CHAPTER 16

# FINANCIAL DEVELOPMENT

Based on recent empirical works and theories, developed financial systems help enhance financial intermediation through reduction of supervision, transaction, and information costs.

Efficient financial systems encourage investment by identifying and funding adequate business opportunities, mobilizing savings, diversifying and reducing risks and facilitating exchange of goods and services. Moreover, rise in efficiency of financial system along with promoting allocation of resources, enhancing investment and accelerating capital accumulation pave the way for raising economic growth (1).

It is of particular note that financial depth (2), financial repression, and the share of credits extended to private sector may not thoroughly reveal the significance and implications of financial development. Therefore, a multifaceted concept comprising banking sector development, market structure, institutional environment, financial openness, supervision and regulation in financial system and monetary policy instruments are introduced and used in recent empirical studies.

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 1382-86.

## 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 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 non-public sector to private banks in total outstanding debts of this sector is measured.

Share of private banks and credit institutions' (3) deposits was registered at 3.4 percent in 1382. Upon the rise in the number of private banks and expansion of their activities, this share gradually rose, and was recorded at 19 percent in 1386 year-end. This increase represented private banks' success in attracting public confidence and

(1) Creane, S., Rishi Goyal, A., Moshfigh, M. and Randa, S., 2004, "Financial Sector Development in the Middle East and North Africa", IMF Working Paper, 04/201 (Washington: International Monetary Fund)

(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.

(3) Includes Bank Pasargad as of Bahman 1384, and Bank Sarmaye since Shahrivar 1385.

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 largely contributed to such increase and its growing trend. Moreover, the share of private banks' claims on the non-public sector in total outstanding debts of this sector went up from 3.8 percent in 1382 year-end to 15.4 percent at end-1386.

### Share of Non-public Sector in Banking Facilities

Most studies find a positive correlation between share of credits allocated to non-public sector and performance of the financial system. Therefore, by extending facilities on the basis of supply-demand mechanism, the more credits allocated to 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.

In order to evaluate methods of directing credits to public and non-public sectors, share of banks' claims on non-public sector in total outstanding debts of public and non-public sectors is measured [(1)]. The upward trend of such ratio represents the rise in the amount of banking facilities extended to non-public sector in recent years. This ratio rose from 84.1 percent in 1382 to 91.8 percent in 1386 year-end.

### Ratio of Banks' and Credit Institutions' Assets to Banking System's Assets

This ratio points to a relatively crucial position of deposit-taking financial institutions. The correspondent index is the share of banks' and credit institutions' internal assets in total assets of the banking system, which increased from 71.9 percent in 1382 to 74.8 percent in 1386.

(1) Includes profit and revenue receivables.

