Chapter 4

The Financial System

- The positive trend in the financial markets and the stability of the financial system persisted in 2007.[1] The global financial crisis that plagued the financial system in the developed countries during the second half of the year had only a moderate impact on Israel by the end of 2007. The direct effects of the crisis have been increased volatility and risk margins in the financial markets, and an end to the upturn in asset prices that was typical of recent years.
- The financial system's resilience—its ability to absorb shocks—increased in 2007. This improvement was reflected in a decline of banks' credit risks, while their capital adequacy, and that of insurance companies, was maintained. The improvement was also reflected by the continued rise in liquidity in the financial markets, and by the greater diversification of credit risks in the economy. However, it appears that the financial institutions failed to exploit their high profitability in order to increase their capital ratios.
- The structural reforms that were applied in recent years have helped to enhance the financial system: the banks' share of business-sector finance decreased further in 2007, the corporate bond and ETF (exchange traded funds) markets expanded, the competition for the management of the public's savings increased, and the banks began to develop a pension advice network.
- Looking ahead, the risk of shocks in the financial system has increased due to the possibility of a slower rate of growth and a further expansion in risk margins as a result of the spread of the global crisis. The risk to the system also increased as a result of the rapid expansion in credit from institutional investors, which have less experience in monitoring credit risks and that are still subject to a lower level of supervision than the banks.
- The measures initiated by the supervisory authorities regarding the management of risks and capital adequacy are helping to reduce the vulnerability of the financial system. In view of the prevailing risks however, greater enforcement and control are still necessary with respect to risk management and the actual positions taken at the financial institutions, principally the insurance companies. The supervisory authorities also need to cooperate in making the appropriate preparations for dealing with financial crises.

[1] The information on the banking system and the insurance companies in this document is based on cumulative data for the first three quarters of 2007 only.

1. MAIN DEVELOPMENTS

Although the trend in the financial system was positive during 2007 as a whole, a major difference was apparent between the two halves of the year.

Although the trend in the financial system was positive during 2007 as a whole, a major difference was apparent between the two halves of the year. In the first half, the positive trends in the local financial markets typical of recent years continued, while in the second half the pattern of gains ceased and the volatility in the markets increased. This resulted from the global crisis, which began in the subprime mortgage market in the US, shook up the financial system in the developed countries, and developed into a crisis of major proportions compared with recent years (hereinafter: "the global crisis").

During the year as a whole, share prices and bond prices in Israel and the value of the shekel against the dollar continued to rise in a continuation of the trend of recent years, concurrent with a further increase in liquidity and trading turnover in the financial markets. The credit economy's risk premium remained at a historically low level, business-sector share and bond issues peaked in comparison with recent years, and the profitability of the banks and institutional investors remained high. However, the volatility in the financial markets and the foreign currency market and the extent of credit risks all increased in 2007 (Table 4.1).

The positive developments in the financial system resulted from the favorable macroeconomic conditions prevailing in recent years and from expectations that these positive conditions would persist.

The sustained positive course of developments in the financial system in Israel during the entire year resulted from the favorable macroeconomic conditions prevailing in recent years and from expectations that these positive conditions would persist. Important contributory factors in this respect were rapid growth, the increased financial resilience of the business sector as well as such basic factors as the continued implementation of structural reforms and a responsible macroeconomic policy. These factors are helping to expand the financial markets and promote their development, are reducing the level of uncertainty in the financial system, and over time are enhancing the allocation of sources in the economy by leading to a decline in the real interest rate, risk margins and the costs of capital for firms. The relatively high levels of saving and investment and the current account surplus are creating a convenient environment for the continued development of the financial system. The improvement in the local economic environment and in the economy's financial robustness in 2007 was also reflected by a continued inflow to Israel of large-scale foreign direct investment (FDI) in Israeli companies, by the OECD's decision to add Israel as a candidate for membership in its ranks, and by Standard and Poor's increase in Israel's credit rating in November.

The global environment in which the Israeli financial system operates changed significantly in mid-July 2007 due to the worldwide financial crisis.

The global environment in which the Israeli financial system operates changed significantly in mid-July 2007 due to the global crisis, which seriously affected financial markets and financial institutions in the US and Europe. As a result of the crisis, risk margins on all financial assets in the developed countries increased, a serious liquidity shortage arose in the global financial system, financial institutions worldwide incurred losses and the pace of growth in non-financial activity began to slow, especially in the American economy (see Box 4.1). The Israeli economy was not spared the upheaval in the global financial system. This was apparent in 2007 mainly from the increased volatility and risk margins in the financial markets, and by

Table 4.1
Main Stability Indicators of Israel's Financial System 2001–07

(percent)

	2001	2002	2003	2004	2005	2006	2007
A. The global environment							
Rate of growth of global GDP[a]	2.5	3.1	4.0	5.3	4.8	5.4	4.9
Increase in world trade[a]	0.2	3.5	5.4	10.6	7.5	9.1	6.9
Emerging markets' bond index (EMBI) spread	8.4	7.7	5.6	4.4	3.2	2.0	1.9
B. The domestic environment							
Financial Robustness of the business sector (quoted companies)[b]							
Financial leverage (debt/balance-sheet ratio, end-of-year)	61.4	64.5	61.7	60.7	59.9	59.9	59.5
Return on equity	-8.7	-3.2	5.1	11.6	17.0	13.7	14.9
Debt burden (ratio of repayment of principal and interest to operating profit)	162.5	134.5	103.4	77.0	70.3	68.9	78.5
Households' financial robustness[b]							
Credit burden (credit/disposable income ratio)	60.7	64.8	60.4	59.3	58.1	56.2	55.9
The economy's financial strength (end-of-year)							
Israel's risk premium (the CDS spread)		1.90	0.60	0.41	0.30	0.22	0.32
Net external debt/GDP ratio[b]	0.5	-2.4	-5.8	-9.6	-17.3	-22.7	-23
Government debt/GDP ratio[b]	91.9	99.8	101.7	99.9	95.9	86.7	78.9
C. Value of financial assets							
Risk indices (annual average)							
Probability of exceptional depreciation	---	17.2	14.5	1.9	1.1	2.0	3.7
Standard deviation of changes in:							
(Implied) exchange rate	---	11.9	10.4	6.2	6.3	7.3	9.3
General share-price index	17.0	15.8	16.6	12.6	12.9	13.0	14.1
Unindexed bonds	2.1	6.0	3.3	1.5	1.5	1.2	2.0
Prices and returns (in annual terms)							
Depreciation of NIS against the dollar	19.3	7.3	-7.6	-1.6	6.8	-8.2	-9.0
Rise of the general share-price index	-6.9	-20.2	55.7	17.4	33.2	5.4	23.3
Yield to maturity of *Shahar* 5-year bonds (period average)	6.9	9.0	8.4	6.6	5.6	6.0	5.2
D. Resilience of the financial system							
The banking system[b]							
Risk-weighted capital ratio	9.4	9.9	10.3	10.8	10.7	10.8	11.1
Balance-sheet credit risk/GDP	91.9	96.1	90.5	85.1	83.2	81.3	82.4
Ratio of problem loans to total credit	8.2	9.9	10.5	10.5	9.5	8.4	7.4
Insurance companies[b]							
Core capital/assets ratio[c]	4.5	4.9	5.4	5.8	5.4	5.5	5.6
Share of risk assets in total assets	15.9	17.5	21.9	25.4	35.3	41.6	46.9

(Cont.)

Table 4.1 (cont.)
Main Stability Indicators of Israel's Financial System 2001–07

(percent)

	2001	2002	2003	2004	2005	2006	2007
Provident funds[b]							
Share of liquid accounts in total liabilities	40.6	44.2	45.0	47.4	50.1	52.3	56.8
Ratio of liquid assets to liquid liabilities	8.1	7.7	10.9	13.2	23.6	22.6	18.2
The funds' share in the government indexed-bonds market	51.8	46.6	45.7	43.6	39.7	34.1	26.0
Share of risk assets in total assets	30.0	29.2	35.6	39.6	49.9	58.6	68.0
Market liquidity							
Rate of change in total daily turnover in the markets	21.6	31.2	-4.8	9.0	35.6	27.1	41.7
Bid-ask spread in NIS/Forex market	0.07	0.11	0.15	0.10	0.08	0.08	0.08
E. Financial activity[b]							
Ratio of credit to business-sector product	129.9	139.2	131.5	131.0	135.9	136.9	147.6
Rise of nonbank credit to the business sector	8.4	10.7	9.9	26.3	30.6	24.7	21.1
Share of deposits in banks and savings in bank-owned provident funds in total private-sector assets.	54.0	50.9	48.8	45.8	43.4	40.0	34.8

[a] The data for 2007 are estimates.

[b] The data for 2007 are for January to September.

[c] Including assets held against with-profits schemes, in which the risk is borne by the participant and not by the insurance company.

SOURCE: Based on data of the Capital Markets, Insurance and Savings Division of the Ministry of Finance.

an end to the upturn in asset prices that had been typical of recent years. However, the response in Israel to the global crisis to the end of 2007 was moderate compared with many developed countries and matched the extent of the response by other emerging markets with similarly strong macro data (see section 2 below).

The relatively moderate impact of the crisis on the functioning of the local markets and the continued improvement in the resilience of financial institutions in Israel despite the crisis resulted from Israeli financial institutions' limited exposure to the subprime market and to other mortgage-backed assets, the low reliance of Israel's mortgage market on raising capital by means of bonds, and the local banking system's low level of dependence on credit lines from abroad. The lack of developed money and securitization markets in Israel was another factor that prevented the global crisis from spreading to Israel, although the undeveloped state of these markets adversely affects the development of the financial system and the diversification of the risks within it.[2]

[2] Worldwide experience shows that these instruments contribute appreciably to the development of the financial markets. However, when providing regulatory coverage for these instruments in Israel, the lessons of the global crisis must be applied and in particular, the transparency regarding the risk inherent in them must be increased and a liquid secondary market for them should be developed (see Box 2 for details).

Box 4.1
The global financial crisis and its implications for the global financial system

Following several years of exceptional improvement in the stability of the global financial system, in July 2007 a global crisis broke out. The crisis began in the sub-prime mortgage market in the US and seriously affected the markets and institutions in the developed countries' financial systems. Although the crisis had been expected, its timing and intensity came as a surprise. Central banks and financial institutions worldwide had warned of its onset but had not done enough to prevent it (see section 2b). Even though time has elapsed since the onset of the crisis, the process of adjustment is continuing and it will be some considerable time before the full dimensions of the crisis and its implications for the financial system and the continuation of global economic growth become apparent.

a. The subprime market in the US

The mortgage market in the US is highly developed. Mortgages are used to finance most of the purchase cost of residences there. A mortgage that is granted at the market rate of interest to a borrower with reasonable credit quality data is classified as "prime', while a mortgage granted to a borrower with sub-standard data—at a higher rate of interest—is classified as "subprime". Since housing prices had been climbing continually for many years, the purchase of housing by means of subprime mortgages became an increasingly common practice. This is because in a rising market, the value of the collateral for the debt repayment (the apartment) also rises, and the ratio between the value of the debt and the value of the property against which the loan was granted improves continually. In such a situation, even a loan to a customer with inferior credit data is likely to become lower-risk.

Some 75 percent of housing mortgages in the US are financed by raising sources in the capital market by pooling[1] and securitizing mortgages. The pooling and securitization of mortgages—a practice that has existed in the US (and other countries) for decades—increases the sources of finance for owner-occupied housing beyond what the banking system alone would be able to provide. This is because it enables the bank to sell mortgages in the market to other investors, thereby freeing sources for extending additional loans, and to use the capital market as a source of finance for new mortgages. The size of the subprime mortgage market in the US was estimated at $ 0.7 trillion at the end of 2006, and accounted for 7 percent of the global market for asset-backed bonds.

[1] Pooling—a combination of a number of mortgages that serve as backing for the issue of a security, where each investor in the security receives his relative share of the payments of principal and interest on the pooled mortgages.

Data on the subprime mortgage market before 2006 usually showed relatively high rates of repayment. In order to exploit this fact and enable subprime mortgages to be financed at the lowest possible interest rate, part of the securities issued were given preference in the receipt of repayments of principal. As a result, they obtained a high credit rating and carried a lower rate of interest than the pool average. However, the more subordinate securities in the issue, which comprised only a few percent of it, were given speculative ratings and carried particularly high rates of interest.

Since it was difficult to market securities with a low rating, underwriters re-securitized the low-rated securities in separate issues called CDOs.[2] The combination of loans made it possible to spread the risk of borrower default more effectively due to the low correlation between the individual loans backing the CDO. Here too, the bulk of the CDO issue was usually given a high rating because of its preferential position within the CDO even though the backing for the CDO as a whole was comprised of "the last in the queue" for the receipt of repayments of principal from subprime mortgages.

