

FINANCIAL GROWTH AND ECONOMIC DEVELOPMENT: THE PHILIPPINES*

DELANO P. VILLANUEVA ✓

The financial aspects of economic development have been discussed by Professors John G. Gurley and Edward S. Shaw.¹ This study draws on their contributions for the purpose of explaining the growth of debt, financial assets, and financial institutions in the Philippines over the last decade and a half.

The first section briefly presents some concepts and definitions. The second and third discuss the growth of primary securities and the development of financial intermediation. In the final section, the contours of Philippine financial development are summarized and suggestions for further research offered.

Financial assets accumulate in the course of economic development. These assets are termed "primary securities" if issued by non-financial intermediaries.

PRIMARY SECURITIES

✓ Primary securities are liabilities and equities of the non-financial sectors, i.e., government, business, individual, and foreign. These sectors transact primarily in markets for current output, capital stock, and labor.

* This paper is based on a master's thesis in economics submitted to the Department of Economics, University of the Philippines in May, 1966. A U.P. Economics Fellowship financed the author's graduate studies. The author is likewise indebted to Dr. Richard W. Hooley for his role as adviser and for the data on primary securities outstanding. Errors are entirely the author's.

¹ John G. Gurley and Edward S. Shaw, *Money in a Theory of Finance* (Washington: The Bookings Institution, 1960); "Financial Aspects of Economic Development," *American Economic Review*, XXV (September, 1955), 515-38; "Financial Intermediaries and the Saving-Investment Process," *Journal of Finance*, XI (May, 1956), 257-76; and "The Growth of Debt and Money in the United States, 1800-1950: A Suggested Interpretation," *Review of Economics and Statistics*, XXXIX (August, 1957), 250-62. For applications of this theory to other countries, see David Ott, "The Financial Development of Japan, 1878-1958," *Journal of Political Economy*, LXIX (April, 1961), 122-41; Robert Bennett, *The Financial Sector and Economic Development: The Case, 1945-59* (Baltimore: Johns Hopkins Press, 1965); and J. G. Gurley, Hugh T. Patrick, and E. S. Shaw, *The Financial Structure of Korea* (Korea: USOM, July 24, 1965, mimeo.).

They issue government bonds and stocks, corporate bonds and stocks, household mortgages, foreign securities, and a variety of short-term, medium-term, and long-term debts.

During any period of economic development, primary security issues of firms are equal to increments in financial assets of households.² Primary issues are equal to firms' budget deficit; increments in financial assets to households' budget surplus.³ Deficits (or surpluses) depend on the distribution of spending relative to the distribution of income between sectors of the economy. If these distributions are smaller, all sectors will have balanced budgets on income and product account; there would be no specialization between sectors in receiving and spending income and, hence, there would be no growth in primary securities and financial assets. If these distributions are dissimilar, there would be specialization in the sense that some sectors would have budget deficits and others would have surpluses; there would be financial growth. As these distributions increasingly differ, financial growth is accelerated.

There are a number of factors which lie behind sectoral income and spending distributions. A higher rate of output growth raises firms' net investments relative to their net saving; the ratio of deficits to income increases and the issues-income ratio is raised. A lower output growth rate decreases the issues-income ratio.

A higher capital-output ratio raises firms' net investments relative to income, raises firms' deficits relative to income and, hence, increases the issues-income ratio. A lower capital-output ratio decreases the issues-income ratio.

A higher interest rate raises the issues-income ratio by increasing firms' interest payments and reducing net saving at each level of income. A lower interest rate decreases the issues-income ratio.

Deficit rotation — the rotation of deficits from one sector to another — is not congenial to the growth of primary securities and financial assets because it reduces the degree of specialization among sectors in spending and receiving income. When deficit rotation occurs, the algebraic sum of each sector's positive and negative budget imbalance over several fiscal periods is reduced; hence, primary issues and financial asset accumulations are slowed down.

A mixed asset-debt position — a situation where a sector holds financial assets *and* incurs debts — tends to increase the issues-income ratio.

