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CENTER DISCUSSION PAPER NO. 82

"FINANCE, CAPITAL MARKETS AND ECONOMIC GROWTH IN JAPAN"

by

Hugh T. Patrick

Note: Center Discussion Papers are preliminary materials circulated to stimulate discussion and critical comment. References in publications to Discussion Papers should be cleared with the author to protect the tentative character of these papers.

"Finance, Capital Markets and Economic Growth in Japan"*

by

Hugh T. Patrick

Introduction

The purpose of this paper is to examine the role of financial intermediation during the course of Japan's postwar economic growth. The main focus is upon the sources of finance of the private corporate sector, and particularly the role of domestic capital markets. It will be shown that external finance has been extremely important, especially for large firms, but that the new issue of stocks and bonds has been relatively unimportant. I explain why Japan's capital markets remain underdeveloped in what is otherwise a highly developed, variegated, and reasonably sophisticated financial system, and suggest some broad conclusions as to whether capital market underdevelopment has really had a seriously adverse impact.

The time period covered is from the early 1950's until mid-1969. The Allied Occupation of Japan formally ended in April, 1952. By 1953 the rapid inflation of early postwar, renewed by the Korean War, had come to an end, and wholesale price stability has continued since. By 1954 the reconstruction phase was completed, in that prewar levels of per capita income and productivity levels had been re-attained (after some 18 years). Moreover, the data are better from the early 1950's. I place somewhat

* This research was financed by a Fulbright-Hays Center Faculty Fellowship and a Yale University Concilium on International Studies grant for research in Japan in 1968-69. Much of the information, particularly on the stock and bond markets, came from interviews with specialists at a variety of financial institutions; they prefer to remain anonymous, but I wish to express here my thanks for their assistance.

greater emphasis on the more recent past in order to appraise the future development of Japan's capital markets.

Economic Growth and the Importance of Financial Intermediation

Japan's postwar economic performance has been spectacular and unprecedented, bringing it to the forefront of the world's major industrial nations.¹ Between 1952-1967 real GNP grew at a 9.6 percent average annual rate;² in 1968 and 1969 the growth rate was somewhat higher. GNP in 1968 was \$141.9 billion (current prices at the official exchange rate parity); it will reach \$200 billion in 1970.

Explanation of the causes of such rapid growth is not the story to be told here. In brief the major factors include: a high rate of investment in plant and equipment and related infrastructure, spurred on by self-generating entrepreneurial optimism and rapid growth of gross domestic saving; an unprecedented degree of technological absorption (mainly from the United States), innovation, and diffusion; an ample supply of well-trained and highly motivated labor; and a strong export performance to pay for the raw material and other imports essential to stoke the engine of industrial growth.

¹ By 1968 Japan ranked third in GNP (though still quite far behind the United States and the USSR, and only somewhat ahead of West Germany) yet only approximately 18th in GNP/capita, at \$1400 at the official exchange rate of ¥360 = \$1. For a brief review of Japan's economic performance see Hugh T. Patrick, "The Phoenix Risen from the Ashes: Postwar Japan," in James B. Crowley, ed., Modern East Asia: Essays in Interpretation (New York: Harcourt, Brace and World, Inc., 1970).

² This and following data are in real terms based on the newly revised national accounts which are in 1965 constant prices. See Japan, Economic Planning Agency, Revised Report on National Income Statistics, 1951-1967 (August 1969) and for more recent data Bank of Japan, Statistics Department, Economic Statistics Monthly.

Fixed investment has grown particularly rapidly--at a 15.4 percent annual rate for the private sector between 1952-1967, and 13.3 percent for the government. As a consequence the proportion of fixed investment in GNP has risen from just under 20 percent in the early 1950's to more than 30 percent during the 1960's (35.0 percent in 1968). While the government share in GNP has increased (from 5.2 percent in 1952 to 8.7 percent in 1963), the private sector share has grown even more--from 12.1 to 26.3 percent. Thus, most investment has been done by the private sector, and that mainly by corporate business (see Table 1). In the competition for investible resources the government's basic policy has been to defer somewhat to private business investment demand and to gear its expenditures to transportation, communications and other facilities complementary to private investment. As a consequence, the provision of public services has lagged; the widening gap between the relative supplies of private and public consumption goods has been enhanced by the rapid rate of urbanization (two-thirds of Japan's population now live in cities). Housing supply has continuously lagged behind demand since the destruction of World War II, though investment in housing has finally accelerated in the past few years. An important cause of this lag is that financial institutions have not provided much housing credit, lending instead to business.

Concomitant with the growth in investment has been a matching increase in gross domestic saving (Table 1). Most striking has been the doubling in the personal sector saving rate out of disposable income (to

Table 1
SOURCES AND USES OF FUNDS BY SPENDING SECTOR, 1954-1967
(billion yen)

| Source of Funds (Liabilities) | Corporate Sector | Personal Sector | Government Sector | Financial Sector | Total Domestic Economy |
|------------------------------------|---------------------|--------------------|----------------------|---------------------|---------------------------|
| (s) Internal-Gross Domestic Saving | 32,539.1 | 42,342.0 | 21,232.8 | --- | 96,163.9 |
| Net Saving | 12,117.2 | 32,611.5 | 18,550.1 | --- | 63,278.8 |
| Capital Consumption Allowances | 20,471.9 | 9,730.5 | 2,682.7 | --- | 32,885.1 |
| (P ₁) External-total | 67,546.3 | 15,941.2 | 10,228.6 | 67,505.7 | 161,221.8 |
| Primary Security Issue | 67,546.3 | 15,941.2 | 10,228.6 | 1,556.3 | 95,272.4 |
| Stock Issue | 6,698.3 | 0 | 0 | --- | 6,698.3 |
| Bond Issue | 2,069.4 | 0 | 6,502.8 | --- | 8,572.2 |
| Loans-domestic | 33,663.7 | 9,446.0 | 3,373.2 | --- | 46,482.9 |
| Loans-foreign | 2,021.6 | 0 | 191.3 | 1,556.3 | 3,769.2 |
| Trade Credit | 22,599.1 | 6,409.9 | 0 | --- | 29,009.0 |
| Other | 494.2 | 85.3 | 161.3 | --- | 740.8 |
| Indirect Security Issue | 0 | 0 | 0 | 65,949.4 | 65,949.4 |
| Total | 100,135.4 | 58,283.2 | 31,461.4 | 67,505.7 | 257,385.7 |
| <u>Uses of Funds (assets)</u> | | | | | |
| (I) Gross Domestic Investment | 48,925.6 | 20,253.6 | 26,004.1 | --- | 95,183.3 |
| Fixed | 40,435.2 | 19,359.6 | 25,071.4 | --- | 84,866.2 |
| Plant and Equipment | 33,793.1 | 7,513.8 | 23,802.3 | --- | 70,109.2 |
| Housing | 1,642.1 | 11,845.8 | 1,269.1 | --- | 14,757.0 |
| Inventories | 8,490.4 | 899.0 | 932.7 | --- | 10,322.1 |
| Financial-total | 50,099.2 | 38,857.3 | 4,465.3 | 67,442.4 | 160,864.2 |
| (P _a) Primary Claims | 32,415.5 | 4,006.7 | 723.0 | 57,769.6 | 94,914.8 |
| Stock | 1,638.8 | 2,698.9 | 100.5 | 2,260.1 | 6,698.3 |
| Bonds | 534.2 | 854.9 | 61.8 | 7,121.3 | 8,572.2 |
| Trade Credit | 29,009.0 | 0 | 0 | 0 | 29,009.0 |
| Loans-domestic | 0 | 0 | 0 | 46,482.9 | 46,482.9 |
| Loans-foreign | 1,131.0 | 0 | 366.4 | 1,914.2 | 3,411.6 |
| Other | 102.5 | 452.9 | 194.3 | -8.9 | 740.8 |

Table 1 (continued)

| | <u>Corporate Sector</u> | <u>Personal Sector</u> | <u>Government Sector</u> | <u>Financial Sector</u> | <u>Total Domestic Economy</u> |
|---|-----------------------------|----------------------------|------------------------------|-----------------------------|-----------------------------------|
| (f) Indirect Claims | 17,683.7 | 34,850.6 | 3,742.3 | 9,672.8 | 65,949.4 |
| Money | 5,925.3 | 6,777.5 | 335.6 | 525.0 | 13,564.9 |
| Time and Saving Deposits | 8,417.6 | 17,411.2 | 479.6 | 212.2 | 26,520.6 |
| Trust | 736.2 | 2,237.3 | 23.1 | 143.8 | 3,145.4 |
| Insurance | 0 | 4,975.3 | 0 | 0 | 4,975.3 |
| Bank Bonds | 271.2 | 1,294.3 | 0 | 2,269.4 | 3,834.9 |
| Securities Investment Trust | 17.8 | 795.8 | 0 | 51.3 | 864.9 |
| Stock and Equity in Financial Institutions | 339.9 | 444.0 | 316.6 | 0 | 1,100.5 |
| Other | 1,975.2 | 915.2 | 2,581.4 | 6,471.1 | 11,942.9 |
| Total | 99,024.3 | 59,115.9 | 39,469.4 | 67,442.4 | 256,052.5 |
| Discrepancy Sources-Uses | 1,110.6 | -832.7 | 992.0 | 63.3 | 1,333.2 |

Note: Primary assets differ from primary liabilities by the difference in foreign loans, since the rest of the world sector is excluded; similarly saving differs from investment, due also to statistical discrepancies in estimation.

Source: Hugh T. Patrick, "Financial Intermediation in Japan," Seventh Zushi Conference, January 1969 (forthcoming in Japanese), Yale Economic Growth Center Discussion Paper No. 70 (July 31, 1969); mimeographed.

19.7 percent in 1968).¹ The corporate sector has a high retention rate out of net profits;² as the profit share in national income has increased so has corporate net saving. The government has also been a significant saver (defined as the excess of current revenues over current expenditures).³

An important characteristic of the Japanese economy is that the personal sector has engaged in saving far in excess of its investment expenditures and has desired to hold financial assets, while the corporate sector has invested far more than it has saved, as well as holding financial assets. These relationships are made clear in Table 1. Table 1 presents an aggregative cumulation of saving, investment, and net financial flows between 1954 and 1967 for the three domestic spending sectors (corporate, personal, and government) and the domestic financial sector (which for purposes of simplification is assumed to do no saving and investment) including government financial institutions. I divide financial claims into primary and indirect assets and liabilities, using the standard Gurley-Shaw terminology and classification.⁴

¹The personal sector is a heterogeneous mix of wage earners, professionals, farmers, and unincorporated business. Survey data indicate that the urban worker saving rate has risen to about 20 percent of disposable income.

