CHAPTER 16

FINANCIAL DEVELOPMENT

Recent empirical works suggest a strong and positive relationship between the level of financial development and economic growth [1]. Efficient financial systems encourage investment by identifying and funding adequate business opportunities, mobilizing savings, diversifying and reducing risks, facilitating exchange of goods and services, and establishing corporate governance practice. These systems help enhance optimal allocation of resources and improve economic growth through reduction of transaction costs, as well as collection and analysis of data. Moreover, efficient financial systems remove obstacles to foreign financing, ease productive and industrial units' access to foreign investment, and pave the way for expanding investment and raising economic growth.

The key determinants of financial development in each country can be classified into two groups: historical determinants and policy determinants. Historical determinants include legal, political, cultural, ethical, and geographical elements, and policy determinants consist of macroeconomic and political environment; institutional, legal and informational infrastructures; regulations and oversight; competitiveness and efficiency; financial liberalization; and ease of access to financial services.

(1) Demirguc-Kunt, Asli, and Ross Levine (2008), "Finance, Financial Sector Policies, and Long-Run Growth", World Bank, Policy Research Working Paper 4469

Financial structure of a country consists of a variety of markets and financial products. Therefore, financial development is a multifaceted concept comprising not only banking sector development but also non-bank financial sector development, monetary sector development and monetary policy, banking regulation and supervision, financial openness, and institutional environment. Thus, financial depth [2] and the share of credits extended to private sector may not thoroughly reveal the significance and implications of financial development.

This chapter deals with several aspects of financial development, measured according to banking sector development, non-bank financial sector development, monetary sector development and monetary policy, banking regulation and supervision, financial openness, and institutional environment during 1381-85.

Banking Sector Development

Banking sector development, as one of the major facets of financial development, may be described through the following themes:

Share of Non-public Sector in Banking Industry

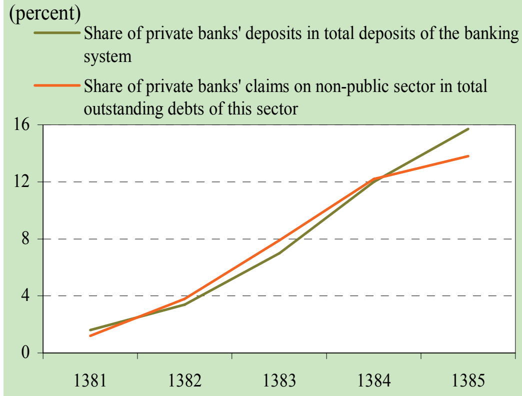
In order to measure the extent of private banks' participation in the banking

(2) Financial depth is the ratio of liquidity to GDP at current prices, regarded as a measure of depth of the financial system and the size of financial intermediaries.

industry, the share of deposits taken and facilities extended by these banks are calculated. Therefore, the ratio of deposits with private banks to total deposits of the banking system as well as the share of outstanding debts of the non-public sector to private banks in total outstanding debts of this sector is measured.

At the initial stage of the establishment of private banks in 1381, share of these banks and non-bank credit institutions' [(1)] deposits was recorded at 1.6 percent. As private banks grew in number and expanded their activities, this share gradually increased and by the end of 1385, it stood at 15.7 percent. This rise is indicative of banks' success in attracting public confidence and absorbing non-public sector deposits. High provisional profit rate of private banks' deposits against that of public banks, rise in public confidence, as well as the downward trend of stock indices were the main driving forces behind such increase and its growing trend. Furthermore, the share of private banks' claims on the non-public sector in total outstanding debts of this sector rose from 1.2 percent in 1381 to 13.8 percent in 1385 year-end.

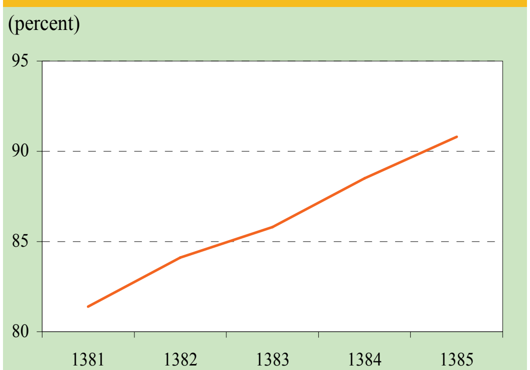
Figure 16.1. Share of private banks in banking industry



Share of Non-public Sector in Banking Facilities

Most studies find a positive correlation between share of credits allocated to the non-public sector and performance of the financial system. Therefore, the more credits extended to the private sector, the better performance of the financial system with respect to evaluating performance of managers, identifying investment projects, managing risks and rendering financial services.