Part of the securities that were issued in repeat issues were purchased by specialized companies[3] that had been established by the underwriters (usually banks and investment companies). These companies financed the purchase of securities by means of an additional issue of short-term commercial papers, which was sometimes secured by an owners guarantee. As a result of this guarantee and despite the securitization and sale of the loans, the credit risk was not completely removed from the banks' balance sheets and part of the risk returned to their balance sheets with the onset of the crisis, as will be described below.

b. The background and reasons for the onset of the crisis

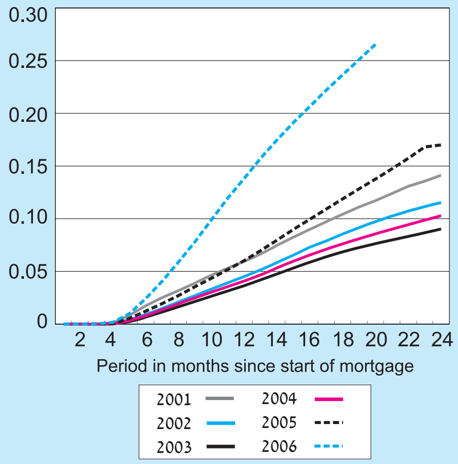
The volume of subprime mortgage-backed issues increased considerably during recent years, from $ 160 billion in 2001 to $ 600 billion in 2005 and 2006. Concurrent with the growth in demand for securities of this type, the terms for the receipt of a subprime mortgage were made more flexible, to the extent that borrowers were able to obtain a loan without presenting evidence of their repayment ability.

This upsurge in issues was connected to the sustained rapid growth in global economies and the low interest rates prevalent in the markets during recent years, which increased investors' tendency to take risks and prompted them to seek higher yields. These terms also led to a lax attitude by the banks in their credit policy, which was particularly apparent with respect to housing loans. These

[2] Collateralized Debt Obligation.

[3] Companies called SIVs (Structured Investment Vehicles), or Conduits. The first as compared to the second type of company is usually more exposed to subprime-mortgage-backed assets and has no arrangement for guaranteeing a supply of liquidity from the parent company.

Figure A
Rate of Arrears[a] on Subprime Mortgage Repayments, by Year When Mortgage was Taken, 2001-06



[a] Arrears of more than sixty days.
SOURCE: Merrill Lynch.

developments led to a reduction in the risk premiums on assets in the financial markets, and the premiums reached low levels that had never been known in the past. In addition, the growth in the supply of housing loans supported an increase in property prices, which encouraged the further expansion of the supply of the loans and the demand for them.

The business model on which the banks and financial institutions are based had an important role in speeding up the pace of issues. The model is notable for a long chain of players, beginning with the lender institution creating the credit and continuing with other institutions that package the credit, securitize it and distribute it to investors. By using the model, financial institutions operating in subprime activity were able to increase their activity and income without actually incurring the credit risk which they created, thereby reducing the incentive for lenders to properly monitor borrowers' repayment ability and increasing the supply of loans to borrowers lacking repayment ability.[4]

From the beginning of 2005 the proportion of borrowers who failed to keep up with repayments of principal and interest increased, and towards the end of 2006 it became clear that the payment record for mortgages granted in that year was far inferior to the record for mortgages granted in previous years (Figure A). The deterioration resulted from the gradual and continual increase in interest rates in the American economy, and from the decline in real estate prices in the US from mid-2006 following a continuous increase in the last decade. These trends had a particularly strong impact on borrowers in the subprime market. The type of mortgage which these borrowers took was usually based on floating-rate interest, with lower repayments of principal and interest at the beginning of the loan period—features that increased the attractiveness of the loans at the beginning of the period but which made it difficult for borrowers to fulfill their obligations at a later date.

[4] For details of the Originate and Distribute Model and its role in the development of the crisis, see for example the Bank of England's Financial Stability Report, No. 22, October 2007.

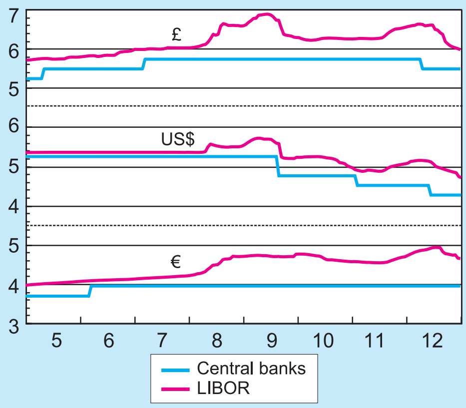
Against this background, in the initial months of 2007 a large number of companies that had granted subprime loans, including the largest among them, went bankrupt, merged on inferior terms or ceased to operate in the area. Until then however, the impact of the crisis on the other debt and capital markets had been quite limited.

c. The spread of the crisis to other sectors and markets worldwide

The problems deriving from the subprime sector spread rapidly during the summer to other markets in the US and Europe.[5] Towards the end of June, a number of funds managed by well-known financial institutions in the US and Europe encountered financial distress. Reports of losses incurred by European banks exacerbated concern in the market that exposure to subprime assets was far more prevalent than thought. From August onwards, the climate of uncertainty prompted a "flight to quality," which was reflected by a large drop in yields on short-term government bonds and by a disturbance of the traditional relationship between the central banks' risk-free interest rates and the interest rates on inter-bank deposits (Figure B).

The functioning of the credit rating companies in the subprime market affected the intensity at which the crisis spread. Since the instruments in the subprime market are complex by their very nature and are not liquid, statistical models have to be used in order to determine their value and to assess the risk inherent in them. The rating companies using these models appear to have been slow to match their ratings to developments in the markets, and therefore eventually had to make large adjustments in their ratings of the instruments traded in the market. This behavior, coupled with investors' excessive reliance on the rating companies' risk assessments, was reflected by investors' extreme response to the rating companies' reduction in the credit rating of a wide variety of assets in July and August. The reduction in ratings spurred the downturn in prices and deepened the extent of the crisis.

Figure B
Central Bank Interest Rates and LIBOR Rates in the Main Markets, May to December 2007



SOURCE: Bloomberg.

[5] This was despite the fact that the subprime market was relatively small in size, and at the end of 2006 accounted for only 10 percent of the global market for mortgage-backed securities.

During the second half of the year, the risk premium in global markets rose sharply, and players' willingness to invest in risk assets such as commercial papers exposed to the subprime market fell dramatically, as reflected by the large decrease in the value of the assets and the ability to raise capital or roll-over securities that had reached maturity. Concurrently, the banks had to purchase assets from entities which they owned that were no longer able to finance themselves by issuing new securities. As a result, the subprime market's credit risk reverted to the banks' balance sheets.

The increase in risk-averseness was also apparent from the appreciable expansion of yield spreads in the markets for bonds that were not directly connected with the financial markets, such as bonds issued by non-financial companies and emerging markets. The principal equities markets also posted large losses in July-August, reversing the long-term uptrend for which they were previously notable.

The banks' reduced willingness to lend to each other in the inter-bank market and the large decrease in liquid sources prompted the central banks of the major industrialized countries to inject liquidity into the money markets, and to cut their monetary interest rates in order to restore the proper functioning of the markets and to minimize the impact of the crisis on non-financial activity. These measures sometimes conflicted with the policy measures required for attaining the inflation target. Most notable in this respect was the US central bank, which reduced its interest rate by 225 base points from the onset of the crisis and until February 2008. Despite these measures, the spread between central bank interest rates and Libor rates rose again in the last quarter of the year (Figure B).

In September, as a result of the liquidity problem, the British bank Northern Rock had to ask the Bank of England for an emergency liquidity loan. Only intervention by the British government and the issue of a government blanket guarantee for the bank's deposits succeeded in restoring the confidence of the bank's customers.

Reports of losses from positions in subprime instruments, by banks and by the largest companies in the global debt instrument market,[6] as well as the liquidity shortage in the markets, continued in the fourth quarter. Assessments that the financial crisis would have serious implications for non-financial activity in the global economy and especially in the American economy gradually increased, and global growth forecasts for the fourth quarter of the year and for 2008 were downward adjusted.

[6] These companies included Citigroup, Merrill Lynch and the HSBC and the UBS banks. To obtain an idea of the extent of potential losses of banks and other holders of subprime-mortgage-backed instruments, see Global Financial Stability Report, IMF, October 2007, pp. 19–13.

The numerous structural reforms implemented during recent years contributed to the continued development of the financial system.

The **structural reforms** applied to the financial system in recent years, included the Bachar reform, the pension reform, the tax reform and recently, the market markers reform and the launching of the ZAHAV, RTGS system have contributed to the development of the financial markets and to the rapid development of sophisticated financial instruments that have increased the liquidity and tradability in the markets. As a result of the reforms, the banks are no longer the almost exclusive credit suppliers to the business sector and a significant non-bank credit market has developed, which provides nearly 50 percent of the business sector's outstanding credit. The development of a serious alternative to bank credit is increasing the competition in the credit markets and the diversification of credit risks in the economy, concurrent with the transfer of part of the risk from the banks to households (via institutional investors). The reforms have also contributed to greater diversification of the public's asset portfolio in Israel and abroad. The proportion of marketable assets in the portfolio has increased, as has foreign investors' involvement in the local markets.

The decentralization of the financial system in accordance with the Bachar Reform was almost completed in 2007.

Following the enactment of the Bachar legislation, the process of decentralizing the financial system was nearly completed in 2007, when the mutual funds and provident funds were removed from the banks' control and the management of the public's savings was transferred to the insurance companies and to private brokers. This process led to increased competition for the management of the public's savings and paved the way for the development of an advice network at the banks that will be free from conflicts of interest and that will be readily accessible to the saver public.

Legislative changes that were applied at the beginning of 2008 are expected to lead to a significant change in the long-term savings market.

The pension savings market is expected to evolve to a major extent due to the changes in regulatory coverage and to other reforms that will go into effect in 2008. These reforms equalized the terms of saving on all forms of long-term saving and in stages, will enable the banks to engage in pension advice . The most recent changes will eventually have the effect of creating a more competitive saving and pension market structure that is readily accessible to the saver public. This structure will be comprised of a wide range of institutional investors offering a basket of alternative products and operating in accordance with uniform regulatory directives, providing the public with the opportunity to move between all forms of saving.

The decentralization of the structure of the financial system and the numerous reforms created new risks in the financial system that need to be addressed.

The more rapid than expected decentralization of the structure of the financial system together with numerous other regulatory changes prior to the Bachar legislation as well as more recent changes, and the rapid development of sophisticated financial instruments increased the potential risk for the financial institutions and their financial products and create new risks that require special attention: The increased competition among institutional investors resulting from the reforms has been accompanied by their growing tendency to incur credit and market risks, and to display a preference for short-term yield considerations. The risk inherent in the saving and investment products which they offer to the general public has increased, in an environment of potential conflicts of interest resulting from their involvement in investment management and underwriting. Today, the insurance companies are managing a large proportion of the public's savings even though the supervision over them has yet to match their new function. Another emergent risk factor is that the banks' incentive to find alternative activities and investments due to their reduced share of financial intermediation in recent years, and to the expectation of a decrease in their commission income. Finally, certain new investment instruments have a low level of transparency and the supervision of the entities issuing these instruments is inadequate.

The rapid growth in credit for the business sector, which mainly derived from non-bank sources, continued.

In 2007, the increased tendency of players in the financial system to incur greater risks at a time of rapid growth in the economy and growth in the demand for credit was reflected by a rapid expansion in credit to the business sector, which again largely derived from non-banking sources. This credit expanded by the high rate of 11 percent in real terms and by 10 percent in business-sector product terms. Part of the expansion in credit during 2007 resulted from the issue of unrated bonds with relatively low risk margins, while part of it resulted from demand by households via the mutual funds. The rapid expansion of non-bank credit requires special attention by the supervisory authorities. This is because of institutional investors' paucity of experience in assessing and monitoring credit risks and the fact that in contrast to bank credit, the saver public bear the full weight of the credit risks rather than the institutional investor. These factors increase the risk of a decline in the quality of the credit portfolio in the economy. The rating companies' activity also needs to be taken into account by the supervisory authorities. This is because the increased importance of credit risk monitoring could be accompanied by a greater potential for conflicts of interest between the rating companies and the bond issuers that order and pay for the rating.

Competition in the area of financial services for the household sector has remained low.

Although the decentralization of the financial system has contributed to more efficient management of the public's savings, it has yet to be reflected by any significant increase in the competition for other financial services to **the household sector.** This is due to the shortage of financial instruments that contribute to increased competition between the capital markets and the banks, and the concentration within the banking system itself, which is controlled by two large banking groups. In 2007 the Bank of Israel, the Finance Ministry and the Securities Authority took a number of measures aimed at increasing the competition in this sector as well (see the appendix).

The changes in regulatory coverage and legislation initiated by the authorities during 2007 and their preparations for promoting further changes in 2008 are intended to reduce the risks existing in the structure of the system that has been created. Measures taken during the year were: the upgrading of risk management at financial institutions, including preparations by the Banking Supervision Department prior to the implementation of the Basel II recommendations at the end of 2009; an improvement in the reporting and transparency of financial institutions and new financial instruments; progress in providing regulatory coverage for pension advice at the banks; and the signing of a memorandum of understanding for cooperation and know-how transfer between the three bodies responsible for supervising the financial system in Israel.

The financial institutions' resilience was maintained in 2007.

Despite the increase in systemic risks, **the resilience of the financial institutions** was maintained in 2007. Contributory factors in this respect were cyclical factors––a continued improvement in the local environment, the structural reforms and the supervisors' insistence on strengthening the capital structure of the banks and the insurance companies. The robustness of the Israeli banking system thereby increased and its credit risks in respect of all the principal industries, including the real estate industry, decreased while their capital adequacy ratios remained stable and their profitability remained high. The resilience of the insurance companies remained unchanged as well, mainly due to the stability in the ratio of core capital to total assets concurrent with the maintenance of a high level of profitability, even though the proportion of risk assets to total assets continued to rise. However, the insurance companies and the banks failed to exploit their profitability in 2007 in order to increase their capital base and their capital ratios. The resilience of the provident funds deteriorated to some extent during the year because of the reduced rate of coverage of liquid liabilities, and the continued rapid growth in the proportion of risk assets to total assets (Table 1).

