. Once again the net wealth of the two nations is "in balance"; the receiving country having given up parts and equipment and received payment, and Argentina having given up foreign exchange and received merchandise. The money supply of the receiving country has been increased (by the

amount received) but the money supply in Argentina, in this period, remains unchanged. The money supply in Argentina has not changed because the pesos used to offset the dollars in foreign exchange were not initially part of the money supply, and,in the absence of specific action on the part of the monetary or fiscal authorities, there is no offsetting withdrawal of funds.[11]

Suppose, returning to the previous example, that the Central Bank initially holds assets of $2,000 of foreign exchange and the equivalent of $13,000 in domestic debt, and has liabilities of $10,000 in currency and $5,000 in Treasury Deposits, out of which are paid the operating expenses of the government. When the transaction takes place, treasury deposits are reduced by $1,000 and the reserves of foreign exchange are also reduced by $1,000 (see Table 27). In this case the money supply is unchanged.

If, however, the funds which were retired by the Central Bank to offset the reduction in foreign exchange reserves would have been used to purchase domestic goods and services, something can now be said about the rate of

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[11]The ultimate behavior of the money supply in the long-run will depend on the monetary and/or fiscal policies of the Central Bank and the government. If, for example, the purchase of parts and equipment, (or airplanes) is financed through the sale of public bonds the money supply is reduced. Alternatively, if the government budget is balanced, i.e., no deficits are incurred, then the Aerolineas expenditure is financed through taxation--and the money supply is reduced. See Metzler, op.cit., pp. 181, 182.

TABLE 27.--Changes in assets and liabilities of the Central Bank: Case 3.

Central Bank	
Assets	Liabilities
(-) Reserves of Foreign Exchange	(-) Treasury Deposits

expansion of the money supply. For example, if $5,000 had been originally intended for domestic expenditure, and after the payment for goods and services abroad only $4,000 remains for domestic expenditure, then rate of expansion in the money supply is not as great as it would otherwise have been.

Moreover, following the discussion of the preceeding pages, if the monetary authorities have some formal or informal policy guidelines about the "appropriate" ratio between foreign exchange reserves and the money supply, then as the reserves are drawn down by $1,000, the authorities may be encouraged not to expand the money supply as rapidly as would otherwise be the case. As indicated earlier, there is little reason to doubt that the rate of money creation is increased when the Central Bank is accumulating reserves. The extent to which the psychology of banking influences policy makers is a testable hypothesis, but it is likely that during periods when foreign exchange

reserves are contacting the money supply will expand less rapidly than during periods when reserves are increasing.

Suppose, for example, that the money supply has been increasing at an average rate of 30 per cent per year. During the years when service on the foreign debt was excessive one could reasonably expect to find an increase in the money supply of something less than 30 per cent per year. It then becomes important to consider the impact of the service on the official foreign debt on the rate of change in the money supply. This is not a new approach but one which is the generally used method of analyzing monetary phenomena.[12]

In summary, then, the impact of the service on the foreign debt on the monetary structure will be determined by observing the behavior of the following variables:

a. the nominal money supply[13]

b. the real money supply

c. the rate of change in the nominal money supply

d. the rate of change in the real money supply.

The analysis is concentrated on these variables because abailable information on both the bank and non-bank rate of interest suggests that neither is an appropriate

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[12]"Changes in the rates of change are the usual stuff of monetary economics." R. L. Crooch, "Money Supply Theory and the United Kingdom's Monetary Contraction, 1845-1956." Northwestern University 1966, mimeograph, p. 2.

[13]Both the real and the nominal money supply are defined in Chapter IV.

reflection of the "market" rate of interest. The amount and availability of credit are not used in the analysis because closer examination revealed that this is probably a consequence of the growth of domestic industry and the rate of inflation, and that changes in the amount of debt service are not likely to affect the supply of credit.

The hypothesis indicates that behavior of the money supply (real and nominal) and the rate of change in the money supply (real and nominal) is related to the service on the foreign debt. More specifically the service on the foreign debt is the independent variable and the real money supply, the nominal money supply, and the rates of change in the real and nominal supplies of money are considered to be the dependent variables. For the reasons discussed in Chapter IV, the service on the debt is considered in two ways: Gross Debt Service and Net Debt Service. In addition, the degree of association between the reserves of gold and foreign exchange and the real and nominal money supply are calculated in order to determine whether or not a direct relationship exists between exchange reserves and the money supply.

