

# A STATISTICAL INVESTIGATION OF THE TRENDS AND THE CHANGING STRUCTURE OF THE PHILIPPINE PUBLIC DEBT (1941-1957)

by *Cesar R. Tronqued* \*

## INTRODUCTION

The expanding scope of governmental operations, inherent to an underdeveloped country engaged in an active process of economic development, has brought with it the imperative need to tailor available resources with actual requirements. The usual method by which this is achieved has been by drawing up an economic plan which outlines the basic objectives, the size, and the manner of financing the program. It is not uncommon to find, however, that most countries undertaking such a development plan are faced with the problem of limited financial resources to meet planned expenditures in foreign exchange and local currency owing to the inability to earn sufficient foreign exchange and to collect substantial revenues from taxation. As a result, modern governments have come to realize the necessity of public borrowing at home and/or abroad to supplement the deficiency of available funds to meet the financial requirements of development.

Such a situation, typical of the postwar years, has given rise to the indispensability of the study of public debt as an effective tool of economic policy. This is especially the case in an underdeveloped society, such as the Philippines, where public borrowing has assumed an increasing importance in influencing agricultural and industrial activities in an attempt to minimize unemployment and raise the standard of living of the people. Indeed, public debt in this country has now attained a level that requires careful analysis if it has to achieve its objective of promoting economic development compatible with economic stability.

It is the purpose of this study to conduct statistical investigations designed to present some relevant facts which may be useful for the effective management of the public debt. The results of these statistical investigations and observations of relevant facts should enable the presentation of some meaningful conclusions and tentative suggestions, which, it is hoped, may be of some use to the policy makers and to those in charge of public debt management.

---

\* Department of Mathematics, University of the East

**BRIEF HISTORICAL BACKGROUND OF THE GROWTH  
OF THE PHILIPPINE PUBLIC DEBT**

The Philippine public debt has played an important part in the forging of our economic destiny. It has provided the much-needed social overhead capital and budgetary needs of our growing economy during periods of slump and in our struggle for economic development. It has enabled the Government to venture in the various fields of industrialization where private enterprise had been reluctant due to the enormous sums involved.

Before the Philippines became politically independent in 1946, the power to contract public indebtedness was granted by Acts of the Philippine Legislature and by Act of the United States Congress. Treasury obligations contracted during this period were called pre-1934 bond issues, issued in dollars, and were floated in the United States by special arrangement with the Treasurer of the United States. They were mostly for a 30-year period and with interest rates ranging from 4-1/2 to 5 per cent payable semi-annually. There were thirty-two (32) pre-1934 bond issues with a total amount of ₱134.6 million. These were provided with a special trust fund account with the Treasurer of the United States and at present they have all been redeemed. These flotations were designed to provide basic facilities vital to economic development and the proceeds from such bonds were used to finance public works projects.

With the establishment of the Commonwealth Government in 1935, a similar authority was granted under the Independence Law, with the restriction that no loan was to be contracted in foreign countries without the approval of the President of the United States. It was during this time that government corporations such as the National Power Corporation and the National Development Company were created to assume new functions in the promotion of economic development. Bonds were floated to meet the investment needs of these corporations and had the same purpose as the pre-1934 issues with the exception of the National Power Corporation bonds, which were floated to finance the development of hydraulic power. These bonds were called post-1934 issues and ran for 30 years, with interest ranging from 4-1/2 to 5 per cent. All these were peso bonds and were readily absorbed by banks, insurance companies, and a few individual investors. The total amount authorized was ₱50.3 million. These issues

have been provided with sinking funds and are now serviced regularly by the Central Bank of the Philippines. With the outbreak of World War II in 1941, these flotations were stopped and were eventually resumed in 1948.

On January 31, 1941, the total indebtedness assumed by the Commonwealth Government from the old regime amounted to ₱154.4 million against which a sinking fund reserve of ₱59.3 million had been accumulated, thereby, leaving a net indebtedness of ₱95.1 million. Since the establishment of the Commonwealth up to December 31, 1940, new bonds in the total par value of ₱5.4 million were issued. However, on August 1, 1939, public works bonds issued on August 1, 1909 amounting to ₱3.0 million were retired, thereby, leaving a net issue of ₱2.4 million. The Government set up a sinking fund reserve to meet all redemptions of bonds issued and the amount accumulated increased from ₱59.3 million in November, 1935, to ₱76.0 million at the end of calendar year 1940.

At the outbreak of World War II in December, 1941, our total public debt outstanding stood at a level of ₱141.0 million. The entire public debt of the National Government was then relatively small, registering only ₱8.33 per capita basis.

During the early post-war years, the major problem faced by the Government was how to live within its income in the face of urgent needs for rehabilitation and reconstruction and the usual revenues from badly hit income-producing industries were not forthcoming. The task of rebuilding the nation and expanding its pre-war service activities to restore the shattered condition of the economy to its pre-war level required tremendous expenditures by the Government which was then operating on a deficit. A budgetary loan of ₱120 million had to be secured from the United States since the surplus outstanding taken over from the occupation authorities were being gradually drained on account of the fact that revenues were still inadequate to meet the increasing volume of government expenditures.

On June 15, 1948, Republic Act No. 265 was passed, establishing the Central Bank of the Philippines. This Act defined the functions and responsibilities of the Central Bank, namely: to administer the monetary and banking system of the Republic; maintain monetary stability in the country; preserve

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

the international value of the peso and the convertibility of the peso into other freely convertible currencies; and promote a rising level of production, employment, and real income in the Philippines. On the same date, the First Congress of the Republic of the Philippines also approved Republic Act No. 266, appropriating sums of money as may from time to time be released to the Treasury of the Philippines by the Central Bank, representing excess monetary reserves and authorizing the President to issue bonds, certificates or other evidences of indebtedness covering such amounts. Such sums to be released and paid to the National Treasurer being appropriated to cover deficiencies in appropriations made by law for the full payment of financial obligations of the Government and for purposes of rehabilitation and development.

Immediately after the organization of the Central Bank in 1949, the Government decided to undertake a more aggressive economic development program. The Central Bank, after assuring itself of the adequacy of international reserves which reached a level of \$500.0 million, decided to make extraordinary advances of ₱200.0 million to the Government until June 30, 1951, for the financing of strictly productive and income-producing projects, as provided for in Section 137 of Republic Act No. 265, otherwise known as the Central Bank Act. An initial advance of ₱65.0 million was authorized to the Government, allocating ₱35.0 million of the amount to the Rehabilitation Finance Corporation and the balance to government instrumentalities for financing only projects that are either dollar-producing or dollar-saving. It was hoped that such advances of the Central Bank for selected projects would stimulate the economic development program even as idle savings were being mobilized via banks and financial institutions from the private sector to finance capital requirements of rehabilitation and development for both local and foreign expenditures.<sup>1</sup>

Pursuant to the provisions of Republic Act No. 245, the Government also started to develop a Treasury Bill market to meet its budgetary deficits when it authorized the Central Bank to issue ten (10) treasury bills, each with a face amount of ₱100,000.00 or a total of ₱1,000,000.00 at 1-1/2 per cent discount, or a purchase price of ₱985,000.00, and maturing in one year.<sup>1</sup>

<sup>1</sup> First Annual Report; Central Bank of the Philippines, 1949; pp. 85-87.

By the end of 1949, our total public debt stood at P701.1 million or an increase of P560.1 million, or 397.2 per cent over the figure in 1945. The large increase was attributed mainly to backpay obligations to pre-war government employees and veterans of World War II, originally estimated at P300.0 million and P250.0 million, respectively, and partly to the policy of the Government of accelerating economic development.

Realizing that revenue from taxation was inadequate to finance public works and economic development projects, the Third Congress enacted Republic Act No. 1000<sup>2</sup> which was approved on June 12, 1954. This Act authorizes the President of the Philippines to issue bonds in an amount not to exceed P1 billion to finance public works and self-liquidating projects, including expropriation of lands for resale to individuals, or to repay or service bonded obligations of the Government incurred for such projects.

As of December 31, 1957, the Central Bank had actually sold bonds worth P778.6 million for projects authorized from bond financing as approved by the President through recommendations of the National Economic Council and other consultative agencies. Of this amount, P89.4 million were retired, thereby, leaving a total of P689.2 million issued and outstanding.

There has been an almost continuous increase in the public debt created by all levels of government within the span of twelve years, from 1945 to 1957. A substantial portion of this indebtedness consists of external loans of the Philippine Government acquired from the United States. Our total public debt rose to more than ten times the level of P141.0 million in 1945, to a high plateau of P1,625.9 million as of December 31, 1957.

## AN APPRAISAL OF THE FACTOR CONSIDERATIONS IN THE EXPANSION OF THE PUBLIC DEBT

### Promotion of Economic Development

In the past, the budgetary process was not used as a major

<sup>2</sup>An Act Authorizing the President of the Philippines to Issue Bonds to Finance Public Works and Projects for Economic Development, Authorized by Law, and for other purposes.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

instrument in planning and implementing programs for economic development and, except for a few items of economic significance, was strictly used as an authorization basis in running the government. The government, however, decided to undertake a more aggressive economic development program in 1949, immediately after the Central Bank was organized. The short-term economic development program covering the period 1949-1953 was aimed to develop the principal agricultural industries, the reconstruction of pre-war industrial plants, and the development of new industries. The financial requirements of this program showed that a capital investment of P1,848.2 million was needed for the period of five years, P966.8 million of which represented peso requirements and P881.4 million for foreign exchange requirements.

Government authorities realized that the entire capital requirements of the development program had to be financed primarily by idle savings from the community, mobilized through banks and financial institutions and by the aggressive public sale of bonds. It was also hoped that such a development program could be stimulated at the start by regulated advances by the Central Bank to the government for selected dollar-saving and dollar-producing projects even as funds were being mobilized from the private sector.

The National Economic Council recommended the approval of the program and the release of funds was immediately approved by the President of the Philippines. The Monetary Board of the Central Bank, after assuring itself of domestic monetary stability and that the dollar resources were sufficient, authorized the release of funds for self-liquidating productive projects included in the short-term program of rehabilitation and development, in accordance with Section 137 of the Central Bank Act which provides that:

"Notwithstanding any provision in the present Act to the contrary, the Central Bank may, until June 30, 1951, make direct advances to the Government when, in the opinion of the Monetary Board, the international reserve is adequate to meet all foreseeable demands upon it and when such advances are con-

<sup>3</sup> Philippine Economic Survey Mission, Philippine Agricultural and Industrial Development Program Revised, 1950 (Manila, Bureau of Printing, August 11, 1950)

<sup>4</sup> Republic Act No. 265; "Act Establishing the Central Bank of the Philippines"; June 15, 1948; pp. 52-53

sistent with the achievement of the Board's objective of domestic monetary stability. The total advances made under the authority of this section shall not exceed two hundred million (P200,000,000) pesos."

---

"Advances shall be made only for certain purposes specifically authorized by law, and shall be made only for productive and income-producing projects, or for the repayment or servicing of external obligations of the Government."

The difficulties of providing funds for the import and local requirements of the development program, however, increased materially in 1949 due to the substantial reduction in foreign exchange resources as a result of large trade deficits and a reduction in the volume of United States Government payments in 1950 which was estimated to be about P100.0 million below the 1949 level. The Philippine Government, on the other hand, instituted strict trade and exchange controls and the Central Bank began restricting credit for consumer financing.<sup>5</sup> This condition was aggravated further by a substantial budgetary deficit which was incurred in spite of increases in revenue from taxation, making the achievement of investment targets originally planned quite difficult. As a result of these factors, the remaining phases of the economic development program had to be reviewed and revised to limit the targets within the means of the Philippine Government to support. In the revised program, the capital requirements of the listed projects was estimated at P975.9 million for the period 1950-1954. Foreign exchange requirements represented P420.1 million, while P555.8 million comprised local currency expenditures. The following table shows the distribution of the estimates over the various sectors of the economy.