**Figure 16.1. Share of private banks in banking industry**

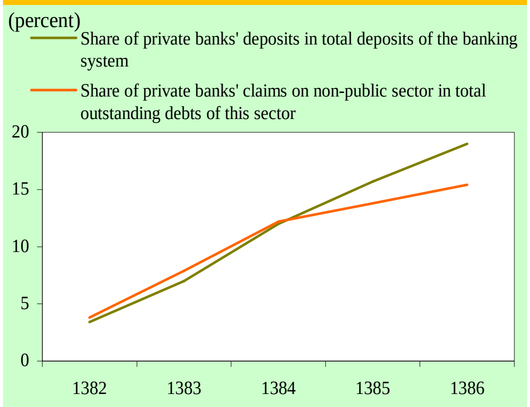



**Figure 16.2. Share of banks' claims on non-public sector in total outstanding debts of public and non-public sectors**

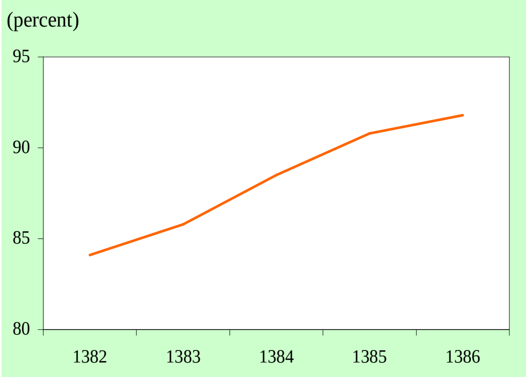
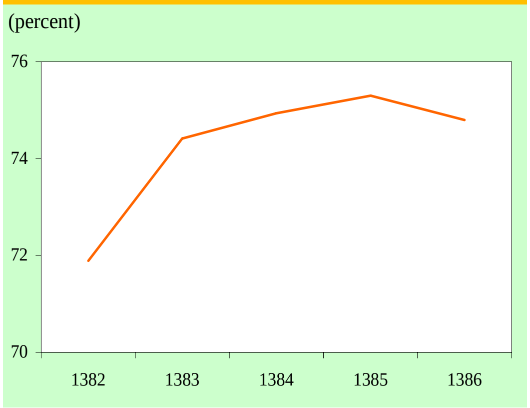



**Figure 16.3. Ratio of banks' & credit institutions' assets to banking system's assets**



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

This ratio is calculated by dividing sum of excess and legal reserves of banks and credit institutions held with the CBI, as well as banks' cash amounts by total non-public sector deposits with banks and credit institutions. 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 18.4 percent in 1382 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 owing to rise in special deposits of one bank with the CBI. However, this ratio fell to 17.9 percent in 1385, and went up again to 18.3 percent in the review year.

### 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 to 46.1 percent in 1386, against 56.8 percent in 1382 points to the competitive environment in the area of banking system, thanks to private banks' operation in recent years.

### 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 banks' lending rates vary in different sectors. Therefore, the difference between the weighted

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

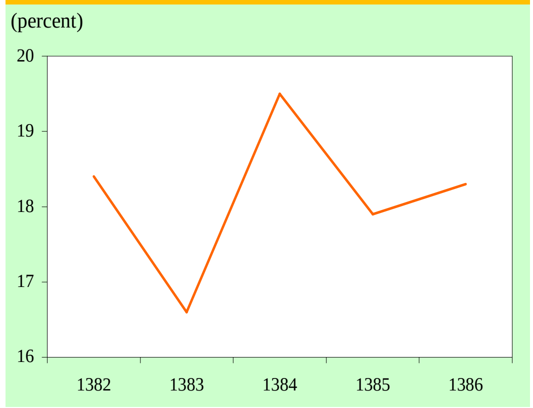



**Figure 16.5. Banks' concentration ratio**

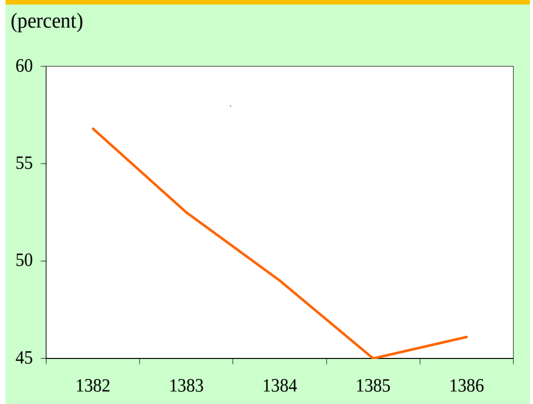
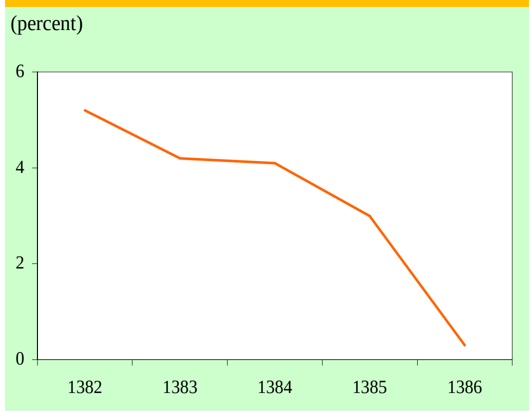



**Figure 16.6. Bank spread**



lending rate (provisional) on term investment deposits and that of the public banks' facilities are used to calculate the bank spread. Bank spread decreased to 0.3 percent in 1386 from 5.2 percent in 1382 [(1)], which was due to reduction of banks' lending rates.

### 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 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. This ratio increased to 6.1 percent in 1383, against 5.7 percent in 1382, declined to respectively 5.5 and 5.4 percent in 1384-85, and went up again to 5.9 percent in 1386.