² Assuming that firms do not acquire financial assets and that all financial assets are acquired by the household and financial sectors.

³ Trading in existing physical assets is ignored. This is one way to settle imbalances on income and product account.

Firms may issue primary securities to cover deficits and to increase money balances. Households may issue debts to acquire business bonds, money, or both. An increasingly variegated structure of financial assets encourages mixed asset-debt positions. Thus, some spending units may decide to issue debt rather than give up certain types of securities (e.g., money balances), and others may decide to acquire certain types of primary securities rather than retire their own debt.⁴

In early financial development, the stock of primary securities grows faster than national income. The small stock of primary securities in the early stages of economic and financial development implies that firms have relatively low levels of interest payments and deficits. As the stock of primary securities assumes its balanced relationships with national income in the long run, firms' interest payments increase, so that the ratio of deficits to income also increases. Consequently, the issues-income ratio increases (but at a diminishing rate) with time until it closely adjusts itself to its long-run, balanced relationships with the rate of growth of national income.⁵

INDIRECT SECURITIES

Indirect securities are liabilities and equities of the financial system, including monetary intermediaries. These securities include currency, bank deposits, shares and bonds. Monetary indirect securities are liabilities and equities of monetary intermediaries (e.g., currency and bank deposits). The rest are called non-monetary indirect securities (e.g., savings and loan shares, insurance).

The business of financial intermediaries is to serve as "middlemen" between ultimate lenders and ultimate borrowers. Financial intermediaries buy primary securities from ultimate borrowers and sell indirect securities to ultimate lenders.

Primary security issues may be sold to non-financial spending units, in which case the financing is "direct", or to financial intermediaries, in which case the financing is "indirect". In the first case, ultimate lenders accumulate primary securities; in the second, they accumulate indirect securities. The ratio of primary security issues purchased by the financial

⁴ Each debtor can be visualized to be facing a "disutility function" of debt burden. His objective is to minimize this function, subject to a set of constant external parameters like income, stocks of real and financial assets, interest rates on types of securities and assets, etc. Note that what is relevant here is minimization of the *net* disutility function (i.e., gross debt function minus financial assets function). In a similar vein, each creditor can be visualized to be facing a "utility function" of his asset portfolio and trying to maximize *net* utility (i.e., gross assets minus debt), subject to similar constraints.

⁵ In mathematical terms, $d(B^*/ipY)/dt > 0$, $d(B/ipY)/dt > 0$, but $d^2(B/ipy)/dt^2 < 0$, $d^2(B/ipy)/dt^2 > 0$, where t is time. See Curly and Shaw, *op. cit.*, 107-10.

system to total net issues of primary securities is called "indirect finance ratio." The ratio of primary security issues purchased by the non-financial sectors to total net issues of primary securities is called "direct finance ratio." A high indirect finance ratio indicates a high degree of importance of the financial system as an intermediary between ultimate lenders and ultimate borrowers.

II

This section discusses the growth of primary security issues and stocks of primary securities outstanding. The financial data will be compared with the gross national product in both cases.

PRIMARY SECURITY AND GNP

Our period runs from 1949 to 1964. Over this period, GNP in current prices rose by more than 200 per cent, while GNP in 1955 prices grew by 126 per cent, at an average annual rate of 5.6 per cent.

From 1950 to 1964, the annual ratio of primary security issues to GNP in current prices averaged 7 per cent. The annual ratios, however, fluctuated between 3 to 13 per cent. To eliminate short-term fluctuations in the ratio, the years are grouped into subperiods, each subperiod roughly identified by rates of change in real GNP; each subperiod commences with a high rate of growth of real GNP and ends with a lower one. These subperiods are 1950-54, 1955-60, and 1961-64.

In terms of the subperiods, an upward trend in the ratio is evident, as Table 1 shows.