---

<sup>5</sup>Third Annual Report; Central Bank of the Philippines, 1951; pp. 42-45.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 1

ESTIMATED COST OF REVISED DEVELOPMENT PROGRAM  
(Million Pesos)

	<u>Total Cost</u>	<u>Foreign Exchange</u>	<u>Local Currency</u>
Agriculture . . . . .	P554.3	P180.5	P373.8
Industry . . . . .	212.4	119.4	93.0
Mining . . . . .	22.0	11.0	11.0
Transportation and Communication . . . . .	114.2	91.4	22.8
Public Works . . . . .	73.0	17.8	55.2
	<u>P975.9</u>	<u>P420.1</u>	<u>P555.8</u>

YEARLY DISTRIBUTION  
(Million Pesos)

1950 . . . . .	P234.6	P110.6	P124.0
1951 . . . . .	262.0	127.0	135.0
1952 . . . . .	211.3	94.3	117.0
1953 . . . . .	167.1	60.3	106.8
1954 (Agriculture Only) . . . . .	100.9	27.9	73.0
	<u>P975.9</u>	<u>P420.1</u>	<u>P555.8</u>

The total direct advances made by the Central Bank of the Philippines to the Government from March 1949 to May 1951 are summarized in Table 2.



Table 2

DIRECT ADVANCES MADE BY THE CENTRAL BANK TO  
THE GOVERNMENT UNDER SECTION 137,  
REPUBLIC ACT NO. 265

Type of Issue (1)	Amount Issued (2)	Date Issued (3)	Date Due (4)	Purpose (5)
1. R and D Bonds— 4%	P 9,739,420.00	1949	1959	To finance various public works and rehabilitation projects
2. R and D Bonds— 4%	77,889,377.46	1950	1960	-do-
3. R and D Bonds— 4%	112,371,202.54	1951	1961	-do-
<b>T O T A L</b>	<b>P200,000,000.00</b>			

Source of basic data: Securities Market Department, Central Bank of the Philippines.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Aside from the extraordinary advances from the Central Bank much of the financial requirements of the program had to rely on outside sources such as the Romulo-Snyder Agreement and the loan from the United States Reconstruction Finance Corporation. With the enactment of Republic Act No. 1000 in 1954, the major expansion in bond issues began. This Act authorizes the issuance of bonds in the aggregate amount of P1 billion over the five-year period 1954-1958, to finance public works and self-liquidating projects for economic development. The issues of Public Works and Economic Development bonds during this period have been one of the major factors responsible for the expansion of the public debt.

The acceleration of our economic development program has been one of the major objectives of national policy. National Government expenditures for economic development have increased tremendously since the early post-war years. In fiscal year 1945-1946 the economic development expenditure of the National Government amounted to P21.5 million accounting for about 10.1 per cent of the over-all expenditures. This continued to increase steadily over the succeeding years until it grew to about P267.7 million in 1953-1954, representing about 33.0 per cent of total national government expenditures for that year. For the fiscal year 1954-1955, however, the amount dipped to P202.5 million. Curtailment in the development of commerce by P21.4 million, plant industry by P30.7 million, PHILCUSA Counterpart Fund expenditures by P13.3 million, total investments by P5.2 million, and postal and communication service by P1.1 million were the main factors responsible for the decreased development expenditures. These were offset in part by the increment in the development expenditures for conservation and development of natural resources, P4.2 million; geological, economic and scientific investigation, P1.4 million; and development of animal industry and mineral resources, P0.9 million and P0.1 million, respectively.<sup>6</sup>

Expenditures for economic development of the National Government increased in fiscal year 1956 and reached P340.1 million, or 34.7 per cent of total expenditures. This showed an increase of P137.6 million, or 68.0 per cent, over the previous fiscal year. This percentage share of economic development expenditures to total expenditures was more or less maintained in fiscal year 1957, when it amounted to P372.9 million,

<sup>6</sup> Seventh Annual Report Central Bank of the Philippines, 1955; p. 94.

or 35.6 per cent of total expenditures. This registered an increment of P32.8 million, or 9.6 per cent, over the previous fiscal year's economic development expenditures. It was realized that only by accelerating domestic production can national income be increased sufficiently to permit a higher standard of education, health and social welfare.

The following table shows the magnitude of development expenditures of the National Government for the period 1946-1957.

Table 3

**ECONOMIC DEVELOPMENT EXPENDITURES OF THE NATIONAL GOVERNMENT, FISCAL YEARS, 1946-1957<sup>^</sup>**  
 General, Special and Bond Funds  
 (Million Pesos)

Fiscal Year	Economic Development Expenditures	Total Expenditures of the National Government	Ratio of Economic Development Expenditures to Total
(1)	(2)	(3)	(4)
1946	21.5	213.4	10.1%
1947	40.3	381.0	10.6
1948	54.4	357.8	15.2
1949	84.0	451.9	18.6
1950	164.7	558.1	29.5
1951	123.4	531.0	23.2
1952	167.8	654.7	25.6
1953	151.0	654.7	23.1
1954	267.7	811.1	33.0
1955	202.5	785.8	25.8
1956	340.1	980.8	34.7
1957	372.9	1,047.4	35.6

Source: Central Bank News Digest; Central Bank of the Phil.; Vol. X, No. 12, March 18, 1958; Report to the President of the United States by the Economic Survey Mission to the Philippines; Washington; D. C.; October 9, 1950; p. 20.

<sup>^</sup> Exclusive of economic development expenditures of government corporations.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

### Impact on Prices

The burden of the public debt interrelated with the price levels would be felt in many ways if the government debt were large and expanding. There will be a constant pressure on the government to favor a rising general level of prices which may give the economy a lift and may contribute towards a substantial easing of the debt burden. In periods of rising prices, the debt burden in goods is reduced for debt is always stated in monetary units and must be repaid in monetary units which, in a period of rising prices, will buy less goods. Rising prices are helpful in reducing the burden of the debt if they are accompanied, as they usually are, by rising money incomes and increased tax receipts which reflect gains in productivity and rise in total man-hours of work.

The issue of public bonds may induce an amount of savings which would not otherwise have taken place, and would tend to diminish purchases which would lead to a fall in prices. During periods of falling prices, the cost of the debt in terms of goods rises. Falling prices will increase the debt burden because the value of goods per peso obligation rises.<sup>7</sup>

As was pointed out previously, the interrelations of debt, price changes, and economic fluctuations are of primary importance in determining the burden of the debt. Table 4 shows the net effects of changes in the debt on the rise and fall of prices. Due to the unavailability of data on index members of prices for the entire country, this table of index numbers of prices in Manila is used. These index numbers were estimated using figures on the cost of production for the entire Philippines, but data on prices were gathered in the Manila area only. However, it is believed that price fluctuations in Manila would reflect the same trend in the provinces.

---

<sup>7</sup> Harris, Seymour; *National Debt and the New Economics*; "Debt Burden and Prices."; p. 133.

Table 4

INDEX NUMBERS OF RETAIL PRICES, COST OF LIVING,  
AND WHOLESALE PRICES IN MANILA, 1941; 1945-1957

Period (1)	Public Debt (Million Pesos) (2)	Retail Prices (3)	Cost of Living 1955 = 100 (4)	Wholesale Prices (5)
1941	141.0	40.6	29.6	23.4
1945	141.0	355.2	202.0	—
1946	133.0	205.7	154.3	181.2
1947	253.2	124.1	114.4	121.7
1948	606.4	118.6	108.1	126.8
1949	701.1	107.0	101.6	109.8
1950	883.9	108.6	104.7	106.5
1951	815.6	120.4	113.4	119.6
1952	770.0	113.4	106.1	109.4
1953	1,066.0	108.4	102.5	108.3
1954	1,086.1	102.5	101.0	102.7
1955	1,326.7	100.0	100.0	100.0
1956	1,535.4	104.6	102.7	103.1
1957	1,625.9	107.6	104.5	107.6

Sources of Basic Data: Annual Reports, Central Bank of the Philippines;  
1946-1956

Statistical Bulletin, Central Bank of the Philippine; Vol. IX, No. 4;  
December 1957; pp. 203-206.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

The following statistical analysis presents the net effects of increases in the debt caused by deficit spending on retail and wholesale price levels. With 1955 as the base, indices of wholesale and retail prices stood at 23.4 and 40.6, respectively, in 1941, when the public debt totalled ₱141.0 million. In 1946, the public debt decreased to ₱133.0 million and, significantly, the indices jumped to 205.7 on retail prices and to 181.2 on wholesale prices as compared to the 1941 indices. It must be stressed at this point that at the time of the liberation, price inflation was an inevitable aftermath of the Japanese occupation. With the great reduction in home production, the almost complete severance of distribution between the different points in the country, and the absence of imports, there resulted a tremendous increase in prices. Although in subsequent years high prices gradually lowered due to increases in imports and production, they became stabilized at a high level relative to pre-war years. As the total public debt steadily rose through the years, reaching ₱883.9 million in 1950, both retail and wholesale prices<sup>8</sup> continued to fall during the same period and settled at 108.6 and 106.5, respectively, in that year. It will also be observed that the decline in the general price level has been associated with an increase in the index of the physical volume of production from 56.3 in 1949 to 62.4 in 1950.<sup>9</sup> While the physical production figures prior to 1949 are not available, it is not unreasonable to assume that the trend has also been a parallel increase. Significantly, in 1951 when the rise in the public debt was apparently checked and the total public debt registered a decrease of ₱68.3 million from the 1950 total, both retail and wholesale prices rose to 120.4 and 119.6, correspondingly. Subsequently, however, for a slight dip in 1952, total public debt has increased continuously attaining a level of ₱1,625.9 million in 1957, while retail and wholesale prices during the period from 1952 to 1955 have been on the downward trend again. In 1955, both retail and wholesale prices reached the lowest level during the post-war years. This can be attributed to continued domestic production making commodity supply sufficient to meet demand. Another factor responsible for the depressed price levels was the increased imports due to the decontrol of a number of essential food items, coupled with the contracted demand due

<sup>8</sup> See Table 4

<sup>9</sup> Table 74, Statistical Bulletin, Central Bank of the Philippines; Vol. IX, No. 4; December 1957; p. 155.

to lowered incomes of the export sector, because of the drop in export prices since 1952.

Price levels reversed the downward trend of prior years and began moving up in 1956. The rise continued, reaching 107.6 for both retail and wholesale prices in 1957. This upturn in price movement was caused by the resurgence of world-wide inflation; new controls clamped on selected imported commodities; the rapid expansion of the debt from ₱1,326.7 million in 1955 to ₱1,625.9 million in 1957; the rising money supply from ₱1,336.2 million in 1955 to ₱1,598.6 million in 1957; and speculative activities arising from the revision of the Bell Trade Act with the United States effective January 1, 1956, which had seriously depleted the supply of some imported commodities in the open market.

One of the major causes of the continued high level of prices has been the failure of the government to collect adequate revenues from taxation to meet current expenditures and finance large investment outlays of government enterprises. Consequently, the government has relied heavily on bank credit.

In evaluating the role of the public debt in the price system, therefore, the magnitude of the debt is not sufficiently great in ordinary times to have a very strong influence on the price levels. In extraordinary times, however, the volume of deficit spending may well be carried to an extent where it may exceed the rate of increase in domestic production, thereby, giving rise to an upward push on prices. This condition may particularly exist in a country like ours, where idle capacity is not present and it makes time to convert the real resources of the country to productive use, considering the training and adjustment necessary during the period of conversion.

### **Impact on Money Supply**

The term "money supply" has been defined by the Central Bank to be the sum of the notes and coins in circulation and the peso deposits subject to check. Notes and coins in circulation are obtained by deducting from the currency issue of the Central Bank the cash in the National Treasury vaults and cash in the vaults of Other Banks. The peso deposits subject to check exclude the National Government and inter-bank deposits but include unused overdraft lines, and managers', cashiers, and certified checks outstanding.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

The quantity of money in circulation exerts significant effects on the level of economic activity through its influence upon demand and, therefore, upon the price level. Money supply as a determinant of price would have to be considered with two other important factors, the velocity of circulation and the volume of trade. An increase in money supply may have no significant effects on prices if such an increase has been neutralized by a corresponding decrease in the velocity or by an equivalent increase in the volume of trade. However, during a period of expansion of production, an increase in the average turnover of money at a rate faster than the increase in production can only inflate prices of goods and result in an undesirable redistribution of wealth and income and a worsening position of fixed income earners. It is to be expected that as national output increases and money supply is held constant by the monetary authorities, the velocity of money will rise. If the extent to which velocity rises is proportionate with the expansion in output, then prices are stabilized. However, if the expansion in output is associated with a corresponding increase in money supply, velocity will remain constant and prices are maintained at a stable level. This points out the importance of monetary policy regulating the supply of money in accordance with changes in output if prices are to be stabilized, provided velocity has been determined.