²The average saving rate for the corporate sector as a whole for 1965-67 was 78 percent; this is somewhat high because smaller companies are able to underreport profits and thereby to evade taxation.

³Simple regressions of saving on income (annual data, 1951-1967) provide the following estimates of the marginal propensity to save: personal sector, 19.8 percent; corporate sector, 79.6 percent; government sector, 31.1 percent. In all three regressions R^2 is high but the Durbin-Watson statistic is unsatisfactorily low.

⁴Primary claims are the external sources of funds (liabilities) of spending units such as loans, stock, and bond issue, and trade credit; indirect securities are the liabilities of financial institutions, such as money, time deposits, and insurance reserves.

The data in Table 1 suggest a number of aggregative financial relationships which characterize the Japanese economy, notably regarding the relative importance of alternative sources of financing for the three spending sectors over the period 1954-1967.¹

First, the degree of reliance on financial intermediation and external finance has been great. The net increase in all primary debt between 1954-1967 equalled the cumulated gross investment for the period. This is a high ratio as compared with other countries.² Similarly, in stock terms Japan has a high ratio of primary securities to real national wealth. The financial interrelations ratio (the ratio of all financial assets--both primary and indirect securities--to real national wealth) is also very large, at a level shared only by England (a legacy of government war debt) and Switzerland (as international financial intermediary). About 70 percent of the Japanese primary debt was issued by corporate business, and only slightly over 10 percent by the government sector.

Second, in contrast to the overall importance of finance, the capital issue markets have played a relatively minor role. Only 16 percent of primary security issue was in stock (seven percent) and bonds (nine percent).³ Of this 2.8 percentage points were sold directly to other spending units without going through capital markets. Examples include

¹The following discussion is derived from Patrick, "Financial Intermediation in Japan" cited in Table 1.

²For international comparisons see Raymond W. Goldsmith, The Determinants of Financial Structure, (Paris: OECD, Development Centre, 1966), and his Financial Structure and Development (New Haven: Yale University Press, 1969).

³Stock has been valued in the data at issue price rather than subsequent market value because this represents the funds which issuing corporations received and buyers paid.

central government purchase of local government and government corporation bonds, and the required purchase of Japan Telephone and Telegraph Company and Japan National Railway Company bonds by corporate and personal customers, and corporate purchase of shares in their subsidiaries and related firms. Another 3.3 percentage points were purchased directly through the capital markets by individuals and other spending units; almost all (87) percent of this was newly-issued stock. Thus, the predominant portion (9.9 percentage points) of stock and bond issue was bought by financial intermediaries, and then not always willingly.

Third, of the three avenues of external financing--direct financial transactions between deficit and surplus spending units, transactions between spending units via the capital markets, and intermediation by financial institutions which buy primary liabilities (make loans, etc.) and sell their indirect liabilities (create deposits, etc.)--financial intermediation has been dominant. Financial institutions provided 63 percent of all external funds obtained (primary securities issued) by spending units. As noted above, only 3.3 percent of external finance flowed through capital market transactions among spending units. Direct transactions among spending units accounted for the remaining 33.7 percent; almost all has been inter-business trade credit. Financial institutions paid for their acquisition of primary (and indirect) assets with their own indirect liabilities. About one-fifth of the increase in financial system liabilities consisted of money, and another two-fifths of time and savings deposits; insurance, 7.6 percent of the total increase, was in third place. Layering (the proportion of total indirect claims held by financial intermediaries themselves) has not been

great; the measured rate of 14.6 percent is a slight underestimate because certain financial transactions among financial institutions cannot be adjusted in the flow-of-funds data from a net to a gross basis.

Fourth, the foreign sector has been unimportant either as a source of financing of domestic investment or as a use of domestic saving. The small influence of foreign financing holds for each of the spending sectors, and for the financial sector as well. This is not inconsistent with the view that foreign borrowing has been important for Japan's postwar growth by easing the balance of payments constraint, or significant for certain firms or industries.

Fifth, the taxation method of accumulating saving has been of some importance, accounting for almost one-fifth of gross saving and almost one-third of net saving. While substantial, these ratios are not unusual; for example, they are higher in France and West Germany. The presumption is that government saving has been used virtually entirely to finance government investment--in large part directly but to some extent also by the transfer of government sector saving to government financial institutions to be relent to government sector institutions. Typically, the central government saves enough to finance more than its own investment, transferring the remainder by a bewildering variety of routes to finance (most of) the excess investment of local governments and public corporations. Thus the taxation mechanism has financed about four-fifths of government sector investment, but none of the economy's private investment. Rather, government financial institutions (part of the financial sector) issued indirect liabilities (mostly postal savings and life insurance) to private spending sectors, and lent to all three spending sectors.

Sixth, self-finance by capital consumption allowances has been substantial, amounting to one-third of gross investment (and gross saving) for the economy as a whole and to more than 40 percent of the corporate sector's gross investment. As in the United States and West Germany, Japanese corporate depreciation is almost double its retained profits. Though capital consumption allowances were about the same proportion of GNP in the early 1950's as in the United States, the ratio in Japan has subsequently increased substantially (from 7.0 percent of GNP in 1952 to 12.8 percent in 1968). While Japan's depreciation laws are somewhat more lenient than in the United States, the main reason for the increase in the ratio has been the continuing surge of fixed investment.

Seventh, trade credit has been large--30 percent of total primary security issue and 33 percent of corporate sector borrowing. Significantly, the increase in trade credit was more than 2 1/2 times as great as corporate investment in inventories (and a substantially larger multiple in the personal sector, mainly that of unincorporated business). Trade credit has been used in Japan not simply to finance inventories, but also for fixed investment and the increase in financial assets.

One of the most important features of Japan's financial system is that it is a disequilibrium system: in most financial markets demand is greater than supply at the given interest rates. Essentially, a structure of interest rates has been imposed by the monetary authorities (the Ministry of Finance and the Bank of Japan), supported on the whole by the oligopolistic larger financial institutions. This structure of rates has usually been below that which would have resulted solely from market forces,

particularly in periods of monetary restriction. Underlying this has been the tendency in Japan's rapid-growth economy for ex ante investment to be greater than ex ante saving. Hence, at the given interest rates financial institutions cannot borrow as much as they want from (surplus) spending units; similarly most investors (deficit spending units) cannot borrow as much as they want from financial institutions.

Not only has the interest rate structure been set by the monetary authorities, the structure has been extremely inflexible. This is demonstrated in Table 2.¹ Long-term interest rates have been particularly inflexible in Japan, but even short-term rates have not moved greatly despite wide cyclical fluctuation in economic growth and in the relative supplies of and demands for various types of credit. The administered, inflexible control over the interest rate structure in the bond market is particularly strong, as discussed later. The one exception has been call money rates, which have been determined primarily by market forces.² Except for brief occasions of extreme monetary ease, call rates have never been below the issue yield on long-term government bonds, and have usually been above the yields on new corporate bond issues.

There is some market-determined flexibility in effective interest rates on private loans, but not sufficient to equilibrate demand with supply

¹The coefficients of variance would be even larger for the United States, United Kingdom, and West Germany if the general increases in rates in 1968-69 were included in the data.

²At times, notably in the 1967-68 monetary restriction, the Bank of Japan has put direct, if informal, pressure on participants in the call market not to allow the call rate to rise too much.

Table 2

International Comparison of Flexibility of Interest Rates

(end of 1967, in percentage points)

| | Japan | | United States | | United Kingdom | | West Germany | |
|----------------------------------|------------------------|----------------------------------|------------------------|----------------------------------|------------------------|----------------------------------|------------------------|----------------------------------|
| | <u>Actual Rate</u> | <u>Degree of Fluctuation</u> | <u>Actual Rate</u> | <u>Degree of Fluctuation</u> | <u>Actual Rate</u> | <u>Degree of Fluctuation</u> | <u>Actual Rate</u> | <u>Degree of Fluctuation</u> |
| Official Discount Rate | 5.84 | 0.061 | 4.50 | 0.135 | 8.00 | 0.182 | 3.00 | 0.205 |
| Short-term Government Securities | 5.66 | 0.023 | 5.01 | 0.198 | 7.56 | 0.199 | 2.75 | 0.304 |
| Call Money Rates | 8.03 | 0.302 | 4.51 | 0.215 | 6.88 | 0.231 | 2.44 | 0.263 |
| Deposit Rates | 5.50 | 0.025 | 5.00 | 0.083 | 6.00 | 0.297 | 4.00 | 0.134 |
| Lending Rates | 5.84 | 0.060 | 6.00 | 0.088 | 7.00 | 0.080 | 6.00 | 0.110 |
| Long-term Government Bond Yields | 6.80 | 0.015 | 5.36 | 0.060 | 7.13 | 0.059 | 6.80 | 0.073 |
| Industrial Bond Yields | 7.49 | 0.015 | 6.51 | 0.077 | 7.93 | 0.047 | 7.10 | 0.098 |

Note: Degree of fluctuation is measured by the coefficient of variance, using quarter end data for 1958-1967.

Source: Japan, Economic Planning Agency, Economic Survey of Japan, 1967-1968 (Tokyo: Japan Times, 1968), p. 163.

completely except perhaps in very easy money periods. Maximum legal interest rates on loans determine the actual nominal rates, which are maintained by cartel arrangements through national bank associations. These rates move in small amounts with changes in the Bank of Japan discount rate, insufficient to give much flexibility to nominal loan interest rates. The greater flexibility of effective interest rates on loans derives from the widespread commercial bank use of required compensatory deposits by borrowers. Except for prime customers (mainly selected large companies) which probably are able to obtain as much funds as they demand at prevailing interest rates, most customers want to borrow even more than they can at effective interest rates. Compensatory deposit ratios probably do not increase effective interest costs sufficiently to restrict demand to the level of supply.¹

Since the price mechanism does not clear most financial markets, the system relies importantly on credit rationing; for many types of financial claims it is availability rather than the interest rate which determines the allocation of credit. The relative importance of credit rationing versus market (flexible interest rate) mechanisms for determining the flow of funds varies by type of financial claim. More importantly, it varies with the degree of creditworthiness of the borrower. Credit rationing systems, where financial institutions are allowed to select their borrowers, inevitably work to the advantage of the largest borrowers as default risk and transactions costs are minimized. That this is the case in Japan is indicated in a following sector.