TABLE 1
PRIMARY SECURITY ISSUES AND GNP,
1950-1964, BY SUBPERIODS
(In millions of pesos; %)

<i>Subperiod</i>	<i>Total Net Issues^a</i>	<i>GNP^b</i>	<i>Issues/GNP^c</i>
1950-1954	1,740.0	37,683.0	4.6
1955-1960	3,771.2	62,382.0	6.0
1961-1964	5,996.0	64,250.0	9.3

^aMeasured in issue prices; net of retirements.

^bMeasured in current prices.

^cCumulated net issues divided by cumulated GNP during a subperiod.

The highest ratio, 9.3 per cent, occurred during the early 60's; this was due to substantial primary security issues of the business and individual sectors during this period.⁶

PRIMARY SECURITIES OUTSTANDING AND GNP

The net issues of primary securities increasing with time generated an increasing stock of primary securities outstanding. The same upward trend in the stock-income ratio is observed.

TABLE 2
PRIMARY SECURITIES OUTSTANDING AND GNP,
1949-1964

(In millions of pesos; ratios)

<i>End of</i>	<i>Securities Outstanding^a</i>	<i>GNP^b</i>	<i>Stock/GNP</i>
1949	2,243.0	6,136.0	.3655
1950	2,681.0	6,625.0	.4046
1951	2,907.0	7,367.0	.3945
1952	3,328.0	7,519.0	.4426
1953	3,780.0	8,002.0	.4723
1954	3,983.0	8,170.0	.4875
1955	4,582.0	8,687.0	.5274
1956	4,974.0	9,532.0	.5218
1957	5,558.0	10,033.0	.5539
1958	6,193.0	10,464.0	.5918
1959	6,832.0	11,369.0	.6009
1960	7,754.0	12,297.0	.6305
1961	9,545.0	13,432.0	.7106
1962	11,666.0	14,972.0	.7391
1963	12,280.0	17,145.0	.7162
1964	13,750.0	18,701.0 ^c	.7352

^aMeasured in issue prices.

^bMeasured in current prices.

^cPreliminary.

⁶During the early 60's, annual primary issues of firms and individuals were consistently twice their 1960 value: from P.6 billion in 1960, to P1.2 billion in 1961, P1.3 billion in 1962, P1.2 billion in 1963, and P1.4 billion in 1964. For a discussion of the determinants of primary issues of the private domestic sector, see pp. 2-4. Also, see Hugh L. Cook, "Observations on Market Structures and National Economic Development in the Philippines," *Journal of Farm Economics*, XLI (August, 1959), 500-18.

III

Primary security issues are directly financed through the non-financial sectors, or indirectly financed through the financial system. This section discusses the role of financial intermediaries from 1949 to 1964.

DIRECT AND INDIRECT FINANCE

In the Philippines, there is sufficient evidence from both stock and flow data that the financial system was the biggest and most active buyer in the primary securities market. The indirect finance ratio — the ratio of primary security issues purchased by the financial sector to total primary security issues — was 47.7 per cent in 1950-54, 68.6 per cent in 1955-60, and 83.3 per cent in 1961-64. The direct finance ratio — the ratio of primary security issues purchased by the non-financial sectors to total primary security issues — necessarily moved in the opposite direction; it steadily fell from 52.3 per cent in the first period to 31.4 per cent in the second and, finally, to 16.7 per cent in the last. Table 3 records these trends.

TABLE 3
DIRECT AND INDIRECT FINANCE RATIOS,
1950-1964, BY SUBPERIODS, %

	I ^u	II ^a	I ^u	II ^a
<i>Subperiod</i>	<i>Direct Finance Ratios</i>		<i>Indirect Finance Ratios</i>	
1950-1954	50.8	52.3	49.2	47.7
1955-1960	31.7	31.4	68.3	68.6
1961-1964	18.5	16.7	81.5	83.3

^uUnadjusted for foreign purchases of primary security issues.

^aAdjusted for foreign purchases of primary security issues.

The advance of financial intermediation during the postwar period was steady. The counterpart of this is the growing share of indirect securities on the one hand, and the declining share of primary securities on the other, in the financial asset portfolios of spending units. This is shown in Table 4.

