The Impact of Financial Reform: The Turkish Experience

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THE IMPACT OF FINANCIAL REFORM: 
THE TURKISH EXPERIENCE

by

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# THE IMPACT OF FINANCIAL REFORM: THE TURKISH EXPERIENCE

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THE IMPACT OF FINANCIAL REFORM: THE TURKISH EXPERIENCE

EXECUTIVE SUMMARY

This paper examines the impact of financial reform on the behavior of financial sector agents as well as on corporate sector. Financial liberalization, along with trade reform, lay at the core of the comprehensive economic reform program launched in 1980 in Turkey. Initial liberalization attempts were interrupted by a crisis, in 1982. After the crisis Turkey adopted a more cautious approach to financial reform. Efforts were made to develop a legal and institutional framework for the functioning of financial markets and for the supervision of financial institutions.

The Capital Markets Board became operational in 1983 to promote and regulate securities markets. A new banking law was enacted in 1985, providing the legal basis for prudential regulation and supervision. A Savings Deposit Insurance Fund was introduced in 1983. Foreign currency denominated deposits were allowed in 1984, and the determination of the exchange rate was progressively liberalized.

Banking industry expanded until 1987; after 1987 bank assets/GNP ratio started to decline, mainly due to more serious prudential regulation and supervision, resurgence of inflation and loss of credibility in macroeconomic policies. Concentration in the volume of deposits declined. Foreign exchange deposits expanded rapidly. Small and medium sized private banks exhibited high profitability and growth. Nevertheless, there were serious shortcomings in the Turkish experience as well. Lessons that can be derived from the Turkish experience are the following.

The first lesson is that any potential adverse effect of interest rate liberalization is smaller when the corporate sector is financially strong. The new literature on the link between finance and real activity emphasizes the importance of borrowers' net worth in determining the availability of external finance. In their exposition of the recent theory, Gertler and Rose (1991) argue that a decline in borrowers' net worth is likely to reduce the extent of financial intermediation. More generally, the financial condition of the borrowing sectors is seen to be a critical determinant of the degree of efficiency in the allocation of loanable funds. The experience in Turkey, especially the response of the financial and corporate sectors to interest shocks confirms this view. In 1982, when the corporate sector was experiencing a decline in gross margins, liberalization of interest rates created a vicious cycle whereby distress borrowing by an illiquid corporate sector and accommodation of especially troubled banks resulted in unsustainably high interest rates and over-borrowing. By contrast, in response to the interest rate shock of 1988, the corporate sector could rely on internally generated funds to reduce their stock of short term loans and adjust their balance sheets. The absence of distress borrowing is closely linked to the absence of a separate gross earnings shock.

The second lesson is that fiscal policies may limit the benefits of financial reform. The major shortcoming of the Turkish financial reform was macroeconomic uncertainty and the burden that public sector borrowing placed on financial markets. Concern with macroeconomic uncertainty is evident in bank managers' responses to survey questions, where uncertainty is identified as a major deterrence to increased intermediation.
towards firms that are perceived as risky. In addition, the Government's recourse to the financial system to finance the budget deficit crowded out financial flows to the private sector. Hence, the potential positive impact of financial reform was considerably hindered by a lack of discipline in government finances. In fact, it can be said that the Government has been the main beneficiary of developments in financial markets.

A related lesson is that liberalization alone may be insufficient to increase and diversify external sources of funds in the corporate sector. The analysis of firm-level data reveals that firms' reliance on internally generated funds did not change over the reform period. The importance of size in accessing long term bank loans is also not diminished. These findings are consistent with the limited impact of financial reform on the financing of the private sector. Nevertheless, there is also some evidence that the importance of agency problems and collateral requirements were reduced over the reform period, at least for the firms in the sample.

The Turkish strategy of financial reform emphasized institutional development in so far as authorities tried to establish a regulatory environment for the development of foreign exchange and interbank money markets. However, overwhelming focus on the banking system led to the neglect of the development of non-bank financial institutions and instruments. Even though company data reveal the slow emergence of finance bills as a new instrument of corporate finance, development of alternative sources of funds, including the stock market, has lagged behind significantly. This may be contrasted with Korea, where direct financing became a major component of sources of funds in the 1980s.

Finally, it also seems that a more efficient judicial system may play an important positive role in expanding the benefits of financial reform. The problem is not only one of reforming the legislation that governs financial transactions, but perhaps more important, one of increasing the processing capacity of courts. Strengthening the confidence of financial intermediaries in the judicial system may enhance their willingness to expand into new types of clients or areas of business, and develop more complex financial contracts.
THE IMPACT OF FINANCIAL REFORM: THE TURKISH EXPERIENCE

Financial liberalization, along with trade reform, lay at the core of the comprehensive economic reform program launched in 1980 in Turkey. The purpose of this paper is to examine the impact of financial liberalization on the behavior of financial sector agents as well as on corporate sector. In the first section, the history of the Turkish financial liberalization program is briefly summarized. The second section addresses the changes in the structure of the financial system and examines the behavior of banks. The corporate sector is examined in the fourth section, while the fifth section is devoted to the conclusions and the lessons that can be derived from the Turkish experience.

I. A BRIEF HISTORY OF FINANCIAL REFORM IN TURKEY

I.1. Financial Development During the Pre-Reform Period: From Etaatism to Planned Development

As demonstrated in Akyuz (1984), the Turkish financial system during the 1970s was relatively underdeveloped even when compared to countries at similar levels of industrialization. Historical factors such as the rather centralized character of the government apparatus in Turkey, as well as the etatist growth and industrialization strategy adopted in the 1930s in response to economic crisis considerably enhanced the role of government in economic life. Economic policies in the 1950s which initially attempted to increase the role of the market mechanism were unsuccessful and led to a more drastic, albeit uncoordinated, increase in the level and extent of government intervention. The search for coordination led the post 1960 regime to adopt a planned development strategy, which seemed to fit the country's etatist traditions. It was hoped that such a planned approach to development will prevent inconsistencies that arise from short sightedness in economic decision-making. The planned development model adopted in the early 1960s placed a heavy emphasis on the real sector.

The planning strategy in Turkey can be interpreted as assuming either the existence of a centralized mechanism to allocate financial resources or a perfectly accommodating financial system. However, in Turkey there was no central mechanism to allocate financial resources, and whether the financial system was accommodating to the imperatives of development plans was also highly questionable. Akyuz (1984) examined the performance of the Turkish economy for the 1971-1981 period and concluded that the workings of the financial system was an important impediment in allocating savings into investments according to the requirements of development plans.1/

Until the first oil crisis, Turkey succeeded in sustaining a relatively high rate of growth under a stable economic environment. However, starting from 1974, and particularly after 1977, the need for reforming the existing growth strategy as well as the allocation mechanism became evident. After two unsuccessful attempts in 1977 and 1978, a comprehensive reform program was launched in 1980. The main features of the program was a switch from import substitution to export promotion, trade reform, and the liberalization of the financial sector.

1/ Fry (1972) reaches a similar conclusion for the First Five Year Plan period, 1963-1967.
I.2. The Strategy of Financial Reform

The Turkish reform strategy was to promote financial market development through deregulation and inducing competition by easing entry into the banking sector. Opening up the banking system to foreign competition was seen as an important element of enhancing competition. The reformers paid much less attention to promote non-bank financial institutions. In this sense, the Turkish reform strategy was overconfident in its reliance on competition among banks in developing the financial markets.

This strategy left the considerable dominance of banks in the financial sector unchallenged, and in fact, strengthened it by allowing them to perform in the newly emerging financial markets. The reforms broadened the spectrum of the activities of banks, consolidated and strengthened the existing universal banking system. Within this system, banks were allowed to collect deposits, extend loans, underwrite securities, trade in securities, establish and manage mutual funds, manage their own as well as their customers’ securities portfolios, participate in corporations and engage in foreign exchange transactions. The reasons for relying exclusively on the banking system and completely neglecting problems of conflict of interest is mainly attributable to, first, the popular confidence in banking institutions, which increased especially after the so-called bankers’ crisis of 1982, and second, the political strength of these institutions.

Being the only type of financial institution available, banks were successful in exploiting opportunities offered by the liberalization program and diversified their activities into the newly emerging financial markets, particularly securities markets, which enabled them to broaden the domain of their dominance. The existence of an inherited universal banking system and complete absence of "Chinese Walls" or "Fire Walls" among various financial activities even in the post-liberalization regulations, enabled banks to impede the emergence of non-bank competitors in the financial markets.


Prior to the reform initiative, the Turkish financial system was characterized by features typical of financial repression: There were ceilings on interest rates for deposits and credits. Real interest rates were negative, liquidity and required reserve ratios were high, preferential credits existed and were subject to subsidies. The public sector deficit was financed, to a great extent, by monetization, that is, by direct advances from the Central Bank. Entry into the banking system was restricted. Foreign exchange operations were constrained.

The liberalization program was launched in January 1980 by the then ruling Justice Party government. However, the program became effective almost one year later, under the military rule.