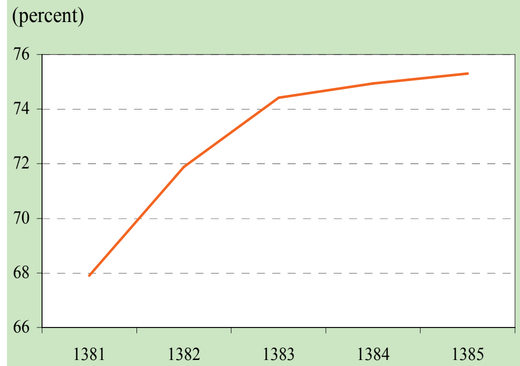
Figure 16.2. Share of banks' claims on non-public sector in total outstanding debts of public and non-public sectors



(1) As of Shahrivar 1381, it includes Karafarin, Saman, Eghtesad-e-Novin, and Parsian private banks and the Non-bank Credit Institution for Development. It also includes Pasargad private bank as of Bahman 1384 and Sarmayeh private bank as of Shahrivar 1385.

In order to evaluate methods of directing credits to the public and non-public sectors, share of banks' claims on the non-public sector in total outstanding debts of the public and non-public sectors is measured. The upward trend of such ratio represents the rise in the amount of banking facilities extended to the non-public sector in recent years. This ratio went up to 90.8 percent at end-1385 from 81.4 percent in 1381.

Figure 16.3. Ratio of banks' and non-bank credit institutions' assets to banking system's assets



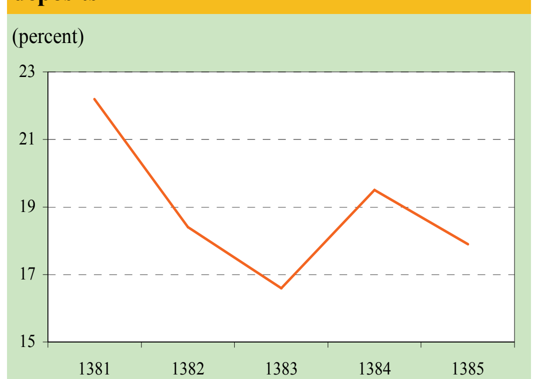
Ratio of Banks' and Non-bank Credit Institutions' Assets to Banking System's Assets

This ratio is indicative of a relatively crucial position of deposit taking financial institutions. The correspondent index is the share of banks' internal assets (excluding the CBI) in total assets of the banking system (including the CBI), which rose sharply to 75.3 percent in 1385, against 67.9 percent in 1381. This was following its sudden fall in 1381 which was in turn owing to increase in CBI's assets in the aftermath of implementation of exchange rate unification.

Ratio of Banks' and Credit Institutions' Reserves to Total Non-public Sector Deposits

This ratio is calculated by dividing sum of excess and required reserves of banks and credit institutions held with the CBI, as well as banks' cash amounts by total non-public sector deposits with banks. This ratio reflects the amount of banks' resources to raise and allocate credit. With the reduction of banks' reserves held with the CBI, their capacity to extend facilities will increase. Despite the downward trend of this ratio from 22.2 percent in 1381 to 16.6 percent in 1383, representing greater ability of banks in financing economic firms and providing credits, it reached 19.5 percent in 1384. This was due to increase in special

Figure 16.4. Ratio of banks' and credit institutions' reserves to total non-public sector deposits

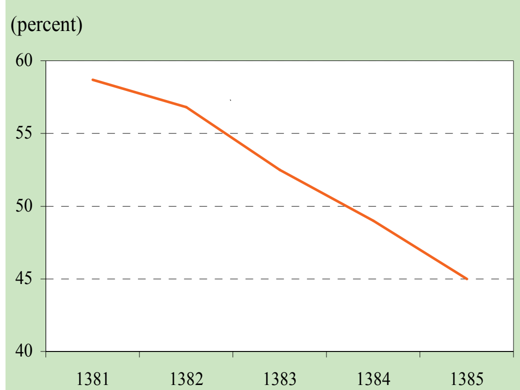


deposits of one bank with the CBI. However, this ratio declined again and reached 17.9 percent in 1385 year-end.