The large appreciation of the shekel against the dollar mainly resulted from the worldwide weakening of the dollar.

In the foreign currency market the shekel appreciated by 9 percent against the dollar and by 1.4 percent against the effective currency basket, which is calculated on the basis of Israel's foreign trade weightings. The considerable strengthening of the shekel against the dollar relative to its strengthening against the effective currency basket resulted mainly from the worldwide weakening of the dollar, which began in the first half of 2006 and gathered momentum in August due to the global shock in the financial markets and its implications for the American economy. Despite differences in intensity, the trends in the effective exchange rate clearly matched the trends in the dollar exchange rate.

Concurrent with the worldwide weakening of the dollar, local factors were apparent. Some of these factors supported a strengthening of the shekel while others had the effect of weakening it. The main factors that supported a strengthening of the shekel were the continued improvement in the economy's fundamentals, which supported continued FDI in Israeli companies, and the current account surplus. The latter, together with large-scale FDI created persistent underlying pressure for an appreciation of the shekel and for most of the year, its impact outweighed that of the factors supporting capital exports by residents of Israel. The principal factors that had the effect of weakening the shekel were the continued international diversification of institutional investors' portfolios resulting from the tax reform.

Although the positive trends in the securities markets continued in 2007, a major difference was apparent between the two halves of the year.

In the securities markets, although the rise in turnover and prices continued, in the second half of the year the upturn in prices ceased, the volatility in the markets rose considerably and the risk margins on corporate bonds expanded.

Share prices surged by 25 percent in 2007 following four consecutive years of strong gains, and turnover increased to a daily average of NIS 2 billion. The price rises were centered in the first half of the year, among large and well-established companies. Only moderate increases were recorded among small cap companies, and in the second half of the year these companies' stocks fell heavily. Until May, the government bond market was notable for a large drop in yields and a considerable decrease in risk margins compared with those abroad, and these reached historically low levels. Although yields and risk margins increased later in the year, their average level in 2007 was still lower than in previous years. Turnover in the government bond market rose to a new high level in 2007 and reached an average of NIS 3.2 billion a day compared with an average of NIS 1.7 billion in 2006 as a result of the implementation of the market-makers reform.

In the corporate bond market, turnover also continued to rise and in 2007 reached NIS 0.7 billion compared with NIS 0.3 billion in 2006, mainly due to the expansion of the bond ETF market. The shock experienced by the market in the second half of the year was reflected by an increase in yields and risk margins and by a decrease in the amount of issues in the primary market. The impact of the crisis was particularly apparent in the unrated companies sector, principally among real estate companies, as reflected by the large downturn in real estate companies' shares. This was proof of the increase in risk assessments in this sector as a result of the high leverage rates in it and the expectation of a decline in profitability.

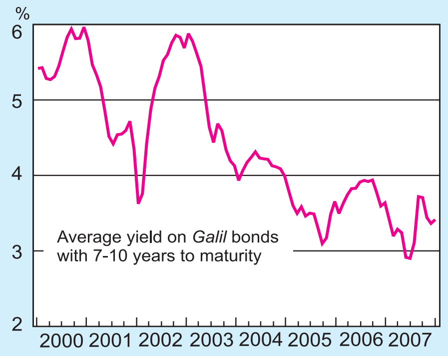
The volume of issues in the primary market reached a new record level in 2007.

Since July 2007, the primary market in Israel has operated under the new underwriting law, and the volume of issues in it, mainly bond issues, reached a new record level of NIS 104 billion. As in previous years, the majority of issues (80 percent) were floated by high-rated companies graded at A and above.[3] In the second half of the year issue volumes decreased, principally among non-marketable bonds and non-rated bonds, reflecting the change in the public's preferences and its assessment of the risks resulting from the global crisis.

The rapid expansion in the ETF market continued. In 2007, the growth was centered among bond ETFs. The market value of ETFs reached NIS 25.7 billion at the end of the year, and the number of certificates peaked at 237. Although ETFs are an important factor in increasing the liquidity and tradability in the financial markets, their low level of supervision and transparency increases the risks inherent in investing in them. This is in addition to the risks deriving from the low level of liquidity and tradability in many series resulting from the frequent and numerous issues of new series.

The long-term real interest rate in the economy continued to fall in 2007 and reached a 30-year low of 3 percent in May (Figure 4.1). When the

Figure 4.1
Yield to Maturity on Indexed *(Galil)* Bonds, 2000-07
(Monthly averages)



SOURCE: Bank of Israel.

[3] Based on an analysis of 80 percent of the marketable issues.

economy's risk premium rose again later in the year, the interest rate was raised and at the end of the year stabilized at a level of 3.6 percent. This level of interest rate was very low in historical terms, especially for an economy that had been expanding for the fourth consecutive year. Factors supporting the low interest environment were the continued growth in government saving, which reduced the government's borrowing requirements; the high level of private saving, which boosts the demand for financial assets; globalization and capital movements, which supported the connection with the low worldwide interest rates; and the reforms that led to increased demand for bonds and to greater competition in the markets.

Systemic risks to stability and recommended policy measures: Looking ahead, three main risks to the stability of the financial system are apparent: (1) the simultaneous materialization of a larger than expected slowdown in the American economy and spread of the credit crunch from the developed countries to the developing countries, which will lead to a larger adjustment in the credit risk premium of the emerging markets, including Israel; (2) disruptions in financial institutions' and the supervisory authorities' ability to adapt to the vast scale of financial reforms–those that will be applied and those in the planning stage—and especially the materialization of credit risks, which have increased greatly in recent years; (3) in the long term, the banks' increased tendency to embark on new investment channels as a result of the continually growing pressure of competition and the continued erosion expected in sources of profit due to the increasing pace of reforms in the financial system.

In order to increase the resilience of the financial system and to reduce its vulnerability to these risks, continued adaptation is necessary in the regulatory coverage, management and control of the risks at financial institutions and of the new financial risks that have emerged. Also necessary are an examination of the resilience of the financial institutions and especially the insurance companies in extreme situations (stress tests and crisis scenarios), and increased current enforcement and control of the financial institutions.[4] Once it is complete, new Bank of Israel legislation will strengthen the central bank's independence and its ability to respond rapidly in extreme situations. In addition, removing the supervision of insurance, provident fund and pension activity from the Ministry of Finance will enable the supervisor to operate more efficiently, as an independent entity. Finally, cooperation by the supervisory authorities in dealing with financial crises will improve their response time and increase the efficiency of their activity in crisis situations.

[4] According to various indices, the volume of inputs available to the Controller of Insurance relative to the volume of activity supervised is less than that of the Banking Supervision Department and the Securities Authority. For quantitative indices of this difference, see: A. Ben Bassat (editor), "The Supervision of the Capital Market," Democracy Library, 2007.

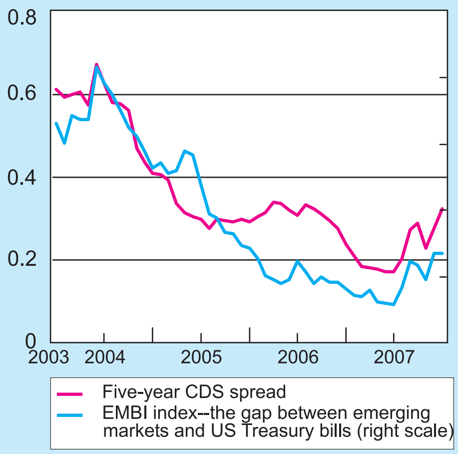
2. IMPLICATIONS OF THE GLOBAL FINANCIAL CRISIS FOR THE ISRAELI FINANCIAL SYSTEM AND POLICY CONCLUSIONS

a. Implications of the crisis for the Israeli financial system

The local financial system's response to the global financial crisis to the end of 2007 was moderate.

Despite the upheaval plaguing the global financial system as a result of the global crisis, the Israeli economy remained stable in 2007 and the local financial system's response to the crisis was more moderate than in many developed countries, and matched the extent of the response by other emerging markets with strong macro data (Figure 4.2).[5]

Figure 4.2
Risk Premium of Israel and of the Emerging Markets, December 2003 to December 2007 (Percent)



SOURCE: Bloomberg.

The volatility in the **financial markets** increased greatly, share and bond prices fell, and the depreciation of the shekel that began back in mid-May increased (Table 4.2). In addition, the economy's risk margins expanded abroad and locally.[6] Particularly notable was the increase in margins in the unrated companies sector—especially companies from the real estate industry.

The price slides, the depreciation of the shekel and the increase in the risk margins occurred in the midst of vibrant trading, without reducing the flow of FDI in Israel. The depreciation of the shekel ceased back in August and from September the level of volatility in the markets decreased, asset prices rose and the risk margins in the economy fell, even though they did not revert to their level prior to the onset of the crisis. Towards the end of the year, volatility rose again in all of the financial markets, asset prices fell and risk margins expanded (see Figure 4.3).

Companies in the real-estate industry appear to have been the most heavily affected by the crisis because of their large exposure to real-estate investments abroad—some even in the form of direct investments in the US—and due to the industry's heavy reliance on finance by means of debt instruments, some from the capital market. These characteristics of the industry were reflected by the large drop in real estate

[5] This can be seen from the reduced correlation between the Israeli equities market and the American equities market, and from the increased correlation between the American market and other developed markets since August 2007.

[6] The economy's risk margins abroad are measured according to the CDS margin, while the risk margins within the economy are measured as the spread between the yields on corporate bonds and those on Israel Government bonds.

Table 4.2
Main Indicators of Developments in the Financial Markets during 2007

	2007	First half	Second half
Prices (change during period, percent)			
General share price index	23.3	22.1	0.9
"Yeter" price index[a]	4.6	25.3	-16.5
Index of fixed-interest unindexed government bonds	2.4	2.6	-0.1
Private bonds index	3.5	4.7	-1.2
Total during period, NIS billion			
Gross private sector issuing in Israel	104.5	62.7	41.8
Accumulation in mutual funds	4.9	24.6	-19.7
Risk indices (period averages, percent)			
CDS premium	22.3	18.2	26.5
Standard deviation of changes in NIS/$ exchange rate	7.0	6.1	7.9
Standard deviation of general share price index	14.1	11.6	16.6
Standard deviation of unindexed government bond prices	2.0	1.5	2.5
Probability of sharp depreciation of shekel against the dollar	3.5	1.8	5.2
Implied volatility of NIS/$ options	9.1	7.9	10.4

[a] The Yeter ("other") index consists of the main market stocks that are not included in the TA-100 index.

SOURCE: Based on Tel Aviv Stock Exchange data.

share prices in the second half of the year, and by the larger increase in risk margins in that industry than in other industries.

The direct effect of the crisis on the local banking system to end 2007 was limited.

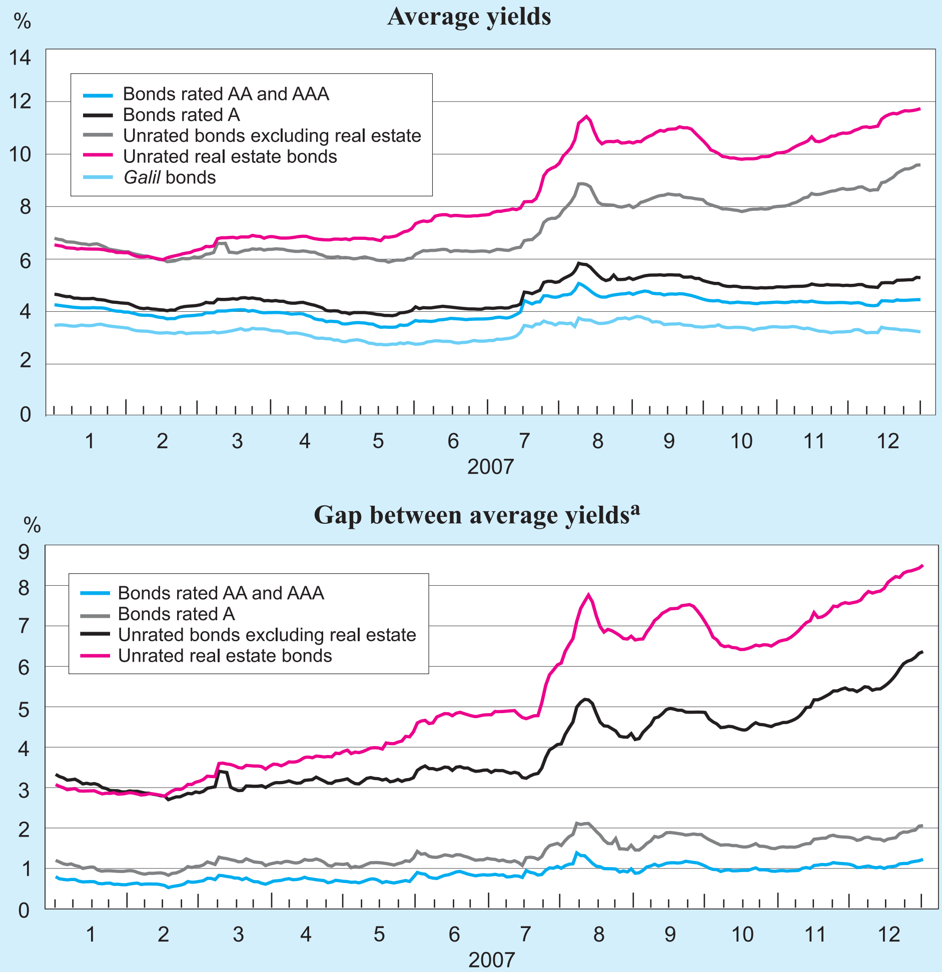
The direct impact of the crisis on the **local banking system** was limited as a result of its relatively low exposure to the subprime market. One large bank among the five largest banks, which had the greatest exposure to mortgage-backed bonds in its investment portfolio, recorded in its statement of income a fixed pre-tax writedown of $ 290 million in 2007 (5.5 percent of the bank's equity capital).[7] As far as is known to date, the writedowns to date on securities owned by other banks in the system have been assessed as only temporary and have been recorded on a smaller scale, and do not therefore require an immediate provision for losses. The global crisis also had an indirect impact on the banks as a result of the increased credit risk of their customers, mainly those who had invested in real estate abroad, (although the source of finance for investments abroad does not normally come from the local banking system).