### 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. Owing to 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 indicates size of the stock market in percentage of GDP. Figure 16.8 depicts the downward trend of this ratio in recent years.

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

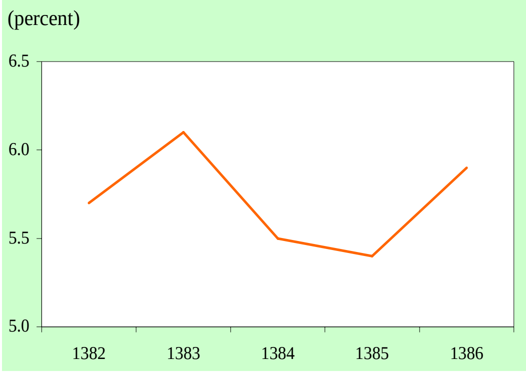
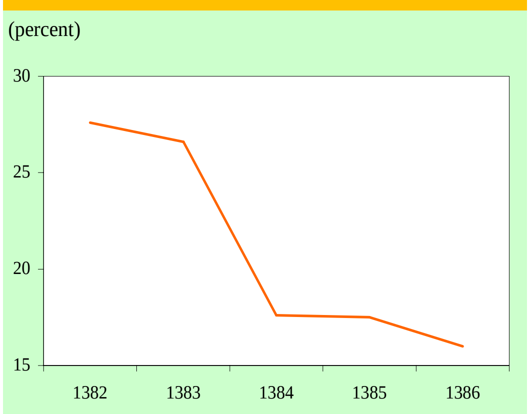



**Figure 16.8. Market capitalization to GDP ratio**




(1) Bank spread is calculated by taking the lending rate for transaction contracts into account.

The mentioned ratio was 27.6 percent in 1382 and 26.6 percent in 1383. It fell to 17.6 percent in 1384 and 17.5 percent in 1385, and 16 percent in 1386.

### Value-traded to GDP Ratio

The value-traded to GDP ratio (total value of shares traded to GDP) points to the ability to easily trade securities, and the depth of financial market in terms of securities. The higher this ratio, the easier the trading of securities. This ratio increased to 7.1 percent in 1383, against 5.9 percent in 1382, and decreased to 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 2.5 percent in 1385, which remained virtually unchanged in the review year at 2.5 percent.

### 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. Reduction in the value of share trading in 1385 reduced this ratio to 15.4 percent, which went up to 17.0 percent in 1386.

### Insurance Premium to GDP Ratio

The insurance premium to GDP ratio, insurance penetration coefficient, represents development of insurance market. This ratio rose to 1.19 percent in 1383 from 1.13

**Figure 16.9. Value-traded to GDP ratio**

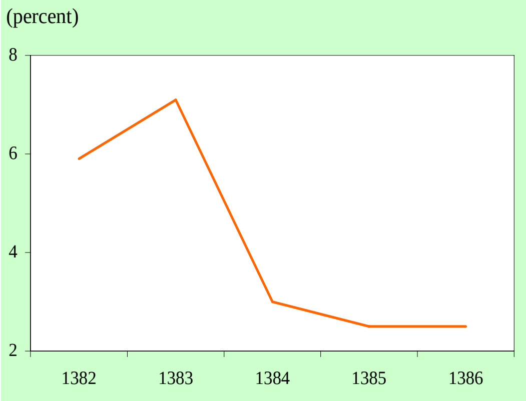



**Figure 16.10. Turnover ratio**

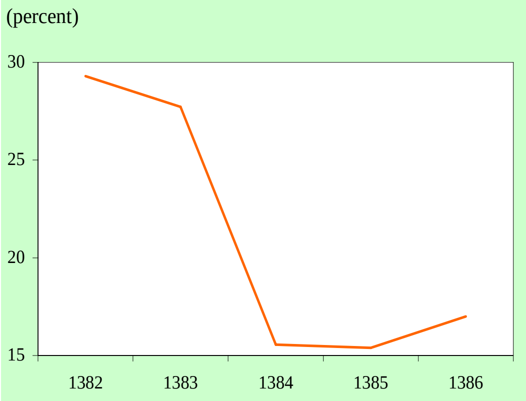
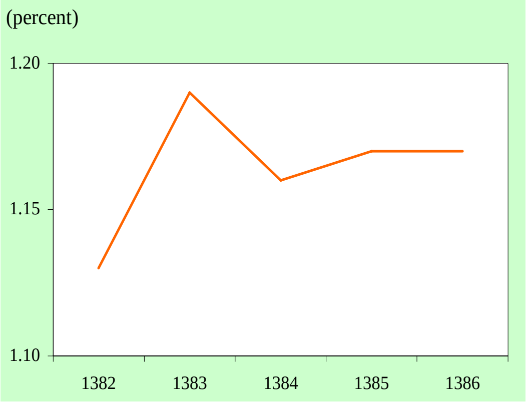