Our interest lies in the possible monetary effects of an increasing or decreasing public debt and the influence that government borrowing may have upon the economy through a change in the amount of money in use. Leaving temporary fluctuations aside, the Philippine money supply registered six distinct movements during the period from December 1945 to December 1957. From a level of ₱1,120.0 million in 1945 it dropped continuously to ₱940.0 million in 1946, registering a decrease of ₱180.0 million, or 16.1 per cent. This was followed by an upward trend in 1947 when it stood at ₱1,015.0 million, and which continued through 1948 when it reached a peak of ₱1,194.0 million, expanding by ₱74.0 million, or 6.6 per cent over the 1945 level. The factors that caused the drop in the money supply from 1945 to 1946 have been in part the expansionary effect of a deficit of approximately ₱21.9 million in 1946 which was more than offset by the contractionary effect of a decrease in the international reserves of about ₱446.0 million. The upward movement of the money supply



in 1947 has been the combined result of the budgetary deficit of ₱30.0 million and the increase in international reserves of ₱111.0 million. The deficit in 1946 and 1947 were financed by loans from the United States Reconstruction Finance Corporation and the United States War Assets Administration. During 1949, however, money supply declined by ₱158.6 million, or 13.3 per cent, when it amounted to ₱1,035.4 million. The decline in money supply during the year was due primarily to heavy trade deficit, and to heavy non-trade payments. Other banks accounted for an additional contraction of ₱51.1 million in spite of a net expansion in loans, discounts and overdrafts of ₱34.2 million, because of a heavy drop in security investments, a large increase in other liabilities, and substantial increase in savings and time deposits.<sup>10</sup> The money supply again increased to ₱1,229.0 million in 1950, an expansion of ₱193.6 million, or 18.7 per cent over the next preceding year. This expansion of the money supply was due to external factors, particularly the increase in export proceeds and United States Government disbursements. The deficit financing of the Philippine Government and the development spending of semi-government entities were the most important domestic factors which contributed to the expansion of the money supply.<sup>11</sup> During 1951, money supply dropped to a level of ₱1,160.4 million, thereby, decreasing by ₱68.6 million, or 5.6 per cent from the 1950 figure. The contraction was due chiefly to the effect of Government fiscal operations and of foreign exchange transactions. Improvement in revenue enabled the Government to cover its overdraft with the Central Bank and to replenish part of the advances taken from the Trust Funds. There was no borrowing from banks for budgetary purposes except a small new issue of Treasury Bills in the amount of ₱1.8 million and the only new money generated by the Central Bank during that year was the unreleased balance of the ₱200 million fund authorized for financing development projects under Section 137 of the Central Bank Act.

<sup>10</sup> First Annual Report; Central Bank of the Philippines, 1949; pp. 14-15.

<sup>11</sup> Second Annual Report; Central Bank of the Philippines, 1950; pp. 65-66

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

The excess of import payments over export receipts would have caused a much bigger drop, but United States Government expenditures offset this partially.<sup>12</sup> From the ₱1,160.4 million level in 1951, the money supply had been on a consistent upward trend and reached the highest postwar peak ever yet attained in December 1957, when it stood at ₱1,598.6 million. This new level registered an increase of ₱498.6 million, or 44.5 per cent, over the 1945 level. The extraordinary expansion of the money supply during the period from 1951 to 1957 was mainly due to the expansion in domestic credits of the banking system. The expanded credit operations of the banking system and the net redemption of government security holdings held by banks exerted a positive effect on money supply. A contributing factor to this expansion were the proceeds of special loans secured from United States banks which exerted an expansionary influence on money supply in the form of increased domestic credits.<sup>13</sup>

Table 5 shows the comparative data of the Philippine money supply and its composition.

\* \* \*

---

<sup>12</sup> Third Annual Report; Central Bank of the Philippines, 1951; pp. 22-23.

<sup>13</sup> Annual Reports; Central Bank of the Philippines, 1952-1956.

Table 5

**MONEY SUPPLY AND ITS COMPOSITION, 1941; 1954-1957**  
(Million Pesos)

End of Period	Money Supply (2 + 5)	Currency in Circulation			Peso Deposits Subject to Check						
		Total (3 - 4)	Currency issue (3)	Inactive cash <sup>a</sup> (4)	Total (6 to 11)	Private Business and Individuals (6)	Semi-Government Entities (7)	City, Provincial and Municipal <sup>b</sup> Governments (8)	U.S. Government Entities (9)	Unused Overdraft Lines (10)	Cashiers' and Managers' Check (11)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1941 <sup>c</sup>	295.0	146.0	197.0	51.0	149.0	56.3	22.1	19.0	23.2	25.0	3.4
1945	1,120.0	882.0	1,034.9	152.9	238.0	130.8	8.3	7.1	53.9	29.0	8.9
1946	940.0	539.0	729.9	190.9	401.0	182.9	53.9	46.5	75.5	30.0	12.2
1947	1,015.0	558.0	783.8	225.8	457.0	203.6	60.0	51.8	84.0	51.0	6.6
1948	1,194.0	576.0	880.7	304.7	618.0	209.0	144.0	124.0	86.0	44.0	11.0
1949	1,035.4	569.9	629.9	60.0	465.5	227.0	87.6	44.6	49.3	52.0	5.0
1950	1,229.0	674.7	726.2	51.5	554.3	352.9	43.8	52.9	22.6	75.6	6.5
1951	1,160.4	644.5	678.4	33.9	515.9	260.1	47.0	77.9	24.5	101.8	4.6
1952	1,158.2	629.7	669.5	39.8	568.5	272.1	62.7	102.1	23.5	103.5	4.6
1953	1,224.1	666.0	704.1	38.1	558.1	259.3	59.8	96.6	20.2	113.6	8.6
1954	1,226.6	676.6	714.4	37.8	550.0	269.5	51.8	97.5	13.8	111.0	6.4
1955	1,336.2	670.4	711.6	41.2	665.8	305.0	85.5	88.0	35.8	138.1	13.4
1956	1,499.2	718.9	778.0	59.1	780.3	351.4	101.2	81.5	43.7	187.5	15.0
1957	1,598.6	782.0	832.5	50.5	816.6	365.9	94.8	86.4	61.8	196.7	11.0

Source: Statistical Bulletin, Central Bank of the Philippines; Vol. IX, No. 4, December 1957,, p. 22.

<sup>a</sup> Consisting of cash in vaults of Others Banks and National Treasury

<sup>b</sup> Including demand deposits of City government with Central Bank

<sup>c</sup> End of June.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

### THE SIGNIFICANCE OF THE TAX STRUCTURE AND NATIONAL INCOME ON THE PUBLIC DEBT

#### Tax Structure

Our increased public debt has been brought about by the increasing government expenditures, particularly, in the field of economic development. Public borrowing, which is an easy way to obtain funds for our needed economic development projects, has been resorted to. But this means of financing, if not handled wisely and with prudence, becomes a dangerous inflationary tool and, thus, a grave threat to financial stability, that it becomes decidedly indispensable to appraise our tax potentialities before proceeding with a borrowing program.

The enactment of a group of measures recommended by the Tax Commission in 1946, effected the first upward revision of tax rates in postwar years. In spite of such measures, and more tax collections in 1948, revenues still fell short of budgetary requirements, that upon the request of the President, the Economic Survey Mission to the Philippines in 1949 made an appraisal of our tax system and noted that.<sup>14</sup>

"The tax structure of the National Government has not been designed to reflect adequately in tax revenues the rapid rise in the national income, the great increase in profit and other large incomes and the increase in wealth of the business and the land-owning class. Nor is the tax system designed to facilitate efficient assessment and collection. Instead, there has been too much dependence on a miscellany of taxes yielding small amounts of revenue and not closely related to the ability of the taxpayer to contribute to the cost of government."

---

<sup>14</sup> 1950. Report to the President of the United States by the Economic Survey Mission to the Philippines; Washington, D. C., October 9, 1950; pp. 21-23.

"Changes are also needed in the tax system to divide tax burden more equitably between high and low income groups. Under the present system only about 15 per cent of the National Government's revenues are derived from income and profits taxes. The remaining 85 per cent comes mainly from excise and sales taxes and other forms of revenue that give little weight to the ability to pay as a criterion for collecting taxes."

As a result of the findings of the Mission, changes in the tax program were recommended for adoption, the principal features of which were: to increase the excise tax on cigarettes, distilled spirits and gasoline; increase to 100 per cent the sales tax on non-essential goods; increase corporation and individual tax rates; and a reorganization and increase in the rates of estate and gift taxes.<sup>15</sup> These increases were estimated to produce about P150 million additional revenues annually and, at the same time, provide a basis for further steps toward a complete tax reform.

In line with these recommendations various measures were enacted, notably the raising of the individual income tax rate from a minimum of 3 per cent to 5 per cent, and a maximum of 60 per cent for incomes exceeding P500,000 instead of P2,000,000. However, personal exemptions were increased to relieve the low-income bracket from the tax.<sup>16</sup> The corporate income tax was also raised from 12 per cent to 16 per cent, and then again to 20 per cent in 1951 on incomes up to P100,000 and 28 per cent on incomes in excess of P100,000. Tax rates were also increased in luxury and semi-luxury items such as cigarettes. As a result of such revenues enacted, the total receipts collected by the Bureau of Internal Revenue and the Bureau of Customs in 1951 increased by P305.8 million, or 126 per cent, over the previous year as may be seen in Table 6.

An analysis of the data shown in Table 6 shows that on the average 76 per cent of such revenues come from excise and other indirect taxes, the incidence of which is eventually shifted to the customers, and that only 24 per cent comprise direct taxes. This is the inverse of the tax pattern in the

<sup>15</sup> 1950. Report to the President of the United States by the Economic Survey Mission to the Philippines; Washington D. C., October 9, 1950; p. 55.

<sup>16</sup> Internal Revenue Code, Revised; 1950 (Manila: Bureau of Printing, 1951).

Table 6  
 CONSOLIDATED RECEIPTS OF THE BUREAU OF INTERNAL REVENUE AND THE BUREAU OF  
 CUSTOMS, 1947-1957  
 (Million Pesos)

Period	Total <sup>1</sup>	Import Duties <sup>2</sup>	Excise Tax	Business Tax	Income Tax; War Profits Tax	Others <sup>3</sup> Taxes	Apportioned to Local Govern- ments	Others <sup>4</sup> Receipts
(1)	(2)	(3)	(4)	(4)	(6)	(7)	(8)	(9)
1947	204.2	20.2	68.6	78.6	31.7	12.5	(14.5)	7.1
1948	270.4	27.1	87.4	113.3	45.2	14.4	(23.4)	6.4
1949	266.0	28.1	88.4	105.5	49.1	15.4	(27.6)	7.1
1950	241.9	23.6	76.2	92.0	52.3	15.7	(24.5)	6.6
1951	547.7	31.4	219.9	153.8	95.9	19.6	(33.6)	60.7
1952	552.0	28.9	227.5	140.0	122.9	21.4	(41.4)	52.7
1953	562.8	29.4	253.0	139.1	112.2	19.9	(47.8)	57.0
1954	595.0	40.4	255.4	150.6	109.2	23.2	(50.3)	66.5
1955	629.6	47.3	241.9	159.8	138.2	25.1	(54.6)	71.9
1956	712.2	182.4	160.7	172.3	146.2	27.4	(58.2)	81.4
1957	776.7	197.0	175.2	179.0	160.3	31.0	(66.7)	100.9

Sources of Data: Statistical Bulletin; Central Bank of the Philippines; Vol. IX, No. 4, December 1957, p. 145.

<sup>1</sup> Includes refund of prior years' income.

<sup>2</sup> Import duties include fines and forfeitures starting July 1955, following the revision of revenue accounts under General Circular No. 35, dated July 29, 1955, of the General Auditing Office.

<sup>3</sup> Consist of franchise tax; documentary stamp tax; tonnage dues; residence tax; state, inheritance and gift taxes; and revenue from public forests.