Institutional investors were also barely affected directly by the global crisis, and their direct exposure to subprime mortgage-backed assets appears to have been minimal. A number of subprime mortgage-backed assets amounting to NIS 150 million were issued in Israel to institutional investors, and these institutions incurred losses in their investment portfolios as a result of the price slides. The losses in the fixed-

[7] The final figure for provisions for permanent writedown has not yet been published. It will be made known concurrent with the publication of the annual financial statements for 2007.

income and equities markets in Israel and abroad resulting from the crisis adversely affected the performance of institutional investors' portfolios, and had the effect of increasing their credit risk.

Figure 4.3
Yields on Private and Indexed Government Bonds and the Gap Between them, 2007



[a] The average duration of government bonds is longer than that of private bonds.

SOURCE: Bank of Israel.

b. Policy conclusions

The global crisis had been expected, but its timing and intensity came as a surprise. Central banks and international financial institutions had warned of it for a long time, but did not take any serious measures to stop the onset of the crisis. In their financial stability reports for recent years, central banks presented their assessment that the contraction in risk margins reflected under-pricing of credit risks and offered to conduct crisis situation stress tests for financial institutions. Yet despite the awareness of the risks involved, no attempt was made to increase the supervision of non-banking financial institutions in the US that extended credit for mortgages and securitization, too little was done to reduce the rating companies' conflicts of interest and their incentive to speed up the expansion of credit, the disclosure and transparency requirements regarding complex credit instruments were not upgraded sufficiently, and inadequate attention was paid to the fact that despite the securitization process, the banks remained highly committed to credit activity.

The lessons to be learned from the crisis are numerous and their implementation will help to reduce the risk of additional shocks.

In the spring of 2008 the international Financial Stability Forum is due to publish a report that will refer to all aspects of the crisis and define the regulatory policy measures that need to be applied in the wake of the crisis.[8] Meanwhile, the World Bank and the Bank of England have published the initial lessons to be learned from the crisis in their financial stability reports and whose implementation will help the supervisory and regulatory authorities in different countries to reduce the risk of additional shocks and to strengthen their financial systems. These recommendations are also relevant for the financial system in Israel, where the market for non-bank credit and complex financial instruments has expanded considerably in recent years and in view of the intention to develop a securitization market in Israel like that in other developed countries. Set out below is a summary of the recommendations that are relevant to the Israeli economy:

1. Recommendations for improving the functioning of the financial markets:

- Increased transparency and disclosure in the credit markets are necessary in order to enable investors to accurately assess the risk inherent in their investments, especially in sophisticated investment instruments.
- The rating companies must include in their reports on complex instruments assessments relating to the instruments' market and liquidity risks and the sensitivity of each instrument to extreme developments in the markets. In addition, the rating companies must not be permitted to engage in advice relating to the marketing of complex instruments. This is in order to reduce the conflicts of interest between them and the issuers of the instruments.
- The issue of financial instruments that have no developed and liquid markets will only be permitted if a liquid secondary market is assured for them by appointing market makers for the instruments.

[8] The Financial Stability Forum is an international body whose purpose is to strengthen the stability of the global financial system, improve the functioning of the markets and reduce systemic risks. The forum is comprised of representatives of international bodies that define regulatory standards, policy-makers from the central banks and supervisory authorities of the G-7 countries, and representatives of the IMF and the World Bank.

2. Recommendations concerning the activity of financial institutions:

- The transparency and disclosure at banks and other financial institutions regarding the extent of exposure and the amount of losses connected with their off-balance sheet activity in the structured asset market must be increased. This includes an assessment of the risk that the banks will have to take back the credit risks which they have sold.
- The liquidity requirements for the banks must be matched to the new situation where the banks have become more reliant on the securities markets for financing their current activity, and are thereby exposed to market risks in the event of liquidity difficulties in the markets.
- The banks will be required to conduct periodic stress tests that will cover a scenario assuming serious harm to the principal markets which they use for raising sources.

3. Financial education and protection of the financial consumer:

In many areas and especially in mortgage activity, the crisis revealed the need for dealing more resolutely with the promotion of financial education and protection of the consumer.

4. Infrastructure for the management of financial crises:

- The crisis has highlighted the importance of arrangements for increasing the coordination between all the regulators responsible for the financial system in order to reduce the damage to the economy at a time of crisis.
- The crisis revealed the need for infrastructure for providing regulatory coverage for the authorities' processing of insolvent banks and the issues relating to the characteristics of deposit insurance.

3. STRUCTURE OF THE FINANCIAL SYSTEM, NEW RISKS AND POLICY MEASURES REQUIRED

The structural change in the financial system that began in July 2005 following the implementation of the reforms in the capital market, known as the Bachar legislation, was nearly complete in 2007. The main purpose of the reform was to decentralize the institutional structure of the financial system and to reduce the dominance of the banks in the capital market. During 2007, the five largest banks sold their control in another 25 percent of the provident funds which they had had owned. As a result, non-bank entities' share in the management of long-term savings rose from 65 percent at the end of 2006 to 89 percent in 2007. In the mutual fund market, non-bank entities currently manage all of the mutual funds. This is after nearly all of the banks' mutual funds had been sold by the end of 2006. The proportion of insurance companies among the non-bank entities continued to rise in 2007, and these companies became dominant factors

The banks sold nearly all of their provident funds in 2007.

Table 4.3

Estimate of the Changes in Control of Long-Term Savings[a] and Mutual Funds Resulting from the Pensions Funds Reform and the Adoption of the Bachar Committee Proposals, 2003–07[b]

(percent)

	Total assets (NIS billion)	The largest five banking groups						The largest five insurance groups						Other financial institutions	
		Total	Hapoalim	Leumi	Discount	Beinleumi	Mizrahi-Tefahot	Total	Migdal	Clal	Phoenix	Menorah	Harel	Total	*of which* Foreigners
Total long-term savings[a]															
December 2003	260	52	22	14	10	3	4	21	7	5	3	2	3	27	0
December 2004	293	50	21	14	9	3	4	28	9	6	4	6	3	22	0
December 2005	355	45	19	12	8	3	2	33	10	10	4	7	3	22	0
December 2006	394	35	17	7	7	2	2	41	10	11	5	7	8	23	0
December 2007	435	11	9	1	1	0	0	55	13	18	8	8	8	34	7
Mutual funds															
December 2004	101	84	34	29	13	4	5	2	1	1	0	0	0	13	0
December 2005	125	77	30	27	12	4	4	3	1	2	0	0	0	21	0
December 2006	111	1	0	0	0	1	0	41	8	14	2	4	12	58	33
December 2007	119	1	0	0	0	1	0	39	11	10	3	4	11	59	30

[a] As in the definition used by the Bachar Committee, long-term savings include assets in provident funds, the new pension funds (including the central pension fund of the Israel Electric Corporation controlled by Clal), and with-profit life insurance schemes.

[b] In effect, as at December 2007 nearly all the provident funds still held by the banks had been sold, some to insurance companies and some to investment houses and portfolio managers, but these transactions had not been completed. Hence, the banks' share in long-term savings is expected to fall to 0 percent.

SOURCE: Based on data of the Capital Markets, Insurance and Savings Division of the Ministry of Finance.

in the management of the public's saving assets (Table 4.3). In 2007, the completion of the decentralization process enabled the Finance Ministry to focus on providing regulatory coverage for the pension advice industry at the banks in accordance with the principles of the Bachar legislation, and to issue licenses for advice activity to several more banks.

The reforms implemented increased the competition in the financial system while reducing the conflicts of interest at the banks.

The implementation of the Bachar reform and the pension reform which preceded it increased institutional entities' share of financial intermediation at the banks' expense and the competition among the institutions for the management of the public's assets while reducing potential conflicts of interest at the banks. The concurrent development of a sizable non-bank credit market is increasing the diversification of credit risks in the economy, and speeding up the development of new investment instruments. As a result, institutional entities share of the business-sector credit market rose to 26 percent at the end of the year compared with 8 percent in 2002, prior to the implementation of the reforms. The ratio of bank deposits to the public's total assets fell to less than 30 percent at the end of 2007 compared with 46 percent at the end of 2002. The year was also notable for the rapid development of the market for ETFs, which diversify the public's investment opportunities and constitute an alternative to the mutual funds.

The changes implemented in the long-term saving market during 2008 are expected to simplify the different saving products and increase the competition in the industry.

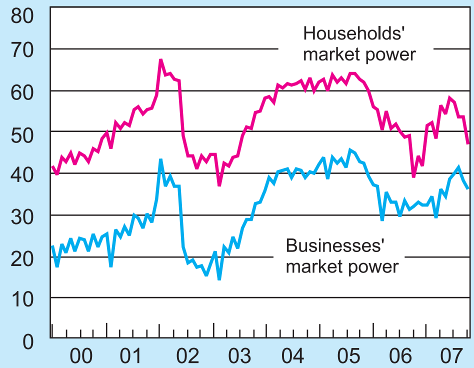
Regulatory changes in the long-term savings market in 2008 are expected to prompt a major change in the pension market. The changes in question are expected to create a more competitive structure in the pension savings market, which will be comprised of a number of institutional entities offering a basket of alternative products and operating under uniform regulatory directives. The saver's decision on whether to move from one channel of saving to another will be free of such alien considerations as tax considerations and will be based solely on considerations relating to yield, level of risk, quality of service and the level of management fees. On the saving product supply side, the banks are expected to develop a pension advice industry that will be accessible to the saver public and free from conflicts of interest.[9]

Although the decentralization of the structure of the financial system has led to more efficient management of the public's savings, these positive implications have yet to be reflected by any serious **growth in competition for the supply of other financial services to the household sector.** The main beneficiaries of the changes in the credit market have been business-sector companies, which can now issue bonds to institutional entities as a serious alternative to sources of bank finance, while credit to households is still almost completely controlled by the banks (mainly by the two largest banking groups).[10] This is apparent from the banks' index of market power over households, which remained high compared with their market power index over the business sector (Figure 4.4). The banks' utilization of their market power over

[9] At the end of 2007 the Finance Ministry submitted a proposal for a legislative amendment that will enable the banks to engage in insurance advice activity as well.

[10] For additional aspects of the competition in the Israeli banking system, see: David Ruthenberg "Competition in the banking industry, theoretical aspects and empirical evidence from Israel and abroad," Bank of Israel, Banking Supervision Department, Research Unit, discussion paper series 0502, May 2005.

Figure 4.4
Market Power Index[a] of Households and Businesses, 2000-07



[a] Market Power is calculated as (P-C')/P, where P = price of credit (interest rate + management fees), and C' = marginal cost (Bank of Israel effective interest rate).
SOURCE: Banking Supervision Department.

the household sector is also reflected by the commission fees which the banks charge from consumers for the financial services which they offer.[11] The Bachar Committee split the process whereby financial products are sold into two separate activities—advice and marketing—and thereby added the banks as an additional intermediary in the sale process for financial products without creating an alternative distribution and advice mechanism to the banks which would be accessible to households. No alternatives have been developed for providing banking services to households, such as traditional banking services at the Postal Bank or an Internet bank.

In 2007 the Bank of Israel and the Securities Authority increased their efforts to remove the still existing barriers to the development of new instruments and alternative distribution channels to the banks, which could lead to increased competition in the household sector.[12] In addition, in July 2007 the Knesset passed the Supervision of Bank' Commission Fees Law, which is expected to considerably reduce the number of fees, lead to standardization and thereby increase transparency and the ability to compare between banks.

The decentralization of the structure of the financial system, which was more rapid than expected, together with numerous other regulatory changes that were implemented before the Bachar legislation and more recently, the rapid development of new sophisticated financial instruments have increased the **potential risk of Israel's financial system.** Nearly all the players in the financial system have had to rapidly adapt their function to the new regulatory regime: The saver and investor public are exposed to a wide range of investment instruments that are notable for greater market and credit risks. The new investment instruments include sophisticated financial instruments with a low level of transparency and whose issuers are subject to inadequate supervision. The insurance companies that purchased many of the provident

[11] For example, the banks charge a "distribution fee," a commission fee which the customer pays to the bank for securities advice. The fee, which is calculated as a percentage of the value of the customer's assets, is charged by the bank every year on a continuous basis even if the advice is one-time in nature, as distinct from other commission fees which are charged according to the number of times an operation is conducted.

[12] The measures taken included promoting the establishment of a platform for the distribution of mutual funds via the Internet, and an examination of the regulatory coverage required for enabling those investing in the funds to make payments from their savings in them.

funds and mutual funds have effectively become companies managing large-scale investments while the level of supervision over them has yet to be adapted to the new situation. Institutional investors and the mutual funds have access to new investment opportunities that require the development of new mechanisms for the management and control of risks. The banks are having to cope with changes in their sources of profit and with the increased competitive pressure resulting from the reforms. The role of the rating companies in assessing the credit risks in the economy has increased and with it, the potential for conflicts of interest between them and the bond issuers that order and pay for their rating services. Finally, the authorities responsible for supervising the financial system need to increase the coordination between themselves and devote more resources to supervising institutional investors' stability until the structure of the system itself stabilizes.