Banks' Concentration Ratio

Concentration index is correspondent with the share of the first three banks' deposits, holding the highest share in total deposits of the non-public sector with the banking system. High concentration index points to the lack of competition in the banking system and its inefficiency. Decrease in such index from 58.7 percent in 1381 to 45 percent in 1385 represented the competitive environment in the area of banking system, thanks to the establishment of private banks during the past years.

Figure 16.5. Banks' concentration ratio

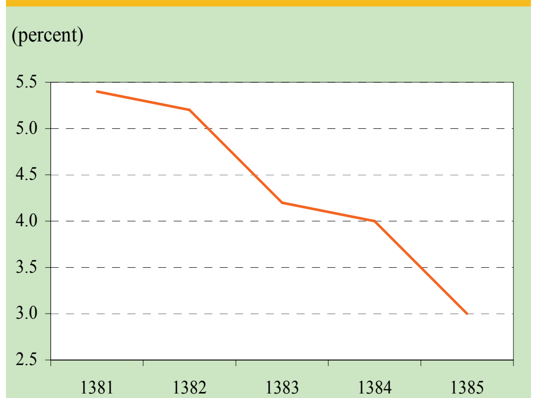


Bank Spread

The difference between banking deposit and lending rates is commonly referred to as bank spread. The size of banking spread serves as an indicator of efficiency of the banking system, since it reflects the costs of intermediation that banks incur.

Short term and long-term deposit rates and rate of return on banking facilities vary in different sectors. Therefore, the difference between the weighted rate of return (provisional) on term investment deposits and that of the public banks' facilities is used to calculate the bank spread. Bank spread fell from 5.4 percent in 1381 to 3 percent in 1385.

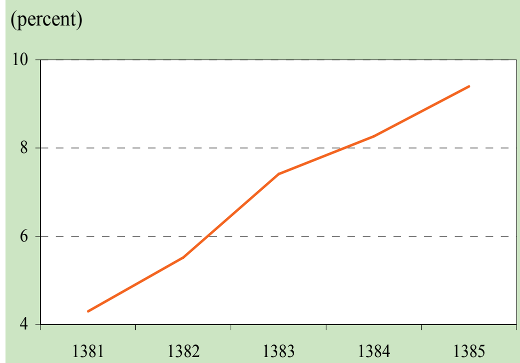
Figure 16.6. Bank spread



Value-added of Monetary and Financial Institutions' Services

The value-added of monetary and financial institutions' services consists of the value-added of banks and non-bank credit institutions, insurance services, and financial intermediaries (the stock exchange). As 85 percent of the value-added of monetary and financial institutions' services is created by the banking system, the ratio of the value-added of monetary and financial institutions' services to that of the services sector may be used as an index for representing expansion of banking sector services in the economy. The upward trend in Figure 16.7 reveals such expansion compared to other services. This ratio went up from 4.3 percent in 1381 to 9.4 percent in 1385.

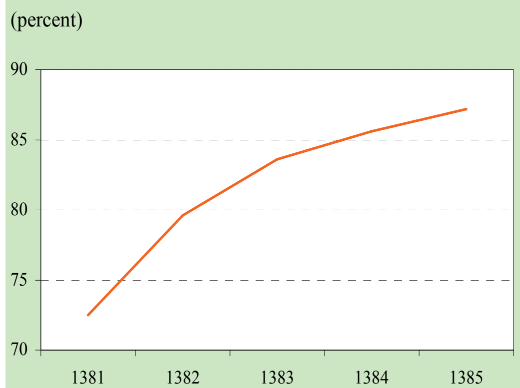
Figure 16.7. Share of the value-added of monetary and financial institutions' services in the value-added of services sector



Efficiency of the Banking System

Ratio of the facilities extended to deposits, an index for efficiency of the banking system, represents ability of the financial system in utilizing deposits for extension of facilities. Due to the paucity of data on the net amount of extended facilities, ratio of the outstanding claims of the banking system on the non-public sector (excluding profit and revenue receivables) to the non-public sector deposits is calculated to measure the efficiency of the banking system. This ratio, which is affected by changes in reserve requirement ratio and banks' overdraft from the CBI, increased from 72.5 percent in 1381 to 87.2 percent in the review year.