INDIRECT FINANCE AND MONETARY INTERMEDIARIES

The major intermediary during the entire period was the monetary system which, by our definition, issues currency and bank deposit liabilities. The monetary system includes the Central Bank of the Philippines, commer-

cial, savings, rural, and development banks, and the Postal Savings Bank. The monetary system absorbed 44 per cent of total primary security issues during 1950-54, 56 per cent during 1955-60, and 74 per cent during 1961-64. The indirect finance ratios of the non-monetary sector were 4 per cent in the first phase, 12 per cent in the second, and 9 per cent in the last. Apparently, some retrogression in non-monetary intermediation occurred during the early 60's. Table 5 indicates these trends.

TABLE 4
FINANCIAL ASSETS BY TYPE,
SELECTED YEARS, 1949-1964

(In millions of pesos; %)

<i>End of</i>	<i>Total</i>	<i>%</i>	<i>Primary</i>	<i>%</i>	<i>Indirect</i>	<i>%</i>
1949	2,826.9	100.00	1,184.7	41.9	1,642.2	58.1
1954	4,170.7	100.0	2,069.3	49.6	2,101.4	50.4
1960	7,568.5	100.0	3,263.3	43.1	4,305.2	56.9
1964	12,756.9	100.0	4,372.3	34.3	8,384.6	65.7

TABLE 5
INDIRECT FINANCE RATIOS BY TYPE
OF INTERMEDIARY
1950-1964, BY SUBPERIODS, %

<i>Subperiod</i>	<i>I^u</i>		<i>II^a</i>	
	<i>Monetary System</i>		<i>Non-monetary Sector</i>	
1950-1954	45.4	44.1	3.8	3.6
1955-1960	56.2	56.4	12.1	12.2
1961-1964	72.7	74.4	8.8	8.9

^uUnadjusted for foreign purchases of primary security issues.

^aAdjusted for foreign purchases of primary security issues.

The steady advance of monetary intermediation was mainly due to the active intermediation of commercial, savings, and rural banks combined. The Central Bank's intermediation retrogressed during the 60's while that of the development bank did so during the late 50's. The Central Bank was most active during the late 50's; the development banks, during the early 50's.

The consequence of all these is that an increasing share of monetary indirect financial assets found their way into spending units' portfolios. Moreover, the accumulations of these assets swung toward bank deposits and away from currency.

TABLE 6
INDIRECT FINANCE RATIOS BY TYPE OF
MONETARY INTERMEDIARY, 1950-1964,
BY SUBPERIODS, %

<i>Subperiod</i>	<i>Central Bank</i>	<i>Other Banks*</i>	<i>Dev. Banks</i>	<i>Postal</i>
1950-1954	7.4	22.4	14.2	.1
1955-1960	24.6	29.6	2.2	—
1961-1964	7.4	57.7	9.3	—

* Commercial, savings, and rural banks. All ratios are adjusted for foreign purchases of primary security issues.

The financial system increasingly purchased short-term issues. During 1950-54, the short-term primary issues it purchased were only 29 per cent of total primary issues; during 1955-60, this ratio increased to 38 per cent; and, finally, during 1961-64, the ratio made a decisive thrust to 68 per cent. Table 7 records these trends.

TABLE 7
INDIRECT FINANCE OF PRIMARY ISSUES BY MATURITY
OF ISSUES, 1950-1964,
BY SUBPERIODS, %

<i>Subperiod</i>	I ^u	II ^v	I ^u	II ^v
	<i>Short-term^a</i>		<i>Long-term^b</i>	
1950-1954	29.9	29.0	19.3	18.7
1955-1960	38.0	38.1	30.3	30.5
1961-1964	66.6	68.1	14.9	15.2

^aLoans with maturities of less than 5 years.

^bGovernment bonds and stocks, corporate bonds and stocks, mortgages, and loans with maturities of 5 to more than 5 years.

^uUnadjusted for foreign purchases of primary issues.