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2/ Some attempts were undertaken to create competition through diversity in the early 1980s, by promoting non-bank financial institutions, or "bankers" as they were called in Turkey. These institutions were much less regulated than banks, and played an active role in precipitating the financial crisis of 1982. See Atiyas (1990).
Deregulation in the financial markets began with the abolishment of interest rate ceilings on loans and deposits and the introduction of certificates of deposits (CDs) in July 1980. Simultaneously, in order to curb inflation, a tight monetary policy was followed. The reduction in aggregate demand caused a deep decline in corporate earnings. Distressed borrowing by financially fragile companies further deteriorated their balance sheets and put an upwards pressure on interest rates. Meanwhile, especially smaller and financially weaker banks engaged in a fierce competition for deposits to finance non-performing loans. Accompanied by a persistent reduction in the rate of inflation, real interest rates on deposits reached 20 percent in 1982. Neither the policy makers, nor the financial intermediaries and corporations were ready to deal with the dynamics of competition in an unstable environment. In particular, the regulatory bodies of the Government, especially the Central Bank, were not capable to monitor closely the behavior of banks. The developments in the financial markets led to a major crisis in 1982, and the liberalization process was partly reversed. The government intervened in and closed down five small private banks. The majority of their assets and liabilities were taken over by state-owned banks. In 1983 the Central Bank reregulated the deposit rates.

The 1980-1982 period can be considered the "infancy phase" of the Turkish liberalization program. In this phase, the main dynamic element behind the liberalization efforts was deregulation. The authorities, naively, hoped that the competitive economic environment created through deregulation would, in a relatively short time, increase the efficiency of the financial system in allocating resources. The 1982 crisis ended these hopes and the reformers shifted their emphasis to the creation of the institutional framework necessary for the working of a market system. Consequently, the second phase of the liberalization program (1983-1987) was more consistent in the sense that policy makers recognized the need for laying the institutional foundations of the financial system.

In this framework, the Capital Market Board (CMB) was established in 1982 and became operational in 1983 to promote and develop securities markets. The Capital Market Law of 1981 empowered the CMB to regulate primary markets for equities and bonds. The law envisaged a "merit system" rather than a "disclosure system" for the issuance of securities; that is, it authorized the CMB to reject an issue whenever its analysis concluded that the financial soundness of the issuer was unsatisfactory. In 1983, secondary market operations were regulated by a decree, and within this framework the Istanbul Stock exchange was reopened in 1985 and became operational in 1986.

There are two distinguishing features of the securities market regulation in Turkey; the first is the role of the banks. The regulations did not attempt to restrict banks from engaging in any type of activities either in the primary or in the secondary markets. On the contrary, in some instances, such as in the case of establishing and managing mutual funds, banks were granted a monopoly position. The second feature is that it created a central authority (CMB) to control and monitor effectively developments in the securities markets. It is evident that this choice was not in line with the general attitude of the reformers since it

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3/ For more details in this period, see Akyuz (1990) and Atiyas (1990).
4/ Besides raising deposit rates, banks attracted funds by issuing CDs through non-bank financial institutions. The Central Bank had no means of keeping track of the volume CDs issued.
grated the CMB discretionary powers. This divergence can be explained, partly, by the shocking experience of the 1982 crisis, which caused a deterioration in popular confidence for non-bank financial institutions.

The second important development was the enactment of a new Banking law in 1985. The new banking law was aimed at improving the structural weakness of the banking system which abruptly manifested itself during the 1982 crisis. The new law introduced a provision for a minimum capital base for banks. In addition, the law established a capital adequacy ratio (5 percent in 1989, to reach 8 percent in 1992). The ratio is calculated under the BIS guidelines for determining primary and secondary capital and risk weights. Credit extended to a single customer was limited to 10 percent of bank equity capital. Investment in participations are limited to 100 percent of capital. The law also obliges banks to use a uniform chart of accounts.

In 1983 a Savings Deposit Insurance Fund was introduced to prevent the reemergence of the liquidity problems faced by the banks in the 1982 crisis. However, the coverage of the insurance system is limited, (currently 100 percent of the first TL25 million and 60% of the next 25 million). Deposits over TL50 million are not covered. The insurance fund is not authorized to assist the liquidation and rehabilitation of financially weak banks. Such authority lies with the Treasury. The current banking law does not allow the Government to take over the bank, inject new capital when necessary, or buy the non-performing assets of the bank. The law does authorize the Government to change the management of problem banks, and to implement measures to improve their liquidity.

Another novelty of the law was the introduction of the definition of non-performing loans. The law forced banks to report non-performing loans separately and required them to cover the defaulted loans through provisions. Finally the law introduced a standard accounting system and obliged external auditing of the banks.

The Banking Law also authorizes Sworn Bank Auditors (SBA) associated with the Treasury to examine banks' legal compliance and financial standing. SBA carry out on-site examinations once every two years, though the frequency is higher for problem banks. In addition, the Banking Department within the Treasury monitors the financial performance of banks through quarterly financial statements. The Central Bank also has a role in supervision. The Bank Supervision unit in the Central Bank, established in 1986, carries out off-site supervision by following about 50 quarterly and monthly reports. The Central Bank's analysis concentrates on capital adequacy, asset quality, profitability and liquidity. Finally, banks are re-

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5/ A draft Banking Law envisages to replace the Savings Deposit Insurance Fund with a Deposit Insurance Corporation, and endows it with wider powers to deal with problem banks.

6/ As of 1990, there were 36 active SBA and 9 assistant SBA.

7/ As of 1991, there are 5 inspectors and 20 examiners at the Central Bank, excluding data processors and clerical staff.
required to have an external audit every year by independent auditing firms authorized by the Treasury and the Central Bank.\textsuperscript{9}

The Central Bank established an interbank money market in 1986. Until 1987, the Central Bank acted as a blind broker. Later, however, the Central Bank started to get involved in transactions as a dealer, in order to solve short term liquidity problems.\textsuperscript{9} In May 1985, government securities began to be auctioned on a weekly basis by the Central Bank. In 1987, the Central Bank started open market operations.

In the area of foreign exchange, residents were allowed to hold foreign currency denominated deposits in 1984. Banks were allowed to keep foreign currency abroad. In 1984, banks were allowed to set their exchange rates within a margin around the Central Bank rate. Further steps to liberalize exchange rate determination were implemented during this period.

The third phase of the liberalization episode, 1988-90, was characterized by a "reform fatigue". There were some major developments during this period, especially in the area of foreign exchange and the capital account. The Central Bank established a Foreign Exchange and Banknotes Market in 1988. Exchange rates are determined in the market with the participation of banks and other relevant financial institutions.\textsuperscript{10} In 1989, foreign exchange operations and international capital movements were liberalized entirely and the TL became convertible. In 1990, banks were left completely free to determine their exchange rates. However, these interventions were mostly realizations of previous decisions. In fact, during this period there was a visible decline in the appetites of the reformers in consolidating the achievements of the previous attempts, which manifested itself in the postponement of the much needed regulatory changes such as in the capital market law, banking law, corporate law and (except for minimal amendments) bankruptcy law.

II. DEVELOPMENTS IN FINANCIAL MARKETS

Although the financial liberalization measures were announced as early as 1980, their impact on the structure of the financial system became effective after 1986, i.e. after the establishment of the fundamental institutional framework necessary for the operation of financial markets. In this section, we review several important features of developments in the financial system during the reform period.

\textsuperscript{9} Banks are usually invited every year to the Central Bank to review the findings of examiners and external auditors. In case financial weaknesses are identified, the Central Bank sends follow-up letters to banks; whenever necessary, the Treasury is also informed with views on necessary measures to be taken.

\textsuperscript{10} Even though maturities available in the market include overnight, 1-4 weeks and 1-3 months, most transactions undertaken are overnight. The market grew rapidly and the average volume of daily transactions increased from TL6.4 billion in 1986 and TL200 billion in 1987 to TL2.2 trillion in 1990.

\textsuperscript{10} Participants in the market are commercial banks, special finance houses and institutions authorized by the Treasury. The Central Bank both acts as a blind broker and trades in the market.
II.1 Financial Deepening

During the 1980-1990 period the Turkish financial system grew considerably. In order to describe the characteristics of the development of financial markets, a single summary measure is not sufficient. The traditional measures of financial deepening such as M1 (currency in circulation + sight deposits) or M2 (M1 + time deposits) underestimate the growth of the financial system, since they do not take into account the developments in the securities markets and the emergence of foreign currency denominated deposits. On the other hand, the sum of all financial assets (currency in circulation + total deposits + total securities) exaggerate the development in the financial system since a bulk of public sector securities are held by banks. Tables A.1 and A.2 present data relevant for the two measures. A closer inspection of Table A.2 reveals that the share of total securities (private and public) in total financial assets (i.e. sum of currency in circulation, total deposits and total securities) increased first at a mild rate from 22% in 1982 to 25% in 1986, then climbed sharply to 43% in 1990.