<sup>4</sup> Consist of incidental revenue, earnings and other credits, receipts automatically appropriated and receipts of the Special Fund.

United States where more than 70 per cent of Federal revenues come from direct taxes. Direct taxes in the United States are usually progressive and follow more closely, more than any other tax, the principle of ability to pay.<sup>17</sup>

On the basis of these findings, there is an urgent need for a re-examination of our tax laws, which put too much dependence on indirect taxes, so as to make our tax structure dovetail with our present economic situation. In an underdeveloped country like ours, where consumption accounts for about 80 per cent of total spending, any measure which discourages consumption will, likewise, discourage investment as the latter depends to some extent on the former. Any increase in excise or sales tax will, generally, tend to reduce consumption, particularly when it is applied to luxury and non-essential items.

In 1954, for instance, the individual tax returns showed a marked uneven distribution of income. Eighty-six per cent of the total number of taxpayers who received incomes below ₱10,000 contributed only 17 per cent of total income taxes collected. On the other hand, concentration of income was found among those individuals whose net incomes ranged from ₱10,000 to ₱100,000. While this group made up only 13 per cent of the total number of taxpayers, they paid 60 per cent of the tax collection.<sup>18</sup>

Statistics also show that of the property tax which is levied and collected by local governments and chartered cities, only some 60 per cent of the total amount is collected in the year in which they are due. Thus, in most years collection was less than the aid from the National Government to local governments.

Sound fiscal policy demands that taxation should cover current operating expenditures and capital outlays in the general budget. There is, therefore, a need to provide the necessary adjustments in our present tax structure, not only to improve the sources of government revenue, but also to promote greater economic development without generating excessive inflationary pressures. However, since borrowing and taxation are complementary to each other, prudent financial management calls for the use of both within reasonable limits.

<sup>17</sup>Arañas, Jose; *Improving Our National Tax Structure*; Economic Research Journal; Vol. III, No. 3, December 1956; p. 152.

<sup>18</sup>**Needed: A Tax Research Program**; Economic Research Journal, Vol. III, No. 2, September 1956 (Published by the Graduate School of the University of the East, Manila); p. 69.

### Trends in National Income

The significance of debt ratios to other economic variables is somewhat difficult to assess since they do not reveal the effects of changes in the structure of the economy. Notwithstanding these limitations of statistical relationships and their interpretations, some comparisons are to be found in order to have a more balanced view of public debt dimensions and show its relative importance in the economy for the effective formulation of public policies. One such measure is the national income—the incomes earned by, or payments to the factors of production. The trends in size and important components of national income may reflect the normal growth of the economy as a result of the expansion of productive facilities and population increase, and changes in the price structure and levels. And since national income fluctuates with total economic activity, being one of its most important measures, it should indicate the capacity of the economy to support and repay the debt.

Gains in our national income have been consistent during the period under review. Income figures reveal that within the span of eleven years (1946-1957), our income has more than doubled its volume from a level of ₱4,202 million in 1946 to ₱8,799 million in 1957. The economy, likewise, underwent significant structural changes. Agriculture, which is considered the most important sector, and which contributed 47.8 per cent to the national income in 1946, declined to 37.8 per cent in 1957 despite a 65.3 per cent increase in absolute amount during this period. On the other hand, manufacturing contributed 7.9 per cent in 1946 but expanded, significantly, to 14.0 per cent in 1957. This accounts for an expansion of 2.7 times in the absolute amount of manufacturing. It may also be stated that all industrial sectors recorded expansions in 1957. If these advances continue they will, undoubtedly, enable our country to minimize unemployment, raise present standards of living, and insulate the domestic economy from the uncertainties of world markets.



Table 7

PUBLIC DEBT AS PERCENTAGE OF NATIONAL INCOME  
(Million Pesos)

Period (1)	Public Debt (2)	National Income (3)	Ratio of Public Debt to National Income (4)
1941	141	—	—
1945	141	—	—
1946	133	4,202	3.2%
1947	253	5,364	4.7
1948	606	5,511	11.0
1949	701	5,464	12.8
1950	884	5,922	14.9
1951	816	6,487	12.6
1952	770	6,554	11.7
1953	1,066	7,015	15.2
1954	1,086	7,145	15.2
1955	1,327	7,624	17.4
1956	1,535	8,335	18.4
1957	1,626	8,799	18.5

Sources: Eight Annual Report; Central Bank of the Phil.; 1956. Statistical Bulletin; Central Bank of the Phil.; Vol. VIII, No. 4, December 1956.

Annual Report of the Securities Market Department; Central Bank of the Philippines, 1957.

The Statistical Reporter; Office of Statistical Coordination and Standards, National Economic Council; Vol II, No. 2; April 1958; p. 19.

Data not available.

The ratio of public debt to national income in 1946 was 3.2 per cent. This ratio increased to 14.9 per cent in 1950, but dipped in the succeeding two years 1951 and 1952. From 1953, it had been on an upward swing until it reached the highest post-war peak of 18.5 per cent in 1957. Despite the enormous increase in our public debt, which apparently has been increasing at a much faster rate than our national income, we find that our public debt national income ratio is by far one of the lowest in the world.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 8

 PUBLIC DEBT AS PERCENTAGE OF NATIONAL INCOME  
 OF SELECTED COUNTRIES  
 1955

Country (1)	Million Currency Unit (2)	Public Debt (3)	National Income (4)	Ratio of Public Debt to N. I. (5)
Philippines	Pesos	1,327	7,624	17.4%
Burma	Kyats	602.3	4,087	14.7
Canada	Dollars	17,951.5	20,535	87.4
Ceylon	Rupees	894.1	5,172	17.3
Denmark	Kroner	8,496	23,600	36.0
Ecuador	Sucres	683.2	9,100	7.5
Finland	Markkaa	136,700	767,600	17.8
France	Francs	5,856,500	12,440,000	47.1
Greece	Drachmas	3,318,400	55,022,000	16.0
Italy	Lire	4,257,400	10,600,000	40.1
Netherlands	Guilders	19,689	23,780	82.2
New Zealand	NZ Pounds	730.8	846	86.4
Norway	Kroner	6,479.5	19,597	33.2
Portugal	Escudos	11,686.6	47,509	24.6
Spain	Pesetas	97,963.2	315,000	31.1
Sweden	Kroner	14,524.1	41,358	35.1
Switzerland	Francs	7,601.9	23,290	32.6
United Kingdom	Pounds	27,233.5	15,226	178.8
United States	Dollars	274,418	324,000	84.7

Source: Statistical Yearbook; United Nations, 1956; pp. 470, 501-545.

The above figures show the comparison of the public debt national income ratios between the Philippines and selected countries. However, it may be stated in passing that most of the countries with higher public debt national income ratios also have higher income per capita and are comparatively more highly developed.

## STATISTICAL ANALYSIS AND APPRAISAL OF THE TRENDS OF THE PHILIPPINE PUBLIC DEBT

### Trends of the Public Debt from 1941 to 1950

Our public debt amounted to ₱141.0 million in 1941. In 1945, after our liberation from the Japanese occupation forces, the public debt stood at the same level of ₱141.0 million. This was followed by a slight dip in 1946 when the public debt totalled ₱133.0 million registering a decrease of ₱8.0 million or 5.7 per cent. During the period 1941-1946, our total indebtedness distributed over all the levels of government was purely for developmental purposes. From 1947 to 1950, large increases registered in the public debt were attributed largely to backpay obligations to pre-war government employees originally estimated at ₱300.0 million and backpay obligations to the veterans of World War II estimated at ₱250.0 million. The policy of the government to accelerate economic development was also a contributing factor to the increases. Table 14 shows that for the period from 1947 to 1950 an average of 62.0 per cent of our public debt was incurred to cover budgetary deficits. By the end of 1950, our total indebtedness rose to ₱883.9 million or an increase of ₱742.9 million, or 526.9 per cent, over the level in 1941. Of the ₱883.9 million, 66.2 per cent was used for budgetary purposes and only 33.8 per cent was for development purposes.

Of the total debt outstanding at the end of 1950, domestic debt totalled ₱567.0 million or 64.2 per cent. The remainder of ₱316.9 million, or 35.8 per cent, were debts of external origin. Public debt from the domestic sector increased by ₱546.1 million from ₱20.9 million in 1941, while the foreign debt increased by ₱196.7 million from ₱120.2 million, during the same period. (See Table 13).

Classified by periods of maturity, the public debt continued to show increases in all groups by the end of 1950.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Long term obligations amounted to P667.0 million from P141.0 million in 1941 or an increase of 373.0 per cent in a period of 9 years; middle term obligations amounted to P106.3 million from P50.2 million in 1948 or an increase of 111.8 per cent in 2 years; and short term obligations amounted to P110.6 million from P38.1 million in the preceding year or an increase of 190.3 per cent in one year. (See Table 11).

Except for city governments which showed a peak of P30.5 million in 1949, all levels of government registered increments from 1941 to 1950. The National Government debt increased from P90.1 million to P699.1 million or by 675.9 per cent; Provincial government debt increased from P8.6 million to P43.6 million or by 407.0 per cent; Municipal government debt increased from P0.8 million to P18.6 million or by 2,225.0 per cent; and government corporations increased from P21.0 million to P97.5 million or by 364.3 per cent. City government debt, however, increased from P20.5 million in 1941 to P30.5 million in 1949, but was on a downward swing in 1950 decreasing by P5.5 million, or 18.0 per cent, from the 1949 level. (See Table 10).

Both bonded and non-bonded obligations showed increases. Bonded debt at P296.6 million, was P155.6 million, or 110.4 per cent, above the 1941 level, while non-bonded obligations at P587.3 million was P467.3 million, or 389.4 per cent, over the 1947 figure. (See Table 12).

### Trends of the Philippine Public Debt from 1951 to 1957

As of December 31, 1957, the total public debt outstanding amounted to P1,625.9 million as compared to P815.6 million at the end of 1951. This registered an increase of P810.3 million, or 99.3 per cent, during the six-year period under review.

Based on the 1956 figure of P1,535.4 million, the public debt in 1957 showed an increment of P90.5 million, or 5.9 per cent. During the corresponding period a year ago, public debt increased by P208.7 million, or 15.7 per cent. The restrained growth in the public debt was mainly due to the highly liquid position of the National Treasury arising from the implementation of the Public Works and Economic Development Bond Fund for all development projects financed under Republic Act No. 1000. The continued presence of strong inflationary forces in the various sectors of the economy, similarly, held back the programmed growth of the public debt. Develop-

mental expenditures continued to absorb an increasing proportion of the total debt, rising from 34.0 per cent in 1951 to 71.1 per cent in 1957. The increment in developmental expenditures is attributed to large outlays for economic development projects and social expenditures. Total developmental debt rose by P879.3 million, or 317.3 per cent, from P277.1 million in 1951 to P1,156.4 million in 1957. The bigger portion of this increase was accounted for by the sale of Rehabilitation and Development bonds worth P200.0 million, Public Works and Economic Development bonds, and increases in obligations of government corporations. Other contributing factors are the issuance of Agricultural Credit and Cooperative Financing Administration securities amounting to P177.0 million to finance tobacco trading operations and palay trading and merchandising operations; National Power Corporation bonds amounting to P73.8 million; and bonds of the National Water works and Sewerage Authority and the Metropolitan Water District issued during the period.

Obligations for budgetary purposes fluctuated during the six year period from 1951 to 1957. From an aggregate of P535.5 million in 1951, the figure dropped to P492.6 million in 1952 and rose again to P969.9 million by the end of 1953, after which, it started on a downward trend and finally reached a level of P469.5 million by the end of 1957. Based on the 1951 budgetary debt of P538.5 million, there was a total decrease of P69.0 million, or 12.8 per cent, during the six year period.

Periodic payments of backpay obligations to pre-war government employees, installment payments on external loans, and the redemption of Treasury Bills combined to effect a decrease in the budgetary debt.

A very pronounced feature of the public debt during the last four years from 1953 has been the continuous downward trend of the portion of the total public debt for budgetary purposes. This has been made possible by the government's policy of liquidating budgetary loans and restoring new public borrowings for developmental purposes. (See Table 14).