^vAdjusted for foreign purchases of primary issues.

The monetary system was the bigger sector of the financial system in absolute and relative size; the fact that the financial system increasingly purchased short-time issues is not surprising since these issues closely matched the structure of liabilities of the monetary system (short-term deposit liabilities).

The reversal of the trend in long-term indirect financing of primary issues in the early 60's was due to the reversal of the trend in long-term indirect financing by the monetary system, as Table 8 suggests. Structural incompatibilities between the assets and liabilities of the monetary system equally play a part here.

TABLE 8

LONG-TERM INDIRECT FINANCE RATIOS
BY TYPE OF INTERMEDIARY,
1950-1964,
BY SUBPERIODS, %

<i>Subperiod</i>	I ^u	II ^a	I ^u	II ^a
	<i>Monetary System</i>		<i>Non-monetary Sector</i>	
1950-1954	23.5	22.5	5.7	5.4
1955-1960	36.0	36.3	24.0	24.2
1961-1964	20.1	21.1	28.9	30.3

^u Unadjusted for foreign purchases of long-term issues.

^a Adjusted for foreign purchases of long-term issues.

The sector most heavily financed by the financial system during the period was the business and individual sector. The trend was toward more indirect financing of this sector. The financial system's purchases of private domestic issues were 36 per cent of total primary issues during 1950-54, 42 per cent during 1955-60, and 66 per cent during 1961-64. Table 9 shows these trends.

During the 60's, the financial system's purchases of government issues were only 15 per cent of total primary issues. And throughout the 60's, government debt outstanding as a fraction of total primary securities outstanding, if anything, lost ground. Table 10 presents some evidence of this.

TABLE 9
INDIRECT FINANCE OF PRIMARY ISSUES
BY TYPE OF BORROWER,
1950-1964, BY SUBPERIODS, %

<i>Subperiod</i>	I ^u		II ^a		I ^u		II ^a	
	<i>Government</i>		<i>Business & Ind.</i>		<i>Foreign</i>			
1950-1954	12.0	11.7	37.0	35.9	.2		.1	
1955-1960	26.2	26.3	42.0	42.2	.1		.1	
1961-1964	15.1	15.5	65.0	66.4	1.4		1.4	

^u Unadjusted for foreign purchases of primary issues.

^a Adjusted for foreign purchases of primary issues.

TABLE 10
PERCENTAGE DISTRIBUTION OF PRIMARY SECURITIES
OUTSTANDING BY ISSUING SECTOR,
SELECTED YEARS, 1949-1964

<i>End of</i>	<i>Government</i>	<i>Business & Ind.</i>	<i>Foreign</i>
1949	31.2	67.4	1.4
1954	27.3	67.4	.8
1960	30.2	69.3	.5
1961	29.8	68.6	1.6
1962	26.8	71.4	1.8
1963	25.0	73.9	1.1
1964	23.2	76.0	.8

The significant findings here are that the private domestic sector (i) was dominant on the selling side of the securities market, and (ii) was the sector most heavily financed by the financial system which, in turn, (iii) dominated the securities market on the buying side. These facts are borne out by stock and flow data.

DIRECT AND INDIRECT FINANCING OF LONG-TERM SECURITY ISSUES

Throughout the postwar period, the financial system was the most important source of long-term financing. Long-term financing considerably retrogressed during this period, although signs of resurgence of this type of financing seem to be showing in the 60's. At any rate, the financial

system dominated the capital market, particularly in the late 50's and early 60's. Table 11 records these findings.

TABLE 11
LONG-TERM DIRECT AND INDIRECT FINANCE
RATIOS, 1950-1964, BY SUBPERIODS, %

	I ^u	II ^a	I ^u	II ^a
<i>Subperiod</i>	<i>Direct Finance</i>		<i>Indirect Finance</i>	
1950-1954	70.8	72.1	29.2	27.9
1955-1960	40.0	39.5	60.0	60.5
1961-1964	51.0	48.6	49.0	51.4

^uUnadjusted for foreign purchases of long-term issues.