¹This is true despite high (25-35 percent) compensatory deposit balance requirements for small firms. A number of such grey market practices have inevitably developed in various financial markets, but they are not sufficiently large or widespread to achieve equilibrium. See Hugh T. Patrick, "Interest Rates and the Grey Financial Market in Japan," Pacific Affairs, Winter 1965-66.

Sources of Corporate Finance

As already discussed, the main function of Japan's financial system has been to finance the corporate sector. The availability of external finance has been very important for the realization of corporate investment plans. Even if we make the extreme assumption that all depreciation allowances and all retained profits have been used solely to finance investment (rather than meeting liquidity and other financial needs), at a minimum 57.6 percent of corporate net investment and 33.3 percent of gross investment between 1954-1967 was financed from external sources.¹ The corporate degree of reliance on external finance is larger than West Germany and England, and substantially greater than in the United States.

Two factors predominate in the explanation of this high degree of corporate reliance on external finance. First, despite the partial revaluation of assets following the early postwar inflation, most firms emerged from the devastation of World War II with a relatively low ratio of net worth to total liabilities--perhaps 40 percent on the average. More important though has been the impetus of rapid corporate growth: firms have increased capacity so rapidly that, despite good profits and the high retention rates already noted, they simply were not able to finance expansion from internally generated sources.² As a consequence, the net worth total-liability ratio for the corporate sector has declined to 17.5 percent by March, 1968.

¹If we make the opposite extreme assumption--that all depreciation and retained profits went into financial assets--then external sources financed considerably more than all of corporate net investment (236 percent) and of gross investment (138 percent). Data derived from Table 1.

²Profit rates on net worth are comparable to those in the same industries in the United States, though somewhat less per unit of sales. In most industries competition was sufficiently severe that profits could not be so high as to finance the desired rate of expansion.

In seeking external finance, corporations have been constrained both by cost and availability, both of which encouraged bank loans rather than stock or bond issue. Bonds are an inexpensive source of funds, so inexpensive due to interest rate controls that there are few buyers. Stock issue is very expensive, essentially for institutional reasons. The characteristics of these capital markets are treated in the following sections. Banks--including commercial banks, trust banks, long-term credit banks, mutual savings banks--and other financial institutions (mainly insurance companies) have thus been the main institutional sources of external finance. Built upon the base of their loans is a pyramid of trade credit, the net effect of which is probably to spread credit out more widely than do the loans of the financial system.

Reliance on bank loans poses additional problems in analyzing the relationship of external finance to corporate fixed investment. Although commercial banks make significant amounts of term loans (approximately 25-45 percent of total loans depending on the type of bank¹), in addition many short-term loans are rolled over. Indeed, considerable short-term borrowing in fact finances fixed investment.² Commercial bankers in Japan are under

¹This includes some 15-25 percent of legally contracted short-term loans actually contracted for longer periods. These and related data are presented in Ministry of Finance, Banking Bureau, statistical materials ("Minkan Kinyu - Ichibu - 5," October 24, 1968, mimeographed) presented to the Financial System Deliberation Committee (Kinyu Seido Chosa Kai).

²Of 2,000 firms surveyed in June 1968, 21.4 percent indicated that short-term loans had been their most important external source for financing equipment purchases over the previous two years, and 57.7 percent long-term loans. The dependence on short-term loans was particularly large for smaller firms, decreasing with firm size; only the largest firms had ready access to long-term loans. Data reported in statistical materials presented to Kinyu Seido Chosa Kai.

no illusion that they are predominantly financing self-liquidating inventory investment; they look at the total financial requirements of a borrower and his various sources of funds. The division of a total funding commitment to a given borrower is divided among subscription to bonds, term loans, and short-term loans by rules of thumb, institutional constraints on portfolio composition, and relative profitability. It thus makes considerable sense simply to look at total loans, as in Table 1, without attempting to distinguish among term or indicated use of funds.

Nonetheless, some estimation of direct sources of long-term finance can be made. Table 3 provides data on the total gross supply of long-term funds to finance corporate plant and equipment investment, and of the relative importance of different sources. The pattern that emerges is familiar; long-term external financing is important; the major source is long-term from private financial institutions, followed by credit from government financial institutions. Stock issue has been an erratic source, reaching its peak (absolutely as well as relatively) in the stock market boom of 1961; overall its relative share has declined. Bond issue also has been somewhat erratic, and generally of lesser significance.

As has been already suggested, the financial system discriminates in favor of large corporate borrowers and against small firms. One factor is the close ties that have developed among groups of companies and their prime bank and its trust bank and insurance company affiliates. In some, but by no means all, of these cases the ties derive from historical zaibatsu membership, though the postwar reforms eliminated the highly centralized arrangements that had characterized prewar zaibatsu. Perhaps equally

Table 3. Gross External Sources Identified as Financing Industrial Fixed Investment
(Specific Sources as percentage of Total)

| Calendar | Corporate Fixed Investment (¥ billion) | Total External Sources (¥ billion) | Stock Issue % | Bond Issue % | Private Finance Institution Loans % | Government Finance Institution Credit ^a % | Foreign Loans % |
|----------|--|--|---------------------|--------------------|--|---|-----------------------|
| 1955 | 654.4 | 449.5 | 7.2 | 0.8 | 63.0 | 29.0 | b |
| 1956 | 1,112.8 | 732.4 | 11.4 | 5.2 | 63.0 | 20.4 | b |
| 1957 | 1,567.0 | 1,040.8 | 18.2 | 3.5 | 58.8 | 19.6 | b |
| 1958 | 1,446.5 | 1,046.7 | 13.6 | 1.6 | 63.2 | 20.3 | 1.2 |
| 1959 | 1,762.9 | 1,364.9 | 10.9 | 3.8 | 61.7 | 14.9 | 4.2 |
| 1960 | 2,591.6 | 1,889.8 | 17.2 | 4.9 | 60.0 | 15.1 | 2.7 |
| 1961 | 3,740.2 | 2,751.1 | 23.1 | 10.8 | 51.7 | 11.6 | 2.8 |
| 1962 | 3,832.2 | 2,715.9 | 19.7 | 3.2 | 57.9 | 15.3 | 4.0 |
| 1963 | 3,986.9 | 3,267.1 | 10.7 | 4.2 | 67.0 | 13.6 | 4.4 |
| 1964 | 4,827.2 | 3,656.4 | 13.1 | 4.1 | 63.7 | 15.5 | 3.6 |
| 1965 | 4,364.1 | 3,897.2 | 4.3 | 5.9 | 72.0 | 15.4 | 2.4 |
| 1966 | 4,944.4 | 4,286.2 | 4.3 | 6.1 | 70.8 | 16.8 | 2.0 |
| 1967 | 6,495.3 | 5,430.6 | 3.7 | 5.8 | 72.6 | 15.5 | 2.5 |
| 1968 | 8,300.1 | 6,594.3 | 5.3 | 4.7 | 71.0 | 15.6 | 3.4 |

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Sources: Corporate Investment: Bank of Japan, Keizai Shobumon no Toshi-Chochiku to Shikin Kabusoku (Investment-Saving and Fund Surplus or Deficit in Main Economic Sectors), July, 1969.
External Sources: Bank of Japan, Economic Statistics of Japan, annual issues.

^a = Includes (relatively small) purchases of bonds.

important, large financial institutions conceive of their role as predominantly financing big business. Even many smaller financial institutions prefer to lend to big business where possible. The effective interest rate differential between loans to big and small firms is considerably larger than the default risk differential and cost of making loans, suggesting either that smaller financial institutions are highly risk adverse or more likely, motivated also by prestige.

Some indication of this differential treatment, as well as a general view (once again) of corporate sources and uses of funds, appears in Table 4. Smaller firms hold more nominally liquid assets (because of higher compensatory balance requirements), both provide and receive more trade credit (though the sample is probably more heavily weighted toward smaller wholesale and retail establishments), and do substantially less fixed investment. Small firms have no issuing access to the bond market, and relatively limited access to the stock market, as in other countries.

It remains an open issue as to whether this static inefficiency in resource allocation has been all that deleterious dynamically. Adequate research has yet to be done on differences by firm size in ability to absorb and improve technology and in managerial skills. More positively, the financial system has been sufficiently competitive and growth-oriented in lending among large firms that the most rapidly growing enterprises have been able to obtain the credit they needed; the correlation between growth of sales (or capital), and growth of bank loans is high.¹ More broadly,

¹Y. Kosai et al, "Shikin Haibun Mechanism no Kentō" (Discussion of the Mechanism of Capital Fund Allocation), Economic Planning Agency, Keizai Geppo, July 1964. While there may be a question as to the direction of causality I think it correct to say that banks competed to lend to industries and firms with high growth prospects, rather than creating that growth by their lending policies.

Table 4. Sources and Uses of Corporate Funds

| Uses | 1960 | | | 1966 | | |
|----------------------|----------------------------|---------------------------------|---------------------------------|----------------------------|---------------------------------|---------------------------------|
| | 60 Very Large Companies | Large ^a Companies | Small ^b Companies | 60 Very Large Companies | Large ^a Companies | Small ^b Companies |
| Cash and Deposits | 7.9 | 9.1 | 13.6 | 1.9 | 7.6 | 14.5 |
| Trade Credit | 17.8 | 27.0 | 28.0 | 20.4 | 35.1 | 37.3 |
| Inventory Investment | 7.9 | 11.9 | 3.7 | 5.3 | 9.9 | 13.5 |
| Fixed Investment | 52.5 | 42.1 | 53.1 | 59.3 | 44.9 | 19.7 |
| Other | 13.9 | 9.8 | 1.6 | 13.0 | 2.4 | 14.9 |
| <u>Sources</u> | | | | | | |
| Gross Saving | 21.4 | 21.2 | 39.3 | 46.6 | 37.1 | 23.6 |
| Retained earnings | 3.8 | 6.2 | 22.5 | 6.3 | 9.1 | 12.0 |
| Depreciation | 17.6 | 15.0 | 16.8 | 40.3 | 28.0 | 11.6 |
| Stock Issue | 12.9 | 11.2 | 5.8 | 1.9 | 2.7 | 3.2 |
| Bond Issue | 16.2 | 7.9 | 0.3 | 1.4 | 0.8 | 0 |
| Short-term Loans | 12.2 | 18.3 | 15.1 | 8.4 | 15.8 | 24.3 |
| Long-term Loans | 15.4 | 14.6 | 12.5 | 11.3 | 6.3 | 5.9 |
| Trade Credit | 11.0 | 21.8 | 4.6 | 9.9 | 26.8 | 34.6 |
| Other | 10.9 | 5.0 | 22.4 | 20.5 | 10.7 | 8.4 |

a = paid-in capital of at least 100 million (4701 companies as of 1966)

b = paid-in capital less than 100 million

Source: Ministry of Finance materials for Kinyu Seido Chosakai, March 14, 1968, mimeographed; based on Census of

credit allocation has been efficient for growth (if less so perhaps for welfare) by being directed mainly to expansion of private industrial capacity with relatively low capital-output ratios rather than to housing, consumer credit, or investment in the provision of public consumer services.