II.2 Foreign Exchange Deposits

The second important feature of the liberalization policies was the role played by the foreign exchange and foreign exchange denominated financial assets. In 1984 Turkish citizens were allowed to hold foreign exchange deposits in banks, and these became an important financial saving instrument after 1986. This is reflected in Table A.1 as a considerable divergence between two monetary aggregates M2 and M2Y (M2 + Foreign Exchange Deposits). The government's policies concerning foreign exchange denominated financial instruments were somewhat mixed. On the one hand, at various times, the policy makers supported such instruments by allowing them (as in the case of foreign exchange deposits) or by introducing them (as in the case of foreign exchange denominated public sector securities); on the other hand, authorities tried to prevent the widespread use of such instruments for fear in institutionalizing the indexation and therefore currency substitution.

II.3 The Dominance of the Public Sector

The course of development of financial markets in Turkey was shaped not only by the policies aimed at promoting these markets but even more by the financing needs of the public sector itself. One of the main targets of the reform program was to reduce the public sector deficits. It was also thought that in order to minimize the inflationary impact of the deficits as well as to introduce an enduring fiscal discipline to the public sector, the deficits should be financed from the financial markets at the competitive rates.

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11/ The increased popularity of the foreign exchange deposits can be explained by currency substitution phenomenon. In Turkey, traditionally gold and, for the last decades at an increasing rate, foreign exchange are held as hedges against inflation. The introduction of foreign exchange deposits no doubt had a promotional effect on currency substitution, since it legalized foreign exchange holdings. However, its main consequence was in the manifestation of the phenomenon, rather than a radical change. For empirical evidence on high elasticity of substitution between domestic and foreign currency deposits, see Kumcu (1989) and Iskenderoglu (1989).
Economic policies followed during the 1980-1990 period were not successful in curbing the public sector borrowing requirement (PSBR). Indeed, as can be seen from Table II.1, the average PSBR/GNP ratio was higher (7.1%), in the second half of the 1980s, from its already high level (6.4%) in the first half.

<table>
<thead>
<tr>
<th>Year</th>
<th>PSBR/GNP (%)</th>
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<tbody>
<tr>
<td>1980</td>
<td>10.5</td>
</tr>
<tr>
<td>1981</td>
<td>4.9</td>
</tr>
<tr>
<td>1982</td>
<td>4.3</td>
</tr>
<tr>
<td>1983</td>
<td>6.0</td>
</tr>
<tr>
<td>1984</td>
<td>6.5</td>
</tr>
<tr>
<td>1985</td>
<td>4.6</td>
</tr>
<tr>
<td>1986</td>
<td>4.7</td>
</tr>
<tr>
<td>1987</td>
<td>7.8</td>
</tr>
<tr>
<td>1988</td>
<td>6.3</td>
</tr>
<tr>
<td>1989</td>
<td>7.1</td>
</tr>
<tr>
<td>1990</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Source: State Planning Organization and the Undersecretary of Treasury and Foreign Trade.

The persistence of relatively high public sector borrowing requirements, when coupled with the stated objective of the authorities in relying more on domestic financial markets for their financing, induced the introduction of a series of measures to enhance the marketability of public sector securities. The first type of measures were aimed at forcing banks to allocate a portion of their portfolio to public sector securities. In order to achieve this aim, banks were obliged to hold public sector securities against their liquidity requirements. Therefore, a demand for such securities, closely related to the expansion of deposits, was created. The second type of measures were implemented to enhance the attractiveness of these securities. Their yields became market determined after the introduction of the auction system in 1985. Finally, the fact that returns from these securities were free from income taxes (they were still subject to a 10% withholding tax) contributed to the dramatic shift in the demand.

In 1983, the previously complicated structure of reserve and liquidity requirements were simplified by unifying rates at 10 percent and 25 percent respectively, for all deposits. In 1985, the reporting frequency was changed from one month to one week and the compliance lag was shortened from six to two weeks. In 1986, legal requirements were extended to foreign exchange deposits. The liquidity requirement ratio was divided into two components according to which banks were required to keep 5 percent of their liabilities as free reserves at the Central Bank and vault cash and 12 percent as government securities. The ratios increased gradually over time, reaching a total of 35 percent (with 30 percent in the form of government securities). For more details, see Akkurt et al. (1991) and Bayazitoglu, Ersel and Ozturk (1991).
As a result of these measures, the public sector enjoyed the advantages offered by the developments in the securities markets. It can be seen from Tables A.3 and A.5 that the public sector dominated the primary and secondary markets. Although the share of the public sector started to decline in both markets towards the end of the decade, it is still above three quarters. Finally, as can be seen from the figures in Table A.4, the yields of public sector securities were indeed competitive with domestic private sector paper; also, rates on savings deposits are higher than the contemporaneous rate of inflation until 1988. After 1988, yields on government securities lagged behind those on savings deposits and the rate of inflation.

Starting from 1986, the Treasury became the major supplier of securities. However, the persistence of large public sector deficits and the thinness of financial markets situated the Treasury in a disadvantageous position despite its monopoly status and kept interest rates high.

The introduction of the auction mechanism for government securities institutionalized this phenomenon. Even though, at least in 1987 and 1988, it was common to blame buyers' collusion for high interest rates, in his analysis of auctions between 1987-89, Alkan (1990) has argued that banks may actually enjoy high interest rates without attempting to collude, once they are sophisticated enough to follow the trends in the auction market and aware of the desperate need of the Treasury to sell public securities.

Persistent high public sector deficits exerted pressures on the already thin financial markets. The first consequence of this phenomenon was the crowding out of the private sector. In spite of efforts to promote capital markets and induce the corporate sector to change its financing pattern by relying more on securities markets, particularly through equities, the results were far from satisfactory. The second effect of the high public sector deficits and their financing pattern was on the banking system. Banks considered placing their funds on public sector securities a safe investment. Since the borrowing needs of the public sector seem to be countercyclical, the permanent existence of the Treasury in these markets also cushioned the banks against fluctuations in earnings from their loan portfolio.

II.4 Interest rates

When the Government intervened following the crisis of 1982, the Central Bank was authorized to fix interest rates on deposits, which were lowered from 50 to 45 percent in January 1983. Regulation of interest rates continued until 1988 and adjustments were made according to movements in the rate of inflation so as to keep them positive in real terms.

According to survey results reported in Alkan (1990), in 1989 about one-half of banks' purchases of Government paper was to meet legal liquidity requirements. Most of the rest were resold either directly or through repurchase agreements. The share of purchases as an asset alternative to credit was only about 5%. Results of another survey, reported in Atiyas, Ersel and Ozturk (1992) and summarized in more detail below, indicate that in general bank managers perceived the non-obligatory portion of government securities as instruments of short-term liquidity management. Only under exceptional circumstances were these instruments perceived as substitutes to credit. Finally, Ersel (1992) also provides evidence that the non-obligatory holding of government securities by banks and the non-bank public was more than 50%.
Inflation started to pick up towards the end of 1980s. In the fall of 1988, inflation figures were higher than the expectations of the Government and a run out of the Turkish Lira into foreign exchange ensued; parallel market exchange rates shot up. While intervening into both the parallel market and the foreign exchange market by selling foreign exchange, the Central Bank also announced the liberalization of deposit interest rates. Banks responded frantically and announced one year deposit rates varying between 70 and 88 percent, up from a uniform rate of 65 percent. Compared to the seemingly similar episode in 1982, the banks' response was possibly driven by the uncertain and speculative economic environment rather than widespread financial distress. Nevertheless, banks offering lower rates were besieged by depositors trying to switch their funds to those offering higher rates. There was also a severe competition in the interbank market. The Central Bank re-intervened by advising a temporary informal but uniform ceiling of 85 percent on one year deposit interest rates. Monetary authorities also required banks to report desired changes in interest rates in advance. Both the foreign exchange market and the market for the Turkish Lira were stabilized as a result of the intervention, despite several inconsistencies and reversals in policies. However, except for a few exceptional periods in December 1988 and the first few months of 1989, real interest rates on deposits remained negative (Table A.4).

Even if temporary, high deposit interest rates resulted in a large inflow of deposits into the banking system. In the following period, especially in 1989, the banking system was characterized by an excess supply of funds and faced substantial difficulties in placing them. Again, compared to the 1980-82 period, there was no comparable increase in demand for credit; as discussed in the next section, the increase in interest rates did not generate a vicious cycle of distress borrowing in the corporate sector. The banking system suffered a temporary reduction in profitability in 1989 (see Table II.11).

II.5 Developments in the banking system

The Turkish banking system's response to the implementation of the financial liberalization program was generally considered as quite accommodating. Banks, which immediately adapted themselves to the new conditions, started to modernize themselves by switching from manual methods to computerized systems and by recruiting qualified personnel to extend their activities beyond their traditional markets.

However, a closer examination of the developments in the banking sector reveals that its growth was nevertheless neither smooth nor completely in line with the expectations of the reform program.