^aAdjusted for foreign purchases of long-term issues.

Heaviest issuer of long-term securities was the private domestic sector, and the trend was toward more long-term issues of this sector. Foreign long-term securities were a fairly stable proportion (1%-2%) of total long-term securities outstanding, while government long-term securities displayed a diminishing share (44.4% in 1949, 39.1% in 1954, 33.4% in 1960, and 24.1% in 1964).

Direct financing of long-term issues started high during the early 50's, lost some ground in the second half of the decade, then resurged in the 60's. All non-financial sectors were responsible for the retrogression of long-term direct finance starting the mid-50's; only the business and individual sector was responsible for the resurgence. Table 12 dramatically pictures these findings.

TABLE 12
LONG-TERM DIRECT FINANCE RATIOS,
1950-1964, BY SUBPERIODS, %

	I ^u	II ^a	I ^u	II ^a	I ^u	II ^a
<i>Subperiod</i>	<i>Government</i>		<i>Business and Ind.</i>		<i>Foreign</i>	
1950-1954	14.2	13.4	60.1	58.6	-3.5	.1
1955-1960	-9.5	-9.6	48.7	49.0	.8	.1
1961-1964	—	— .2	55.5	68.0	-4.5	-19.2

^uUnadjusted for foreign purchases of long-term issues.

^aAdjusted for foreign purchases of long-term issues.

The fact that, among the non-financial sectors, the private domestic sector was the biggest (and increasingly so) buyer of long-term security issues is not at all surprising, since corporate equities were tightly held within family corporations.

On a net basis, long-term securities traded by the private domestic sector were a trickle. The trend, though, was toward increased trading. On a gross basis, the foreign sector purchased about 8 per cent of total long-term securities, mostly government securities and government-guaranteed domestic debt; the remaining 6 per cent went to the government portfolio. The small share of the government is largely explained by the fact that most government long-term securities found their way into the financial and foreign sectors.

IV

This final section summarizes the contours of the financial development of the Philippines and suggests some selected areas for further research.

SUMMARY

While the proportion of GNP that was externally financed was rising, the proportion that was indirectly financed was also rising and, of course, the proportion that was directly financed was falling. A growing portion of primary issues was being sold to financial intermediaries. The accumulations of financial assets have been relatively more and more in the form of indirect financial assets, and less in the form of primary securities. And, among financial intermediaries, the pace-setters were commercial, savings, and rural banks combined, at the expense of others, notably the Central Bank. This means that, although a growing share of monetary indirect financial assets found their way into spending units' portfolios, the accumulations of these assets have swung toward bank deposits and away from currency.

Financial intermediaries as a group were more active in the short-term securities market. However, they increasingly purchased a moderate volume of long-term issues during the 50's, after which some retrogression followed.

The sector most heavily financed by the financial system was the private domestic sector. The trend was toward more indirect financing of this sector.

Throughout the period, the financial system was the most important source of long-term financing. Long-term direct finance substantially retrogressed, although signs of resurgence seem to be showing in the 60's.

Heaviest issuer of long-term securities was the private domestic sector. Foreign long-term securities were a stable proportion of total long-term securities, while government long-term debt, if anything, lost ground.

CONCLUSION

The financial system in this study had a permissive role in economic development, i.e., it cannot trigger, *per se*, economic development. An increasing backlog of entrepreneurial talent and technically feasible projects requiring indirect financing is equally important.

The upshot of this paper is that financial innovations — invention of securities contracts, emergence of institutions for the distribution of these contracts, and changes in the preference functions of spending units — are requirements of sustained economic development. After all, direct and indirect finance could not have taken place without these innovations.

SUGGESTIONS FOR FURTHER RESEARCH

Studies of unorganized finance are called for. The role of organized finance will be properly adjusted if the unorganized sector's financial activities are quantitatively determined.

Studies of financial transactions between the domestic and foreign sectors without the intermediation of the financial system will no doubt prove useful. Once these transactions — by volume, type of claim, and type of borrower — are determined, the roles of the foreign and financial sectors will be adjusted accordingly.