The Capital Market: Bonds

A number of factors contribute to the underdeveloped state of Japan's bond market. The early postwar experience of rampant inflation which wiped out the value of bonds has left a strong and persisting, somewhat emotional distaste for bonds among many individuals. This was enhanced by the lack of an adequate trading market until recently, so bonds were relatively illiquid. A fairly low level of per capita income (until recently) implied small capacity to buy bonds, both by individuals and by such long-term financial institutions as life insurance companies (which indeed have grown rapidly) and pension funds (nascent only). Moreover, income is more equally distributed than prewar. Further, the public is not very aware of the relative merits of bonds and other long-term fixed-principal assets such as two or five years deposits. The bond market is fairly thin and transactions costs are not negligible. On the other hand, certain bonds (notably those in bearer form) have very favorable tax evasion advantages for individuals: interest is taxed at source at 15 percent; more important, they are an excellent vehicle for hiding wealth so as to evade inheritance and gift taxes.

Despite these other factors, clearly the most important cause of the underdeveloped state of the bond market is the government-imposed policy of relatively low and unchanging interest yields on all types of new bond

issues. This has several major consequences. First, potential institutional and individual bondholders are able to obtain alternative assets of equal risk, equal liquidity and greater yield. In other words, market demand is limited by the inferior characteristics of bonds; in contrast, of course, issuers of bonds desire to issue more at the given terms. Second, in order to issue any bonds at all alternatives to the price mechanism had to be developed. Third, in order to minimize the unacceptability of new bond issue, market yields determined by trading in already-issued bonds had to be kept as close as possible to new-issue yields. Since a free market in bonds would inevitably result in some fluctuations in prices and yields as monetary conditions tightened or eased, trading has been inconsistent with the new issue yield policy. The policy-makers have used, in various degrees and at various times, different ways to resolve this inconsistency: pegging, restrictions on trading of already-issued bonds, and grudging and minor adjustments of issue yields.

The mechanism of bond issue varies for each major category of bonds: those issued by central government, public corporations, local governments, corporate enterprises, and long-term credit banks. The first three are determined mainly by budgetary factors without direct regard for the state of the bond market. The government did not reinaugurate net new bond issue until the 1965 recession, though it refinanced its small debt as it matured.¹

¹Prior to 1965 strong private aggregate demand, rapidly increasing tax revenues due to growth of GNP and a progressive tax structure, and a modest government expenditure policy enabled the government to pursue a high aggregate demand to policy consistent with a balanced or surplus budget. See Hugh T. Patrick, "Cyclical Instability and Fiscal-Monetary Policy in Post-war Japan," in W.W. Lockwood, ed., The State and Economic Enterprise in Japan (Princeton: Princeton University Press, 1965).

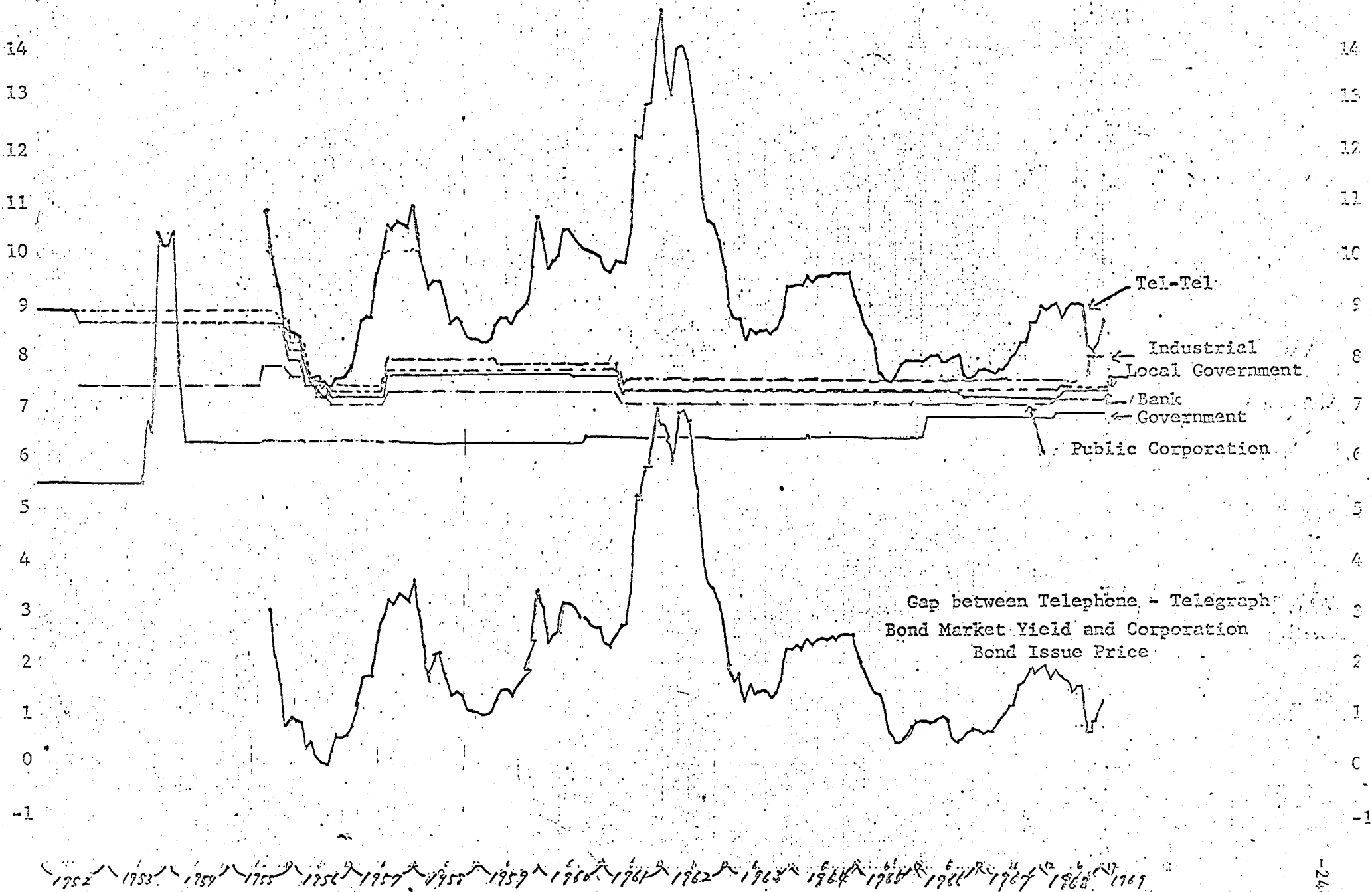
Since then the government has continued a relatively modest deficit financing program despite the resumption of high aggregate demand and rapid growth; the political decision was made to increase government investment expenditures somewhat as a percentage of GNP without increasing the tax revenue share concomitantly. Data on government and other bond issue appear in Table 5. As Figure 1 indicates, the issue yield on government bonds has been very stable; the yield on other issues is determined in relation to the yield on central government bonds (and on public corporations bonds prior to 1965).

The issuing system for government bonds is simple: 90 percent of any issue is allocated among various financial institutions, particularly the large city banks; the remaining 10 percent is allocated to securities companies to sell to the public, or to hold whatever is unsold (though probably with special financial assistance from the Bank of Japan). No financial institution would seriously consider refusing to buy its allocated amount; the government could retaliate in too many ways. In a sense, this situation exemplifies much of Japanese financial, business and government bureaucracy attitudes: there are certain areas in which cooperation rather than competition is ordained and desirable; any losses in the small (in a specific context) are more than compensated by benefits in the large (other specific contexts). For example, the burden of forced bond purchase by city banks is eased by allowing them as collateral for loans from the Bank of Japan; smaller financial institutions are not able to borrow from the central bank. In turn large financial and business institutions influence the Liberal-Democratic Party's decisions on the size and composition of the budget and

Table 5. Bond Issue and Amount Outstanding
(in billion yen, at par value)

| | Term | Amount Outstanding December 31, 1968 | Net Issue 1968 | Net Issue 1960-1968 |
|--------------------------|-----------------------|--|----------------------|---------------------------|
| Government | | | | |
| Short-term Securities | 3 months | 1,792 | 333 | 1,120 |
| Bonds | 7 years | 2,455 | 581 | 2,127 |
| Local Government Bonds | 7 years | 1,120 | 163 | 1,032 |
| Public Corporation Bonds | 7 years | 4,411 | 802 | 4,152 |
| Industrial Bonds | 7 years | 2,406 | 154 | 1,865 |
| Banks | | | | |
| Discount debentures | 1 year | 1,281 | 157 | 1,048 |
| Bonds | 4 years, 11 months | 3,378 | 420 | 2,788 |

Figure I. Yield on Newly Issued Bonds, Yield on Traded Telephone-Telegraph Bonds, and Gap



the attendant amount of government and public corporation bonds to be issued.

The amount of issue of government-guaranteed bonds of public corporations, such as the Japan Telephone and Telegraph Corporation and the Japan National Railways, is determined as one component of their overall investment financing program, in turn a part of the government's Investment and Loan Program. Somewhat more than one-quarter of these bonds are sold to users, related to specific services provided by public corporations, or to suppliers. The most notable example is dendensai (Telephone-Telegraph bonds) sold to telephone subscribers as a condition for obtaining a telephone. The remainder are absorbed by financial institutions on a basis similar to government bonds, after securities companies have tried to sell as much as possible to customers.

Local government bond issue is small.¹ A considerable portion is placed with local financial institutions with which deposit relationships are maintained and with local suppliers. The remainder is spread among financial institutions on an allocated basis.