Under the liberalization program the Turkish banking system demonstrated a rather peculiar development pattern. The characteristics of this development pattern may be summarized as follows:

(i) Until 1987, the Turkish banking industry expanded. On the one hand the new banks entered into the market, on the other, existing banks followed an expansionary policy to secure their market shares. As can be seen from the Table II.2 bank assets/GNP ratio climbed from 28 percent in 1980 to 54 percent in 1987. However, starting from 1987 this trend was reversed. After reaching its peak level in that year, the rate

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14/ Data on bank loan rates are not available. However, there is ample anecdotal evidence that banks apply a wide range of lending rates, depending on the perceived quality of borrowers. See below.
of growth of the banking system slowed down and the bank assets/GNP ratio declined steadily to 43 percent in 1990.

<table>
<thead>
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<th>Year</th>
<th>Ratio (%)</th>
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<tr>
<td>1980</td>
<td>28.5</td>
</tr>
<tr>
<td>1981</td>
<td>34.4</td>
</tr>
<tr>
<td>1982</td>
<td>38.2</td>
</tr>
<tr>
<td>1983</td>
<td>41.5</td>
</tr>
<tr>
<td>1984</td>
<td>41.3</td>
</tr>
<tr>
<td>1985</td>
<td>40.9</td>
</tr>
<tr>
<td>1986</td>
<td>48.6</td>
</tr>
<tr>
<td>1987</td>
<td>54.0</td>
</tr>
<tr>
<td>1988</td>
<td>51.0</td>
</tr>
<tr>
<td>1989</td>
<td>46.3</td>
</tr>
<tr>
<td>1990</td>
<td>43.2</td>
</tr>
</tbody>
</table>

Source: Total assets figures are obtained from Banks in Turkey, various issues, The Bank's Association of Turkey. The GNP figures are from the State Institute of Statistics.

The enactment of the new banking law in 1985, which put the banking system under more serious prudential regulation and supervision, the increase in uncertainty due to the resurgence of inflation, and loss of credibility in the economic policies followed, were the major factors behind the reversal in the growth trend.

(ii) A second dimension of structural change in the banking sector manifested itself as a decline in concentration, measured by the share of three largest banks in total assets (Table II.3).

15/ Data collected by the Banking Department of the Central Bank of the Republic of Turkey. The figures in Table III.3 are computed only for national banks. As demonstrated below, the share of foreign banks in total assets remained negligible throughout the period.
<table>
<thead>
<tr>
<th>Year</th>
<th>Private Banks</th>
<th>All National Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>70</td>
<td>51</td>
</tr>
<tr>
<td>1981</td>
<td>67</td>
<td>48</td>
</tr>
<tr>
<td>1982</td>
<td>69</td>
<td>49</td>
</tr>
<tr>
<td>1983</td>
<td>72</td>
<td>56</td>
</tr>
<tr>
<td>1984</td>
<td>74</td>
<td>57</td>
</tr>
<tr>
<td>1985</td>
<td>73</td>
<td>53</td>
</tr>
<tr>
<td>1986</td>
<td>68</td>
<td>50</td>
</tr>
<tr>
<td>1987</td>
<td>65</td>
<td>48</td>
</tr>
<tr>
<td>1988</td>
<td>62</td>
<td>45</td>
</tr>
<tr>
<td>1989</td>
<td>54</td>
<td>46</td>
</tr>
<tr>
<td>1990</td>
<td>52</td>
<td>44</td>
</tr>
</tbody>
</table>

Source: The 1980-89 figures are reproduced from Pehlivan (1991), Table 8.11. The data are from Banks in Turkey, various issues, The Banks Association of Turkey. The 1990 figures are own calculations based on the 1990 issue of the same publication.
These figures clearly show a decline in concentration in Turkish banking.\(^6\) Note that concentration ratios for private banks decline faster than those for the commercial banking system as a whole. This can be attributed to two factors. The first is that the growth rates of Turkish private commercial banks varied considerably, and dynamic medium or small size banks grew faster than large banks. The former found opportunity to expand relatively rapidly, whereas for the latter type of banks, restructuring implied slower growth. The average rate of growth of total assets of various categories of commercial banks given in Table II.4 for the 1986-1990 period supports this view.

<table>
<thead>
<tr>
<th>Table II.4: AVERAGE RATE OF GROWTH OF COMMERCIAL BANK ASSETS 1986-1990 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Branches</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>1-30</td>
</tr>
<tr>
<td>31-100</td>
</tr>
<tr>
<td>101+</td>
</tr>
</tbody>
</table>

Source: Data collected by the Banking Department of the Central Bank of the Republic of Turkey.

The second factor is the continuation of the dominance of the large state held banks in the banking system, which explains the relatively slow decline in the three bank concentration ratio for all

\(^6\) As can be seen from the following table, a similar picture emerges if one computes the concentration ratio on the basis of total deposits (i.e., the sum of TL and FX denominated sight and time deposits). Note, however, that the ratios decrease at a slower rate in this case.

<table>
<thead>
<tr>
<th>THREE AND FOUR BANK CONCENTRATION RATIOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Measured as % of total deposits accounted by the three and four largest banks in each category)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Banks</th>
<th>All national banks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three Bank</td>
<td>Four Bank</td>
</tr>
<tr>
<td>1980</td>
<td>71.7</td>
<td>78.1</td>
</tr>
<tr>
<td>1981</td>
<td>69.4</td>
<td>77.2</td>
</tr>
<tr>
<td>1982</td>
<td>72.5</td>
<td>79.6</td>
</tr>
<tr>
<td>1983</td>
<td>75.8</td>
<td>82.5</td>
</tr>
<tr>
<td>1984</td>
<td>74.6</td>
<td>80.2</td>
</tr>
<tr>
<td>1985</td>
<td>74.8</td>
<td>80.8</td>
</tr>
<tr>
<td>1986</td>
<td>71.0</td>
<td>77.5</td>
</tr>
<tr>
<td>1987</td>
<td>58.8</td>
<td>62.5</td>
</tr>
<tr>
<td>1988</td>
<td>66.5</td>
<td>75.5</td>
</tr>
<tr>
<td>1989</td>
<td>59.8</td>
<td>69.5</td>
</tr>
<tr>
<td>1990</td>
<td>57.0</td>
<td>66.6</td>
</tr>
</tbody>
</table>

Source: Data collected by the Banking Department of the Central Bank of the Republic of Turkey.
commercial banks. In fact, the share of total assets held by state owned commercial banks was almost constant in the 1986-90 period (Table II.5).

Table II.5: SHARE OF STATE-OWNED COMMERCIAL BANKS IN TOTAL ASSETS (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>47.0</td>
</tr>
<tr>
<td>1987</td>
<td>47.0</td>
</tr>
<tr>
<td>1988</td>
<td>46.2</td>
</tr>
<tr>
<td>1989</td>
<td>42.9</td>
</tr>
<tr>
<td>1990</td>
<td>48.2</td>
</tr>
</tbody>
</table>

Source: Data collected by the Banking Department of the Central Bank of the Republic of Turkey.

(iii) Another major change was the increased share of securities in banks’ portfolio. The share of securities in the total assets sharply increased in the second half of the 1980-1990 period (Table II.6).

Table II.6: SHARE OF SECURITIES IN TOTAL ASSETS (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>3.7</td>
</tr>
<tr>
<td>1983</td>
<td>3.4</td>
</tr>
<tr>
<td>1987</td>
<td>13.2</td>
</tr>
<tr>
<td>1990</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Source: Central Bank of Turkey.

This sharp increase in the securities portfolio can wholly be attributed to the increase in holdings of government securities. Banks’ obligations to hold government securities against high liquidity requirements created a rather large and expanding market for these papers. In addition, the high yields of public sector securities, especially after taking the tax advantages into account, made them attractive for banks and to a lesser degree for corporations to hold them in their portfolios.

This change in the asset structure of the banking system was also reflected in its earnings structure. Table II.7 shows that the share of credit related income (interest and commissions) in total earnings declined over the 1986-90 period whereas that of income from securities market operations increased. While this trend is apparent in banks of all size categories, medium-sized banks seem to be less involved in securities market operations.
(iv) During the 1980-1990 period, banks also increased their capitalization. The ratio of capital (defined as the sum of paid up capital reserves, revaluation fund and profits) to total liabilities considerably increased from an average of 7.6% in 1980-1984 to 9.0% in 1985-1990 (Table II.8).

<table>
<thead>
<tr>
<th>Year</th>
<th>Share of Equity Capital in Total Liabilities (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>5.2</td>
</tr>
<tr>
<td>1981</td>
<td>6.3</td>
</tr>
<tr>
<td>1982</td>
<td>6.9</td>
</tr>
<tr>
<td>1983</td>
<td>7.7</td>
</tr>
<tr>
<td>1984</td>
<td>9.1</td>
</tr>
<tr>
<td>1985</td>
<td>8.0</td>
</tr>
<tr>
<td>1986</td>
<td>8.9</td>
</tr>
<tr>
<td>1987</td>
<td>8.2</td>
</tr>
<tr>
<td>1988</td>
<td>9.1</td>
</tr>
<tr>
<td>1989</td>
<td>9.4</td>
</tr>
<tr>
<td>1990</td>
<td>10.1</td>
</tr>
</tbody>
</table>

Source: Banks in Turkey, Various Issues, The Banks' Association of Turkey.
(v) The opening up of the Turkish economy also affected the structure of the Turkish banking system. As can be seen from Table II.9, the share of claims on and liabilities to non-residents of the commercial banks increased sharply after 1986.