Figure 16.8. Efficiency ratio of the banking system



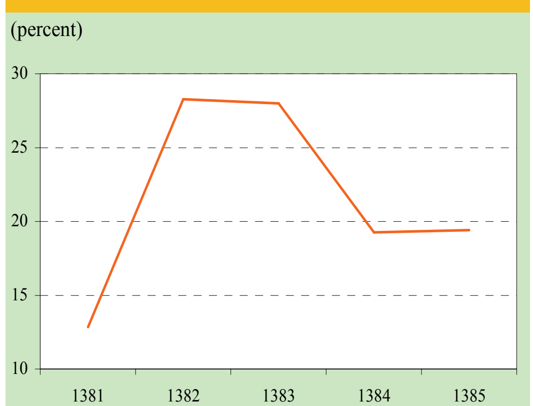
Non-bank Financial Sector Development

The non-bank financial sector consists of activities of stock market and other financial institutions such as pension funds, insurance and leasing companies as well as different procedures in non-bank financing of the housing sector. Due to the limited activities of these institutions and unavailability of data, only the activities of the TSE and insurance industry are discussed as follows:

Market Capitalization to GDP Ratio

The market capitalization to GDP ratio represents size of the stock market in percentage of GDP. Figure 16.9 depicts the upward trend of this ratio over the course of the 3rd FYDP, which reversed in 1384-85.

Figure 16.9. Market capitalization to GDP ratio



This ratio reached its maximum of 28 percent during the course of 1382-83, fell to 19.3 percent in 1384, and remained virtually unchanged in the review year.

Value-traded to GDP ratio

The value-traded ratio to GDP (total value of shares traded to GDP) represents the ability to easily trade securities, as well as the depth of financial market in terms of securities. The higher this ratio, the easier the trading of securities. This ratio went up to 7.5 percent in 1383, against 2.5 percent in 1381, and declined to 3.3 percent in 1384. This sharp fall was largely due to the reduction in the value-traded from Rls. 103.7 trillion in 1383 to Rls. 56.5 trillion in 1384. Further reduction in the value-traded in the Stock Exchange as well as the surge in GDP at current prices brought about the fall in this ratio to 2.7 percent in 1385.

Value-traded to Market Capitalization Ratio

The value-traded to market capitalization ratio, namely the turnover ratio, measures the volume of trade against the size of stock market and the current potential share value of the listed companies. The highest ratio, 29.3 percent, was recorded in 1382, which decreased slightly in 1383 and fell sharply to 15.6 percent in 1384. The dramatic fall in the value of trading on the stock exchange by 45.5 percent was responsible for this reduction in 1384 compared with 1383. Despite reduction in the value of share trading in 1385, further reduction in the ratio of market capitalization to the total value of shares traded raised this ratio to 16.3 percent.

Insurance Premium to GDP Ratio

The insurance premium to GDP ratio, insurance penetration coefficient, indicates development of the insurance market. This ratio rose to 1.5 percent in 1385 from 0.9