Of most interest here is the issuing mechanism for industrial bonds. The decision on how many bonds will be issued, and what companies will issue them, rests with two committees (Kisai Choseikai and Jutaku Hakkokai) made up of the four major securities companies which serve as underwriters, the major financial institutions (notably seven city banks and the most important long-term credit bank, the Industrial Bank of Japan), together with

¹Local governments rely heavily on tax-sharing with the central government, plus transfers and loans from the central level. For more detail see Hugh T. Patrick, "The Financing of the Public Sector in Postwar Japan," in L. Klein and K. Ohkawa, eds., Economic Growth-The Japanese Experience Since the Meiji Era, (Richard D. Irwin, Homewood, Ill., 1968).

(now) informal representations from the Ministry of Finance and Bank of Japan.¹ The general guidelines (issue at a fixed, unchanging interest rate, priority to public utilities, as much issue as possible depending on conditions) are sufficiently well set and followed that little direct governmental interference is necessary. Probably the most important function of the committee is to determine the annual amount of industrial bonds to be issued. The assumption of steady growth of issue is substantially influenced by expectations of the degree of tightness or ease of financial markets, government projections of its various types of bond issues, public sale of recent issues, and conditions in the trading markets for already-issued bonds. These negotiations serve as one channel for communications among large financial institutions, big business and the central government politicians and bureaucrats. Cyclical financial tightness, and accordingly higher interest rates on competing assets, have indeed induced a strong cyclical pattern to new bond issue; the major financial institutions have been able to damp down total issue, while corporate issuers have not worried greatly since they will be financed instead by bank loans, if at a somewhat higher rate of interest.²

Once the total has been determined, the committee has well-defined rules of thumb for allocation among the many potential issuers and various potential

¹These committees trace directly from prewar syndicates underwriting industrial bond issues, though markets were free then. This historical continuity explains in substantial part the continuing important roles of the Industrial Bank and Mitsui Bank, and the system of direct, informal negotiation.

²See Takashi Ishigoro, "Koshasai Ichiba no Shomondai," (Some Problems of the Bond Market), Japan Development Bank, Chosa Geppo, Vol. 16, No. 9 (December 1967).

buyers, almost entirely institutional. First priority goes to the electric power and gas companies; it is generally accepted that they and certain other public utilities provide services essential for the continued operation of the economy. The rule is that roughly 40 percent of new bond issue will be by the nine electric power companies; purchase is distributed among the major banks and insurance companies proportional to size.

The remaining 60 percent is divided among the largest 225 or so industrial enterprises which meet the criteria for eligibility: listing on a major stock exchange, certain paid-in capital and net worth level, minimum dividend rate relative to par value of shares, and certain other financial ratios. These criteria are used also to divide companies into five categories of decreasing creditworthiness. Not only are there small issue-yield differentials by category, but those eight companies in the top category can issue bonds most frequently--every two months or so. In contrast, those in the bottom category (firms which have not paid dividends recently) can issue only to refinance maturing bonds. Rules of thumb, and the total to be issued, determine the amount a particular company is allowed to issue.

Almost all (89 percent at the end of 1968) of industrial bond issues are held by financial institutions, having been originally purchased by them. The main bank of a given industrial issuer is the largest purchaser; bond purchase is a substitute for term loans. Typically, the underwriting security company draws up a list of buyers and amount to be purchased by each on the basis of the financial institution's degree of connection with the issuer. These include the main bank, other city bank lenders to the

firm, affiliated insurance companies and local bank lenders (to local plants, etc). Financial institutions closely connected to the issuer usually absorb 60-80 percent of a new issue, the rest being spread among reciprocating financial institutions, suppliers and users (a small proportion), and any individual buyers.

The yield to subscribers for industrial bonds has been $7\frac{1}{2}$ - 8 percent. Costs of issuance have declined somewhat in recent years, now on the order of 0.95 - 1.10 percentage points. While comparable to other countries, these costs may be high because there are no underwriting risks. The cost to corporate issuers is only slightly (probably less than 0.5 percentage points) below that of loans of comparable maturity (taking into account compensatory balances). Even so, corporate issuers are sufficiently sensitive to the differential that they would issue more bonds if possible at prevailing rates; one indication is that certain major companies have issued bonds in foreign capital markets with higher yields than equivalent issue in Japan. Since the main bank also earns trustee fees from the bond issue of its customers it may be indifferent between bonds and loans.

The final category--and quantitatively important as is clear from Table 5--are bonds issued by mainly the three long-term credit banks, of which the Industrial Bank of Japan is the most important, and by certain other specialized banks. The function of the long-term credit banks is clear from their title; they make long-term loans (typically seven to ten years), primarily to finance plant and equipment investment, and primarily to large industrial enterprises. They are enjoined from collecting deposits from

other than their borrowers and from government instrumentalities (of negligible importance). Their main source of funds is the issuance of bank debentures sold mainly to individuals through securities companies (at a handsome commission of about 1 percent) at a yield to buyers somewhat above the one-year time deposit rate; and five year bank bonds, sold mainly to commercial banks and other financial institutions.¹ Long-term credit banks have a long history in Japan, founded under government encouragement in line with its view that specialized financial institutions should exist to perform specialized financing functions.

But why should other financial institutions purchase bank debentures from what after all are increasingly regarded as competitors as department-store banking has begun to emerge? One reason is that they are expected to. But there is considerably more to the answer than that. Essentially the question is who will obtain access to the funds that long-term credit banks obtain from individuals. City banks are major purchasers of bank debenture issues. Each city bank knows that the long-term credit banks will make loans to that city bank's preferred group of customers in amount approximately double the amount of bank debentures which that city bank purchases. With long-term loanable funds in especially short supply, this is one way to help prime customers (no doubt with a quid pro quo somewhere else in the bank-customer relationship). This commitment of loans amounting to two times bond purchase is long-run; it does not need to be negotiated case-by-case, or even on an annual basis.

¹In addition, borrowers are usually required to purchase bank bonds equal to about 10 percent of their loan (the interest rate differential is about 1 percentage point), as well as to hold compensating deposit balances of about 15 percent.

Local banks and smaller financial institutions have similar incentives to purchase bank debentures. A long-term credit bank loan to an enterprise is a clear indication of its high quality; this not only enhances local bank prestige (its customers are good companies) but makes it easier to put together a package of funds for that company from other sources (such as insurance companies) as well. Moreover, long-term credit bank loans to small business are usually done through the agency of smaller financial institutions, which thereby earn a commission. It pays to have a good relationship with the long-term credit banks.

This somewhat lengthy discussion of the non-market mechanism by which various categories of bonds are issued in Japan suggests how the system operates. As an issuing mechanism it works effectively for the given quantities; yet financial institutions and other buyers are sufficiently economically rational that in fact only relatively small amounts of bonds are issued.

The fundamental problems of this mechanism of bond issue are laid bare when holders decide to sell their bonds prior to maturity. Free financial markets meet this desire through trading in secondary markets--over-the-counter or in listed bond markets--with supply equated to demand by changes in bond prices and hence yields. In such markets new issue yields are determined predominantly by the yield on already-issued securities, and fluctuate according to market conditions. In Japan the co-existence of the fixed-interest system of new bond issue and a free secondary market of fluctuating yields implies at times a gap in yields which a free market would arbitrage away.

How have the monetary authorities handled this contradiction? The main approach prior to 1966 was simply not to allow a secondary market in bonds to exist in any meaningful, substantial sense. The bond market was opened through listing on the Tokyo Stock Exchange in April 1956, but transactions were limited as the government put pressure on financial institutions not to sell at yields different from new-issue yields. Even this market was closed in April 1962, when a tight money policy was being pursued, and was not re-opened until February 1966. Of course some over-the-counter transactions were made at higher yields, but they were semi-clandestine and probably never very large in aggregate.

The one exception was the market in seven-year Telephone-Telegraph bonds (dendensai). Many telephone subscribers regarded these as a cost of obtaining phone service rather than as a financial asset, so sold them immediately. A secondary market was allowed to develop in Tel-Tel bonds, so that from 1955 on they have been the best indicator of market-determined long-term interest rates. The yield line for Tel-Tel bonds in Figure 1 make clear the fluctuations of long-term interest rates over the cycle, and the tendency for free market rates to be above the controlled rates for new issues. The long-term market yield (as measured by the Tel-Tel bonds) has been sensitive to changes in the call rate; a slightly higher elasticity relationship for Japan than West Germany suggests that these markets operate reasonably well in Japan.¹

The secondary market in bonds has operated rather freely and actively since February 1966. The government had long been under pressure to liberalize

¹See Ishiguro, op. cit., p. 7.

capital markets as well as everything else. An easy fiscal-money policy following the 1965 recession had pushed market interest rates down sufficiently so that it was judged (correctly) that market yields would not diverge significantly from the new-issue fixed yield structure.

There are two secondary bond markets: transactions in listed bonds on the major stock exchanges; and an over-the-counter market. The listed market is notational: only a small, though representative, proportion of outstanding bonds are listed; standard published yield data are derived from transactions in listed bonds; only 2-3 percent of all bond trades are in the listed market. The yields in the over-the-counter market appear only negligibly higher than in the listed market.¹ However, the over-the-counter market is certainly less than perfect, with special deals and lack of knowledge, so published data on prices and rates may be incorrect.

Early success in having only a negligible gap between market-determined yields on already-issued bonds and the fixed rate on new issues persisted only until mid-1967. For balance-of-payments reasons the monetary authorities initiated a tight money policy at that time, with interest rates rising. The gap between secondary market yield and new issue yield widened significantly, as shown in Figure 2. An easing of money brought some reduction in market rates in the spring of 1968, but some tightening in 1968 and throughout 1969 kept the gap wide.