The movement of the public debt for the period under consideration was largely characterized by increased indebtedness of the National Government and of government corporations. The percentage share of the National Government in the

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

total public debt decreased from 80.8 per cent in 1951 to 69.6 per cent in 1957, although it continued to absorb a greater portion of the public debt. That of the government corporations' increased from P88.1 million, or 10.8 per cent, to P466.3 million, or 28.7 per cent, in this period. On the other hand, all other levels of government registered decreases as follows: Provincial Government from P35.7-million, or 4.4 per cent, to P13.5 million, or 0.8 per cent; Municipal Government from P18.0 million, or 2.2 per cent, to P6.5 million, or 0.4 per cent; and City Government from P14.5 million, or 1.8 per cent, to P8.0 million, or 0.5 per cent. (See Table 10).

The additional indebtedness was mostly domestic in origin and arose largely from government corporations. Domestic obligations increased by P856.9 million, or 139.9 per cent, from P612.4 million in 1951 to P1,469.3 million in 1957. Installment payments on foreign loans were paid on scheduled dates causing the decrease of our foreign debt by P46.7 million, or 23.0 per cent. Our external debt decreased from P203.2 million to P156.5 million on December 31, 1957. (See Table 13).

The implementation of economic development projects authorized under Republic Acts Nos. 266 and 1000 expanded bonded indebtedness from P275.1 million in 1951 to P816.6 million in 1957, an increase of P541.5 million or 196.8 per cent. Non-bonded indebtedness also increased by P268.9 million, or 49.8 per cent, from P540.4 million to P809.3 million. By the end of 1957, the proportion of bonded and non-bonded indebtedness to the total public debt were 50.2 per cent and 49.8 per cent, respectively. (See Table 12).

With respect to periods of maturity, the public debt increased, both in amount and in proportion, in the middle-and-short term groups. From P48.4 million, or 5.9 per cent, of the total debt, the middle-term group rose to P389.8 million, or 24.0 per cent. This registered an increase of P341.4 million, or 705.4 per cent, during the six year period. The rise in middle term obligations was partly due to the budgetary loan from the United States Rehabilitation Finance Corporation of P120 million. Other factors contributing to the rise were the issuance in 1950 of Treasury Notes amounting to P14.9 million; P7.0 million of Certificates of Indebtedness which matured in 2-1/2 years, and P13.2 million representing two years of amortization of the United States Government loan; and the increase in government corporations' obligations in this category. In 1956, the shift in the maturity pattern of backpay obligations from long-term brought the

current share of the latter. The short-term group also increased by P176.4 million, or 407.4 per cent, from P43.3 million, or 5.3 per cent of the total debt, to P219.7 million, or 13.5 per cent, during the same period. The factors mainly responsible for the increase in short-term obligations were the issues of Treasury Bills, the amortization of the United States loan of P66.2 million, and the obligations incurred by government corporations in this category. The long-term group, however, increased in the amount but decreased in the proportion to the total public debt. From a level of P723.8 million in 1951, it reached a peak of P1,260.8 million in 1956. This expansion in long-term obligations up to 1956 was caused by the flotation of additional Rehabilitation and Development bonds in 1953, totalling P59.7 million; P22.0 million loan from the International Monetary Fund; and the balance of the United States loan of P66.2 million not included among the short-and-middle-term obligations. This was further increased in 1953, by the supplementary backpay granted to Army Veterans; Rehabilitation Finance Corporation bonds worth P51.7 million which were sold to financial institutions; and a loan of P40.0 million obtained by the National Power Corporation from the Export Import Bank. The five-year extension of the P22.0 million loan from the International Monetary Fund, which was originally due and payable in September 1955, shifted the maturity date of this obligation from short-term category to the long-term status. This long-term obligation reduced to P1,016.4 million in 1957. (See Table 11). The decline was mainly the result of the new procedure adopted early in 1957, when an integrated bond financing program was formulated by the Technical Committee on Development Financing created by the Budget Commission after due consultations with the Screening Committee on Bond Issues for the Council of State, the National Economic Council, and the Central Bank of the Philippines with respect to recommended projects for inclusion in the program of bond financing, program priorities and consistency with national development goals, and maximum permissible disbursement limits as may be established during the fiscal year. The fiscal restraint imposed resulted in the dwindling flow of the requests for flotation of bonds. Another factor responsible for this decline was the improvement in tax collections in fiscal year 1956-1957, resulting in a reduction in public borrowing under the provisions of Republic Act No. 245. In the overall, a net increase of P244.4 million was registered in this six-year period. The proportionate share to the total indebtedness, however, decreased by 26.3 per cent from 88.8 per cent in 1951 to 62.5 per cent in 1957.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 9

**COMPUTATION OF TREND — LEAST SQUARES METHOD  
PHILIPPINE PUBLIC DEBT  
1945 — 1957**

Year (1)	X (2)	Public Debt (Million Pesos) (3)	XY (4)	X <sup>2</sup> (5)
1945	0	141.0	0	0
1946	1	133.0	133.0	1
1947	2	253.2	506.4	4
1948	3	606.4	1819.2	9
1949	4	701.1	2804.4	16
1950	5	883.9	4419.5	25
1951	6	815.6	4893.6	36
1952	7	770.0	5390.0	49
1953	8	1066.0	8528.0	64
1954	9	1086.1	9774.9	81
1955	10	1326.7	13267.0	100
1956	11	1535.4	16889.4	121
1957	12	1625.9	19510.8	144

$$\sum X = 78$$

$$\sum Y = 10,944.3$$

$$\sum XY = 87,936.2$$

$$\sum X^2 = 650$$

$$N = 13$$



$$(1) \quad \Sigma(Y) = Na + b\Sigma(X)$$

$$(2) \quad \Sigma(XY) = a\Sigma(X) + b(\Sigma X^2)$$

$$(1) \quad 10,944.3 = 13a + 78b$$

$$(2) \quad 87,936.2 = 78a + 650b$$

$$(1) \times 6 \quad 65,665.8 = 78a + 468b$$

$$182b = 22,270.4$$

$$b = 122.36$$

$$13a = 10,944.3 - 78(122.36)$$

$$= 10,944.3 - 9544.08$$

$$= 1,400.22$$

$$a = 107.71$$

$$Y = 107.71 + 122.36 X \quad (A)$$

Equation (A) in the preceding computation shows the equation of the trend line that best fits the public debt figures which are presented as a time series.

## STRUCTURE OF THE PUBLIC DEBT FROM 1941 TO 1957

**Table 10**  
**PUBLIC DEBT OUTSTANDING CLASSIFIED BY LEVELS OF GOVERNMENT, 1941: 1945-1957**  
**(Thousand Pesos)**

End of Period	Total <sup>A</sup>		National Government		Provincial Government		Municipal Government		City Government		Government Corporations	
	Amount	Per Cent	Amount	Per Cent of Total	Amount	Per Cent of Total	Amount	Per Cent of Total	Amount	Per Cent of Total	Amount	Per Cent of Total
1941 .....	141,007	100.00	90,100	63.90	8,627	6.12	795	0.56	20,485	14.53	21,000	14.89
1945 .....	141,007	100.00	90,100	63.90	8,627	6.12	795	0.56	20,485	14.53	21,000	14.89
1946 .....	133,007	100.00	82,100	61.73	8,627	6.49	795	0.59	20,485	15.40	21,000	15.79
1947 .....	253,153	100.00	202,100	79.83	8,627	3.41	795	0.32	20,485	8.09	21,146	8.35
1948 .....	606,393	100.00	420,133	69.28	43,627	7.19	18,795	3.11	30,485	5.03	93,353	15.39
1949 .....	701,083	100.00	512,226	73.06	43,627	6.22	18,625	2.66	30,485	4.35	96,124	13.71
1950 .....	883,871	100.00	699,104	79.09	43,627	4.93	18,625	2.12	25,034	2.83	97,482	11.03
1951 .....	815,560	100.00	659,248	80.83	35,722	4.38	18,000	2.21	14,493	1.78	88,097	10.80
1952 .....	770,000	100.00	617,082	80.14	34,226	4.44	17,158	2.24	13,727	1.78	87,807	11.40
1953 .....	1,065,976	100.00	826,069	77.49	32,240	3.02	16,110	1.52	13,220	1.24	178,337	16.73
1954 .....	1,086,050	100.00	786,491	72.42	26,769	2.46	13,395	1.24	11,662	1.07	247,732	22.81
1955 .....	1,326,661	100.00	969,447	73.07	23,146	1.74	11,532	0.88	10,677	0.80	311,859	23.51
1956 .....	1,535,440	100.00	1,116,736	72.73	18,763	1.22	9,201	0.60	9,332	0.61	381,408	24.84
1957 .....	1,625,886	100.00	1,131,650	69.60	13,481	0.83	6,511	0.40	7,968	0.49	466,276	28.68

Sources of Basic Data: Statistical Central Bank of the Philippines, Vol. IX, No. 4, December 1957, p. 148.

<sup>A</sup> Figures on backpay obligation to pre-war employees being still in the process of revision, the balances shown herein are presented on a tentative basis.

Table 11

PUBLIC DEBT OUTSTANDING CLASSIFIED  
BY PERIODS OF MATURITY  
1941; 1945-1957

(Thousand Pesos)

End of Period	Total <sup>a</sup>		Long Term		Middle Term		Short Term	
	Amount	Per Cent	Amount	Per Cent of Total	Amount	Per Cent of Total	Amount	Per Cent of Total
1941	141,007	100.00	141,007	100.00	—	—	—	—
1945	141,007	100.00	141,007	100.00	—	—	—	—
1946	133,007	100.00	133,007	100.00	—	—	—	—
1947	253,153	100.00	253,153	100.00	—	—	—	—
1948	606,393	100.00	556,166	91.72	50,227	8.28	—	—
1949	701,088	100.00	612,649	87.38	50,328	7.18	38,110	5.44
1950	883,871	100.00	667,011	75.46	106,260	12.02	110,600	12.52
1951	815,560	100.00	723,813	88.75	48,422	5.94	43,324	5.31
1952	770,000	100.00	665,248	86.39	60,528	7.86	44,223	5.75
1953	1,065,976	100.00	968,976	90.90	62,725	5.88	34,658	3.22
1954	1,086,050	100.00	986,078	90.79	42,067	3.87	57,904	5.34
1955	1,326,661	100.00	1,239,297	93.41	48,394	3.65	38,970	2.94
1956	1,535,440	100.00	1,260,798	82.11	224,746	14.64	49,897	3.25
1957	1,625,886	100.00	1,016,408	62.52	389,768	23.97	219,710	13.51

Source of Basic Data: Statistical Bulletin; Central Bank of the Philippines; Vol. IX, No. 4, December 1957; p. 149.

<sup>a</sup> Figures on backpay obligation to pre-war government employees being still in the process of revision, the balances shown herein are presented on a tentative basis.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 12

PUBLIC DEBT OUTSTANDING CLASSIFIED  
INTO BONDED AND NON-BONDED  
1941; 1945-1957

(Thousand Pesos)

End of Period	Total <sup>a</sup>		Bonded		Non-Bonded	
	Amount	Per Cent	Amount	Per Cent of Total	Amount	Per Cent of Total
1941	141,007	100.00	141,007	100.00	—	—
1945	141,007	100.00	141,007	100.00	—	—
1946	133,007	100.00	133,007	100.00	—	—
1947	253,153	100.00	133,153	52.60	120,000	47.40
1948	606,393	100.00	184,360	30.40	422,033	69.60
1949	701,088	100.00	241,008	34.38	460,080	65.62
1950	883,871	100.00	296,600	33.55	587,271	66.44
1951	815,560	100.00	275,115	33.75	540,445	66.27
1952	770,000	100.00	275,807	35.82	494,193	64.18
1953	1,065,975	100.00	327,560	30.75	738,415	69.27
1954	1,086,050	100.00	405,022	37.29	681,028	62.71
1955	1,326,661	100.00	601,290	45.32	725,372	54.68
1956	1,535,440	100.00	721,979	47.02	813,461	52.98
1957	1,625,886	100.00	816,573	50.22	809,308	49.78

Source of Basic Data: Statistical Bulletin; Central Bank of the Philippines; Vol. 1X, No. 4, December 1957; p. 150.