<table>
<thead>
<tr>
<th>Year</th>
<th>Claims on non-residents</th>
<th>Liabilities to non-residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>1982</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>1983</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>1984</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>1985</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>1986</td>
<td>6.4</td>
<td>3.8</td>
</tr>
<tr>
<td>1987</td>
<td>6.6</td>
<td>3.9</td>
</tr>
<tr>
<td>1988</td>
<td>9.8</td>
<td>4.9</td>
</tr>
<tr>
<td>1989</td>
<td>8.0</td>
<td>4.5</td>
</tr>
</tbody>
</table>


(vi) During the 1980-1990 period, total domestic credits as a percentage of GNP declined (Table II.10). The relatively high level of credits in the beginning of the decade was mainly the result of the existence of direct medium and long term credits of the Central Bank. The Central Bank was acting in a dual capacity, both as an official semi-development bank and as a central bank. In the 1980s, in line with the policy of curbing directed credits, the Central Bank's credit lines were first reduced and then phased out, thereby ending the peculiar dual identity of the Bank, and creating an opportunity to transform itself into an institution solely responsible from central banking. However, the rest of the banking system was not able to fill the gap created by the elimination of directed credit. After 1987, decline in the ratios of commercial bank credits also contributed to the reduction of the credit-GNP ratio.

17/ In 1989, the Central Bank's practice of extending medium and long term credits in the form of advances against bonds was terminated. It was decided that rediscount credits would be extended only against short term company paper and their use as tools of selective credit policy came to an end.
vii) The profitability of the Turkish banking system increased considerably in the second half of the 1980s. Data in Table II.11, tabulated for the commercial banks only, reveal a significant increase in bank profitability, despite accompanied increase in operating costs.

Table II.10: CREDITS AS PERCENTAGE OF THE GNP

<table>
<thead>
<tr>
<th>Year</th>
<th>Central Bank credits</th>
<th>Commercial Bank credits</th>
<th>Other credits</th>
<th>Total credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>7</td>
<td>15</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>1981</td>
<td>6</td>
<td>16</td>
<td>3</td>
<td>26</td>
</tr>
<tr>
<td>1982</td>
<td>5</td>
<td>17</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>1983</td>
<td>4</td>
<td>17</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>1984</td>
<td>2</td>
<td>14</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>1985</td>
<td>3</td>
<td>15</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>1986</td>
<td>2</td>
<td>19</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>1987</td>
<td>3</td>
<td>21</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>1988</td>
<td>2</td>
<td>17</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>1989</td>
<td>2</td>
<td>16</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>1990</td>
<td>1</td>
<td>17</td>
<td>2</td>
<td>20</td>
</tr>
</tbody>
</table>


Table II.11: BANK PROFITABILITY
(as % of total assets)

<table>
<thead>
<tr>
<th>Year</th>
<th>GEM</th>
<th>OC</th>
<th>NEM</th>
<th>PBT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>5.0</td>
<td>3.6</td>
<td>1.3</td>
<td>1.0</td>
</tr>
<tr>
<td>1984</td>
<td>5.7</td>
<td>3.3</td>
<td>2.4</td>
<td>1.9</td>
</tr>
<tr>
<td>1985</td>
<td>3.8</td>
<td>2.9</td>
<td>0.9</td>
<td>0.6</td>
</tr>
<tr>
<td>1986</td>
<td>5.4</td>
<td>2.8</td>
<td>2.6</td>
<td>1.9</td>
</tr>
<tr>
<td>1987</td>
<td>7.3</td>
<td>2.8</td>
<td>4.5</td>
<td>3.0</td>
</tr>
<tr>
<td>1988</td>
<td>8.5</td>
<td>3.3</td>
<td>5.2</td>
<td>3.5</td>
</tr>
<tr>
<td>1989</td>
<td>7.4</td>
<td>3.8</td>
<td>3.6</td>
<td>2.4</td>
</tr>
<tr>
<td>1990</td>
<td>12.3</td>
<td>5.1</td>
<td>7.2</td>
<td>3.6</td>
</tr>
</tbody>
</table>

GEM: Gross Economic Margin = Interest Received - Interest Paid + Other Income (Net)
NEM: Net Economic Margin: GEM - OC.
PBT: Profits Before Taxes = NEM - Other Expenses (Net).
OC: Operating Costs.
Total Assets: Arithmetic averages of the year-end values.
Source: Iskenderoglu, Ozturk and Temel (1991); calculated from data compiled by the Banking Department of the Central Bank.
The increase in operating costs in the 1988-1990 period is noteworthy. A closer examination of income statements reveals that personnel expenses remained relatively stable during the period, except for an increase in 1990 due to labor agreements signed by big private banks and a new wage setting system introduced by public banks which also led to sharp pay raises. By contrast, there was a sharp increase in other administrative expenses. As discussed in Akkurt, et al (1991), these trends may be attributed to banks' tendency to prefer investing in computerization over employing more staff. This is especially true for larger banks which have established ATMs and on-line connections among branches.

Nevertheless, the increase in bank profitability was not uniform among various categories of banks. Small domestic and foreign commercial banks are in general more profitable than larger banks and state-owned banks in Turkey (Table II.12). The profitability of the foreign banks declined sharply after 1988, and, in contrast to national banks, did not recover in 1990. The worst performing category of banks was medium sized state owned banks, which declared losses in 1987 and 1989.

| Table II.12: PROFIT BEFORE TAXES/AVERAGE TOTAL ASSETS FOR COMMERCIAL BANKS IN TURKEY |
|----------------------------------|---|---|---|---|
| Private domestic banks         |      |      |      |      |
| 1-30 Branches                  | 4.1  | 7.1  | 5.1  | 5.3  |
| 31-100 Branches                | 2.7  | 3.5  | 2.8  | 4.1  |
| 101 + Branches                 | 3.3  | 3.7  | 2.9  | 3.9  |
| State-owned banks              |      |      |      |      |
| 1-30 Branches                  | -    | -    | -    | -    |
| 31-100 Branches                | -2.1 | -2.1 | -1.1 | 0.2  |
| 101 + Branches                 | 2.5  | 2.4  | 1.6  | 2.3  |
| Foreign banks                  |      |      |      |      |
| 1-30 Branches                  | 5.8  | 8.1  | 5.0  | 4.3  |
| 30-100 Branches                | 4.4  | 8.6  | 4.7  | 4.4(*)|
| 101 + Branches                 | -    | -    | -    | -    |
| (*) One bank only              |      |      |      |      |

Source: Data collected by the Banking Department of the Central Bank of the Republic of Turkey.
The increase in bank profitability is especially noteworthy in view of the decline in the degree of concentration in the banking system. The differences in the profitability and patterns of growth of the various categories of banks indicate that small domestic commercial banks were the most dynamic elements in the banking system.

viii) Contrary to the expectations of policy makers, the role of foreign banks in enhancing competition in the Turkish banking system remained negligible. As shown in Table II.13 foreign banks are relatively small and their share in the total assets of the banking system is not significant. A closer inspection of their activities also reveals that foreign banks never had the intention of becoming major players in the Turkish banking system. They concentrated their activities on foreign trade related areas where they had, especially in the first half of the period considered, absolute advantage due to their knowhow in these areas and their international connections and, in general, did not attempt to compete with domestic banks in traditional banking activities. Pehlivan and Kirkpatrick (1991) argue that this resulted from restrictions placed on foreign banks. Nevertheless, some foreign banks did play an important role in training a new generation of middle level bank managers, who were subsequently employed in domestic banks.

| Table II.13: OWNERSHIP COMPOSITION OF THE BANKING SYSTEM |
|---------------------------------|-----|-----|-----|
|                                 | 1980 | 1986 | 1990 |
| Private domestic banks          |      |      |      |
| (a)                             | 26   | 26   | 29   |
| (b)                             | 45.7 | 46.7 | 44.5 |
| State-owned banks               |      |      |      |
| (a)                             | 13   | 12   | 11   |
| (b)                             | 51.5 | 50.1 | 52.0 |
| Foreign banks                   |      |      |      |
| (a)                             | 4    | 18   | 26   |
| (b)                             | 2.8  | 3.7  | 3.5  |

(a) Number of banks.
(b) Share in total assets of banking system.

Source: Banks in Turkey, Various Issues, The Banks' Association of Turkey.