**Figure 16.11. Insurance penetration coefficient**



percent in 1382, then fell to respectively 1.16 and 1.17 percent in 1384-85, and remained unchanged in the review year.

### 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 financial institutions. This ratio faced fluctuations during 1382-86, and declined from 15.6 percent in 1382 to 10.3 percent in 1384. It advanced to 12.6 percent in the next year, however. This variable fell again to 10.4 percent in 1386.

### Monetary Sector Development and Monetary Policy

In this section, the role of monetary policy indices is examined 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 16.13 shows trend of this ratio over the course of 1382-86. This variable increased from 46.8 percent in 1382 to 56.8 percent in 1385 [(1)], and remained unchanged in 1386.

### 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,

(1) Due to high share of monetary base in liquidity in countries such as Iran, the ratio of liquidity to GDP may not be an appropriate index to measure financial development.

**Figure 16.12. Share of value-added of financial institutions' services in value-added of monetary & financial institutions' services**

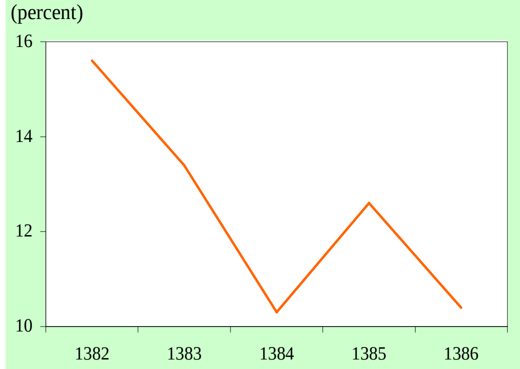



**Figure 16.13. Financial depth**

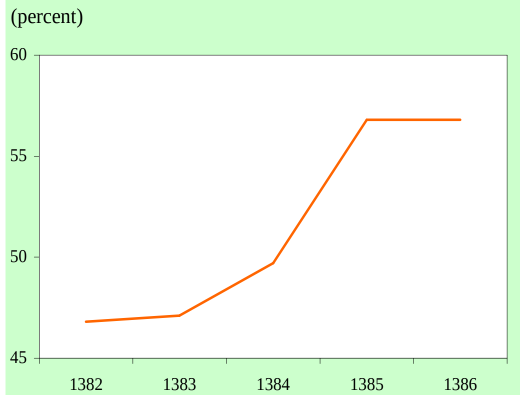
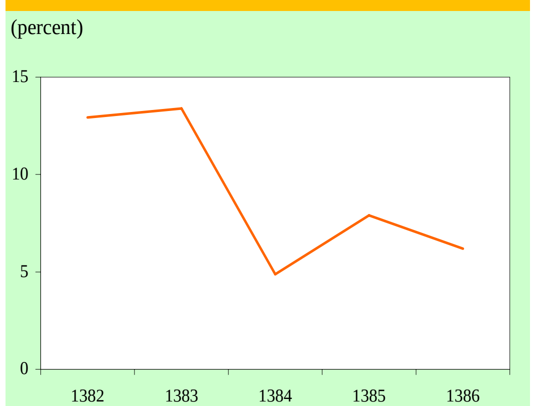



**Figure 16.14. Ratio of CBI's outstanding participation papers to monetary base**



the CBI has issued participation papers as of end-1379.