As the competition between them grew as a result of the reforms, the institutional investors tended to take on a higher level of credit and market risks. The institutional entities responded to the growth in demand for credit from business-sector companies by directing more of their resources to granting credit to these companies by holding the companies' marketable and non-marketable bonds (principally rated bonds). Part of the credit granted served as replacement for bank credit, thereby transferring the credit risk from the banks to the institutional investors. Mirroring this development in recent years has been the rapid increase in the exposure of the public's savings to higher-risk financial assets held by the institutional investors.

The new structure has features that could create distortions in the institutional investors' investment incentives.

Apparent in the new structure are features for creating potential **distortions in the institutional entities' investment incentives** that could affect their investment decisions: (1) Competitive pressure and the greater frequency of reporting are increasing the weight of short-term considerations aimed at achieving a preferential yield, and are preventing them from seeking investment alternatives with a higher yield and risk profile; (2) Unlike the situation at the banks, with the saving products offered by the institutional investors, the public rather than the institutional investor bear the full weight of the credit risk and market risks deriving from the investment policy; (3) The rapid expansion of non-bank credit concurrent with institutional investors' involvement in underwriting as well have created potential conflicts of interest that could bias their investment decisions; (4) A considerable proportion of the saver public do not appear to be fully aware of the change in the risk profile of their saving products in recent years. The absence until now of requirements for maintaining a high level transparency towards the saver is distorting the real level of the risk taken by institutional investors, and is making it difficult for the saver to instill market discipline; (5) The level of supervision and enforcement with respect to institutional investors, which has yet to reach the standards typical of banking supervision, as well as their lack of experience and low level of expertise in the management and control of credit risks, could result in the under-assessment of the credit risks which they pass on to their customers; (6) Pension advice at the banks is not yet accessible to the saver public.

The new structure also has implications for the nature of the competition that could develop in the savings industry.

The decentralization of the financial system also affects **the nature of the competition that could develop in the savings industry.** It is believed that the institutional investors generally paid the banks for the purchase of the ownership and management of savings assets a price significantly higher than the discounted income flow of management fees which the banks charged prior to the sale. If this assessment is correct, the institutional investors incurred a structured incentive to act more aggressively in their investment policy and in attracting new customers, in order to increase their income. Moreover, the high price could block the development of real competition for management fees, which will therefore not fall as might have been expected.

As regards the banks' position, the increased competitive pressure on credit to the business sector and the expectation of a decline in income from commission fees resulting from the sale of the assets of the provident funds and the mutual funds appear to be increasing the incentive to find alternative forms of activity and new investments in order to enable them to maintain their profitability.[13] A number of banks in Israel did indeed adopt a strategy of increasing their activity abroad. While this strategy has the advantage of risk diversification, a cautious approach needs to be adopted when entering into new forms of activity.[14]

The changes in regulatory coverage in 2007 are helping to reduce the new risks in the financial system.

The regulatory and the legislative changes initiated by the authorities during 2007 and their preparations for promoting additional changes in 2008 emphasize the importance which they attach to the need for supplementary measures for achieving a reduction in the new risks inherent in the system structure which has been created. The measures adopted include: enhanced risk management at financial institutions, improving reporting and transparency at institutional investors and with respect to sophisticated financial instruments, progress in providing regulatory coverage for pension advice at the banks, and the signing of a memorandum of understanding for cooperation and know-how sharing between the three entities responsible for the supervision of the financial system in Israel (see the appendix to this chapter for more details).

Measures required for the further strengthening of the financial infrastructure

Additional measures are still necessary for developing the local financial system and enhancing its stability.

In order to cope adequately with the new risks that have arisen, **additional policy measures for the development of the local financial system and for strengthening its stability are necessary.** The two most important issues requiring in-depth examination in the coming years are: **(1) The desired structure for the financial system,** including in this respect a definition of the areas of activity of financial institutions (banks, insurance companies and investment management companies),

[13] The expected decline in income does not take into account profit deriving from the investment of the revenue arising from new activities.

[14] Bank reports for the third quarter of 2007 show that a small part of the growth in activity abroad was achieved by granting credit abroad, by activity in the derivatives market and by purchasing mortgage-backed structured products.

and the desired manner for integrating these institutions within financial groups. It is important in this respect to maintain a separation between the areas of activity of the banks and the insurance companies, and to prohibit the insurance companies from marketing plans with a guaranteed-yield component similar to deposits at banks; **(2) The desired structure of the supervisory authorities,** including the affiliation to the Bank of Israel. It is important in this respect to increase the independence of the supervisory authorities and especially that of the insurance, provident fund and pension fund supervision department by removing it from the Finance Ministry and transforming it into an independent authority. The global crisis highlights the need for increasing the contact between the authorities supervising the financial institutions and the central bank.

Policy-makers need to focus their efforts on anchoring the Bank of Israel's independence in legislation, institutionalizing the Bank of Israel's function in supervising the payments and settlement systems, and increasing the coordination and cooperation between the Bank of Israel, the Finance Ministry and the supervisory authorities in making suitable preparations for financial crises.

The supervisory authorities must also promote regulatory coverage, and deal with the following issues:

Changes in the structure of the banking system that will help to increase competition and reduce concentration, including the privatization of Bank Leumi, encouraging foreign banks to enter the system, the establishment of an Internet bank, the provision of a permit to the Postal Bank to manage demand deposits, separation of the credit card companies from the banks, and deposit insurance.

Developing the financial markets and increasing competition by removing the remaining barriers to the development of a credit market for households and small businesses, a deep repo market, securitization contracts (see Box 4.2) and the creation of a trading platform for mutual funds on the Internet.

Improving the financial consumer's ability to cope with the greater responsibility which he has to take in the management of his savings. This requires the authorities to act in the following areas: increasing the level of transparency and reporting by institutional investors to savers and the quality of information which they provide to savers; increasing the transparency and supervision at financial institutions that issue sophisticated financial instruments; expanding the pension advice network at the banks; and improving financial education by establishing an Internet site and including financial education in high school studies.

Increasing the supervision of financial institutions and increasing their stability will be achieved by: (1) allocating more resources to the supervisory authorities for the purpose of recruiting professional personnel; (2) the early completion of regulatory coverage for measures aimed at improving capital adequacy at insurance companies in accordance with the international principles incorporated in Solvency II; (3) progress in preparing the banks for the transition at the end of 2009 to risk management in accordance with the recommendations of Basel II; (4) encouraging the banks to increase their capital adequacy to a level closer to the average typical of the OECD countries.

The inter-ministerial committee appointed by the Minister of Finance and the Governor of the Bank of Israel in November 2007, and headed by the Director-General of the Finance Ministry, constitutes a suitable framework for examining and furthering part of these issues. Under the auspices of this committee, five sub-committees were established to deal with the following matters: the development and promotion of financial instruments, the harmonization and equalization of the infrastructures at the regulators, human capital, development of the financial industry, and accessibility to the capital market for SMEs.

Box 4.2
The securitization market and its development in Israel

Background

The securitization of loans is one of the means for transferring credit risks between players in the market, and principally between the principal generators of the loans such as banks and other players. A typical example of traditional securitization is a bank's mortgage portfolio receiving an inflow of repayments by a household for a loan that was granted for the purchase of an apartment which is backed by the apartment. A securitization transaction consists of the bank's sale of the ownership of the cash flow from the loan by means of a bond that is secured by the real-estate asset. The existence of transactions of this type contributes to the development of the capital market from several aspects: (1) By transferring ownership of the cash flow from the bank to other savers in the economy, the bank reduces its exposure to risk and increases its capital adequacy, thereby enhancing its stability and contributing to overall financial stability by diversifying the risks in the economy more extensively; (2) By increasing the amount of bonds in the free-market, it helps to create a deeper bond market while diversifying the public's investment portfolio with low-risk corporate bonds; (3) The functioning of the capital market improves because securitization transactions enable institutional investors to finance loan portfolios (including mortgages) via the market, and thereby increase the availability of sources for the extension of long-term credit, which eventually has the effect of reducing the interest rate. Securitization transactions developed to a considerable extent worldwide during recent decades, and their volume on the US and Europe is equal to that of all corporate bonds. In Israel however, this market does not yet exist. One of the most important conditions for the development of this market is certainty with respect to its accounting, legal and taxation aspects. This certainty will reduce the risk premium required and is especially important for the securitization market, in which margins are relatively low. Accordingly, the authorities in Israel should promote a regulatory infrastructure that will assure the required element of certainty in transactions.

The adjustments required as a result of the global crisis

The global crisis that occurred in 2007 (see Box 4.1) raises the question of whether the advantages of securitization transactions outweigh their disadvantages. Although we are still in the midst of the crisis, an initial consensus has already been reached regarding the deficiencies that caused the crisis, part of which are directly connected to the securitization process. Remedying these deficiencies, which is essential, will make it possible for the advantages of the securitization market to exceed its disadvantages and reduce the risk of another crisis in the future. Matters where changes are necessary include: (1) Transparency—The considerable complexity of the financial instruments connected with the securitization market makes it difficult for investors to understand the risks inherent in these investments and in particular, to distinguish between relatively simple and more easily understandable and analyzable securitization transactions, and more complex instruments (such as CDOs and SIVs)[1] that are derived from securitization transactions; (2) The complexity of these financial instruments imposes greater responsibility on worldwide rating companies when assessing the risk inherent in investments in the instruments. There is currently a broad consensus that the rating companies, whose income increased as a result of the boom in this market, failed in their function of assessing the risks, and that remedial action in this area is required: (3) One of the rising markets of previous years, which has been notable for its weakness since the beginning of the present crisis, is ABCP—Asset Backed Commercial Papers.[2] This market is characterized by structural exposure between the redemption date of the securities issued and the redemption date of the financial assets serving as collateral (mortgage portfolios). The solution found for this gap consists of an obligation by the banks to supply ABCP-issuing companies with liquidity when necessary. Actual experience however showed that this feature did not enable the banks to divest themselves of risk even though the banks sold assets by means of securitization. As a result, one of the major advantages inherent in securitization transactions failed to materialize, and constituted a source of the serious liquidity problem apparent in the money markets. Because of the disadvantages of the ABCP market, the development of this market in Israel as part of the efforts to promote the development of a securitization market is not recommended: (4) The

[1] A CDO—collateralized debt obligation— is the liability of a trust company that was specially created for the purpose of issuing debt. The cash flow for the bond issued comes from an asset portfolio containing securities and loan portfolios.

[2] Securities that are usually issued for the short-term, and whose cash flow is backed by the cash flows on loan portfolios or other securities contained in the issuer’s investment portfolio.

supervisory authorities must re-examine the investment regulations governing financial institutions with respect to securitization assets and their derivatives.

The development of a securitization market in Israel

Despite attempts by the authorities in Israel to promote securitization activity as far back as a decade ago (the Talmon Committee of 1998), a market for this activity has not developed. An inter-ministerial committee[3] charged with examining aspects of the issue of asset-backed bonds published its report in 2005. The committee's recommendations covered accounting, legal, taxation, banking, disclosure and stock market trading aspects.

Although no real progress has been made in the securitization of loans during the two years that have passed since the publication of the committee's recommendations, other assets have been securitized by various companies, including the securitization of vehicle leasing transactions, the securitization of city tax receipts, the securitization of housing projects and other securitizations that were examined and rated by the rating companies. Since a securitization law has yet to be enacted, reliance was placed in these transactions on legal statements of opinion relating to their specific structure, although elements of legal uncertainty remain. As regards taxation, the transactions that were conducted were based on the Tax Authority's pre-ruling concerning the latent tax liability of an SPC.[4] Regulatory coverage regarding the banks' allocation of capital in this matter has yet to be prescribed.

Measures taken

1. Banking: During recent years the Banking Supervision Department has endeavored to promote the development of the regulatory infrastructure required for conducting securitization transactions. In October 2005, the Department published its position regarding the issue of asset-backed bonds in the report of the Haimowitz-Asher Committee. In May 2006, the Banking Supervision Department issued a circular on the accounting measurement regulations and disclosure requirements in securitization transactions, and in November 2007 published a draft Proper Conduct of Banking Business Regulation concerning asset-securitization activities, which is based on the directives of the banking supervision authorities in the US.

2. Legislation: A joint Justice Ministry and Bank of Israel team was established for conducting an international comparison of the relevant legislation and

[3] The Haimovitz-Asher Committee of 2005.

[4] An SPC—Special Purpose Company—is a specialized company that is established solely for the purpose of issuing bonds backed by a future flow of receipts.

regulatory coverage governing securitization prior to the preparation of a draft law.

3. Taxation: The Haimowitz-Asher Committee, charged with determining the principles for a proposed tax model, discussed two main questions relating to the classification of a securitization transaction for tax purposes. The first question was whether a sales transaction or a financing transaction is involved. The second question was whether the rights issued should be classified as capital or as debt. The principle that was determined is that if the transaction is defined as a single transaction from the legal and accounting aspects, it should be regarded as such for tax purposes. In view of the economic nature of the transaction however, with respect to certain transactions and with the prior approval of the Tax Authority it will be possible to classify a securitization transaction as a financing transaction for tax purposes. Since the committee's recommendations were published in 2005, a transaction in the operational leasing securitization market has been recognized as a financing transaction, paving the way for the development of securitization in this area. Recently, as a result of the resumed efforts at promoting the required legislation, the Tax Authority began to examine the taxation issue.