Figure 16.10. Value-traded to GDP ratio

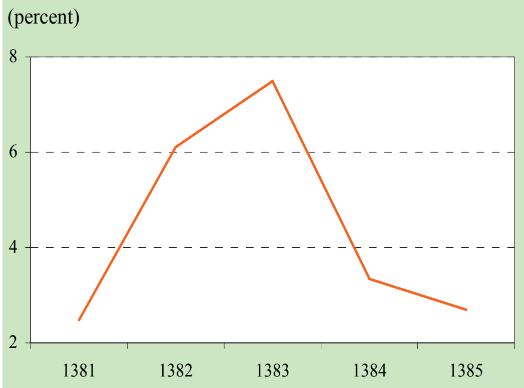


Figure 16.11. Turnover ratio

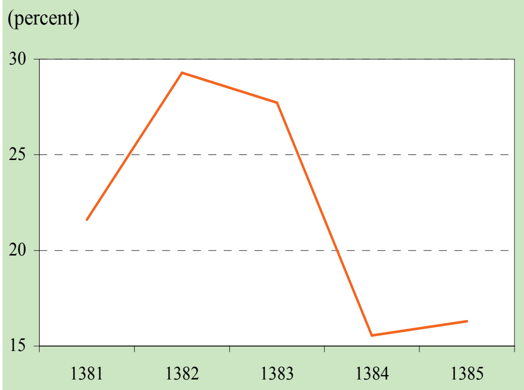
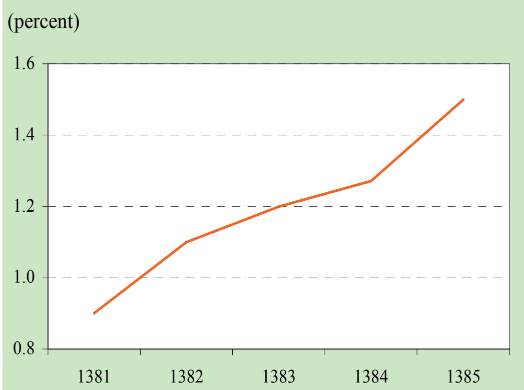


Figure 16.12. Insurance penetration coefficient



percent in 1381. This trend represents a rise in insurance activities and higher growth of insurance premiums than GDP.

Share of Value-added of Financial Institutions' Services in Value-added of Monetary and Financial Institutions' Services

The value-added of financial institutions' services consists of the value-added created by insurance companies and financial intermediaries (the stock exchange). Share of the value-added of insurance companies and stock exchange in the total value-added of monetary and financial institutions' services indicates the share of non-bank financial institutions. The mentioned ratio faced fluctuations during 1381-85. It advanced to 15.3 percent in 1382, from 12.9 percent in 1381, then with a downward trend was reduced to 9.7 percent in 1384. This variable rose to 11.9 percent in the review year.

Monetary Sector Development and Monetary Policy

Monetary sector and policy elaborates on the role of monetary policy indices as follows:

Financial Depth

The ratio of liquidity to GDP at current prices is regarded as a measure of depth of the financial system and the size of financial intermediaries. Figure 16.14 indicates trend of this ratio during the course of 1381-85. It went up to 63 percent in 1385, against 45.5 percent in 1381.

Ratio of CBI's Outstanding Participation Papers to Monetary Base

In order to develop and expand open market operations and to implement monetary policies with respect to liquidity management, the CBI has issued participation papers as of end-1379.

Figure 16.13. Share of value-added of financial institutions' services in value-added of monetary and financial institutions' services

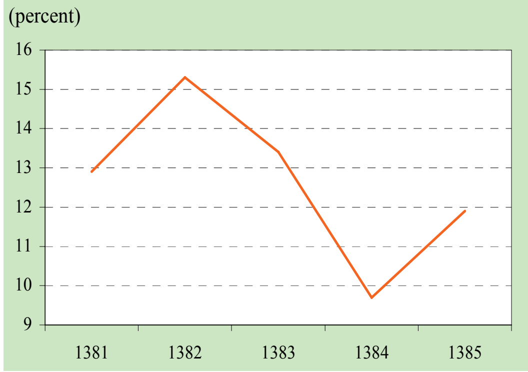


Figure 16.14. Financial depth

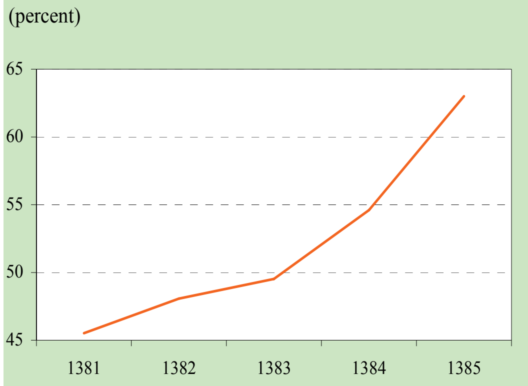
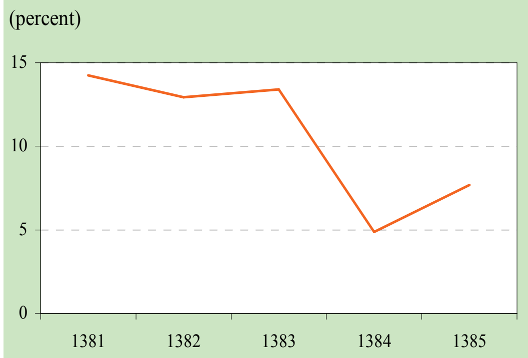
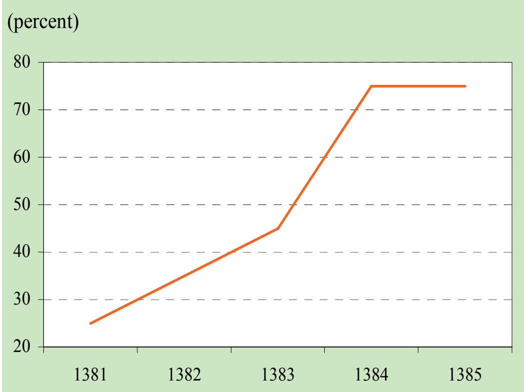