The ratio of participation papers sold by the CBI to monetary base is considered as an indicator signifying expansion of indirect monetary policy instruments. This index reached 12.9 percent in 1382, and increased slightly in 1383; however, it declined sharply in 1384-85 to 4.9 and 7.9 percent, respectively. This reduction was due to the fall in the amount of participation papers sold by the CBI from Rls. 20.2 trillion in 1383 to Rls. 10.8 trillion in 1384 in tandem with the constant growth of monetary base as a result of the problems arising from issuance of participation papers. The increase in the amount of participation papers sold during 1385 to Rls. 22.2 trillion brought about 7.9 percent growth, which despite a meager growth in the sold CBI participation papers fell again to 6.2 percent in 1386 due to rise in monetary base.

## 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 35 percent in 1382 to 75 percent in 1384, and remained unchanged during 1385-86.

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 credit control

(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 (including profit and revenue receivables) to banks and credit institutions (in percent).

**Figure 16.15. Stages of relaxation of sectoral credit allocation**

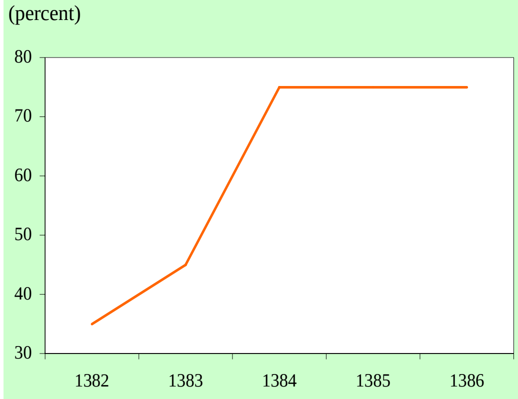
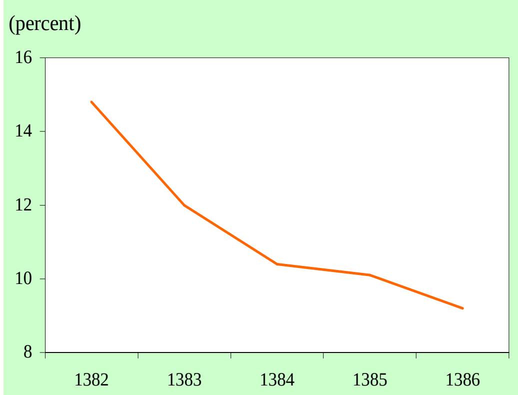



**Figure 16.16. Ratio of outstanding budgetary facilities to total outstanding facilities**



may hinder optimal allocation of resources and financial development, reduction in the mentioned ratio signals further financial development. This ratio decreased from 14.8 percent in 1382 to 9.2 percent in 1386.

### 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 extended by public banks for transaction contracts declined to 0.9 percent in 1383, against 1.3 percent in 1382. This rate rose to 5.5 percent in 1384, and stood at 2.0 and -6.4 percent in 1385-86, respectively. Moreover, real deposit rate of public banks which was negative during 1382-83 reached 1.4 percent in 1384. This rate was recorded -1.0 and -6.7 percent in 1385-86, respectively.

### 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 governmental–budgetary participation papers sold each year to financing government requirements [(1)] is taken into account. This ratio rose from 2.8 percent in 1382 to 3.7 percent in 1383. It faced a downward trend and reached 0.7 percent in 1386, however.

The following table indicates components of financial development according to three facets: banking sector development, nonbank financial sector development, and the monetary sector/policy development. This table also includes corresponding indices, as well as their annual average growth during 1382-86.

(1) Budget requirements refer to sources/uses of the government budget.

**Figure 16.17. Real lending and deposit rates**

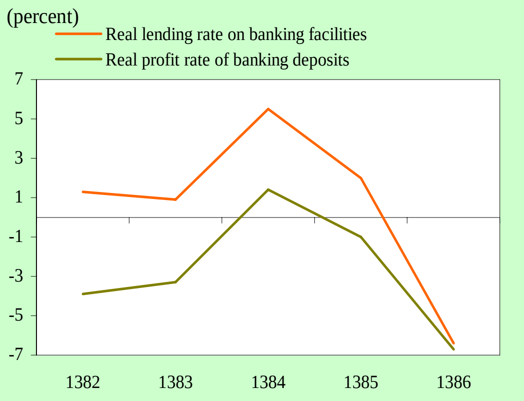
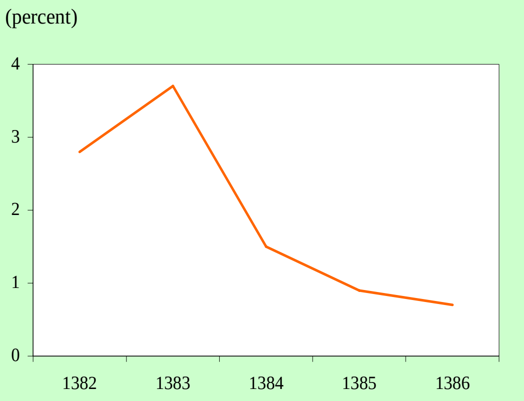