4. Private sector initiatives: Even though the authorities have yet to formulate the necessary regulatory coverage, the private sector has devised initiatives for promoting securitization transactions on the basis of legal statements of opinion and pre-ruling. The aspects relating to the launching of securitization in Israel are being examined by the recently established inter-ministerial Ariav Committee's a sub-team for the development of financial instruments.

4. THE PUBLIC'S ASSET PORTFOLIO AND CREDIT IN THE ECONOMY

The value of the public's asset portfolio continue to rise in 2007 and reached NIS 2.1 trillion in December, an increase of 13 percent compared with the end of 2006 (Table 4.4). The increase covered all components of the portfolio, and mainly derived from the rise in the value of the public's equity holdings in Israel resulting from the large upturn in prices in the stock market during the first half of the year.

The value of the public's financial asset portfolio continued to rise in 2007, mainly due to the gains posted in the stock market during the first half of the year.

The development of the public's asset portfolio during recent years was mainly affected by positive macro economic developments, such as the rapid growth in the economy, the stabilization of inflation and the structural reforms that were implemented. These reforms removed barriers to investment, removed elements of distortion in investment decisions, and contributed to a greater diversification of the portfolio in Israel and abroad and to an expansion in its marketable component.

From 2003 the equity component of the portfolio expanded due to the rapid growth in the economy and the improvement in companies' profitability, and at the end of 2007 accounted for 24.3 percent of the portfolio, the highest figure since the beginning

Table 4.4
The Financial Asset Portfolio of the Public, by Indexation, 2004–07

	Balance (NIS billion)				Composition (percent)			
	2004	2005	2006	2007	2004	2005	2006	2007
Total assets	**1425.3**	**1663.4**	**1859.8**	**2106.0**	**100.0**	**100.0**	**100.0**	**100.0**
Nominal change on previous year (%)	9.5	16.7	11.8	13.2				
Tradable assets in the portfolio (percent)	44.3	47.9	51.0	53.7				
Assets by Indexation								
Unindexed assets	475.1	504.0	545.7	579.6	33.3	30.3	29.3	27.5
CPI-indexed assets	461.1	530.3	556.5	627.8	32.4	31.9	29.9	29.8
Assets in or indexed to foreign currency	210.1	257.3	281.6	309.5	14.7	15.5	15.1	14.7
Shares in Israel	243.2	319.1	407.9	512.4	17.1	19.2	21.9	24.3
Shares abroad	35.8	52.7	68.1	76.7	2.5	3.2	3.7	3.6
Total assets excluding shares in Israel and abroad	**1,146.3**	**1,291.6**	**1,383.8**	**1,516.9**	**100.0**	**100.0**	**100.0**	**100.0**
Unindexed assets	475.1	504.0	545.7	579.6	41.4	39.0	39.4	38.2
CPI-indexed assets	461.1	530.3	556.5	627.8	40.2	41.1	40.2	41.4
Assets in or indexed to foreign currency	210.1	257.3	281.6	309.5	18.3	19.9	20.3	20.4

SOURCE: Based on banks' financial statements, and data from the Tel Aviv Stock Exchange and the Ministry of Finance.

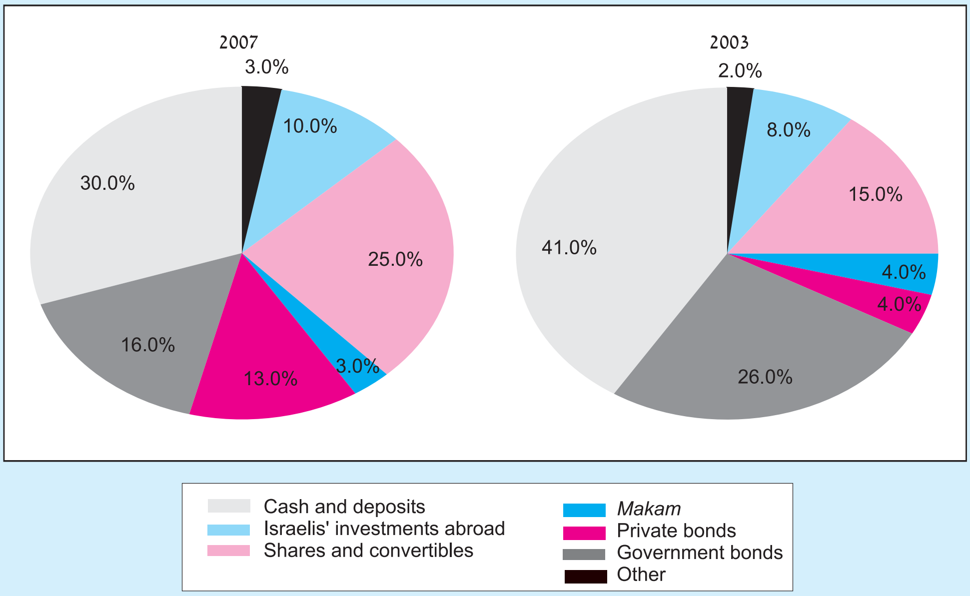
of the 1990s (Figure 4.5). The deposits component, principally unindexed deposits, contracted as a result of the tax reform, which ended the distortions in investment decisions, and due to the low interest rates in the economy. The government bond investment component contracted while the corporate bond investment component expanded due to the decrease in the budget deficit and the freeing of resources for private sector capital issues. The component comprised of investments abroad contracted in 2007 as a result of the global crisis. This was after having expanded gradually since 2004 due to the removal of investment barriers and the impact of globalization. All these developments eventually resulted in a more diversified and more liquid asset portfolio comprised of a growing proportion of non-bank private sector market tools, at the expense of deposits at banks and government bonds.

Developments in the portfolio components by indexation basis (excluding shares) show that the unindexed component of the portfolio contracted during the year concurrent with an expansion in the CPI-indexed component. This development appears to be related to the rise in inflation expectations during the year.

The mutual funds recorded a rapid accrual in the first half of the year and large withdrawals in the second half.

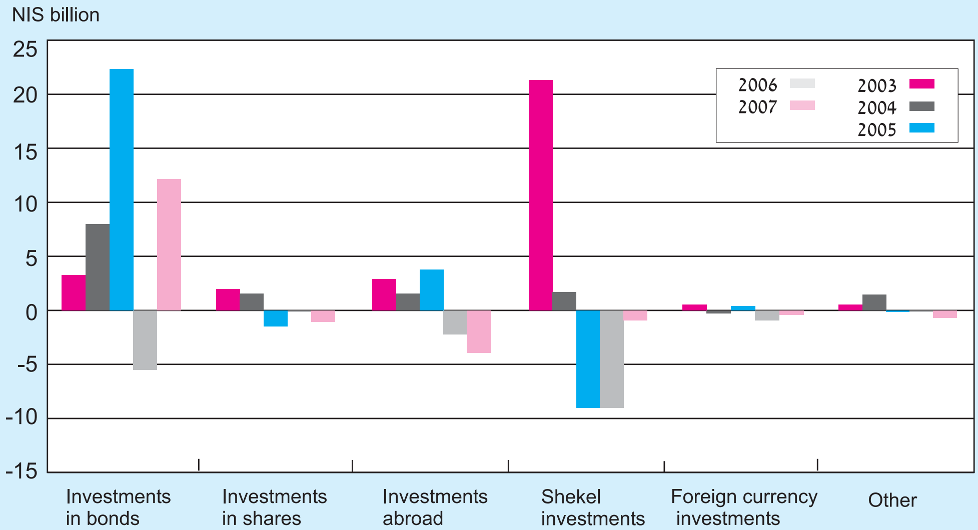
Mutual funds tend to be one of the preferred form of capital market investment by households. During the year the mutual funds, mainly funds specializing in bond investments, recorded an accrual of NIS 5 billion (Figure 4.6). This accrual did not develop in a uniform manner in the course of the year: NIS 25 billion were placed in the funds during the first half of the year while NIS 20 billion were withdrawn from

Figure 4.5
Distribution of the Public's Portfolio by Type of Asset, 2003 and 2007



SOURCE: Bank of Israel.

Figure 4.6
Total Sources of Mutual Fund Activities by Specialization, 2003-07



SOURCE: Bank of Israel.

them in the second half. The rapid accrual in the first half was related to the low interest environment, which prompted the public to seek high-yield investment alternatives without incurring an appreciable increase in risk. Investment in bond-oriented funds was perceived as such, although a large part of it consisted of investment in funds specializing in corporate bonds, part of which are unrated. Due to the onset of the global crisis and higher risk assessments, the second half of the year saw a wave of withdrawals from the funds and a move to other assets.

The rate of investment abroad fell in 2007.

The ratio of investment abroad fell during the year as a result of the global crisis, after rising consistently since 2003, and in December 2007 reached 9.9 percent. The growth in investment abroad during recent years resulted from the tax reform, the decrease in interest spreads between Israel and abroad, and the increased transparency and competition in the long-term savings industry, which prompted institutional investors to increase their investment diversification in an attempt to achieve higher yields. Despite the increase in the rates of investment abroad during recent years, the proportion of institutional investors' holdings abroad is still smaller than the level usual in developed economies and because of their size, they are very exposed to yield volatility in the local market. The low rates of investment abroad result inter alia from the home bias which is typical of investors worldwide and that motivates them to direct most of their investments to the local markets. The development of index investment instruments, such as ETFs or index funds, is likely to make it easier to invest abroad and thereby increase the rates of such investment in the future.

Credit to the business sector expanded rapidly in 2007.

Credit in the economy—Outstanding credit to the private sector increased by 8.8 percent in annualized real terms during the first three quarters of 2007 and reached NIS 982 billion in September. The increase resulted from the continued growth in demand for credit by the business sector, which was mainly supplied by credit from non-bank sources against the background of the rapid growth in the economy and the implementation of reforms (Table 4.5). The rate of expansion in **credit to the business sector** typical of recent years continued in 2007 and reached 11 percent, and 10 percent in business-sector product terms.

The rapid expansion of credit during the year derived mainly from non-bank sources as stated, but also from a growth in bank credit for the first time in years, although the banks' share of credit continued to decline and amounted to 52 percent in September compared with 76 percent at the end of 2002. This time, the increase in non-bank credit came not only from financial institutions but also from households, which doubled their holdings of marketable bonds within one year from NIS 25 billion at the end of 2006 to NIS 50 billion at the end of 2007.

The development of credit to the business sector in Israel during the period from 1994 to 2007 shows that although the upturn in credit in 2007 was exceptional from a long-term perspective, it has not yet impacted financial stability to any major extent (see Box 4.3).

Table 4.5
Changes in Credit to the Private Sector and the Business Sector,[a] 2002 to 2007

	2002	2003	2004	2005	2006	2007
	Balances (NIS billion, at December 2007 prices)					
Total credit to the private sector[b]	747	750	775	832	902	982
of which To the business sector	527	528	551	602	659	729
Bank credit to the business sector	399	387	374	371	370	379
Non-bank credit to the business sector	128	140	177	232	289	350
From institutional investors	42	56	71	112	147	190
From nonresidents	85	81	98	102	117	111
From households	1	3	8	18	25	50
	Distribution of credit to the business sector (%)					
By source						
Bank credit	76	73	68	62	56	52
Non-bank credit	24	27	32	38	44	48
of which Institutional investors	8	11	13	19	22	25
By tradability						
Tradable bonds	8	8	11	14	18	25
Nontradable bonds	5	7	8	11	12	12
Loans	88	85	81	75	69	64
	Annual change in credit to the business sector (%)					
Total credit to the business sector	2.3	0.2	4.4	9.3	9.4	10.7
of which Tradable bonds	6.3	9.6	31.3	45.5	42.6	47.7
By source						
Bank credit	-0.1	-2.9	-3.5	-0.8	-0.2	2.5
Non-bank credit	10.7	9.8	26.3	30.6	24.7	21.1
of which From institutional investors	14.0	32.6	27.0	57.2	30.8	29.1

[a] Credit to the business sector includes loans and tradable and nontradable bonds made available to the sector by the banks, institutional investors (insurance companies, provident funds and pension funds), nonresidents, and households (via mutual funds).

[b] The private sector consists of the business sector and households.

SOURCE: Based on Bank of Israel data and data from the Capital Market, Insurance and Savings Division of the Ministry of Finance.

Box 4.3
The development of credit to the business sector in Israel from a long-term perspective

In the first nine months of 2007 the rise in credit to the business sector accelerated (to 14 percent in annual terms), raising the question of how exceptional and dangerous this development is. This question arises because most of the increase derived from rapid expansion of credit from institutions which have less experience than the banks in assessing and monitoring credit risks, and which are still subject to a low level of supervision and enforcement (although this improved in the past year)—factors that could reduce the quality of the credit portfolio in the economy.

Central banks and supervisory authorities are interested in analyzing the rapid growth in credit due to its potential implications for financial and macroeconomic stability, and because policy makers' function is to act in a timely manner in order to minimize the impact of negative phenomena that could adversely affect GDP growth or increase the level of systemic credit risk. Extensive literature exists on the implications for financial stability, real activity and the interaction between them, and this literature makes a connection between rapid expansion in credit and financial crises.[1]

An examination of the development of total credit to the business sector in Israel[2] during the period 1994 to 2007 (Figure A) shows that while the upsurge in credit in 2007 was exceptional from a long-term perspective, an in depth analysis of developments in credit and other background conditions does not suggest that the exceptional rate of growth until now has major implications for financial stability.