<sup>a</sup> Figures on backpay obligation to pre-war government employees being still in the process of revision, the balances shown herein are presented on a tentative basis.

Table 13

PUBLIC DEBT OUTSTANDING CLASSIFIED INTO  
DOMESTIC AND FOREIGN, 1941, 1945-1957

(Thousand Pesos)

End of Period	Total		Domestic		Foreign	
	Amount	Per Cent	Amount	Per Cent of Total	Amount	Per Cent of Total
1941	141,007	100.00	20,840	14.77	120,167	85.23
1945	141,007	100.00	20,840	14.77	120,167	85.23
1946	133,007	100.00	20,840	15.67	112,167	84.33
1947	253,153	100.00	20,986	8.29	232,167	91.71
1948	606,393	100.00	372,193	61.38	234,200	38.62
1949	701,088	100.00	466,888	66.59	234,200	33.41
1950	883,871	100.00	566,971	64.15	316,900	35.85
1951	815,560	100.00	612,390	75.09	203,170	24.91
1952	770,000	100.00	591,470	76.81	178,530	23.19
1953	1,065,975	100.00	866,610	81.33	199,365	18.70
1954	1,086,050	100.00	905,849	83.41	180,201	16.59
1955	1,326,661	100.00	1,159,314	87.38	167,347	12.62
1956	1,535,440	100.00	1,374,653	89.53	160,787	10.47
1957	1,625,886	100.00	1,469,344	90.37	156,542	9.63

Source of Basic Data: Statistical Bulletin; Central Bank of the Philippines; Vol. IX, No. 4, December, 1957; p. 151

<sup>A</sup> Figures on backpay obligation to pre-war government employees being still in the process of revision, the balances shown herein are presented on a tentative basis.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 14

PUBLIC DEBT OUTSTANDING CLASSIFIED  
BY PURPOSE OF ISSUE  
1941; 1945-1957

(Thousand Pesos)

End of Period	Total		Budgetary		Developmental	
	Amount	Per Cent	Amount	Per Cent of Total	Amount	Per Cent of Total
1941	141,007	100.00	—	—	141,007	100.00
1945	141,007	100.00	—	—	141,007	100.00
1946	133,007	100.00	—	—	133,007	100.00
1947	253,153	100.00	120,000	47.40	133,153	52.60
1948	606,393	100.00	420,000	69.20	186,393	30.74
1949	701,088	100.00	458,047	65.33	243,041	34.67
1950	883,871	100.00	585,238	66.21	298,633	33.79
1951	815,560	100.00	538,475	66.02	277,084	33.98
1952	770,000	100.00	492,552	63.97	277,448	36.03
1953	1,065,975	100.00	696,938	65.38	369,037	34.62
1954	1,086,050	100.00	632,715	58.26	453,335	41.74
1955	1,326,661	100.00	589,777	44.45	736,884	55.55
1956	1,535,440	100.00	539,023	35.10	996,417	64.90
1957	1,625,886	100.00	469,479	28.88	1,156,407	71.12

Source of Basic Data: Statistical Bulletin; Central Bank of the Philippines: Vol. IX. No. 4. December, 1957; p. 152.

\* Figures on backpay obligation to pre-war government employees being still in the process of revision, the balances shown herein are presented on a tentative basis.

**Holders of Interest-Bearing Government Securities**

As of December 31, 1957, the total amount of securities issued and outstanding was P909.4 million, which represented an increase of P134.9 million, or 17 per cent, over that attained a year ago when the level stood at P774.5 million. The expansion was due to the increased holdings of Public Works and Economic Development bonds by about P58.5 million; Agricultural Credit and Cooperative Financing Administration notes by about P53.9 million; National Power Corporation bonds by about P24.8 million; Treasury Notes by P5.0 million; National Waterworks and Sewerage Authority bonds by P4.0 million; and other securities by about P3.7 million.<sup>19</sup>

Significant changes in the security holdings of the banking system have been noted, owing to the new credit policy of the Central Bank. The holdings of the Philippine National Bank in Treasury obligations continued to decline from P244.4 million on December 31, 1956 to only P36.7 million on December 31, 1957, or a reduction by about P207.7 million or 85 per cent. Likewise, Security holdings of the Government Service Insurance System also dropped by P43.8 million or 90 per cent. On the other hand, increases were noticeable in the security holdings of the Central Bank's Portfolio which expanded by P333.5 million or 106 per cent; Government Trust Funds by P18.9 million; private insurance companies by P2.0 million or 23 per cent; private domestic corporations by P1.2 million or 34 per cent; and individuals by P4.6 million or 58 per cent.

---

<sup>19</sup> 1957 Annual Report; Securities Market Department, Central Bank of the Philippines; p. 23.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 15

 COMPARATIVE TABLE OF HOLDERS OF INTEREST-  
 BEARING GOVERNMENT SECURITIES  
 As of the Dates Indicated

(Million Pesos)

Holder (1)	December 31		Increase or (Decrease) (4)
	1957 (2)	1956 (3)	
<b>A. Banking System</b>	<b><u>731.7</u></b>	<b><u>599.4</u></b>	<b><u>132.3</u></b>
1. Central Bank's Portfolio	647.5	314.0	333.5
2. Philippine National Bank	36.7	244.4	(207.7)
3. Other Commercial Banks	47.5	41.0	6.5
<b>B. Public Non-Bank Investors</b>	<b><u>149.8</u></b>	<b><u>155.0</u></b>	<b><u>( 5.2)</u></b>
1. Government Trust Funds	80.6	61.7	18.9
2. Gov't Service Insurance System	4.8	48.6	( 43.8)
3. Local & Semi-Gov't Entities	64.4	44.7	19.7
<b>C. Private Non-Bank Investors</b>	<b><u>27.9</u></b>	<b><u>20.1</u></b>	<b><u>7.8</u></b>
1. Private Domestic Corpo- rations	4.7	3.5	1.2
2. Insurance Companies	10.6	8.6	2.0
3. Individuals	12.6	8.0	4.6
<b>TOTAL</b>	<b><u>909.4</u></b>	<b><u>774.5</u></b>	<b><u>134.9</u></b>

 Source of Basic Data: Securities Market Department; Central Bank  
 of the Philippines.



Table 16  
**OWNERSHIP OF INTEREST-BEARING GOVERNMENT SECURITIES OUTSTANDING SERVICED  
 BY THE CENTRAL BANK AS OF DECEMBER 31, 1957**  
 (Million Pesos)

Kind of Security	Total Amount Outstanding	Held By Banks			Held By Public Non-Bank Investors				Held By Private Non-Bank Investors			
		Total	Commercial Banks	Central Bank	Total	Held By Gov't. Trust Funds	GSIS	Local & Semi-Gov't. Entities	Total	Individuals	Insurance Cos.	Private Domestic Corp.
<b>NATIONAL GOVERNMENT ISSUES</b>												
PW & ED Bonds	310.7	291.5	37.5	254.0	12.0	7.2	-	4.8	7.2	1.5	2.7	3.0
R & D Bonds	200.0	120.9	32.3	88.6	66.8	58.2	1.5	7.1	12.3	6.5	4.2	1.6
Insular Bonds	2.5	0.6	0.6	-	1.6	0.4	-	1.2	0.3	-	0.3	-
Sub-Total	<u>513.2</u>	<u>413.0</u>	<u>70.4</u>	<u>342.6</u>	<u>80.4</u>	<u>65.8</u>	<u>1.5</u>	<u>13.1</u>	<u>19.8</u>	<u>8.0</u>	<u>7.2</u>	<u>4.6</u>
<b>SECURITIES ISSUED FOR THE ACCOUNT OF GOVERNMENT-OWNED AND CONTROLLED CORPORATIONS</b>												
NAWASA & MWD Bonds	17.0	13.2	0.3	12.9	2.6	0.6	1.2	0.8	1.2	1.0	0.2	-
NPC Bonds	82.3	62.1	8.0	54.1	16.9	13.1	0.2	3.6	3.3	0.4	2.9	-
ACCFA Notes & C/I	124.6	78.6	2.7	75.9	46.0	-	-	46.0	-	-	-	-
Sub-Total	<u>223.9</u>	<u>153.9</u>	<u>11.0</u>	<u>142.9</u>	<u>65.5</u>	<u>13.7</u>	<u>1.4</u>	<u>50.4</u>	<u>4.5</u>	<u>1.4</u>	<u>3.1</u>	<u>-</u>
<b>SPECIAL ISSUES</b>												
Negotiable Land Cert.	3.7	-	-	-	0.9	0.9	-	-	2.8	2.7	-	0.1
Treasury Bills	-	-	-	-	-	-	-	-	-	-	-	-
Treasury Notes	162.8	162.8	0.8	162.0	-	-	-	-	-	-	-	-
Sub-Total	<u>166.5</u>	<u>162.8</u>	<u>0.8</u>	<u>162.0</u>	<u>0.9</u>	<u>0.9</u>	<u>-</u>	<u>-</u>	<u>2.8</u>	<u>2.7</u>	<u>-</u>	<u>0.1</u>
<b>SECURITIES ISSUED FOR THE ACCOUNT OF POLITICAL SUBDIVISIONS AND INSTRUMENTALITIES</b>												
Prov'l. & Mun. Bonds	5.8	2.0	2.0	-	3.0	0.2	1.9	0.9	0.8	0.5	0.3	-
Sub-Total	<u>5.8</u>	<u>2.0</u>	<u>2.0</u>	<u>-</u>	<u>3.0</u>	<u>0.2</u>	<u>1.9</u>	<u>0.9</u>	<u>0.8</u>	<u>0.5</u>	<u>0.3</u>	<u>-</u>
<b>GRAND TOTAL</b>	<b>909.4</b>	<b>731.7</b>	<b>84.2</b>	<b>647.5</b>	<b>149.8</b>	<b>80.6</b>	<b>4.8</b>	<b>64.4</b>	<b>27.9</b>	<b>12.6</b>	<b>10.6</b>	<b>4.7</b>

NOTE: Excludes P137.2 million RFC Bonds and includes P55 million ACCFA 2-Year Notes held by the Central Bank, c/o Dept. of Loans & Credit and Rural Banks Administration.  
 Source of Basic Data: Securities Market Department, Central Bank of the Philippines.

Table 17

**HOLDERS OF INTEREST-BEARING GOVERNMENT SECURITIES ISSUED AND OUTSTANDING  
AND SERVICED BY THE CENTRAL BANK  
AS OF DECEMBER 31, 1957.  
(Million Pesos)**

Kind of Security	Total Amount Outstanding	Per Cent	H e l d B y					
			Banks	Per Cent of Total	Public Non-Bank Investors	Per Cent of total	Private Non-Bank Investors	Per Cent of total
1. PW and ED Bonds .....	310.7	100.0	291.5	93.8	12.0	3.9	7.2	2.3
2. R and D Bonds .....	200.0	100.0	120.9	60.5	66.8	33.4	12.3	6.1
3. NAWASA and MWD Bonds .....	17.0	100.0	13.2	77.6	2.6	15.3	1.2	7.1
4. NPC Bonds .....	82.3	100.0	62.1	75.5	16.9	20.5	3.3	4.0
5. ACCFA Notes and C/I .....	124.6	100.0	78.6	63.1	46.0	36.9	-	-
2. Treasury Bills .....	-	-	-	-	-	-	-	-
7. Treasury Notes .....	162.8	100.0	162.8	100.0	-	-	-	-
8. Others .....	12.0	100.0	2.6	21.7	5.5	45.8	3.9	32.5
	<u>909.4</u>	<u>100.0</u>	<u>731.7</u>	<u>80.4</u>	<u>149.8</u>	<u>16.5</u>	<u>27.9</u>	<u>3.1</u>

† Exclusive of RFC Issues.

Source of Basic Data: Securities Market Department, Central Bank of the Philippines.

Of the securities issued and outstanding and currently serviced by the Central Bank which amounted to ₱909.4 million as of December 31, 1957, ₱513.2 million were National Government issues, ₱223.9 million for the account of Government owned and controlled corporations, ₱166.5 million for special issues, and ₱5.8 million were securities issued for the account of government political subdivisions and instrumentalities. The Treasury obligations were largely held by the banking system which shared ₱731.7 million or 80.4 per cent. The public non-bank investors held ₱149.8 million or 16.5 per cent, while private non-bank investors absorbed ₱27.9 million or 3.1 per cent. (See Table 17).