Figure 16.15. Ratio of CBI's outstanding participation papers with the public to monetary base



The ratio of participation papers sold by the CBI to monetary base is considered as an indicator representing expansion of indirect monetary policy instruments. The mentioned index stood the highest in 1381 (14.3 percent), but decreased slightly in 1382, then advanced to 13.4 percent in 1383. The mentioned ratio fell drastically in 1384 to 4.9 percent. This reduction was due to the fall in the amount of participation papers sold by the CBI from Rls. 20,237.9 billion in 1383 to Rls. 10,768.3 billion in 1384 in conjunction with the constant growth of monetary base due to problems arising from issuance of participation papers. The rise in the amount of participation papers sold during the review year to Rls. 22,187 billion led to 7.9 percent growth of this ratio in 1385.

Figure 16.16. Stages of relaxation of sectoral credit allocation

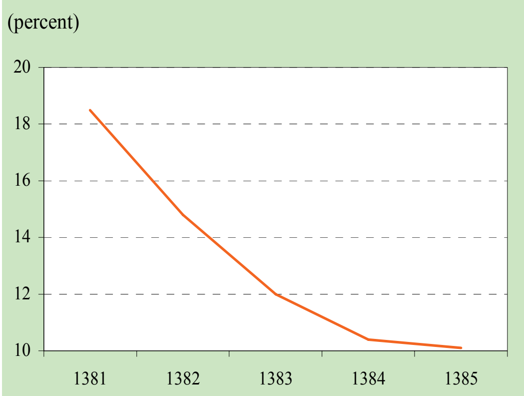


Credit Controls

The effects of monetary policy conduct may be observed in the real sector of economy through credit control. Credit policies, with channeling credits to certain sectors, are able to affect their growth rate. The proportion of free uses as an indicator representing reduction of direct controls on credits in respect of monetary policies over the review period rose sharply from 25 percent in 1381 to 75 percent in 1384, which remained unchanged in 1385.

To further depict the extent of government credit control, the ratio of outstanding budgetary facilities [(1)] to total outstanding facilities [(2)] could be used. Since

Figure 16.17. Ratio of outstanding budgetary facilities to total outstanding facilities



(1) Includes facilities banks are obliged to extend according to Budget Notes. It is noteworthy that the figures mentioned herein are based on banks' ledgers, including budgetary facilities as well as profit and revenue receivables.

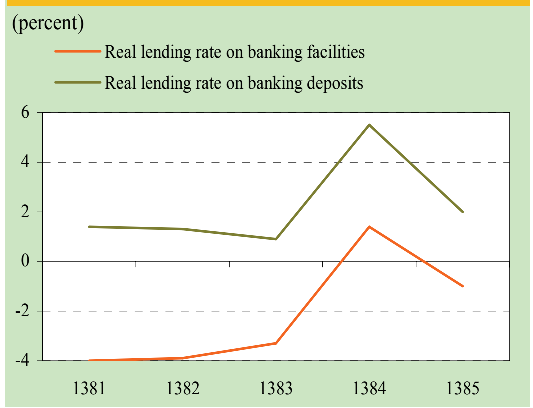
(2) This ratio is calculated by dividing the amount of facilities extended by public banks to public and non-public sectors according to Budget Notes by the amount of these sectors' indebtedness to banks and non-bank credit institutions (in percent).

credit control may hinder optimal allocation of resources and financial development, reduction in the mentioned ratio signals further financial development. This ratio declined to 10.1 percent in 1385 against 18.5 percent in 1381.

Lending Rate Liberalization

To define the lending rate liberalization, real lending rate on facilities and banking deposits is taken into account. A positive real lending rate represents higher liberalization. Real lending rate on banking facilities decreased from 1.4 percent in 1381 to 0.9 percent in 1383, rose to 5.5 percent in 1384, and declined to 2 percent in 1385. Similarly, real lending rate on banking deposits which was negative during 1381-83 recovered to 1.4 percent in 1384. This rate became negative again in 1385.