The existence of such a gap of course made the new issue market more attractive than ever, with pressures on the government and others to reduce

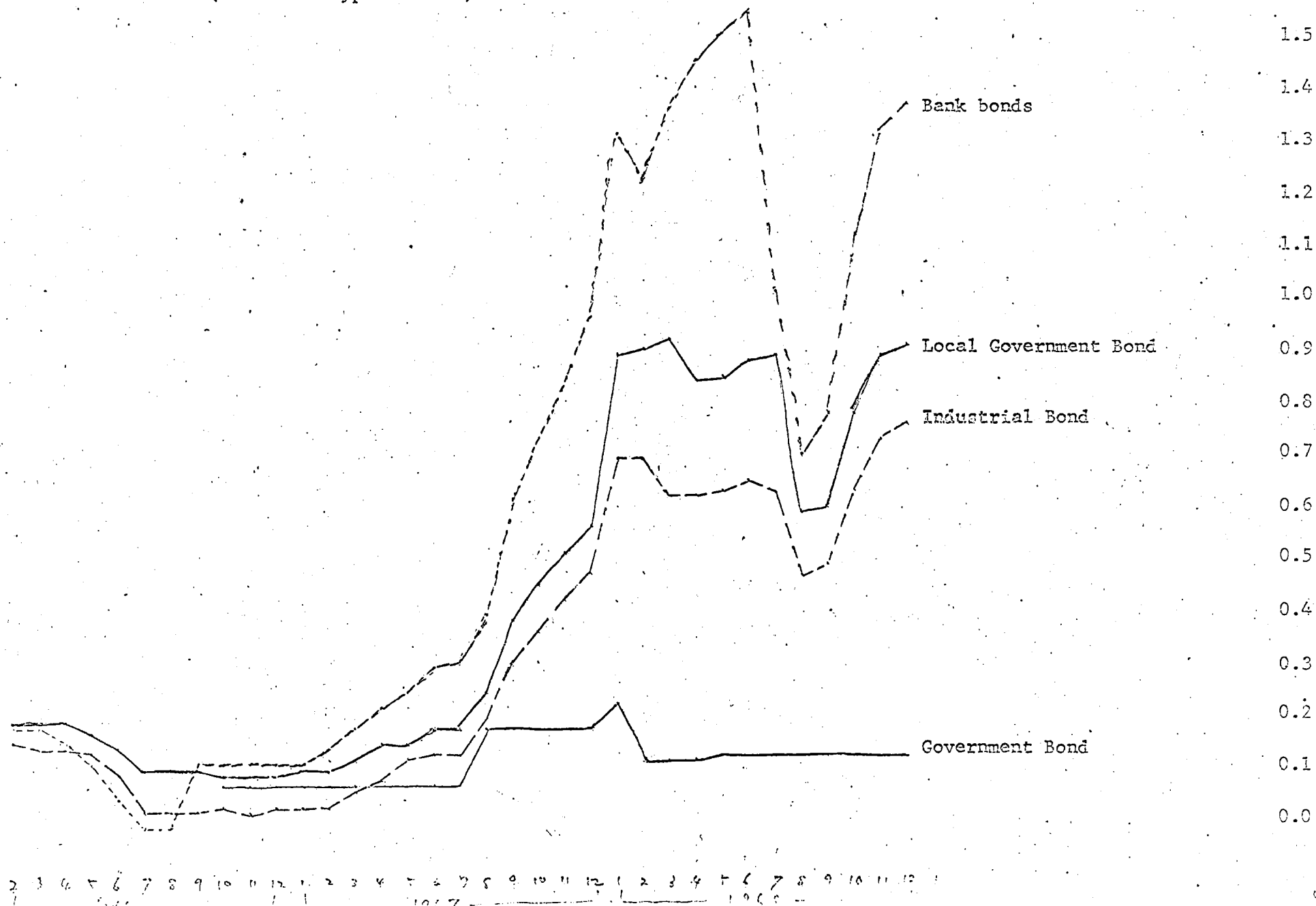
¹A preliminary examination of published data on yields in both markets suggest this conclusion, though further research is needed. Data appear in Japan Securities Dealers Association, Choken Gyoho (Securities Business), monthly.

issue and to increase issue yields. The system's response has been varied, essentially by type of bond. As indicated in Figure 2, the market yield on government bonds was kept very close to the new issue yield; some decrease in price and increase in market yield occurred for local government and corporate industrial bonds; and a larger increase in market yield prevailed on bank bonds. Accordingly, the margin between governments and other bonds widened substantially, as demonstrated in Figure 3. This was due more to rationing and other non-market reasons rather than to investor increased aversion to whatever (slight) default risk that exists.

The market yield on government bonds was held down, despite the overall rise in interest rates, by pegging. The Bank of Japan purchased government bonds in the market even more vigorously in 1968 than in 1967. Financial institutions were informally but vigorously urged not to sell in the market despite their shortage of funds relative to alternative attractive investments. Moreover, the larger institutions have had an interest in maintaining the market both because they use their government bonds extensively as collateral (valued at market) for loans from the Bank of Japan; and because they want to make what sales they can to the Bank of Japan at a good price. Smaller institutions and interest-sensitive individuals have taken the opportunity to unload their holdings of government bonds. At the same time the government continues to place new issue by allocation to financial institutions. The securities companies continue to sell part of their allocation to those individuals who are highly risk averse, interest-rate insensitive, uninformed, and/or gullible. Presumably the Bank of Japan arranges to finance the rest,¹ though the data are difficult to obtain.

¹The Bank of Japan is precluded from purchasing long-term government bonds until one year has elapsed after issue, but it can readily make loans with any government bonds as collateral, or make other substitute arrangements.

Figure 2. Gap between New Issue Yield and Secondary Market Yield
(for each type of bond)

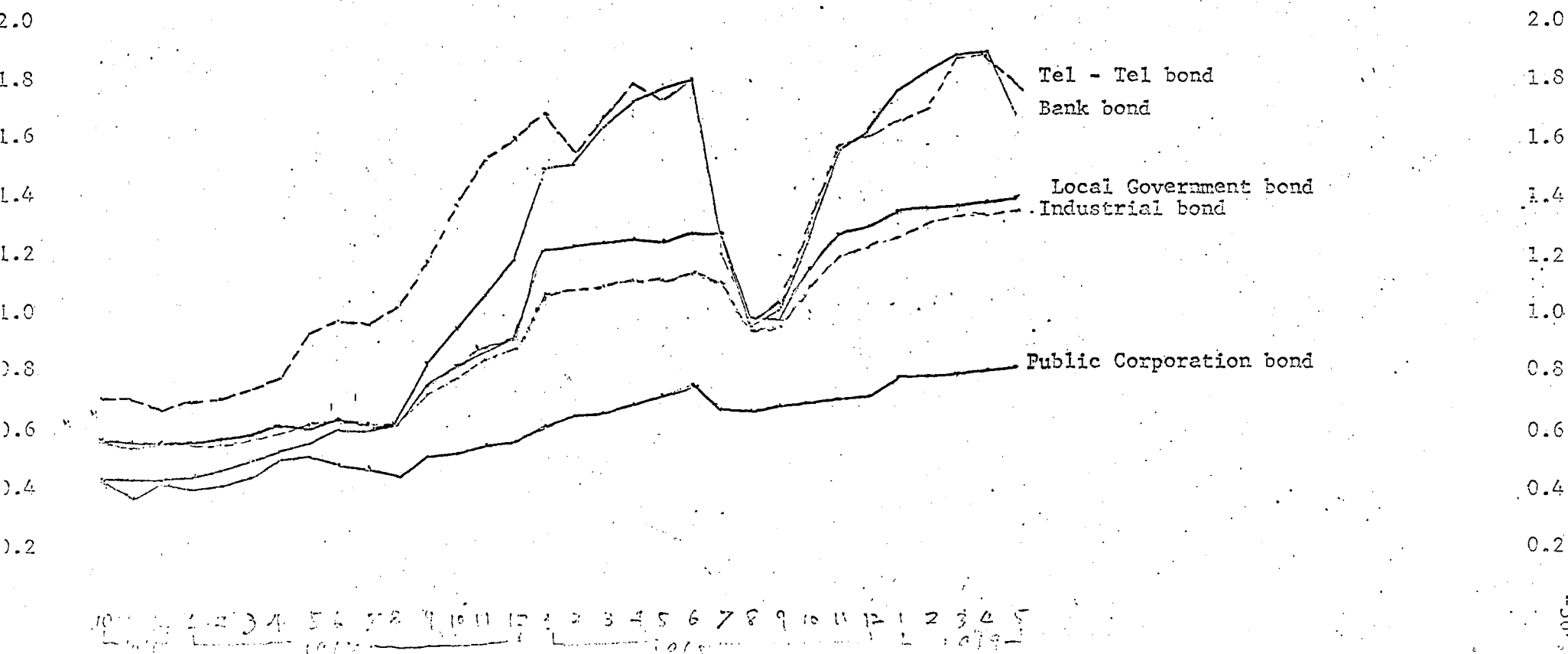


Why has the price declined--and the yield risen--so much more for bank bonds than for corporate and local government bonds? Here the answer seems to lie in the closer customer relationships that financial institutions have with corporations and local governments than with the long-term credit banks. For the sake of these relationships, and to help new issues by them, the major financial institutions are reluctant to sell their holdings of corporate or local government bonds, and may even help support the market. After a short learning process (from August 1967 to February 1968) holders of bank bonds evidently came to regard them as rather freely tradeable: their yield moves very closely with the Tel-Tel bond yields (Figure 3). Sale of bank bonds became the first item for portfolio adjustment, even while (of necessity) newly-issued bank bonds were being subscribed to. This gap in yields has of course put the long-term credit banks in a difficult position, as net new issue has tended to decrease. The effective yield on one-year discount debentures, sold mainly to individuals, has been increased by adding a traffic insurance feature while maintaining the fixed interest rate. It is not entirely clear how they have succeeded recently in selling their five-year bonds--no doubt a continuation of administrative pressure and some surreptitious price shading.

The justification for the initial development and persistence of the government's policy of relatively low fixed interest rates, especially for long-term claims, has never been clearly articulated.¹ There are a number

¹The interest rate structure has been too low to clear financial markets in Japan, but was continuously above foreign interest rates until 1968. The monetary authorities effectively control foreign short-term capital flows by a variety of indirect methods (special reserve requirements, interest rate ceilings, loan limits, etc.) so as to reduce adverse effects of interest rate differentials.

Figure 3. Gap between Secondary Market Yield on Government Bonds and on Other Bonds.



of strands in the argument, many of them familiar if benighted. Policy-makers have long felt that long-term investment, especially in "key industries," should be encouraged by low interest rates. They worry about interest as a cost of production, particularly in export competition. More substantially, they suggest that investment demand and saving supply are both interest-inelastic, at least within a reasonable upward range; on the other hand, no one suggests that interest rates should remain semi-controlled but lowered to say 3-4 percent. And then there is the Ministry of Finance prejudice against high rates on government debt--not simply as a budgetary cost item but as a matter of national prestige. And some, though by no means all, government bureaucrats prefer the present system of more direct, if informal controls, with close and continuous contact and exchange of information, over a more impersonal, perhaps less predictable, free market system. After all, the proof is in the pudding: the present system, broadly viewed, has worked very well indeed by growth criteria. It's not clear to what degree consultation, administrative guidance, and restriction of market mechanisms are essential for success, or perhaps even hamper it, but why take a chance changing things.