**Figure 16.18. Share of government participation papers in government financing**



## Components of Financial Development

| | 1382 | 1383 | 1384 | 1385 | 1386 | Annual average growth [1] (1381-86) |
|---|---|---|---|---|---|---|
| **Banking Sector Development** | | | | | | |
| Share of private banks' deposits in total banks' deposits | 3.4 | 7.0 | 12.0 | 15.7 | 19.0 | 64.0 |
| Share of private banks' claims on non-public sector in total claims on non-public sector | 3.8 | 7.9 | 12.2 | 13.8 | 15.4 | 65.9 |
| Share of banks' claims on non-public sector in total claims | 84.1 | 85.8 | 88.5 | 90.8 | 91.8 | 2.4 |
| Ratio of banks' and credit institutions' assets to banking system's assets | 71.9 | 74.4 | 74.9 | 75.3 | 74.8 | 1.9 |
| Ratio of banks' reserves to total non-public sector deposits | 18.4 | 16.6 | 19.5 | 17.9 | 18.3 | -3.8 |
| Banks' concentration ratio | 56.8 | 52.5 | 49.0 | 45.0 | 46.1 | -4.7 |
| Bank spread [2] | 5.2 | 4.2 | 4.1 [3] | 3.0 | 0.3 | -44.9 |
| Share of value-added of monetary and financial institutions' services in the value-added of services sector [4] | 5.7 | 6.1 | 5.5 | 5.4 | 5.9 | 6.4 |
| **Non-bank Financial Sector Development** | | | | | | |
| Market capitalization to GDP ratio [4] | 27.6 | 26.6 | 17.6 | 17.5 | 16.0 | 4.5 |
| Value-traded to GDP ratio [4] | 5.9 | 7.1 | 3.0 | 2.5 | 2.5 | 0.3 |
| Turnover ratio | 29.3 | 27.7 | 15.6 | 15.4 [3] | 17.0 | -4.7 |
| Insurance penetration coefficient [4] | 1.13 | 1.19 | 1.16 | 1.17 | 1.17 | 3.2 |
| Share of value-added of financial institutions' services in the value-added of monetary and financial institutions' services (at current prices) [4] | 15.6 | 13.4 | 10.3 | 12.6 | 10.4 | -2.7 |
| **Monetary Sector/ Policy Development** | | | | | | |
| Financial depth [4] | 46.8 | 47.1 | 49.7 | 56.8 | 56.8 | 4.5 |
| CBI's outstanding participation papers to monetary base | 12.9 | 13.4 | 4.9 | 7.9 | 6.2 | -15.2 |
| Credit controls (share of outstanding budgetary facilities in total outstanding facilities) | 14.8 | 12.0 | 10.4 | 10.1 | 9.2 | -13.0 |
| Liberalization of lending rate [5] | 1.3 | 0.9 | 5.5 | 2.0 | -6.4 | -235.4 |
| Liberalization of deposit rate [5] | -3.9 | -3.3 | 1.4 | -1.0 | -6.7 | 10.8 |
| Share of governmental-budgetary participation papers in government financing | 2.8 | 3.7 | 1.5 | 0.9 | 0.7 | -7.6 |

(1) Based on compound annual growth rate

(2) It includes only public banks.

(3) Figure is revised.

(4) Figures are revised on the basis of the revised GDP and value-added figures during 1382-86, and are preliminary.

(5) Figures include only public banks, and inflation rate is based on the CPI in urban areas at 1383 base year. Meanwhile, the basis of calculation is the lending rate on transaction contracts facilities.