Since the analysis requires only that the closeness of relationships of the variables be established, coefficients of correlation and determination were calculated for each pair of variables. In addition, some of the variables were lagged for one and two years in order to

allow time for the impact to be felt. A total of 22 correlations were calculated for the different pairs of variables.

Throughout the analysis "r" is interpreted to indicate the closeness of the relationship between the two variables. More specifically the analysis will compare the total variation in the money supply with that variation in the money supply which is related to changes in the amount of debt service. The greater the value of "r," the greater is the amount of total variation in the money supply which is associated with changes in the independent variable (the foreign debt service). The coefficient of determination, "r^2," indicates the percentage of changes in the money supply which can be explained by changes in the amount of foreign debt service, which is the percentage of variance explained.

No important statistical relationship was found to exist between the reserves of gold and foreign exchange and either the real money supply or the nominal money supply (see Table 28). The use of lagged variables did not significantly improve the results. In fact, when comparing the behavior of the nominal money supply with the level of foreign exchange reserves, a negative relationship was observed. Although not statistically significant, this would contradict the expected reaction which would occur if the Central Bank were operating on a gold

TABLE 28.--Coefficients of correlation between the real money supply, the nominal money supply, and the reserves of gold and foreign exchange: 1955-1965.

	r	r^2
Money Supply in Current Pesos		
a. no lag	.05	.002
b. with a one year lag	-.14	.020
c. with a two year lag	-.29	.084
Money Supply in Constant (1960) Pesos		
a. no lag	.18	.032
b. with a one year lag	.42	.176
c. with a two year lag	.21	.049

reserve standard. Correlating the reserves of foreign exchange with the real money supply improves things somewhat by changing the sign, but the level of correlation is so low that it is statistically meaningless. The probable explanation lies in the fact that as reserves of foreign exchange were falling, the index of implicit prices was rising, (and rising more rapidly than the nominal money supply), which means a decline in the real money supply. In neither case, however, do the results show any close relationship between the level of foreign exchange reserves and the supply of money.

The results of the correlations run between the real and nominal money supply and net debt service did not prove to be statistically significant either (see Table 29). The

TABLE 29.--Coefficients of correlation between the real money supply, the nominal money supply, changes in the money supply, and net foreign debt service: 1955-1965.

	r	r^2
Money Supply in Current Pesos		
a. no lag	0.46	0.212
b. with a one year lag	0.43	0.185
c. with a two year lag	0.30	0.090
d. changes in the money supply	-0.33	0.111
Money Supply in Constant (1960) Pesos		
a. no lag	-0.45	0.202
b. with a one year lag	-0.05	0.002
c. with a two year lag	-0.22	0.048
d. changes in the money supply	0.16	0.027

correlations with the money supply in current pesos again showed the wrong sign, being positive rather than negative. This reflects the fact that over the 1955-1965 period, when the service on the foreign debt was increasing, the nominal money supply was also increasing. The constant peso money supply correlations again show the correct sign but the coefficients of correlation are too low to be conclusive. The use of lagged variables, incidentally does not appear to improve the "fit" at all. The results of this analysis show no clear relationship between the supply of either real or nominal money and the net service on the foreign debt.

Nor does there appear to be any close relationship between the net service on the foreign debt and changes in

the money supply. In each case the sign is incorrect (i.e., the opposite of the anticipated sign) and in neither case does the analysis explain more than 11 per cent of the variance.

The results of the correlations between the gross foreign debt service and the real and nominal money supply are some what more encouraging (see Table 30). The coefficients of correlation for the nominal money supply and gross debt service are high but of the wrong sign. The coefficients calculated for the real money supply are not as high, and do not explain as great a percentage of the variance, but are of the correct sign. The results indicate that when gross debt service is increasing the money supply, in real terms, is contracting and that the reverse is also true. Again, in no case is the coefficient of determination higher than 55 per cent. The results, however, do suggest that banking authorities may operate indirectly to adjust the money supply to variations in the amounts of service on the foreign debt which must be paid (gross debt service), without taking into account the possible inflows of capital (net debt service).

The empirical evidence suggests no clear-cut relationship between the real money supply, the nominal money supply, and either gross or net debt service. There are, however, some observations which can be made:

TABLE 30.--Coefficients of correlation between the real money supply, the nominal money supply, changes in the money supply, and gross foreign debt service: 1955-1965.

	r	r^2
Money Supply in Current Pesos		
a. no lag	.87	.757
b. with a one year lag	.91	.828
c. with a two year lag	.93	.865
Money Supply in Constant (1960) Pesos		
a. no lag	-.74	.547
b. with a one year lag	-.67	.449
c. with a two year lag	-.55	.302

1. In every case "better" results were obtained by using the real money supply than by using nominal money supply data. This is consistent since the nominal money supply is more likely to interact with the rate of inflation either because the monetary authorities are issuing money to keep pace with inflation or because there is some causal relationship between monetary policy and the rate of inflation in Argentina.