Increases in the security holdings of some investor groups, more particularly by the Central Bank's Portfolio and by the Trust Funds, have been due to their acquisitions of securities unloaded by commercial banks, particularly the Philippine National Bank, and other lending institutions. Disposals of the Philippine National Bank and the Government Service Insurance System, the two largest lending institutions of the Government, have depleted their security holdings unduly. That they have chosen to dispose of their security holdings may be due to higher cost of and less access to Central Bank credit, making it difficult to replenish their limited loanable funds.

Notwithstanding this shift in the pattern of holdings among the major investor groups, it is indeed gratifying to observe the rapid rate of growth in the security holdings of private entities and individuals.

### **Changing Emphasis on the Increased Public Debt**

The striking feature of the increasing public debt is the shift in its character from budgetary to development purposes. This healthy trend is shown in Table 18 which covers the period from 1947, after we achieved political independence, and extending through 1957.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 18

 PUBLIC DEBT OUTSTANDING CLASSIFIED  
 BY PURPOSE OF ISSUE

(Million Pesos)

Calendar Year	Budgetary	Per Cent of Total	Developmental	Per Cent of Total	Total
1947	120.0	47.4	133.2	52.6	253.2
1948	420.0	69.3	186.4	30.7	606.4
1949	458.0	65.3	243.0	34.7	701.0
1950	585.2	66.2	298.6	33.8	883.8
1951	538.5	66.0	277.1	34.0	815.6
1952	492.6	64.0	277.4	36.0	770.0
1953	696.9	65.4	369.0	34.6	1,065.9
1954	632.7	58.3	453.3	41.7	1,086.0
1955	589.8	44.5	736.9	55.5	1,326.7
1956	539.0	35.1	996.4	64.9	1,535.4
1957	469.5	28.9	1,156.4	71.1	1,625.9

Source: Statistical Bulletin: Central Bank of the Philippine; Vol. VIII, No. 4; December 1956; p. 164.

Securities Market Department; Central Bank of the Philippines.

The greater portion of the total public debt incurred during the 8-year period from 1947 to 1954 arose from budgetary deficits. Of the total debt during this period, an average of 62.7 per cent was channeled to budgetary needs and only 37.3 per cent was for development purposes. Because of the indidious fiscal policy of gradually liquidating budgetary loans and restricting public borrowings to purely developmental purposes, this trend started to reverse itself from 1955, that by the end of 1957, the portion of the public debt for budgetary

purposes was reduced to 28.9 per cent while indebtedness for developmental purposes rose to 71.1 per cent. Official pronouncements seem to point out that henceforth, the debt will be entirely for developmental purposes rather than for financing budgetary deficits as was practiced in the past.

Although the policy of the present administration is to meet the imperative capital development needs of the economy, it is also aware of the harmful effects of public borrowing and has provided safeguards and cautions to exercise restraint in the use of proceeds from government securities so that such proceeds do not unduly expand the money supply and create excessive purchasing power as to cause an upward push on prices. The President in his budget message to the Third Congress of the Philippines in 1957 said in effect:

“The crucial consideration in any public borrowing policy is the assurance that such funds will be scrupulously applied to purposes which clearly contribute to increased national productivity. The dangers implicit in government borrowing are seriously aggravated if the funds are diverted to current operations or to non-essential uses. With this in mind, we have established the following criteria for selecting those programs or projects to be financed from Bond Funds: <sup>20</sup>

1. Borrowed funds can be used only for bona fide capital expenditures.
2. Projects to be financed from this source must be directly productive or clearly contributory to increased agricultural or industrial productivity.
3. The proceeds of public borrowings must be assigned to truly self-liquidating or income-creating projects.
4. All projects financed by borrowed funds must rank high on the priority listing of essential programs and demonstrate a high benefit-cost ratio.”

In addition, a new procedure was adapted early in 1957, the details of which are embodied in Executive Order No. 236, dated February 13, 1957. Under this procedure, the Technical

<sup>20</sup> President's Budget Message to the Third Congress of the Republic of the Philippines, Five Year Fiscal Plan (1957-61 and 1958 Budget; p. 37

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Committee on Development Financing created by the Budget Commission formulates an Integrated Bond Financing after due consultations have been made with the Screening Committee on Bond Issues for the Council of State, the National Economic Council and the Central Bank with respect to recommended projects for inclusion in the program of bond financing, program priorities and consistency with national development goals and national permissible disbursement limits as may be established during the ensuing fiscal year. Once the Annual Development Financing Program is prepared and revised in terms of its monetary feasibility, the Monetary Board of the Central Bank will advise the President accordingly and shall indicate its intention to undertake the issuance and sale of government securities upon the request of the Secretary of Finance, at such time and at such amounts as the need for the funds arises, without indicating the specific projects to which the proceeds thereof will be devoted by simply stating that the proceeds from the sale of bonds are for a Common Bond Fund known as "Public Works and Economic Development Bonds Fund".<sup>21</sup>

### THE BURDEN OF THE PUBLIC DEBT

The net burden may well be described as the net effect of the significant adverse effects and the important offsets associated with a growing public debt. It is unnecessary to refute the view that the public debt, so long as it is internally held, does not constitute a burden on the community in so far as charges are concerned, since they merely represent transfers from one group (tax payers or lenders) to another (debt holders) and taking the economy as a whole there is no net loss of wealth; nor the view that annual servicing of the debt is a perennial burden on the economy and the taxpayer that is passed on to future generations.

At this point, let us consider the various adverse effects of the growing public debt. In times of declining business activity when national income and tax revenues fall, debt servicing may represent a large portion of government expenditures and may necessitate a curtailment of pressing demands for essential public services, or the imposition of additional taxes. Interest charges on the public debt are considered a burden since they are obligations that have to be met with

<sup>21</sup> 1957 Annual Report; Securities Market Department, Central Bank of the Philippines; p. 8.

current receipts, regardless of the level of tax revenues and other public services. The burden may also be related to the effects of interest payments on total spending, particularly in the Philippines where banks, insurance companies, and government trust funds hold about 90 per cent of interest-bearing government securities.

Another important adverse effect of a rising public debt is that it is usually associated with rising taxes. Results from studies of the distribution of the tax burden in the United States and Great Britain show that:

"In general, the tax burden is regressive in that the ratio of tax burden (not payment) is relatively higher for the lowest income groups than for the moderate-income groups."<sup>22</sup>

The regressivity of taxes in these countries is the result of the heavy reliance on taxes on property sales consumption, and custom duties. In the Philippines where import duties, business taxes, and excise taxes aggregate approximately 70 per cent of total taxes, it may be stated that the situation is even more serious.

On the other hand, a growing public debt makes significant contributions offsetting the adverse effects. An expansion of the public debt tends to raise money and real income. Clearly, the total volume of savings rises with rising incomes. A rise in additional money and liquid assets will, undoubtedly, contribute to a higher level of spending. This results, other things being equal, to increased economic activity and higher level of employment and production, which are the primary objectives of public policy.

To these may be added the non-economic gains which the public enjoy through public improvements. These benefits to society are important, although, they cannot be appraised in peso terms.

### MEASURING THE DEBT BURDEN

The main concern in measuring the burden of the debt involves the ability of the debtor to pay rather than the size of the public debt. It is difficult to assess the exact magnitude of the burden, since it involves the consideration of many relevant economic concepts with which we can compare the size of the debt and the fact that the debt compared to any

<sup>22</sup> Harris, S. E.; National Debt and the New Economics, New York 1947; p. 213.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

one of these concepts taken alone by themselves does not give a complete picture of the problem. However, it is only through such comparison of the debt with a number of relevant factors that an indication of the magnitude can be obtained. This does not necessarily mean that the measures used are functionally related, but these comparison would be useful even if used merely as guideposts in determining relative magnitudes.

### Debt Compared with Population

Comparing the trend of the debt to the trend of population, can give a good idea of the burden of future transfer through taxation. Every member of the population is a potential taxpayer and the size of the population is an indication of the number among whom the tax burden may be distributed. We have, of course, to take into account other factors such as the distribution of income, productivity, unemployment, etc. The trend of debt per capita should also give an idea of the increased amount that would have to be paid by present taxpayers with the present tax structure.

Table 19

### PUBLIC DEBT PER CAPITA IN THE PHILIPPINES 1941; 1945-1957

Period	Debt per Capita (Pesos)
1941	8.33
1945	8.02
1946	7.15
1947	13.35
1948	31.38
1949	35.60
1950	44.04
1951	39.88
1952	36.94
1953	50.19
1954	50.42
1955	60.15
1956	68.31
1957	70.98

Based on estimated population figures of the Bureau of the Census and Statistics.

Source: Seventh Annual Report; Central Bank of the Philippines, 1955; p. 111.



In 1941, debt per capita stood at P8.33. The early post-war years showed a slight decline when in 1945 the debt per capita was P8.02 and which decreased further down to P7.15 in 1946. The figure jumped to P13.35 in 1947 and rose steadily to P44.04 in 1950. Another decline took place during the next two years, until it registered P36.94 in 1952. This decline in per capita burden was the result of the liquidation of pre-1934 bonds in 1951 which amounted to P108.4 million, and the balanced national budget in 1952. In the following year it rose again to P50.19 and since that date there has been a continuous increase in the per capita burden reaching P70.98 in 1957. The implementation of Republic Act No. 1000 caused the upward swing of our per capita debt burden inspite of the scheduled debt retirements on installments which fell due the last few years. Compared with the figure in 1945, the debt per capita has increased approximately ninefold within a period of 12 years.

The trend of the debt per capita is a clear indication that a sizeable increase in taxes would have to be imposed on the population during the time the total outstanding debt is to be paid off. This would mean that the tax burden would be much more greater than it was in 1941 when the debt per capita was only P8.33. The growth in the absolute amounts of the public debt would give us an indication of the amount to be raised by taxation. However, with the increasing level of national income, it is believed that the country's taxable capacity has also considerably increased.

### **Floating Debt Compared with Total Domestic Debt**

The portion of the total domestic debt which matures in one year or less is suggestive of the imminent impact on the economy through either debt funding or taxation. Such a comparison, although not of primary importance, gives an idea of the relative amount that has to be provided within a year's time, and the increase in the fiscal burden involved in the conversion from a floating debt to a funded debt. The following table shows the trend of the proportion of debt maturing within one year or less to the total domestic debt during the periods indicated.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 20

FLOATING DEBT COMPARED WITH TOTAL DOMESTIC DEBT IN THE PHILIPPINES; 1941; 1945-1957

(Thousand Pesos)

(1) Period	(2) Debt with a maturity of one year or less	(3) Total Domestic Debt	(4) Ratio (Per Cent) (2) ÷ (3)
1941	—	20,840	0
1945	—	20,840	0
1946	—	20,840	0
1947	—	20,986	0
1948	—	372,193	0
1949	38,110	466,888	8.16
1950	110,600	566,971	19.51
1951	43,324	612,390	7.07
1952	44,223	591,470	7.48
1953	34,658	866,610	4.00
1954	57,904	905,849	6.39
1955	38,970	1,159,314	3.36
1956	49,897	1,374,653	3.63
1957	219,710	1,469,344	14.95

Source: Statistical Bulletin; Central Bank of the Philippines; Vol. IX, No. 4, December, 1957; pp. 149-151.  
Securities Market Department, Central Bank of the Philippines.

The Philippine government started to incur short-term debt in 1949 and the ratio of the floating debt to total domestic debt was then 8.16 per cent. It reached the peak in the following year when the floating debt was 19.51 per cent of the total domestic debt. In 1951, it fell to 7.07 per cent and in the subsequent years, until 1954, the ratio fluctuated but never reached below 4 per cent. In 1955 the ratio reached its lowest point of 3.36 per cent, but rose slightly to 3.63 per cent in 1956. The ratio jumped to a new high in 1957 when it stood at 14.95 per cent.

### **Debt Charges Compared with National Income**

It is the consensus of opinion that charges on the public debt should be directly related to National income. With a rising national income, the government would be in a better position to finance more debt without serious effects on the economy. Tax potential will rise with debt potential and such increases reflect a greater capacity of the economy to meet debt charges on a growing public debt. It is, likewise, important for us to know the magnitude of debt charges compared with national income, because the larger the former is in comparison to the latter, the greater the "strains and frictions" associated with the debt burden that may be expected.