Finally, studies of the role of the financial system in the stabilization of the price level and of the balance of payments logically follow. Estimations of real demand functions for liquid assets are needed.

APPENDIX

SOURCES, METHODS, AND LIMITATIONS

The main source of data was the *Statistical Bulletin* (henceforth referred to as the *Bulletin*), Volume 17, Number 1, March, 1965, published by the Department of Economic Research, Central Bank of the Philippines. For exchange rates used in converting dollar holdings of the financial system into pesos, *Annual Reports* of CBP through the years were used. The Money and Banking Section of DER, CBP, provided a list of financial institutions operating in the Philippines as of the end of 1964, their number

and type of ownership. Perhaps the most important source of basic data was Dr. Richard W. Hooley, the author's thesis adviser. Many calculations partly owe their derivations to his primary series outstanding. GNP figures, nominal and real, were taken from the *Statistical Reporter*, published by the National Economic Council.

The financial system in this study includes the following: (1) Central Bank of the Philippines; (2) Philippine National Bank; (3) Development Bank of the Philippines; (4) Postal Savings Bank; (5) Agricultural Credit Administration; (6) Government Service Insurance System; (7) Social Security System; (8) 32 commercial banks; (9) 7 savings banks; (10) 283 rural banks; (11) 23 development banks; (12) 154 insurance companies, life and non-life; and (13) 142 pawnshops and building-loan associations.

The activities of mutual funds were not covered. If substantial, their inclusion would strengthen the thesis of the study, i. e., that the financial structure plays an important role in economic development.

The Philippine economy is divided into four sectors, namely: (a) financial; (b) government; (c) business and individual; and (d) rest-of-the-world.

Financial sector. — This is divided into: (i) monetary; and (ii) non-monetary. The monetary subsector includes all banking institutions listed above (1, 2, 3, 4, 8, 9, 10, and 11); the rest comprise the non-monetary subsector.

Government. — This includes all levels: national, provincial, municipal, and city. Government corporations are also included.

Business and individual. — This includes private corporate business, partnerships, single proprietorships, and individuals.

Rest-of-the-world. — This refers to the foreign sector.

Financial claims are divided into: (a) gold and foreign exchange; (b) primary securities; and (c) indirect securities.

Gold and foreign exchange. — These refer to the international reserve of the CBP and to foreign exchange holdings of commercial banks.

Primary securities. — These are liabilities and equities of the non-financial sectors, i. e., government, business and individual, and rest-of-the-world. (i) *Short-term primary debt* refers to loans with maturities of less than 5 years. (ii) *Long-term primary debt* refers to government bonds and stocks, corporate bonds and stocks mortgages, and loans with maturities of 5 to more than years.

Indirect securities. — These are liabilities and equities of the financial sector. (i) *Monetary indirect securities* are liabilities and equities of the

monetary system. (ii) *Non-monetary indirect securities* are liabilities and equities of the non-monetary sector.

From end-of-year balance sheets of financial institutions in the *Bulletin*, combined balance sheets were prepared from 1949 through 1964. With the help of supporting tables in the *Bulletin* which presented detailed breakdown of assets and deposit liabilities of financial institutions, balance sheets of the financial system by debtor and owning sector were built up.

To arrive at statements of financial assets and liabilities, it was necessary to get the series on total gross primary securities outstanding. Dr. Hooley's data run from 1949 through 1962. Figures for 1963 and 1964 were estimated by the formula $P_n = P_0 (1 + r)^n$, where P_n stands for total primary securities accumulated after n years, P_0 for the initial stock, r for rate of growth compounded annually, and n for number of years.

By deducting primary securities absorbed by the financial system from total gross primary securities, gross primary securities held by the non-financial sectors were calculated. The next step was to determine the distribution of gross primary securities by debtor and owning sector.