Support of the present system, and opposition to the development of a large bond market with fluctuating interest rates equilibrating demand and supply in outstanding and new issues, is not limited to government bureaucrats. Many large financial institutions prefer a small bond market, even if they have to subsidize it. Bonds, after all, are a substitute for their loans. More important, given the always-sensed shortage of funds, bonds are a substitute for their time deposits, the interest rates for which are relatively low. Public sector issuers probably prefer the present system; after

all their financial needs are reasonably well accommodated by the allocation system, and the interest costs are less than they would be in a free market system. Big business issuers of bonds would probably prefer a free market mechanism so that they could issue more bonds, even at somewhat higher cost. However, the interest saving over long-term loans is not great, and after all they have preferred access to loans, so the incentive to rock the boat is not great.

The main beneficiaries of a large, vigorous, unrestricted bond market would be individual wealth holders, smaller financial institutions, and medium-sized companies and perhaps insurance companies and their policyholders. Individuals would benefit from higher rates and, probably more important would become more aware of the opportunities they currently forego. Moreover, bond competition would put pressure to raise and adjust more flexibly interest rates on time deposits. However, the potential beneficiaries are not well organized, and do not have great political strength.

The Capital Market: Equity Shares

The data provided above (notably in Tables 1, 3, and 4) indicate that stock issue for the period as a whole has not been a major source of external finance and that its role has been erratic, peaking in 1961. The reasons are quite different from those governing the non-development of the bond market. Of course some factors limit both--the fairly low per capita incomes, relatively equal income distribution, and small size of life insurance companies and pension funds. Yet stocks are bought and sold in a free market and there are few legal or other governmental restrictions on new stock

issue. The market mechanism is allowed full play.

The major factor retarding stock issue as an external source of corporate finance operates on the supply side, rather than on the demand side as in the case of the bond market. For a combination of institutional reasons stock issue is a very expensive source of funds--some 16-18 percent. As in other countries, interest is deductible from corporate pre-tax profits as a cost while dividends are subject to the corporate profits tax (at a slightly lower rate than that on retained earnings). More important, it has been the custom since stock was first issued in the 1880's to make new issue at par¹ in the form of rights to current stockholders, regardless of the prevailing market price (so long as it is greater than par). Tied to this has been the practice to quote the dividend rate relative to par, and to have a high dividend rate--at least 10 percent.² This dividend rate is maintained even after new shares are issued.

Before discussing the supply and demand side of the stock market in more detail, let me sketch in the institutional structure of the market. Stock exchanges exist in eight major cities, but about three-quarters of the value of trading is done on the Tokyo Stock Exchange, and most of the remainder on the Osaka Stock Exchange. The Tokyo Exchange has 83 securities

¹Par is typically 50 yen (14 cents) or, in a few instances 500 yen (\$1.49); trading in the former is in 1000-share units, the latter in 100-share units.

²In the early phase of industrialization this is the rate individuals demanded to purchase shares; since that meant almost complete payout of profits in many cases, it is not surprising that firms then issued new shares as a source of finance and that stock prices did not go so far above par. The tradition of dividends at least 10 percent of par continues to be so strong that some large firms--such as the steel companies--in certain recession periods have maintained that dividend rate, despite inadequate profits (less than payout), by borrowing.

dealer members. The "Big Four" securities companies have a predominant position in the industry. Securities dealers may serve not only as brokers, but also as dealers on their own account, underwriters, and participants in syndicates distributing securities.¹ The securities industry is less well regulated than in the United States. Turnover is large--greater relative to the number of shares outstanding than in the United States--despite a large proportion of shares stably held by institutions and some individuals. With markets somewhat thin, there is some manipulation, advantageous use of insider information, flogging of shares in particular companies, and other market imperfections--but not enough to discredit the market severely.

The most important stock market--in value, transactions, and prestige--is the first section of the Tokyo Stock Exchange. On it are listed (as of September 1969) some 694 companies with a market value of \$40.8 billion and a paid-in capital par value of \$15.0 billion.² In 1961 a second section of the Tokyo Stock Exchange was inaugurated to trade shares in smaller companies previously traded over-the-counter. Some 550 companies are listed but with a market value of only \$3.3 billion, and paid-in capital par value of \$1.1 billion. There is not a substantial over-the-counter market in shares of other, smaller companies. To be traded (and to sell new shares publicly) smaller firms try to meet the standard listing requirements of the second section, while many firms on the second section attempt

¹Most new stock issues are not underwritten since they are sold on a rights basis to stockholders.

²Tokyo Stock Exchange, Research and Statistics Department, Monthly Statistics Report, No. 155 (September 1968), in Japanese and English.

eventually to move up to the first section.

The distribution of stock ownership is given in Table 6. While based on the number of shares outstanding without weighting for their value, the distribution is in line with flow-of-funds value data. However, it includes a much larger number of companies than those listed on stock exchanges; for the latter the share of financial institutions, securities companies, and investment trusts loom larger.

Most individual Japanese investors apparently regard publicly-listed stock as a quite risky opportunity for capital gains suitable mainly for speculation. As in other countries stock is purchased only after substantial time deposits have been accumulated.¹ Yield is perceived of mainly as capital gain rather than dividends.² Tax laws are advantageous: there is no tax for short-term or long-term capital gains. This contributes to a short-run, speculative approach to stock purchase. As with interest, dividends are accorded favorable income tax treatment.

Institutional buyers have had longer-run objectives in purchasing and holding stock. They are no doubt more aware of the long-run appreciation of stock value in Japan's dynamic economy. Life insurance companies hold almost a quarter of their assets in stock, and other insurance companies

¹According to survey data, families with a net worth in financial assets on average of about \$1,200 hold only 6.7 percent in stock (including mutual funds); the proportion rises by income (and wealth) group to 19.3 percent for families with a net worth of \$60,750. Bondholdings are much smaller: 2.2 percent for the former group and 3.2 percent for the latter. Japan Economic Planning Agency, Economic Survey of Japan, 1967-1968, (English edition, Tokyo: Japan Times, 1968), p. 168.

²For example, certain shares, such as steel companies and electric power companies, have had little price movement and dividend yields of 7-10 percent, compared with 5.5 percent for one-year time deposits. Round lots could be purchased for as little as \$150-200; transactions costs would absorb the yield differential only for short periods of stock holding.

Table 6

Distribution of Stock Ownership by
Number of Shares, March 31, 1968
(in percent)

| | |
|----------------------------------|------|
| Individuals | 42.0 |
| Corporate Enterprises | 23.1 |
| Financial Institutions | 26.2 |
| Securities Companies | 4.1 |
| Investment Trusts ^a | 2.2 |
| Government Institutions | 0.3 |
| Foreign Enterprises ^b | 1.9 |
| Other Foreigners | 0.2 |

^a mutual funds,

^b mainly cases of direct investment

Note: Based on data from all 4,686 companies with paid-in capital of ¥ 100 million (\$278,000) or more, including both listed and unlisted companies.

Source: Bank of Japan, Statistics Department, Economic Statistics Annual, 1968 (March, 1969), p. 167.

more than 30 percent (both at book value); perhaps they would hold even more except for legal restrictions. For banks and corporate enterprises perhaps an even more important objective has been to maintain and cement good relationships with customers and other friendly firms.¹

Stock ownership of large firms is highly diffused in Japan, mainly as a consequence of Allied Occupation zaibatsu dissolution and anti-trust reforms. As a consequence there is substantial separation of ownership and control, which rests in the hands of a self-perpetuating management. Take-over bids and raids by dissident stockholders are unknown. One reason of course is that for many companies a majority of the shares are held by friendly, affiliated, hence safe, institutions and certain individuals---an objective that management strives for. Only if management performs very poorly indeed is it subject to dismissal, and then at the instigation of the company's main bank.

Management thus has greater latitude both in the mix of its objectives and in its operations. Management does not view the company's interests as necessarily identical with stockholders; for this reason it regards new stock issue at par as a high-cost source of external financing rather than simply as a means of providing some capital gains to stockholders. Profit maximization is not the sole objective; also important are growth, market share, and to some extent employee welfare and the "national interest" (though usually defined to business' advantage).

Since the main constraint on new stock issue is its high cost because

¹Banks cannot hold more than 10 percent of the shares of any corporation; many business corporations of course hold large amounts of stock in subsidiaries.

of the combination of issuance at par and high dividend rates,¹ why not change the system and issue stock at slightly under market prices? If this were done firms could raise considerably more funds in any given issuance of shares and, more importantly, at a cost of funds highly competitive with long-term loans or bond issue. The answer is that stockholders object strenuously: they make a capital gain out of the present system which would instead go to the company. Indeed, individuals demand for a particular company's shares is much influenced by expectations whether it will soon issue new rights and in what amount.² For similar reasons stockholders rejected convertible bond issues, which have to be approved at stockholder meetings. Even so stock issuance at market price occurs to some degree--on average about 5-6 percent of total new paid-in capital, having reached a peak of 8.8 percent in 1961. But even in those cases it has been usually achieved as part of a package including a few shares at (15 percent below) market, a few shares distributed free, and most issued at par.

Under these circumstances, why do listed companies issue new shares at all?³ After all, it is cheaper to borrow.⁴ One important reason is that

¹Of the 617 companies listed on the first section of the Tokyo Stock Exchange, 83.3 percent paid dividends of 10 percent or more of par, and another 10.6 percent paid 8 or 9 percent.

²This can be simply illustrated. Suppose the market sets the combination of yield and growth on a company such that a 5 percent dividend yield on market price is sufficient; a 5 yen dividend (10 percent of par of 50 yen) implies a price of 100 yen. But if new shares are issued at 50, they will also be worth about 100 yen. This opportunity for capital gain drives up the demand for old (pre-rights) shares to 150 yen.

³The following discussion excludes companies in sick industries, or with weak profit performance, which issue stock dividends in place of cash dividends.

⁴This may not be true, especially for smaller, or lower priority companies, in tight money periods when credit is not available; stock issuance apparently has increased in such periods even though stock prices are relatively depressed.

the Ministry of Finance and major institutional lenders deplore continuous declines in the ratio of net worth to total liabilities, and put pressure on companies to issue stock in order to increase these ratios. Moreover many firms regard it as natural to issue new shares every several years, as a part of their external financing program and for the sake of stockholders--without analyzing the matter carefully. But this explanation does not tell us much.