\* \* \*

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 21

EXPENDITURES ON THE PUBLIC DEBT AS PERCENTAGE  
OF NATIONAL INCOME—1946-1957

(Million Pesos)

Period (1)	Expenditures on Public Debt (2)	National Income (3)	Ratio (Per Cent) $2 \div 3$ (4)
1946	6.0	4,202	0.14
1947	8.5	5,364	0.16
1948	25.3	5,511	0.46
1949	34.0	5,464	0.62
1950	33.6	5,922	0.57
1951	39.2	6,487	0.60
1952	54.0	6,554	0.82
1953	61.1	7,015	0.87
1954	51.7	7,145	0.72
1955	53.1	7,624	0.70
1956	77.8	8,335	0.93
1957	92.5	8,799	1.05

Source: Central Bank News Digest; Central Bank of the Philippines; Vol. X, No. 12, 18 March, 1958; Inside Cover.

The Statistical Reporter; Office of Statistical Coordination and Standards, National Economic Council; Vol. II, No. 2, April 1958; p. 19.

Report to the President of the United States by the Economic Survey Mission to the Philippines, Washington, D. C., October 9, 1950; p. 20.

A brief analysis of the debt charges as a percentage of national income shows that during the period from 1946 to 1957, our national income has doubled from ₱4,202 million to ₱8,799 million, while debt charges have increased more rapidly from ₱6.0 million to ₱92.5 million. The ratio showed considerable fluctuations between its lowest value of 0.14 per cent in 1941 and its highest value of 1.05 per cent in 1957. To the extent that this measure of debt burden gives an indication of strains and frictions involved in the transfer required by the servicing of the debt, we can conclude that our debt burden is low compared with other countries.

Table 22

EXPENDITURES ON THE PUBLIC DEBT AS PERCENTAGE OF NATIONAL INCOME OF SELECTED COUNTRIES: 1955

(Million Currency Unit)

Country	Currency	Public Debt Expenditures	National Income	Ratio of Public Debt Expenditures to N. I.
(1)	(2)	(3)	(4)	(5)
Australia	A Pounds	38	4,238	0.90%
Burma	Kyats	10.9	4,087	0.27
Canada	Dollars	477.9	20,535	2.33
Ceylon	Rupees	33.4	5,172	0.65
Denmark	Kroner	294.8	23,600	1.25
Finland	Markkaa	5,700	767,600	0.74
France	Francs	216,000	12,440,000	1.74
Greece	Drachmas	63,500	55,022,000	0.12
Israel	l Pounds	25.3	1,750	1.45
Italy	Lire	144,000	10,600,000	1.36
Netherlands	Guilders	477	23,780	2.01
New Zealand	NZ Pounds	20	846	2.36
Norway	Kroner	218.8	19,507	1.12
Philippines	Pesos	58.1	7,624	0.70
Portugal	Escudos	352.2	47,500	0.74
Spain	Pesetas	4,712.2	315,000	1.50
Sweden	Kroner	350	41,358	0.85
Switzerland	Francs	248.7	23,290	1.07
United Kingdom	Pounds	674	15,226	4.43
United States	Dollars	6,370	324,000	1.97

Source: Statistical Yearbook; United Nations; pp.470, 501-545.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

4. Debt Charges Compared With Total Tax Revenues

Debt charges on the public debt constitute a real burden on the economy since they are obligations of the government which have to be met with current tax receipts. While an external public debt is a drain on the resources of the economy and a weighty burden, because of payments sent abroad to meet interest and principal charges, an internal debt, likewise, involves the indirect burden of balance transfers from potential spenders to potential savers.

This comparison tends to show the transfer burden in diverting a portion of tax revenues to the servicing of the debt. The table is not intended to trace the flow but is merely a comparison of magnitudes.

Table 23

EXPENDITURES ON THE PUBLIC DEBT AS PERCENTAGE OF TOTAL TAX REVENUES: 1946-1957

(Million Pesos)

Period (1)	Expenditures on the Public Debt (2)	Total Tax Revenues (3)	Ratio of Public Debt to Total Tax Revenues (4)
1946	6.0	112.8	5.3%
1947	8.5	204.3	4.2
1948	25.3	270.4	9.4
1949	34.0	315.8	10.8
1950	33.6	280.0	12.0
1951	39.2	406.7	9.6
1952	54.0	604.3	8.9
1953	61.1	530.8	11.5
1954	51.7	596.9	8.7
1955	53.1	623.8	8.5
1956	77.8	669.1	11.6
1957	92.5	759.6	12.2

Source: Statistical Bulletin; Central Bank of the Philippines; Vol. VIII. No. 4; December 1956; p. 157.  
Central Bank News Digest; Central Bank of the Philippines; Vol. X No. 12; 18 March 1958; Inside Cover.

The trend shows that the proportion which stood at 5.5 per cent in 1946 rose to 12.0 per cent in 1950. From then, it started to decline to 8.9 per cent in 1952. The next year it rose to 11.5 per cent, but was on a downward trend again until 1955 when the proportion was 8.5 per cent. Since that date there was a continuous increase, reaching a contemporary high of 12.2 per cent in 1957. Despite the rise of P86.5 million in the amount of expenditures on the public debt during the period under review, it is evident that only a small percentage of total tax revenues has been diverted to the servicing of the public debt.

#### GOVERNMENT EXPENDITURES ON THE PUBLIC DEBT

The Philippine Government sets aside certain amounts annually to cover amortizations to the sinking fund, repayments of loans and advances, interests, and discount exchange premiums. Unlike most budget expenditures, public debt expenditures are fixed obligations of the government and such outlays do not require annual authorization of Congress. Sinking funds were set up in Fiscal year 1957 with an initial amount of P5.0 million for the redemption of Rehabilitation and Development bonds issued in the amount of P200 million during the period 1949-1951, and which are due starting in 1959. In order to provide an orderly redemption of treasury notes issued under Republic Act No. 245, annual payments of P12.0 million during Fiscal Years 1957 and 1958, and P20.0 million each year thereafter, have been provided. In Fiscal Year 1959, backpay obligations under Republic Act No. 304 will be fully met and liquidated from General Fund contributions to the Sinking Fund.

To service the public debt, the National Government has appropriated the following amounts which are compared with total expenditures as shown in the following table.

STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

Table 24

EXPENDITURES TO SERVICE THE PUBLIC DEBT AS  
PERCENTAGE OF TOTAL EXPENDITURES  
General, Special and Bond Funds Fiscal Years 1946-1957  
(Million Pesos)

Fiscal Year (1)	Expenditures to service the Public Debt (2)	Total Expenditures of the National Government (3)	Exp. to service the Public Debt as Percentage of Total
1946	6.0	213.4	2.8%
1947	8.5	381.0	2.2
1948	25.3	357.8	7.1
1949	34.0	451.9	7.5
1950	33.6	558.1	6.0
1951	39.2	531.0	7.4
1952	54.0	654.7	8.2
1953	61.1	654.7	9.3
1954	51.7	811.1	6.4
1955	53.1	785.8	6.8
1956	77.8	980.8	7.9
1957	92.5	1,047.4	8.8

Source: Central Bank News Digest; Central Bank of the Philippines; Vol. X, No. 12, 18 March 1958; Inside Cover.  
Report to the President of the United States by the Economic Survey Mission to the Philippines, Washington, D. C.: October 9, 1950; p. 20.

A heavy burden is being placed on our General Fund resources in view of the accelerated economic development program that is being financed out of Public Works and Economic Development Bonds as authorized under Republic Act 1000. Sinking fund and interest requirements have to be met before the projects, which are being financed from such borrowings, become fully self-supporting. Because of this, expenditures on the public debt is projected to rise to ₱154.0 million in Fiscal Year 1961.

Under the Five-Year Fiscal Plan almost 50 per cent of debt repayments would be for the reduction of the budgetary debt which is expected to go down to ₱271.1 million in 1961.



Table 25

FIVE YEAR FISCAL PLAN  
PROJECTED EXPENDITURES FOR DEBT SERVICE  
(Million Pesos)

Fiscal Year	Total
1957 (Estimated)	194.4
1958 (Estimated)	101.6
1959 (Projected)	119.5
1960 (Projected)	141.6
1961 (Projected)	154.0

Source: "The National Budget in Brief," Excerpts from the Budget Message, February 11, 1957; Published by the Budget Commission, Manila, 1957; p. 21.

**SUMMARY AND RECOMMENDATIONS**

The foregoing analysis has attempted to present some significant facts about the public debt and the public financing program of the government, which the policy makers and students of public finance may perhaps find useful in their particular fields of interest. It should be realized that inspite of the rapid growth of our public debt, the burden of interest charges represented only one per cent of national income in 1957 and below nine per cent of total expenditures of the national government since 1946. These figures compare favorably with those of most underdeveloped countries and are considerably lower than those obtaining in highly advanced economies.

The debt composition as to domestic and foreign has also shown a favorable shift. Whereas in 1941 the foreign debt component represented 85.2 per cent, in 1957 it constituted only 9.6 per cent. Such a change is in line with the principle of limiting foreign debt in order to relieve the pressure on the country's balance of payments and prevent a diminution of the domestic product in favor of foreigners.

## STATISTICAL INVESTIGATION OF TRENDS AND STRUCTURE

A parallel shift has also taken place with respect to the purpose for which the debt was incurred. In contrast to the situation in 1953 when 65.4 per cent of the public debt was incurred in order to finance budgetary needs and only 34.6 per cent applied to developmental purposes, in 1957, budgetary purposes shared only 28.9 per cent, while developmental needs absorbed 71.1 per cent. The change in emphasis has been to limit public borrowing to purely developmental requirements and to restrict its use for meeting budgetary needs.

One other important point to consider is the fact that the ratio of public debt to national income in the Philippines is only 18.5 per cent which is about the same level as it is in Ceylon, Finland, and Greece, compared to more than 80 per cent in Canada, Netherlands, New Zealand, and United States and about 178.0 per cent in United Kingdom. It is quite obvious, therefore, that there is still room to expand the public debt provided that it is applied to developmental activities that will facilitate a rapid rise in output and hence, in national income, and provided further, that the increased debt is internally held.

It will also be observed that despite this expansion in public debt over the last few years, prices were fairly stable and were much below the levels in the immediate post-war years and during the Korean War, indicating that the debt has contributed to an increase in production, thereby, preventing a rise in prices.

Notwithstanding these gains achieved and the favorable effects of public borrowing on the national development program and internal economic conditions, there seems to be need for exercising caution and prudence in the management of the public debt. For one thing, an indiscriminate expansion in the public debt without a carefully conceived and balanced development program to which the proceeds from public borrowing may be applied may give rise to deleterious effects on internal monetary conditions and may exert pressure on the balance of payments. Conversely, if public borrowing is undertaken in line with a carefully-thought-out policy and made an integral part of a well-balanced economic development program, it can provide an effective tool of fiscal and monetary policy in promoting the objectives of such a program and, at the same time, minimize the inflationary influence on prices. These conditions underscore the need for

a well-coordinated and integrated bond financing program in which the projects included are carefully screened and processed in accordance with priorities established by the National Economic Council, and reducing as much as possible projects which are not self-liquidating in character. Projects which are not self-liquidating should be financed from tax revenues.

It is also highly indispensable that a proper balancing of projects be taken into consideration in order to ensure the sustained economic growth and development. This is so, because in some sectors of the country basic service facilities (social overhead capital) are not yet available in adequate volume as to induce private investment in those areas. Consequently, the integrated bond financing program, as well as the national development plan must take this point into consideration if bottlenecks are not to impede the rate at which economic development can proceed.

Finally, it is also desirable on the part of those responsible for the proper management of public debt that spacing on maturities be so scheduled as not to put a strain on the Treasury with respect to redemptions or retirement of the bonds at maturity, with provisions for adequate sinking funds to meet debt service charges and principal of each type of issue.

It is hoped that within this broad framework, public debt management can be relied upon to provide the necessary tool of economic policy in promoting the objectives of national development in an environment of stable prices.