2. The correlations for gross debt service provide better results than those for net debt service. This is consistent for two reasons. First, if the "bank psychology" operates, bankers are likely to be concerned about the payments abroad and are likely to be unwilling or unable to consider the possible offsetting movements of capital into the country. Second, as indicated in Chapter IV, net debt service is likely to include supplier credits which central banking authorities are unable to take into account in making their calculations.

3. It is clear from the data that the Central Bank was operating to insulate the domestic economy from the vagaries of the international financial market. By purchasing additional domestic debt, engaging in open market operations, or by rediscounting, the

> Central Bank managed to neutralize the impact of foreign debt service on the money supply. Whether by accident or conscious design, the results of this investigation suggest that they were able to do so successfully.

In view of the results of the statistical analysis, the stated hypothesis, i.e., "that external debt service requirements have been a major deterrent to economic development in Argentina particularly . . . through effects on the internal monetary structure" has been rejected. The following chapter will attempt to show how this relates to other work in the field.

CHAPTER VI

SOME COMMENTS ON THE LITERATURE AND CONCLUSIONS

The emphasis in this study has been on the impact of foreign debt service on the domestic money market. As with the Keynes-Ohlin controversy of the 1930's, the question can be phrased in terms of a mechanism to divert domestic resources in order to reduce the level of international indebtedness. An examination of the balance of payments, the level of foreign exchange reserves, and the structure of the foreign debt has been undertaken as a major part of this work. The study focused, however, on the domestic effects of foreign borrowing, i.e., the impact of service on the foreign debt on the rate of interest, the money supply, and other monetary phenomena.

Research in the field of foreign borrowing has been concentrated in other areas of inquiry. The initial concern, for example, was over the growth in the level of international indebtedness while recent contributions have tended to focus more on the ability of an underdeveloped

country to service the debt.[1] These constitute two of the major categories into which research activity in the field has been directed. The third category consists of studies which concentrate on the ability of the receiving country to absorb or utilize foreign capital efficiently.

The major contributor to the recent literature on international indebtedness has been Dragoslav Avramovic. While his first work in the field was largely concerned with the growth in international indebtedness and the ability to service that debt in the aggregate sense, his recent work has been devoted to the study of the growth of an individual economy in relation to its foreign debt. In the latter work Avramovic has tried to design a model incorporating the constraints which face a developing country trying to service a foreign debt.

The model which Avramovic develops to describe the problems in servicing foreign debt incorporates two kinds of factors: those which are rigid and those which are variable.[2] The variable factors, which affect the balance of payments and hence a country's ability to service debt

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[1] See D. Avramovic, Debt Servicing Capacity and Postwar Growth in International Indebtedness (The John Hopkins University Press, Baltimore, Maryland, 1958), and G. M. Alter, "The Servicing of Foreign Capital Inflows by Underdeveloped Countries" in Economic Development for Latin America ed. by H. Ellis (St. Martin's Press, New York, 1961).

[2] D. Avramovic, Economic Growth and External Debt (The John Hopkins University Press, Baltimore, Md., 1964), p. 13.

in the short- and intermediate-run, include exports, "compressible" imports, capital flows, and exchange reserves. The rigid factors are debt service and "minimum tolerable levels" of imports.[3]

Avramovic makes several passing references to "liquidity crises," but by these he means reserve liquidity and balance of payments crises. The only reference made to the impact of foreign debt service on variables in the domestic economy is ". . . if the debtor country drastically curtails its imports and thus releases resources for the liquidation of debts . . . the process of economic growth is arrested."[4] He seems, therefore, to be more interested in the impact of the foreign debt upon the international financial community than on the domestic economy of debtor countries.

Another author who takes the same approach (and acknowledges the use of Avramovic's model) is Douglas A. Scott.[5] His analysis of foreign debt management in Ghana places particular emphasis on the debt service ratio, the ratio of the short- and middle-term debt to long-term debt, and the foreign exchange "free reserve" position. (The debt service ratio is the ratio of annual foreign debt service to annual foreign exchange earnings.) His emphasis,

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[3] See Chapter II.