I regard the following set of interrelated hypothesis as useful though they have not been adequately tested. Management is concerned with its own good performance, for reasons of salary, bonus, prestige and maintenance of position. Two criteria of good performance are: maintenance of a certain "normal" dividend per share measured at par; and total dividend payout falling within an acceptable range, x to y percent, of total profits after tax ($0 < x < \text{payout ratio} < y < 100$). Both criteria have developed historically and institutionally. For a payout ratio less than x stockholders complain; above y the firm retains insufficient funds to finance expansion, particularly since lenders insist on some share of new projects being financed internally.

Given this institutional environment, what is rational management behavior concerning dividend policy and stock issue, both secularly and cyclically? The first objective is to maintain the "normal" dividend rate. Management cannot shift the definition of the "normal" dividend rate downward--since it would be de facto indication of poor managerial performance--unless it is generally recognized as a firm in a sick, declining industry (for example, coal mining) or perhaps a still sick but growing industry

(shipping). On the other hand, management has little incentive to shift the definition of the "normal" dividend rate upward, because the short-run advantage of being praised for "excellent performance" is more than offset by the longer-run uncertainty over profits and hence whether the higher "normal" dividend rate can always be maintained. It is safer to avoid the risk of setting a higher norm.

Secularly profits increase, so for a given number of shares and given "normal" dividend rate the payout ratio decreases. As it goes below x , management has two ways to raise the payout ratio: to increase the dividend rate or to increase the number of shares outstanding. Management does not increase the dividend rate for two reasons: it does not want to raise the normal rate, and it receives nothing in return. In contrast, if it issues additional shares and maintains the normal dividend rate, it obtains additional external funds and raises the net worth ratio. Since the company has to increase payout anyway, once the ratio falls below x , in effect the cost of stock issue is zero,¹ rather than the high effective cost the firm has above x . (This should not be viewed as discontinuous: as payout declines toward x the pressure to increase payout, and hence to issue stock, intensifies.)

The secular trend is somewhat complicated by cyclical fluctuations in corporate profits. Given the high degree of leverage (interest costs), despite smoothing accounting window-dressing which overstates profits in recession and understates them in booms, the absolute fluctuations in

¹Actually positive (if small) if there is some increased risk of maintaining in the future the normal dividend rate due to the increased number of shares.

profits have been wide. Thus in some recessions the "normal" dividend rate may imply a payout ratio greater than y , in which case the rate has to be reduced. As soon as profits recover sufficiently, however, the "normal" dividend rate is resumed. In contrast in booms profits may be exceptionally high; corporations may opt for a one-time special extra dividend on the grounds that the amount of profits is not sustainable so that stock should not be issued.

I have suggested that the "normal" dividend rate may be on the order of 10 percent of par. The acceptable payout ratio range may be between 30-70 percent. However, these institutionally-determined ratios probably vary somewhat by industry, and perhaps even by firm. Moreover, they are not immutable: norms gradually change with altered patterns of performance, certainly for industries at least.

One might expect that Japan's outstanding growth performance and prospects, together with the limited new supply of shares, would have pushed stock prices up dramatically and market valuations of stock a high multiple of earnings. While prices have indeed moved dramatically, price-earnings ratios have remained low relative to the United States--on average for the Tokyo first section not more than about 12 times. The focus on short-term gains rather than long-run appreciation in value based on increases in profits per share is one factor. Indeed, most Japanese investors seem to remain more interested in a company's likelihood of new share issue at par than in its price-earnings ratio. Only in recent years, and at the instigation mainly of American analysts, have data on P/E ratios begun to be published, although the underlying data have always been available.

Another factor has been the public's perception that stocks are highly speculative, with considerable risk of price decreases. This view is well based in fact; many individuals were burned in the 1961 speculative boom and crash. From a 1958 low of about 400 the Tokyo Low-Jones went to 1356 by the end of 1960. By early 1961 everybody in Japan had heard how one's money could be doubled in a few weeks or months by purchasing stock; as in speculative manias everywhere many people entered the stock market for the first time. Securities houses encouraged the euphoric boom; salesmen marketed shares door-to-door, and by motorcycle from farmhouse to farmhouse. The market peaked at 1830 in July 1961 before sliding off some 30 percent by year-end. The public retired, unhappy, from the stock market, and only in the last year or so has begun to return.¹ It was not until late 1968 that the market once again reached its 1961 Low-Jones peak, and then at much lower price-earnings ratios.

Together with everything else related to the stock market, new issues peaked in 1961--as both a relative and an absolute source of external finance. The stock market boom made it easy (practically for the first time) to issue new shares, and indeed issuance fed the boom psychology. At the same time money was fairly tight, so for various reasons firms brought out new stock issues. The events of 1961 outshadow the cyclical pattern of stock issue earlier noted. Subsequently new issue slumped absolutely and relatively until the late 1960's. With the current boom in the stock market, renewed tightness of money, and gradually changing attitudes about

¹Investment trusts (mutual funds) were a major vehicle in 1961, since they have shrunk substantially, with cancellations and redemptions outweighing new subscriptions.

issuance at par, new issue is again on the rise. Yet its significance remains considerably less than earlier. Projections for 1970 boast that the issuance of stock will be the second highest on record--second to 1961. With the total industrial demand for external funds more than double the 1961 level, stock issuance still has far to go even to reach its earlier relative significance.

Conclusion

Japan presents a, superficially at least, anomalous case where corporate sector reliance on external finance is extremely high yet reliance on bond and stock issue as a source of funds is very low. This has been possible because the financial system has effectively intermediated by providing substitutes for bonds and stock issue in the form of long-term and to some extent even short-term loans.

It is easy to see how long-term loans can be fairly close substitutes for bonds, since the difference in default risk is not substantial and bonds in Japan are not so liquid anyhow, at least for major financial institutions. Since in effect the Bank of Japan guarantees major financial institutions that they will not suffer a liquidity crisis singly or as a group, this would not be a strong motive for a free bond market. The main opportunity foregone under the present system is the ability of a large financial institution to adjust its portfolio composition by substantial bond sales.

The apparent willingness of financial institutions to allow the substitution, to a substantial degree, of loans for stock with the attendant decline in large corporate net worth ratios is less obviously explained.

In effect banks have taken on much of the risk of bankruptcy of large corporations. This risk is all the greater because there are no limits on the size of loans to individual companies, so loan balances of 40 percent, 60 percent, or even 100 percent of a bank's net worth are typical. However, the risk of big business bankruptcy or insolvency¹ is borne to a substantial degree by society (together with the stockholders) rather than by creditors--at least large creditors. In effect, large financial institutions are such heavy creditors of big business that they must continue to make loans under any circumstances; the financial system is sufficiently centralized that the Bank of Japan cannot afford to let any major financial institution close its doors for fear of a general financial panic.² This socialization of risk seems on the whole sensible, even though it continues the discrimination in favor of bigness.

To what extent has an underdeveloped capital market impeded Japan's economic performance? Of course it is difficult to say anything seriously hampers economic growth in an economy whose real GNP rises 10 percent per year for year after year, and where recessions are considered in terms of annual growth rates of only 3 or 4 or 5 percent. Beyond that, there is no

¹Except for management malfeasance, in which case the firm is still saved by its creditors.

²The determination, and success, of the Bank of Japan is shown in its handling of the de facto bankruptcy of Japan's fourth largest security dealer, which found itself with a net worth of about minus \$40 million in 1965 when it bought stocks and expanded offices in expectation of stock price rises, when in fact they declined. The Bank of Japan financed continued operation and reorganization under new management with no losses to customers. The reorganized company, still Japan's fourth largest security house, has been able to anticipate loan repayments from high profits in the 1968-1969 stock market boom.

evidence that underdeveloped capital markets have had any adverse effect on saving rate, or even on the realized investment rate. The large firms that normally would be able to issue stock and bonds in free capital markets have had preferred access to loans. Perhaps the most serious adverse impact has been on smaller firms which would like to raise funds through the capital market, but probably the allocative effect has not been all that great. Presumably investment allocation would have been somewhat more efficient if funds had been rationed by interest rates in free markets, but Japan's high growth performance--and success in financing rapidly growing, innovative, firms--suggest that the efficiency loss has not been substantial.

In welfare terms there has been some cost in having the sort of financial system of which Japan's capital markets are symbolic. Semi-control over financial markets has favored plant and equipment investment over housing and durable goods consumption, favored large business firms over small, large financial institutions over small, and investors over individual savers who hold their assets in time deposits, insurance and the like. Yet those who have borne these costs have been hurt relatively, not absolutely; with 10 percent growth, widely distributed, everyone is doing well in Japan. They are not greatly aware of the potential opportunities foregone. And they are much less organized than big business and by finance to put pressure on the government.

The greatest cost, in my subjective, foreign eyes, of Japan's present financial system is political, not economic. The system perpetuates and enhances the power of big business, large financial institutions, and the central government bureaucracy with which it deals, in the total society

of Japan. There are mitigations. So far this power structure has produced the goods, and dispersed them to all Japanese. Moreover, there is no monolithic establishment; Japan well blends cooperation and competition, and members of the elite meritocracy frequently compete with each other over specific issues and goals.

Returning to the more narrow topic of this essay, what prospects are there for the future expansion of the role of Japan's capital markets?

The development of a real, vigorous bond market of substantial size can occur only when bonds are made an attractive financial asset for individual and institutional holders of wealth, i.e., when yields on both new issues and outstanding bonds are determined by the interplay of supply and demand in free markets. I am skeptical that this will be soon achieved. The vested interests in government and finance are probably too great to bring about quickly the sweeping changes in the entire financial system that are implied in the freeing of interest rates on bonds. I foresee a continued period of slow groping toward reduction of the differentials between new and old bond yields--a slight increase in issue interest rates, Bank of Japan support of certain bond markets, etc.--but reliance mainly on the vague hope that somehow as the economy continues to grow interest rates will gradually come down of their own accord.

Prospects look somewhat better for the growth of stock issuance. In recent months several smaller, aggressive firms with outstanding growth performance have successfully issued through public subscription new shares at close to market value, as have several large firms. Often this has been done by share issue in foreign (European or American) markets. Indeed a

strange kind of intermediation has developed, and may become significant, in which Japanese firms make new issues at market value to foreign investors, who then return the shares to the Tokyo market for sale to Japanese investors as soon as the domestic price of the shares rises. Thus it is estimated that almost 8 percent of corporate funds from stock issue in 1969 will come from issuance at market, and that the rate will approach 15 percent in 1970.¹ If the rigidity of the system of issuance at par is successfully breached, and it probably will be increasingly, then stock issue could well become an extremely important source of funds for Japanese corporations.

¹Nihon Keizai Shimbun, International Weekly Edition, November 25, 1969, p. 1