By debtor sector. — Regarding the foreign sector, only foreign claims held by the financial system were considered as total gross foreign debt because of extreme difficulties in the calculation of stock data from the balance of payments. Data on total gross public debt are available in the *Bulletin*. Subtracting the sum of gross public and foreign debts from total gross primary securities outstanding held by the non-financial sectors, gross private debt of the domestic sector was arrived at.

By owning sector. — Data on external and internal public debt are also available in the *Bulletin*. It was assumed that external public debt was the only component of the securities portfolio of the foreign sector. External public debt includes debts incurred by all levels of government, government corporations, and domestic debt guaranteed by the government. In calculating gross primary securities held by private firms and individuals, an assumption was that gross primary securities issued by this sector found their way either into the portfolio of the financial system or into that of the private domestic sector itself. Primary debt of firms and individuals held by the financial system having been previously calculated on the basis of the system's balance sheet, this series was deducted from total gross private primary debt to arrive at gross primary securities purchased by the private domestic sector. Summing all primary claims held by the financial, foreign, and private domestic sectors, and subtracting from total gross primary securities, gross government primary holdings were computed.

Gross long-term securities. — Gross long-term debt of the government sector is available in the Bulletin. Gross foreign primary securities held by the financial system (IMF shares, long-term deposits of Philippine financial system with foreign banks) were all considered long-term, and only these were assumed to be gross long-term foreign securities. As before, total gross private primary debt was assumed to have been split up between two broad creditors: the financial system and the private domestic sector. The financial system holds both long-term and short-term private domestic securities. The private domestic sector was assumed to have held only long-term private domestic securities (e.g., corporate equities in tightly-controlled family corporations). By deducting short-term private primary holdings of the financial system from total gross private domestic debt, gross long-term private domestic debt was calculated. By summing gross long-term public, foreign and private domestic debt, total gross long-term debt outstanding was estimated.

As regards the distribution of total gross long-term securities by owning sector, the following procedures were followed: external public debt was assumed to be all long-term and to be the only component of the gross long-term securities portfolio of the foreign sector. By deducting long-term private securities held by the financial system from total gross long-term private domestic debt, gross long-term private domestic securities held by the private domestic sector itself were computed. Subtracting the sum of long-term securities held by the financial, foreign, and private domestic sectors from total gross long-term securities, gross long-term claims held by the government sector were calculated.

Total gross short-term debt outstanding is the arithmetic difference between total gross primary debt outstanding and total gross long-term primary debt outstanding.

Changes in the stock series presented in statements of financial assets and liabilities make up the financial flows during each period.

Ratios of financial series to GNP are the following, whichever is indicated: (1) cumulated flows of financial series, measured in issue prices, divided by cumulated GNP, measured in current prices; and (2) financial series outstanding as a stock, measured in issue prices, divided by GNP, measured in current prices.

To eliminate short-term fluctuations in the ratios of financial series to GNP, the years 1949 through 1964 are grouped into subperiods, each subperiod roughly identified by rates of change in real gross national product. These subperiods are 1950-54, 1955-60, and 1961-64. Each of these begins with a high annual rate of growth of real GNP and ends with a lower one.

There are a number of limitations of this study. First, this study deals only with organized finance. Finance companies, urban and rural moneylenders, and individual brokers were not taken into account. This by no means indicates that their financial activities were unimportant. They were not considered because of an unfortunate lack of data on their activities. If the unorganized sector is included, the role of organized finance, to some extent, is reduced.

Second, financial transactions (aside from external public debt) between the domestic and foreign sectors without the intermediation of the financial system were not reckoned with. These transactions also tend to minimize the role of organized finance.

Finally, this study examines the financial structure only as it bears on some aspects of the growth process, i.e., its role as an intermediary in the saving-investment process. The financial system's stabilization role was deliberately omitted. Active net financial intermediation during the last decade and a half may be enough evidence to support the thesis that inflation has not yet served as a constraint to the flow of savings into financial forms. Prices rose only mildly during the period, especially in the 50's. Only recently has the price level, for understandable reasons, surged as a legitimate issue.