10/ Denizer (1991) finds econometric evidence that bank profits are positively related to concentration. Hence it seems that profitability increased despite a reduction in the degree of monopoly power in the banking system.
II.6 Bank behavior in Turkey: Evidence from survey results

The liberalization measures had a dual effect on banks. On the one hand, by broadening the spectrum of financial markets and opening them to banks, the liberalization program enabled banks to diversify their activities. On the other hand, the uncertainties inherent in the liberalization programs aggravated by the inconsistencies in the implementation of economic policies induced banks to follow rather conservative strategies.

In this section we attempt to gain some additional insights into bank behavior in Turkey and report results of a questionnaire distributed to the bank managers and the accompanying interviews made in the Summer of 1991. A complete set of results are reported in Atliyaz, Ersel and Ozturk (1992).

The main idea behind the survey was to understand relationship between banks and their clientele in loan markets and the mode of competition. The questions were inspired by the recent theoretical literature on imperfections in financial markets that result from problems of information and costly contract enforcement. In particular, based on the theoretical exposition in Calomiris and Hubbard (1990) and priors about the structure of credit markets in Turkey, the relationship between banks and their clientele, and the nature of competition, the questionnaire hypothesized a pool of potential borrowers segmented into a group for which banks have more complete information ("blue chip companies") and others for which banks have little or no information.

The survey found that banks' customer patterns displayed significant variation. The majority of small and medium banks concentrated their activities on predominantly "blue chip" companies in large cities. Banks with an extensive network of branches, on the other hand, had a much wider customer base. In general, an overwhelming majority of bank managers confirmed the suggestion that whereas there is a fierce competition among banks for blue chip companies, in the non-blue chip sector competition is among firms requesting those services. Moreover, banks were found to be reluctant to expand their customer base.

It is well known that bank loan rates exhibit wide variation in Turkey. It is also generally believed that, contrary to practices in economies with developed financial markets, many banks in Turkey prefer to announce a "maximum" lending rate rather than a prime rate. Survey results suggest that all large and multi-branch banks prefer announcing a maximum rate and then negotiate it downwards during bargaining for a loan package. The basic reason for this preference is that with borrowers that are perceived to be risky, negotiating lending rates downwards is easier than asking for premiums over a prime rate. Small banks, on the other hand, are more likely to work on the basis of a prime rate, but are very reluctant to announce

19/ Calomiris and Hubbard (1990) develop a model where the credit market is divided into a "Walrasian" segment, where borrowers' relevant characteristics are costlessly identified, and an "information intensive" segment, where borrowers' characteristics are private information unavailable to lenders.

20/ This is not surprising since most small banks were found to concentrate their business on blue chip companies.
it to the general public. A possible explanation for banks' aversion to announcing a prime rate is that it reflects their reluctance to expand their customer base.\textsuperscript{21}

Only a small number of blue chip companies, and companies that belong to the same conglomerate groups as the banks are able to obtain credit without collateral. In general, roughly 80-90 percent of all bank lending is made against collateral.

Banks were asked about their primary concern in lending to a firm that has not yet established a reputation. They were asked whether their primary concern would be not being able to distinguish firms' risk and return characteristics or not being able to monitor borrowers once loans are made. Banks' responses depended very much on their organizational structure. Small banks dealing with blue chip companies indicated that neither problem was a major concern; that response reflected to a large extent that they would not attempt to include new borrowers into their clientele. Large banks' responses differed according to their institutional capabilities. Those that had established a well functioning information gathering network indicated monitoring as a major problem. Some banks indicated that they had units that undertake the monitoring function and therefore are more concerned with ex-ante information gathering.

Another question inquired about what would make banks more willing to lend to borrowers currently not in their customer base: The options were reduction in macroeconomic instability and uncertainties, establishment of an efficient legal system, establishment of a well functioning information gathering system or credit subsidies. Only one bank indicated that subsidies would help. Reduction of macroeconomic uncertainties and establishment of an information gathering system to collect necessary data to make loan decisions were the options chosen by the majority of banks.\textsuperscript{22} Regarding establishment of an efficient legal system, it turned out that banks had almost complete mistrust of the legal system and based their lending strategies so as to keep recourse to the legal system at a minimum. Improvements were seen as either irrelevant or improbable.\textsuperscript{23}

Almost all bank managers favored making package deals with their customers. This can be interpreted as an indication for banks' desire to operate as multi-product firms, i.e., diverging their activities along various financial services.

\textsuperscript{21} An alternative explanation could be that announcing a prime rate would increase the degree of competition in the banking system.

\textsuperscript{22} The emphasis on macroeconomic uncertainty as a determinant of bank's exposure to risky borrowers is consistent with predictions in the literature. See Caprio (1991, 1992) for the importance of the degree of uncertainty in bank's choice between risky and riskless assets.

\textsuperscript{23} The legal system in Turkey is notoriously slow and overburdened. Courts in Istanbul are sometimes loaded with 70-80 cases per day. There is also anecdotal evidence of an increase in "economic crimes," especially bounced checks (see, for example, the weekly Nokta, August 4, 1991). Perhaps unsurprisingly, in the 1980s a "check mafia" emerged in large cities, which specialized in debt collection through intimidation and use of force. The mafia functioned mainly in settling debts among smaller businesses.
All bank managers distinguished credits from other bank services and stressed that their securities, money and foreign exchange market activities cannot be considered as substitutes for credit. Although the managers seem to draw such a complementarity between credit services and banks' operations for liquidity and foreign exchange management, most of them also added the qualification that "under exceptional conditions", such as those that prevailed in 1989 when high cost of loanable funds created difficulties in placing loans, these activities may certainly become substitutes for loans. Therefore, it can be concluded that there is an asymmetric relationship between these activities, which is conditional upon the state of the credit market.

III. DEVELOPMENTS IN CORPORATE FINANCE

This section focuses on patterns of financing in the corporate sector and reviews trends during the financial reform period. The main source of data is the balance sheets and income statements of a sample of 81 firms registered at the Capital Markets Board. The data set is not representative of the corporate sector in Turkey. It consists of large, financially relatively healthy firms which possibly have better access to external financing than an average Turkish firm.24

III.1 Trends in the composition of liabilities

Some indicators for the composition of corporate debt is provided in Table III.1. In order to assess whether access to external finance varies across groups of firms differentiated by size, the sample has been split into two groups of equal number of firms on the basis of the value of total assets in constant prices. Specifically, firms where the value of total assets (in constant 1985 prices) were below 78 billion Turkish Liras in 1984 were classified as small. Table III.1 reports the mean value for each variable for the group of small (S) and large (L) firms, along with indicators of whether the difference in the means is statistically significant or not.

The main components of debt (excluding liabilities in the form of taxes and insurance payments) are short and long term bank loans, direct financing (finance bills), and other liabilities. Other short term liabilities includes borrowings from owners, but mainly consists of trade credits.

The following patterns emerge: As a percentage of total assets, large firms are generally more indebted than small firms, but the difference is often insignificant and is completely eliminated by the end of the sample period. This is mainly due to a steady reduction in the degree of indebtedness of large firms. In general, the composition of debt differs across the two size categories; however, the differences decrease over time. A

24/ For more details on the data set, see Ersel and Ozturk (1990b). The analysis that follows is subject to two qualifications. First, financial liabilities are expressed in terms of stocks rather than flows. Data on sources and uses of funds, which would help provide a more complete picture of financing patterns, are unfortunately unavailable. Second, the analysis of patterns of external financing does not take into account external equity, due to lack of firm level data on issues of new shares to the market for the sample period. However, only a small portion of increases in equity (on average 14 to 15 percent in 1990-91 according to CMB data). The CMB currently requires firms to realize at least 15 percent of capital increases through market issues.
larger proportion of total debt consists of short term debt in the case of small firms, however in 1989 the difference is no longer statistically significant. Regarding the breakdown of sources of debt, large firms use more bank loans whereas small firms rely more heavily on other liabilities. However, by 1989, the share of bank loans in the two sub-samples is no longer significantly different. A closer inspection reveals that this is primarily due to an impressive reduction in the share of short term bank loans in the liabilities of large firms. By contrast, large firms continue to be dominant in the use of long term bank loans throughout the period. However, the share of long-term bank loans decrease over time for both large and small firms, suggesting that financial reform failed to increase the availability of long term loanable funds.

The share of other short term liabilities is significantly higher in small firms’ liabilities, most likely reflecting the importance of trade credit. Finally, the share of finance bills is very small, and close to zero in the case of small firms. Hence, direct borrowing plays an insignificant role in corporate finance. Nevertheless, their importance seem to show an increasing trend in 1987-89 in the case of large firms.

With the exception of long term bank loans and trade credit, the liability structure of small and large firms exhibit a pattern of convergence during the 1980s. There may be two reasons for this increasing similarity. The first is structural changes in financial markets that generate more uniform treatment of large and small firms. An alternative reason may be that firms in the data set grow over time; if after a certain threshold the impact of size on liability structure diminishes, then firm growth would explain the increased similarity. In order to see whether this was the case, the data set was split on the basis of observations rather than firms and a lower cutoff point for size was established. Accordingly, observations where the value (in constant 1985 prices) of total assets were below 50 billion Turkish liras were classified as small. In this classification, the number of observations in the S category change between one third (in the earlier period) and one fourth (later period) of the data set. The results are displayed in Table III.2.