Figure 16.18. Real lending and deposit rates

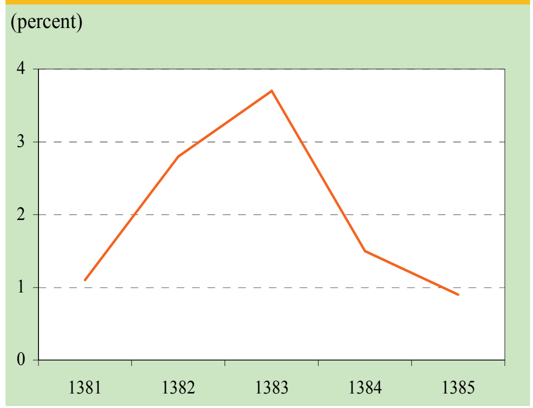


Government Participation Papers

In order to benefit from new monetary instruments and to finance profitable projects, the government initiated issuance of participation papers as of 1376. In order to measure the impact of this policy, the contribution of participation papers sold each year to financing of government requirements is taken into account. This ratio ranged within one to 4 percent during 1379-84 and fell to 0.9 percent in 1385.

The following table indicates components of financial development according to three facets: banking sector development, non-bank financial sector development, and the monetary sector/policy development. This table also includes corresponding indices, as well as their annual average growth during 1381-85.

Figure 16.19. Share of government participation papers in government financing



COMPONENTS OF FINANCIAL DEVELOPMENT

	1381	1382	1383	1384	1385	Annual average growth (1381-85)
Banking Sector Development						
Share of private banks' deposits in total banks' deposits	1.6	3.4	7.0	12.0	15.7	77.0
Share of private banks' claims on non-public sector in total claims on non-public sector	1.2	3.8	7.9	12.2	13.8	84.2
Share of banks' claims on non-public sector in total claims	81.4	84.1	85.8	88.5	90.8	2.8
Ratio of banks and non-bank credit institutions' assets to banking system's assets	67.9	71.9	74.4	74.9	75.3	2.6
Ratio of banks' reserves to total non-public sector deposits	22.2	18.4	16.6	19.5	17.9	-5.2
Banks' concentration ratio	58.7	56.8	52.5	49.0	45.0	-6.4
Bank spread (1)	5.4	5.2	4.2	4.0	3.0	-13.7
Share of value-added of monetary and financial institutions' services in the value-added of services sector	4.3	5.5	7.4	8.3	9.4	21.6
Efficiency of the banking system	72.5	79.6	83.6	85.6	87.2	4.7
Non-bank Financial Sector Development						
Market capitalization to GDP ratio (2)	12.8	28.3	28.0	19.3	19.4	11.0
Value-traded to GDP ratio	2.5	6.1	7.5	3.3	2.7	1.9
Turnover ratio	21.6	29.3	27.7	15.6	16.3	-6.8
Insurance penetration coefficient	0.9	1.1	1.2	1.3	1.5	13.6
Share of value-added of financial institutions' services in the value-added of monetary and financial institutions' services	12.9	15.3 (3)	13.4 (3)	9.7 (3)	11.9 (4)	-2.0
Monetary Sector/ Policy Development						
Financial depth	45.5	48.1	49.5	54.6	63.0	8.5
CBI's outstanding participation papers to monetary base	14.3	12.9	13.4	4.9	7.9	-13.8
Credit controls (share of outstanding budgetary facilities in total outstanding facilities)	18.5	14.8	12.0	10.4	10.1	-14.0
Liberalization of rate of return on facilities (5)	1.4	1.3	0.9	5.5	2.0	9.3
Liberalization of rate of return on deposits (5)	-4.0	-3.9	-3.3	1.4	-1.0	-29.3
Share of governmental-budgetary participation papers in government financing	1.1	2.8	3.7	1.5	0.9	-4.9

(1) It includes only public banks (2) This ratio is calculated on the basis of the revised 1384 and the preliminary 1385 GDP figures. (3) Figures are revised and preliminary. (4) Figure is preliminary. (5) Figures include only public banks, and inflation rate is based on the CPI in urban areas at 1383 base year.