1. The pace of expansion in credit during the present period of buoyant real activity since October 2003 has been high to date, averaging 7.5 percent a year at fixed prices, but is considerably lower (6 percentage points less) than in the previous buoyant period (January 1999 to September 2000), and only one percent higher than in the first period of buoyant activity (January 1994 to March 1996)—see Figure A.

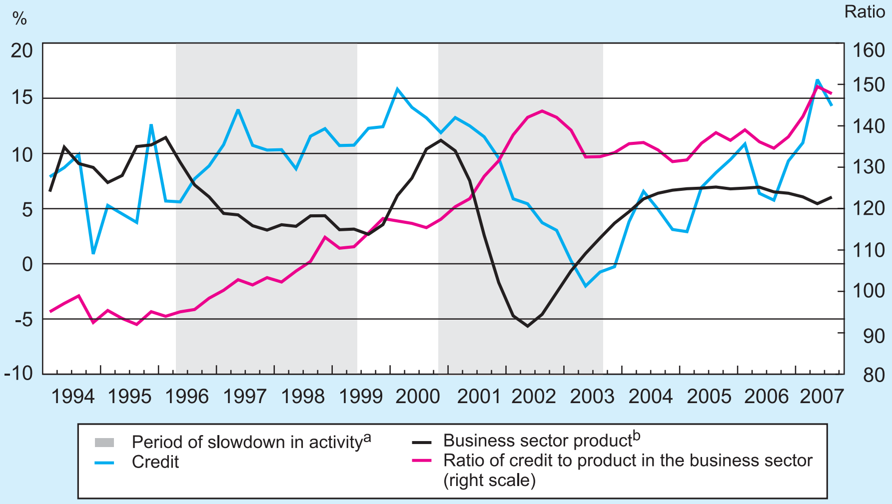
2. The rate of increase in credit in the past year exceeded the GDP growth rate and led to a rapid rise in the business-sector's ratio of credit to GDP. However, this followed a moderate increase from 2003 and a rapid expansion in this credit during previous years (Figure A). A long-term observation shows that over time, credit expanded at a rate higher than the annual growth in GDP: 8 percent in credit as compared to 5 percent in business-sector GDP during the period 1994 to 2007.

3. The development of credit during the present period of buoyant activity has not been accompanied by an increase in the financial leverage of business-sector firms as measured by the ratio of debt to total assets and debt to equity capital. During the period from the end of 2003 in fact, an improvement has been apparent in firms' financial leverage and in the other indicators used to measure their financial resilience.

[1] For details on this subject and the factors contributing to the growth in credit, see for instance Hilbers et al. (2005), "Assessing and Managing Rapid Credit Growth and the Role of Supervisory and Prudential Policies, IMF, 2005, WP05/151.

[2] Total credit to the business sector via the purchase of bonds and the granting of loans from the entire financial system and other lenders: banks, institutional investors, foreign investors and households (via direct holdings of bonds of companies traded on the Tel Aviv Stock Exchange or by means of indirect holdings via mutual funds).

Figure A
Rolling Annual Change in Credit to the Business Sector and in Business Sector Product, and the Ratio of Credit to Product in the Business Sector, 1994-2007



[a] As in Aldor and Melnick (2005), who divided Israel's economic development in the last two decades into periods of growth and periods of slowdown and recession.
[b] Change from the equivalent quarter in previous year.
SOURCE: Bank of Israel.

4. It is usual practice to diagnose episodes of exceptional growth in credit via statistical methods, by determining criteria with threshold values.[3] If a similar approach is adopted regarding the growth in credit to the business sector in Israel during the past decade and a half, two periods are found in which credit expanded by a rate exceeding the selected threshold value:[4] the period from the end of 1999 to the end of 2001, and the period beginning in the second quarter of 2007. Although the upsurge in credit during the present period was found to be exceptional, it is likely to increase the vulnerability of the financial system to a lesser extent than in the first period: The present period has lasted for only two quarters to date, compared with the longer period of rapid growth in credit of eight quarters in the first period. Macroeconomic and financial conditions in the present period of economic growth and improvement in the resilience of financial institutions are better than those prevailing during most of the first

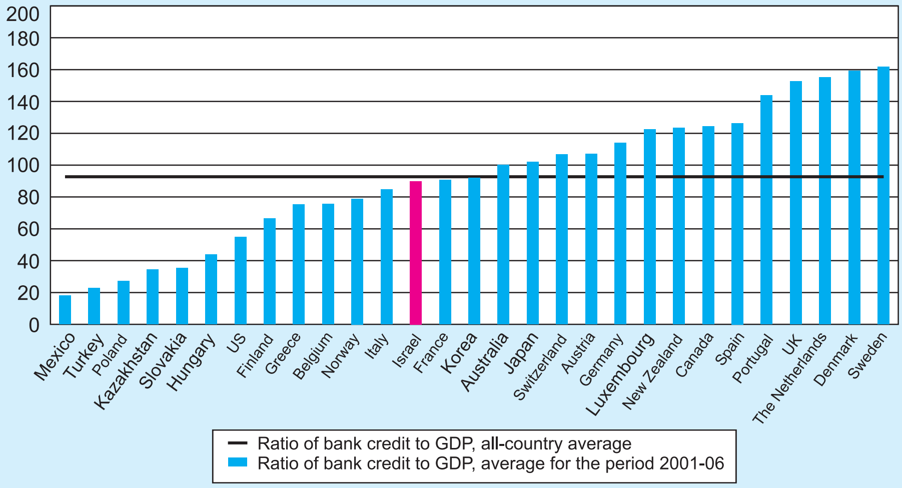
[3] For example: Gourinchas et al. (2001), "Lending Booms: Latin America and the World, Economia 1, and Hilbers et al. (2005) (see footnote 1 above in this Box), using this method, identified credit bubbles in a sample containing a panel of several countries.
[4] The threshold value selected is equivalent to the average rate of growth in credit to the business sector plus one more standard deviation during the entire period, and amounts to an annual rate of 12.5 percent.

period. Finally, the pace of expansion in credit slowed in the third quarter of 2007 compared with the second quarter of the year, and developments during the last months of 2007 support the assessment that the downtrend in the pace of growth will persist in the coming quarters. Needless to say, the development of credit requires continued monitoring.[5]

5. The expansion of credit in 2007, in a continuation of the trend of recent years, was supported by a growth in credit from institutional investors. This created a credit market where the sources of credit are diversified among different types of financial institutions, which in itself is helping to reduce systemic credit risk. Moreover, the development of non-bank financial intermediation, especially from 2003, was not reflected by a higher rate of growth in credit from all sources: The average annual pace of growth in credit to the business sector in the period following the rapid implementation of reforms actually slowed, from 9.3 percent in the period from 1994 to 2002, to 6.1 percent in the period from 2003 to 2007.

6. A comparison of Israel with a number of OECD countries with respect to the ratio to GDP of bank credit to the private sector shows that Israel was close to the OECD average in the period from 2001 to 2006 (Figure B).[6] A comparison

Figure B
The Ratio of Private Sector Bank Credit to GDP[a] in Israel and OECD Countries, 2001-06



[a] The ratio of banks to GDP at current prices: IFS database, items 22d and 98d.
SOURCE: Based on IFS data.

[5] The last figure, for October 2007, shows a further slowdown in the expansion of credit.
[6] Data from the IFS database. A consistent series with regard to bank credit to the private sector for all countries has existed since 2001.

of total credit in Israel with four countries for which data on non-bank credit are available—the US, Japan, Canada and Mexico—shows that the total credit ratio the total credit ratio obtained for Israel for the years 2001 to 2006 is lower than the average for those countries by 20 percent of GDP.[7]

To conclude, an examination of the development of credit to the business sector in Israel during the period from 1994 to 2007 shows that while the rapid rate of increase in credit in 2007 was exceptional from a long-term perspective, the various aspects of the previously mentioned characteristics of the development of credit support the assessment that the exceptional rate of growth until now has no serious negative implications for financial stability.

[7] The ratio of total credit to GDP in the US, Japan, Canada and Mexico during the years 2001 to 2006 averaged: 185, 177, 82 and 18 percent respectively (items d22 d43 and b98 in the IFS database).

5. THE FINANCIAL MARKETS

a. The fixed-income market

(i) The government bond market

The government bond market was mainly affected in 2007 by the continuation of the positive trends in the local economy and especially the retention of fiscal discipline, the positive trends in global capital markets until May and the increased volatility and risk assessments in them resulting from the global crisis later in the year, changes in inflation expectations during the year, and structural reforms as a whole and in the government bond market in particular.

The structural reforms in the fixed-income market rate greatly increased the market's tradability and liquidity and its integration with global capital markets. The market-makers reform at the end of 2006 (described in Box 4.1 in the Bank of Israel Report for 2006) raised turnover in government bonds to a new level. As a result, average daily turnover rose from NIS 1.7 billion in 2006 to NIS 3.1 billion in 2007 (Table 4.6). The growth in turnover encompassed all types of government bonds, and was mainly apparent in fixed-rate unindexed shekel bonds, for which market makers have been appointed and in which turnover averaged NIS 2.2 billion in 2007.

The market makers reform in 2006 raised turnover in the government bond market to a new level

The increase in turnover, which encompassed all government bonds trading exchanges, was particularly notable in the stock market where despite concern prior to the reforms that the level of activity would be reduced, today actually records high levels of turnover as well as settlement activity in all government bond transactions.

Table 4.6
Average Daily Turnover[a] in *Makam*, Government Bonds, Shares and Foreign Currency, 2003–07

		Government bonds								
	Makam	Unindexed, fixed interest	*of which* in MTS	Unindexed, variable interest	Indexed, fixed interest	*of which* in MTS[b]	Total	Private bonds	Shares	Foreign currency[c]
	NIS million, at current prices									$ million
2003	489	315		127	214		656	25	369	1,677
2004	622	468		140	262		870	68	625	1,648
2005	675	586		173	363		1,122	216	1,002	2,340
2006	801	1,111	255	165	388		1,664	273	1,444	3,029
2007	847	2,223	657	149	717	6	3,090	676	2,071	4,474

[a] In and outside the stock exchange.
[b] MTS—A trading system for government bond market makers, appointed by the Ministry of Finance.
[c] Volume of foreign currency turnover, including swaps, of foreign financial institutions, other customers and domestic banks.
SOURCE: Based on Tel Aviv Stock Exchange data.

The development of turnover during the year was not uniform: During the first half of the year, a gradual increase in turnover was recorded, to an all-time daily average of NS 5 billion in all trading exchanges in June. During the second half however, turnover gradually fell and in the fourth quarter of the year amounted to a daily average of NIS 2.9 billion. The decrease in turnover was centered in the MTS arena[15] and was apparently connected with the global crisis, which had the effect of reducing foreign investors' involvement in the emerging markets, including Israel. It should be noted in this respect that while foreign investors' bond holding ratio increased during recent years and in December accounted for 10.8 percent of the stock of bonds. This ratio is still low compared with the ratio of between 10-30 percent to be found in other emerging markets.

Government bond yields fell until May and reached a historically low level.

The growth in turnover in 2007 was accompanied at the beginning of the year by a large drop in yields on unindexed government bonds due to the decline in inflation expectations resulting from the continued appreciation of the shekel. In May, yields reached historically low levels (Figure 4.7). The decline in yields was itself accompanied by a large reduction in the economy's risk premium, to levels unknown in the past.

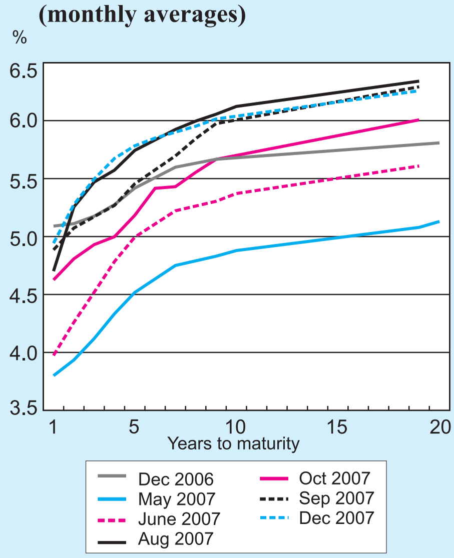
In June, yields began to rise rapidly due to the increased inflation expectations resulting from the rapid depreciation of the shekel against the dollar and the global crisis, which led to higher risk assessments in the emerging markets. The increase in yields continued until August.

[15] A separate trading system for market makers in government bonds, selected by the Ministry of Finance.

In September and October, when the appreciation of the shekel resumed, yields fell again but stabilized at a level higher than that in May. Yields fell concurrent with the downturn in yields in the developed markets caused by the burgeoning demand for risk-free assets, by growing assessments that growth in the American economy would slow and by concern over the slowdown's implications for global growth. The downturn in yields ceased in November, and in December yields rose again due the uncertainty in the markets and fears of an upsurge in inflation.