The main difference between tables III.1 and III.2 lies in the fact that in the latter the share of short term debt remains significantly higher in observations that correspond to small firms, and mainly due to a higher share of short term other liabilities and lower share of long term bank loans. This underscores the importance of trade credit for small firms and suggests a pattern of development where firms switch away from trade credit as they grow and find long term bank loans more accessible.

The decline in the use of short term bank loans by large firms in the 1988-89 period deserves further comment. As discussed in Ersel and Ozturk (1990a, b), especially large and healthy firms started reducing their use of short term bank loans in 1989. The emergence of this trend can be traced back to 1988, when the cost of bank credit increased sharply, following the complete deregulation of deposit interest rates. At the same time, the increased risk of default made banks more cautious in selecting their customers. The coupling of self-restraint by prime borrowers and cautious behavior of banks resulted in a surplus of funds. This reduction in intermediation in response to the interest rate shock contrasts sharply with the experience of the early 1980s. Then, the interest rate shock was accompanied with a rapid deterioration of corporate earnings. Firms, finding themselves illiquid, resorted to distress borrowing, further deteriorating their balance sheets positions. The crucial difference between the two periods is that in 1989 firms could rely on relatively high earnings to reduce their exposure to short term loans.
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<td>0.37**</td>
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**/ Shares in total debt. Tax and insurance premium liabilities are excluded.

Stars indicate significance levels at which the null hypothesis of equality of means is rejected. A single star denotes 10% and a double star denotes 5% level of significance, respectively.

S: Firms with total assets smaller than 78 billion TL in 1984.

L: Firms with total assets larger than 78 billion TL in 1984.
### Table III.2: COMPOSITION OF CORPORATE DEBT /\n
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\* Shares in total debt. Tax and insurance premium liabilities are excluded.

Stars indicate significance levels at which the null hypothesis of equality of means is rejected. Single star denotes 10% and double star denotes 5% level of significance, respectively.

S: Observations with total assets smaller than 50 billion TL.

L: Observations with total assets larger than 50 billion TL.

### 3.2 Variations in corporate indebtedness and the impact of financial reform

We now focus in more detail on variations in corporate indebtedness with a view to examine the impact of financial reform on firm financial behavior. Following the literature on the determinants of capital structure, we attempt first, to explain cross-section variations in corporate indebtedness by firm specific variables. Second, to gauge the impact of the process of financial reform, we test whether the importance of
these variables in explaining cross section variations in indebtedness have changed over time. In particular, we would like to examine whether there have been any changes in (i) the importance of size in accessing external finance, (ii) firms' reliance on internally generated funds, (iii) the role of collateral and (iv) the role of firm investment opportunities that are difficult to monitor by creditors.

Because we expect that the impact of these variables should vary across different types of financial instruments, several indicators of corporate indebtedness are used. There are three types of short term debt: Short term bank loans (excluding long term bank loans maturing in the current year), other short term debt (most of which consists of trade credit) and total short term funded debt (that is, bank loans, other short term liabilities and finance bills, excluding debt in the form of taxes and social security premiums). The measures of long term debt are long term bank loans (including those that are due in the current period) and total long term debt (consisting of bank loans and bonds, excluding other long term liabilities).

The variables used in the analysis are the following. SIZE measured as the logarithm of total assets in constant prices, reflects existence of transaction costs in the provision of external finance. If fixed transactions costs are important, then size should be positively related to indebtedness. Profitability, measured as operating income per unit assets (OITA), captures the importance of internal finance. It has been argued that because of imperfections in financial markets, external finance is more expensive than internally generated funds; in other words, firms pay a premium for external finance. If that is the case, then, everything else equal, profitability should have a negative impact on indebtedness since increased profitability implies higher availability of retainable internally generated funds. When firms produce unique products, their bankruptcy and eventual liquidation imposes costs on suppliers, customers and workers. Since higher debt ratios imply higher probability of bankruptcy, these costs are relevant to capital structure decisions. Hence uniqueness is expected to be negatively related to indebtedness. Following Titman and Wessels (1988), we measure uniqueness by the ratio of selling expenses to sales (SES). Equity controlled firms have a tendency to invest suboptimally to expropriate wealth from the firm's creditors (Myers, 1977). Rational creditors are aware of this possibility and request an "agency premium" that increases the cost of debt. Hence, firms with high growth opportunities are likely to face higher cost of debt. This is especially true with long term debt. In fact, it has been suggested that short term debt may be relatively free of this agency problem, since creditors have the option of terminating their commitment whenever the investment behavior of firms jeopardize the value of debt claims. Growth opportunities are measured by the percentage change in total assets in constant prices (GTA). Assets that can be used as collateral reduce the cost of debt and therefore are expected to be positively related to indebtedness. Collateralizable assets are measured by the ratio of inventories and net fixed assets to total assets for (INPTA) long term debt, and by the ratio of accounts receivable to total assets (ARTA) in the case of short term debt. The degree of indebtedness is also expected to be related to the existence of non-debt tax shields, although the direction of the relation is in principle ambiguous (Dammon and Senbet, 1988). Non debt tax shields are measured by the ratio of the change in accumulated depreciation to total assets (DTA). Finally, volatility of firm's earnings, measured by the standard deviation of the ratio of operating income to total assets (SOITA), is expected to be negatively related to indebtedness.

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25/ Annual flows of depreciation expenses were not available from the income statements; hence the first difference of accumulated depreciation was used to approximate the flow.
As in most of the literature, the variables are averaged over time. However, in order to test for the stability of the coefficients, the sample period was divided into two: 1984-86 and 1987-89. A dummy variable (T) which is equal to 1 for the 1987-89 period and zero otherwise was used both by itself and interactively with the explanatory variables. The results are reported in Table III.3.

Short term bank loans are positively affected by collateral assets and negatively affected by profitability and growth opportunities. The coefficient on size is positive but not significant. The effect of growth opportunities diminish in the second period. Other liabilities, on the other hand, is not affected by size, growth opportunities or collateral assets but negatively related only to profitability. Moreover, no significant structural change is detected in the second period. These results uncover an interesting contrast between short term bank loans and trade credit, namely that at least in the 1984-86 period, trade credit was less subject to agency problems than bank loans. This may be because trade creditors have better information than banks about firms that they do business with and they are better able to monitor borrowers’ behavior in the course of business. However, firms still prefer to use internally generated funds to trade credit, as reflected in the significant coefficient on the profitability variable. The coefficients in the equation for total short term funded debt display a pattern similar to those in the equation for short term bank loans except that non-debt tax shields also appear significant.

Contrary to components of short term debt, size does play a significant role in explaining variations in long term bank loans. Moreover, the importance of size is not diminished in the second sample period. As expected, assets that can be used as collateral are also positively related to long term debt. Surprisingly, the agency cost variable has a significant but positive coefficient; fast growing firms carry a higher share of long term bank loans.26 Finally, profitability is negatively related to long term bank loans. Another interesting result is the negative sign on T*INPTA collateral assets become insignificant in the second period. One of the survey results reported above indicated that blue-chip companies were able to borrow without collateral. Given that the data set consists mainly of large firms, the significance of both INPTA and T*INPTA suggests that the ability to borrow without collateral developed in the late 1980s.

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26/ What may be captured here is the special institutional features of long term bank loans in Turkey. Most of these funds are loans from development banks or, at least until late 1980s, preferential credits from the Central Bank. As reported in Ersel and Ozturk (1990a), access to such loans requires a time consuming process of project evaluation that is costly for borrowers. The positive relation between long term bank loans and GTA may therefore reflect a self selection process whereby only firms with large investment projects apply for these loans. Hence, GTA may be a bad proxy for agency problems in the case of long term loans. Alternatively, in the case of loans from development banks, it may also reflect development banks’ ability to monitor borrowers after a loan is made.
### Table III.3: Determinants of Corporate Indebtedness

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<th>Long-term bank loans</th>
<th>Total long-term debt</th>
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<td>-0.233</td>
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We can now summarize the main results of this section. First, it seems that financial reform did little to reduce firms' preference for internally generated funds over external finance. This finding is valid for all types of financial instruments. Second, the importance of size in obtaining long term loans is also not diminished in the 1980s. The fact that the data set is biased and consists of large firms makes interpretation difficult. In particular, it is not possible from these results to make inferences about the impact of financial reform on enterprises which are smaller than those in the data set. However, coupled with the sluggish increase in financial deepening and banks' reluctance to expand their customer base, both reported earlier in this paper, one is tempted to conclude that financial reform did not yet result in increased availability of long term investment funds to smaller firms. On the other hand, empirical results also suggest that collateral requirements and the adverse impact of agency problems generated by growth opportunities on acquiring short term bank loans decreased in the late 1980s. This may reflect an increase in banks' ability to monitor borrowers as a result of financial reform. Alternatively, it may also reflect that as a result of long term relations with banks, firms in the sample became better able to rely on their reputation to gain access to bank loans.  