[4] Ibid., p. 33.

[5] D. A. Scott, "External Debt Management Policy in a Developing Country," in Financing African Development, ed. by T. J. Farer (M.I.T. Press, Cambridge, Mass., 1965).

however, is clearly indicated in the statement ". . . continued availability of foreign credit will be determined by . . . [the country's] . . . ability to service additional debt."[6] Thus while Scott is concerned with debt management policy, his orientation, following Avramovic, is to the international community rather than to the domestic economy.

More recently, Courtenay Slater has applied a combination of the Avramovic and the Chenery-Strout models to measure the net resource gap which must be closed by foreign borrowing in order to achieve a target rate of growth.[7] This model is concerned with debt service only in the sense that it is measuring foreign borrowing in the "net" sense (i.e., inflows minus outflows), to derive a net resource transfer. The paper then goes on to show an overall rise in the net inflow of foreign capital in 15 countries, and studies the case of Chile in particular. The model which Slater uses, however, follows the Avramovic model in that he assumes a minimum of domestic repercussions to foreign borrowing. The projections of the Chilean debt, for example, are "based on relatively optimistic assumptions" about the possible negative effects of international debt service.[8]

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[6] Ibid., p. 48.

[7] C. Slater, "External Debt and Economic Development: Some Empirical Tests of Macro-Economic Approaches," Southern Economic Journal, January, 1970, pp. 252-262.

[8] Ibid., p. 261.

Slater confines himself to the task of demonstrating some of the important requirements for successful growth through foreign borrowing. He emphasizes the necessity for adequate export growth and domestic savings. The domestic impact of foreign borrowing in its negative sense, i.e., the service on the debt, is never considered. This is generally true of studies concerned with international indebtedness.

Slater's meld of the growth requirements of an economy and the flow of foreign capital is not, however, a new one. The growth with indebtedness model is implicit in one of Avramovic's earlier studies in which he says that if the burden of foreign debt service falls on the increase in per capita income, then economic growth and foreign debt service are not inconsistent.[9] Earlier work by Gerald M. Alter stresses that it is easier for competing claims on resources from the foreign sector to be reconciled in a growing rather than a stagnating economy. Once again, however, the emphasis in Alter is upon the ability of an economy to service the debt, and not with the domestic repercussions which the servicing of foreign debt may have.[10]

Another study of foreign debt service problems has attempted to analyze the problem of repayment. Khatkhate

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[9] D. Avramovic, Economic Growth and External Debt, p. 11.

[10] G. M. Alter, "The Servicing of Foreign Capital Inflows by Under-developed Countries," op. cit., p. 139.

takes the position that the export potential of developing countries can be stimulated by linking debt service to export receipts.[11] In addition, this policy would have the advantage of encouraging developing countries to increase production in those sectors which have the greatest growth potential. But, he argues, the expansion in trade would most profitably take place with the developed countries where the surplus could be used to reduce liabilities with creditor developed nations. This would encourage more export competition among emerging nations and enable them to build up their competitive industrial structure. Eventually the developing countries would be able to trade with the developed countries on a more competitive basis and it would therefore be possible for them to reduce still further the level of indebtedness with the developed world.

Several of the studies in recent years have attempted to assess the impact of the domestic money supply on the balance of payments. Komiya, for example, argues that there are two counteracting forces on the money supply which operate within the balance of payments.[12] Identifying three basic commodities, (goods and services, bonds, and

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[11] D. R. Khatkhate, "Debt Servicing as an Aid to Promotion of Trade of Developing Countries," Oxford Economic Papers, July 1966, pp. 224-235.

[12] J. R. Komiya, "Economic Growth and the Balance of Payments; A Monetary Approach," Journal of Political Economy, January-February 1969, pp. 35-48.

money), he analyzes the impact of economic growth on the balance of payments and the impact of changes in the balance of payments on the domestic supply of money.

Komiya's argument is as follows: while an increase in output tends to increase the balance of trade and improve the overall balance of payments, the balance on capital account tends to deteriorate as income increases and there is increased demand for foreign as well as domestic bonds. If, as output grows, there is an increase in the demand for money (and there is no autonomous increase in the supply of money), a balance of payments surplus is a convenient mechanism through which additional money can be injected into the economy.[13] An autonomous increase in the money supply, however, tends to cause a worsening of the balance of trade and the balance of payments since an increased demand for foreign goods and services may be associated with a general increase in demand related to the increase in the money supply. Similarly, an autonomous increase in government expenditure tends to worsen the balance of payments position as it increases income which may increase the demand for foreign investment goods and services. The position of the balance of payments depends, therefore, on the relative strength of these two counteracting forces; increased output improving the balance of payments and increased supplies of money worsening the balance of

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[13] In much the same way as described in Chapter V.

payments. Komiya concludes by arguing that there is a rate of expansion of the domestic money supply which will maintain balance of payments equilibrium as the process of development proceeds.[14]

There has been, therefore, no recent attempt to analyze the impact of foreign debt service on the domestic or local economy. Attention has been directed to either the problem of the growth of international indebtedness, the mechanism through which domestic resources can be freed to service the debt, or the impact of international debt on the balance of payments. There are, however, important arguments which can be made for a shift in focus from the international impact of continued growth in international debt (and the capacity to service that debt), to the domestic implications of debt service. It was to this end that this study was directed.

As indicated above, this study had as its focus the measurement of impact of the foreign debt on the monetary structure. No significant relationship was observed. As suggested in Chapter V, this is a result of actions of the Central Bank which essentially insulated the domestic money market from fluctuations in international capital flows. The money market is only one of the possible areas of domestic impact, however. While money markets seemed

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[14]This is analogous to the rate of expansion of the money supply which stabilizes prices in a closed economy.

a priori the logical place to begin the exploration of domestic ramifications of foreign debt service, the negative results obtained in this study do not mean that there is no impact on the domestic economy. There are several areas of major importance to a developing economy where the impact of foreign debt service may be felt.

Foreign borrowing is undertaken with the aim of stimulating the domestic economy. The principal objective of foreign borrowing is to obtain needed capital and/or technical assistance to be used in strategic sectors; i.e. those sectors where what might be called the development impact is maximized. The costs of foreign borrowing are rationalized in terms of the benefits which accrue from accelerating the development process.

The benefits of foreign borrowing may be more specifically defined in the Argentine case as falling into three main categories: (1) as a means of providing essential raw materials, (2) as a means of acquiring investment goods at a rate more rapid than the economy would otherwise be able to provide, and (3) as a means of increasing the industrializing and modernizing process. In the first of these categories the argument follows that outlined in Chapter II,that there is some minimum tolerable level of imports below which the reduction in imports leads to a contraction in the industrial sector of the economy. Rather than submit the manufacturing sector to the constraints imposed

by foreign exchange earning capacity, which may vary from year to year in an export economy dominated by agricultural exports, the government resorts to foreign borrowing.

The second and third categories are related to the rate of change in the shift from an economy which is predominantly agricultural to one which is industrial in nature. The more rapid the pace at which this process proceeds, the greater will be the requirements for productive and technical capital. If the traditional sector is unable to support this shift at the speed deemed desirable by governmental authorities, foreign borrowing is available to accelerate the process.

The costs of foreign borrowing are clearly indicated by the magnitude of foreign debt service. The drain on national reserves of gold and foreign exchange leads to adjustments in the rate of exchange when domestic currency is devalued. The costs, in domestic currency, of imported goods (both of capital and raw materials) increase. The higher price of domestic goods in the market can be interpreted as one of the costs of foreign borrowing. The difference in costs may also be seen as the discounted value of present as opposed to future industrialization.

As the results of this study indicate, the Central Bank can effectively insulate the domestic monetary structure from the direct impact of the service on the foreign debt. By doing so, it allows the economy to avoid a twofold impact

of debt service, i.e. rising prices accompanied by a contraction in the supply of money and credit. This policy is not without costs, however.

The most serious consequence of the "sterilization" policy is the loss of autonomy in monetary policy. More specifically, the monetary authorities must be governed, when determining the rate of expansion of the supply of money and credit, by the knowledge that a certain amount of foreign debt service is due and that the money supply, if a policy of insulation is in effect, must expand by at least that amount. However sensitive a policy maker may be to the implications of a rapidly increasing money supply in an already inflationary economy, if the aforementioned twofold impact is to be avoided monetary expansion must occur.

From the reasoning outlined above a deceptively simple answer emerges. The monetary authorities should not adopt a policy of total sterilization or insulation of the domestic economy from the impact of the foreign debt service. Nor should the Central Bank pursue a policy of monetary management which fails to take account of the requirements of foreign debt service. Rather the money supply should be adjusted to the needs of an expanding economy and the requirements of reasonable price stability taking into account the size and frequency of debt service requirements. Until a balance is struck between these three variables the positive effects

of foreign borrowing will be reduced by an amount which is greater than is necessary.

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