IV. LESSONS OF THE TURKISH EXPERIENCE

After the crisis of 1982, Turkey adopted a more cautious approach to financial reform. Efforts were made to develop a legal and institutional framework for the functioning of financial markets and for the supervision of financial institutions. Any lessons that can be derived from the Turkish experience need to be qualified; financial reform process is likely to require more time before its impact can be fully evident. With these caveats, this section attempts to draw some preliminary lessons from the Turkish experience.

The new literature on the link between finance and real activity emphasizes the importance of borrowers' net worth in determining the availability of external finance. In their exposition of the recent theory, Gertler and Rose (1991) argue that a decline in borrowers' net worth is likely to reduce the extent of financial intermediation. More generally, the financial condition of the borrowing sectors is seen to be a critical determinant of the degree of efficiency in the allocation of loanable funds. The experience in Turkey, especially the response of the financial and corporate sectors to interest shocks confirms this view. In 1982, when the corporate sector was experiencing a decline in gross margins, liberalization of interest rates created a vicious cycle whereby distress borrowing by an illiquid corporate sector and accommodation of especially troubled banks resulted in unsustainably high interest rates and over-borrowing. By contrast, in response to the interest rate shock of 1988, the corporate sector could rely on internally generated funds to reduce their stock of short term loans and adjust their balance sheets. The absence of distress borrowing is closely linked to the absence of a separate gross earnings shock. The lesson is that any potential adverse effect of interest rate liberalization is smaller when the corporate sector is financially strong.

27/ In a model where firms build reputation over time, Diamond (1989) predicts that older firms will find it optimal to choose safer projects because they have incentives to maintain their reputation capital.

28/ The fact that the crisis involved excessive (and quite likely inefficient) intermediation rather than disintermediation is possibly explained by expectations of a de facto deposit insurance.
The major shortcoming of the Turkish financial reform was macroeconomic uncertainty and the burden that public sector borrowing placed on financial markets. Concern with macroeconomic uncertainty is evident in bank managers’ responses to survey questions, where uncertainty is identified as a major deterrence to increased intermediation towards firms that are perceived as risky. In addition, the Government’s recourse to the financial system to finance the budget deficit crowded out financial flows to the private sector. Hence, the potential positive impact of financial reform was considerably hindered by a lack of discipline in government finances. In fact, it can be said that the Government has been the main beneficiary of developments in financial markets. The lesson is that fiscal policies may limit the benefits of financial reform.

The analysis of firm-level data reveals that firms’ reliance on internally generated funds did not change over the reform period. The importance of size in accessing long term bank loans is also not diminished. These findings are consistent with the limited impact of financial reform on the financing of the private sector. Nevertheless, there is also some evidence that the importance of agency problems and collateral requirements were reduced over the reform period, at least for the firms in the sample.

The Turkish strategy of financial reform emphasized institutional development in so far as authorities tried to establish a regulatory environment for the development of foreign exchange and interbank money markets. However, overwhelming focus on the banking system led to the neglect of the development of non-bank financial institutions and instruments. Even though company data reveal the slow emergence of finance bills as a new instrument of corporate finance, development of alternative sources of funds, including the stock market, has lagged behind significantly.

Finally, it also seems that a more efficient judicial system may play an important positive role in expanding the benefits of financial reform. The problem is not only one of reforming the legislation that governs financial transactions, but perhaps more important, one of increasing the processing capacity of courts. Strengthening the confidence of financial intermediaries in the judicial system may enhance their willingness to expand into new types of clients or areas of business, and develop more complex financial contracts.

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29/ Ersel and Ozturk (1990b) provide further econometric evidence on the impact of macroeconomic uncertainty, in their case identified with variability in inflation rates. Their analysis of firm level data shows that greater uncertainty increases the share of short term debt and especially short term other debt (mainly trade credits) and reduces the share of bank loans.

30/ The most striking contrast would be with Korea, where direct financing became a major component of sources of funds in the 1980s. See Cho and Cole (1992).
REFERENCES


### Table A.1: FINANCIAL DEEPENING

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<th>M2/GNP</th>
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M2Y = M2 + Foreign Exchange Deposits.

Source: State Institute of Statistics, Central Bank of the Republic of Turkey.
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**Memo Item:**
The Share Public Sector Securities in Total (%)

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Table A.4: YIELDS OF FINANCIAL ASSETS (net %)

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<td>Foreign exchange g/</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Nominal appreciation of U.S. dollar</td>
<td>155.0</td>
<td>44.0</td>
<td>35.6</td>
<td>47.0</td>
<td>53.4</td>
<td>27.1</td>
<td>29.1</td>
<td>32.7</td>
<td>75.4</td>
<td>25.7</td>
<td>25.8</td>
</tr>
<tr>
<td>Nominal appreciation of Deutchmark</td>
<td>123.3</td>
<td>25.4</td>
<td>30.2</td>
<td>26.2</td>
<td>34.7</td>
<td>36.2</td>
<td>63.1</td>
<td>62.1</td>
<td>57.7</td>
<td>32.2</td>
<td>41.9</td>
</tr>
<tr>
<td>Fx-deposits U.S. dollar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40.4</td>
<td>41.5</td>
<td>44.5</td>
<td>89.2</td>
<td>51.7</td>
<td>34.7</td>
</tr>
<tr>
<td>Fx-deposits Deutchmark</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46.5</td>
<td>73.9</td>
<td>71.3</td>
<td>65.3</td>
<td>50.2</td>
<td>48.3</td>
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<td>Memo item:</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Inflation rate g/</td>
<td>110.2</td>
<td>36.6</td>
<td>29.9</td>
<td>31.4</td>
<td>48.4</td>
<td>45.0</td>
<td>34.6</td>
<td>38.9</td>
<td>75.4</td>
<td>69.6</td>
<td>63.6</td>
</tr>
</tbody>
</table>


a/ Quarterly average of the highest after tax rate on saving deposits when compounded. AKKURT et. al. (1991, Table 4).

b/ 1980-1985 figures are obtained from ADA (1991, Table 2.5), 1986-1990 figures are from Capital Market Board Annual Report 1990, Table 39.

c/ 1980-1985 are obtained from ADA (1991, Table 2.5), 1986-1990 figures are from Capital Market Board Annual Report 1990, Table 40.

g/ Inflation rate is measured by consumer price index. (Yearly average)
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<tr>
<td>(1) Bonds</td>
<td>104.5</td>
<td>394.9</td>
<td>1032.2</td>
<td>1463.3</td>
<td>3006.0</td>
</tr>
<tr>
<td>(2) Commercial paper</td>
<td>-</td>
<td>51.7</td>
<td>175.7</td>
<td>856.9</td>
<td>670.8</td>
</tr>
<tr>
<td>(3) Bank bills</td>
<td>36.4</td>
<td>95.6</td>
<td>170.3</td>
<td>188.3</td>
<td>196.7</td>
</tr>
<tr>
<td>(4) Private debt instruments (1+2+3)</td>
<td>140.9</td>
<td>542.2</td>
<td>1378.2</td>
<td>2508.5</td>
<td>3873.5</td>
</tr>
<tr>
<td>(5) Shares</td>
<td>8.7</td>
<td>105.4</td>
<td>148.4</td>
<td>1735.9</td>
<td>15313.0</td>
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<tr>
<td>(6) Private sector securities (4+5)</td>
<td>149.6</td>
<td>647.6</td>
<td>1526.6</td>
<td>4244.4</td>
<td>19186.5</td>
</tr>
<tr>
<td>(7) Government bonds</td>
<td>546.3</td>
<td>1520.1</td>
<td>2630.9</td>
<td>10828.0</td>
<td>61742.9</td>
</tr>
<tr>
<td>(8) Treasury bills</td>
<td>1411.9</td>
<td>3219.8</td>
<td>7320.7</td>
<td>18762.8</td>
<td>32023.3</td>
</tr>
<tr>
<td>(9) Income sharing certificates</td>
<td>289.2</td>
<td>329.5</td>
<td>394.6</td>
<td>1098.1</td>
<td>1078.3</td>
</tr>
<tr>
<td>(10) FX-Indexed bills</td>
<td>-</td>
<td>86.4</td>
<td>13.7</td>
<td>1558.4</td>
<td>1631.9</td>
</tr>
<tr>
<td>(11) Public sector securities (7+8+9+10)</td>
<td>2247.4</td>
<td>5185.8</td>
<td>10359.9</td>
<td>32247.3</td>
<td>96476.4</td>
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<tr>
<td>(12) Total securities (6+11)</td>
<td>2397.0</td>
<td>5833.4</td>
<td>11886.5</td>
<td>36491.7</td>
<td>115662.9</td>
</tr>
</tbody>
</table>

Memo item: Share of public sector securities traded in the secondary market (%) | 93.8 | 88.9 | 87.2 | 88.4 | 83.4 |

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