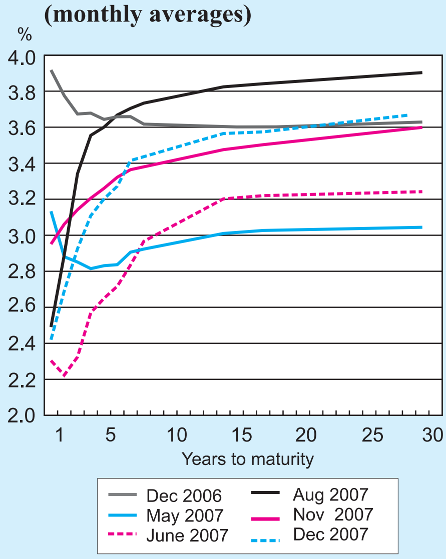
While yields on CPI-indexed bonds developed in a similar manner until October, the yield decline that resumed in September continued in these bonds until the end of the year (Figure 4.8). In December the decline was centered in the shorter terms of the curve, reflecting concern over a rise in inflation.

Figure 4.7
Yield Curve for Unindexed Fixed-Rate Government Bonds, December 2006 to December 2007 (monthly averages)



SOURCE: Bank of Israel.

Figure 4.8
Yield Curve for CPI-Indexed Bonds, December 2006 to December 2007 (monthly averages)



SOURCE: Bank of Israel.

(ii) The corporate bond market

The corporate bond market expanded considerably in recent years and has become an important source of finance for the business sector. The overall market value of marketable corporate bonds reached NIS 217 billion at the end of 2007, an increase of 63 percent compared with the end of 2006 and 700 percent compared with the end of 2003. This market value accounted for 45 percent of the market value of all bonds traded on the Tel Aviv Stock Exchange (Table 4.7). Apart from marketable corporate

The corporate bond market expanded considerably during recent years, and has become an important source of business sector finance.

Table 4.7
Total Market Value of Securities Traded on the Tel Aviv Stock Exchange, 2003–07

	2003	2004	2005	2006	2007
	(NIS billion, at current prices)				
Total	553.1	667.6	835.1	981.5	1175.5
Of which Percent of GDP	105.0	120.5	141.8	155.0	179.3
Shares and convertibles	235.3	284.7	379.6	472.3	591.4
Government bonds, total	232.7	252.9	261.4	265.1	269.4
Makam	56.1	75.4	87.2	96.9	77.5
Private bonds	26.9	48.2	98.5	132.4	210.3
ETFs[a]	1.2	5.1	7.0	13.1	25.7
Futures contracts	1.0	1.4	1.4	1.7	1.3
	(Composition of government bonds by indexation base, percent)				
CPI indexed	46.4	44.6	42.0	42.6	41.7
Foreign currency indexed	2.5	0.1	0.1	0.1	0.1
Unindexed fixed interest	30.5	32.7	36.0	38.9	39.5
Unindexed variable interest	20.7	22.6	22.0	18.4	18.7
	(Composition of private bonds by indexation base, percent)				
CPI indexed	74.6	63.1	72.3	72.3	74.0
Foreign currency indexed	17.5	29.4	22.3	21.5	18.4
Unindexed	8.0	7.5	5.4	6.2	7.6

[a] Exchange traded funds.
SOURCE: Based on Tel Aviv Stock Exchange data.

bonds, the business sector issues non-marketable bonds, principally to institutional investors for the long term. The value of these bonds at the end of 2007 is estimated at NIS 84 billion compared with NIS 75 billion at the end of 2006.[16]

Until May, yields on corporate bonds fell concurrent with the decline in yields in the government bond market and reached historically low levels. Yields fell due to the liquidity surpluses in the financial markets, which resulted from the decrease in government borrowing and the structural reforms that increased institutional investors' involvement in the financial markets and from the demand for bonds issued by the private sector. The decline in yields also reflected the under-assessment of credit risks at certain companies. Risk margins remained stable until May, apart from those on unrated bonds from the real-estate industry which began to expand back at the beginning of the year, reflecting the increase in risk assessments in that industry.

In June and July yields rose concurrent with the increase in yields on government bonds while risk margins remained practically unchanged, apart from those on unrated companies in the real-estate industry, which continued to rise.

The global financial crisis, which shook up world markets, is affecting the local corporate bond market as well.

The global crisis that upset the markets in the second half of the year induced a shock in the corporate bond market as well. This followed the negative impact resulting from the collapse of the Heftziba company several days previously. The

[16] This is an under-assessment that is based only on the holdings of entities that report to the Bank of Israel—provident funds, pension funds and insurance companies.

volatility in the market rose as a result of the crisis, and the yields and risk margins of all the bonds traded in the market increased (Figure 4.5). The rise in yields was partly an adjustment to the under-assessment of risks prior to the onset of the crisis. The increase in risk margins was inversely proportionate to the level of the bonds' rating. Particularly notable was the rise in margins in the real estate companies sector, where a lack of rating is very common and 70 percent of the companies listed are unrated. The increase in margins in the banking industry was more moderate than in the same sector of the American market.

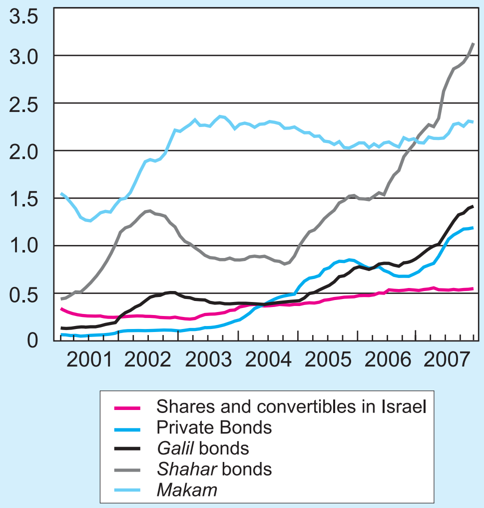
The majority of the corporate bonds traded in Tel Aviv are high rated.

Unlike other developed economies where a large proportion of corporate ratings are within the medium range, most of the series traded in Tel Aviv—55 percent of the series traded excluding securitization products and 90 percent of their market value—have a high rating, at least A, and the remaining series are not rated at all. The number of series rated at below A is negligible, and accounts for less than one percent of the number of series traded and their market value, and no companies with a speculative investment rating exist at all. The high ratio of unrated series and the absence of medium-rated series appears to be indicative of a low transparency norm among the issuing companies and their preference for issuing unrated when indications of a low rating exist. The practice of issuing unrated increases the danger that risks might be under-priced, as was indeed apparent from the development of risk margins among unrated companies during the crisis. At that time, risk margins at unrated companies rose far more than at rated companies. The recent rise in margins could be expected to increase companies' tendency to obtain a rating in order to reduce the cost of issuing, since the large increase in margins and the resulting losses have reduced investors' tendency to invest in unrated companies.

Turnover levels rose appreciably concurrent with the increase in companies' market value in 2007, and averaged NIS 670 million a day compared with NIS 270 million in 2006. The growth in turnover during the year exceeded the increase in market value, resulting in an increase in the velocity of bond turnover (Figure 4.9). One of the reasons for the growth in turnover was the rapid expansion of the bond certificate market and the launching of the Tel Bond index in February.

Although it increased, turnover in corporate bonds, like that in CPI-indexed government bonds, was still considerably lower than turnover in

Figure 4.9
Velocity of Turnover in Securities Traded on the Tel Aviv Stock Exchange over Past 12 Months, 2001-07



SOURCE: Bank of Israel.

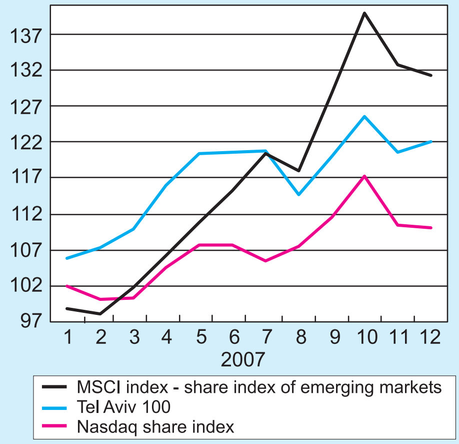
unindexed government bonds. One reason for this is foreign residents' low level of involvement in bond trading, as apparent from their very low rate of bond holding—a mere 0.2 percent of the stock of bonds at the end of 2007. This low level of involvement is related to the fact that most bonds—70 percent—are indexed to an asset traded abroad only in a small number of countries and are therefore less known to foreign investors. The low average size of the series (NIS 370 million per series) and the lack of an exemption from a reduction of tax at source on the bonds are an obstacle to large-scale activity in them by foreign residents.

b. The equities market

The share price rises during the year were centered among large and well-established companies, while only moderate increases were recorded among small cap companies.

Share prices continued to rise in 2007, by the high rate of 25 percent following a persistent upturn in the course of four years, amounting to a cumulative rate of 220 percent (Figure 4.10). The gains during the year were centered among established large cap companies. The upturn among small cap companies was only moderate, and their shares fell considerably in the second half of the year. The upturn in equities prices ceased at the beginning of 2008, and prices fell heavily, by over 10 percent within a month and a half. The upturn in prices in the first half of the year was accompanied by a decrease in volatility. During the second half however, volatility rose due to the global crisis, which led to increased risk-averseness and exacerbated concern over the implications of the crisis for non-financial activity. Developments in the local equities market again matched the trend in the developed markets.

Figure 4.10
Share Indices in Israel and Abroad, 2007 (monthly average, December 2006=100)



SOURCE: Bank of Israel and MSCIBARRA.

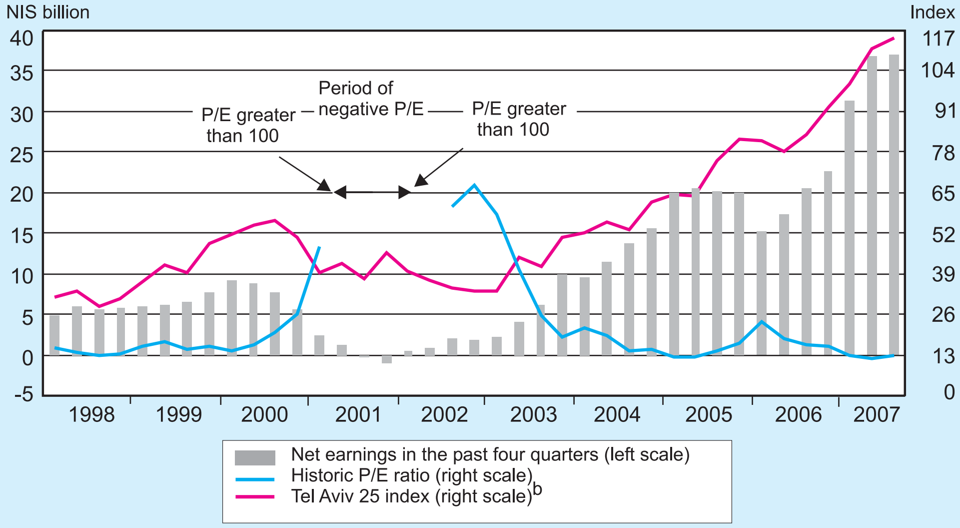
Equity market turnover rose again in 2007 and reached a daily average of the NIS 2.1 billion compared with NIS 1.4 billion in 2006. Turnover remained high even during the crisis period, a development indicative of the market's resilience and the impact of the structural reforms that have been implemented and which contributed to a growth in turnover and encouraged a greater variety of investors to operate in the market.

The continued upturn in prices in 2007 appears to have been supported by companies' performance and their increased profitability.

Despite the large upturn in prices, the improvement in companies' performance and profitability remained the main factor behind the continued pattern of gains recorded in 2007.[17] Indeed, indicators such as the historical P/E ratio do not provide evidence of over-pricing (Figure 4.11). Nor do the gains appear to have resulted from herd-like

[17] As reflected by the results presented in financial reports for the third quarter of 2007.

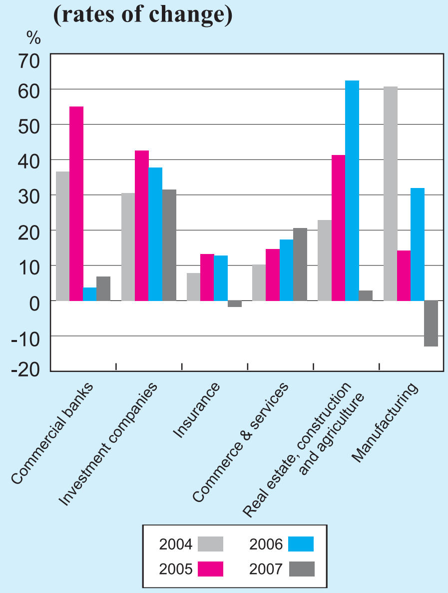
Figure 4.11
Historic Price/Earnings Ratio[a] and Net Earnings of Tel Aviv 25 Companies, and Tel Aviv 25 Index,[b] 1998-2007



[a] Calculated as the market capitalization of the Tel Aviv 100 companies at quarter end divided by their earnings in the past four quarters.
[b] The Tel Aviv 25 Index scaled down by 10 for purposes of comparison with the P/E ratio.
SOURCE: Bank of Israel.

behavior on the part of investors. This is apparent from the high variability between the rates of price increase among the different sectors (Figure 4.12) and among different companies. As an example, the Yeter Shares index rose by only 4 percent in 2007 and the Tel Aviv 75 index by 8 percent while the Maof shares gained 31 percent, reflecting the selective approach adopted in the choice of companies. In addition, the price rises were not persistent and downward price adjustments occurred as well. Participation in trading by households, via the mutual funds or directly, remained low. Moreover, the cumulative increase in prices during recent years although exceptional compared with the developed markets, was considerably lower than that in the emerging markets. Nevertheless, the level of risk in the

Figure 4.12
Prices of Shares and Convertibles, Selected Industries, 2004-07
(rates of change)



SOURCE: Tel Aviv Stock Exchange.

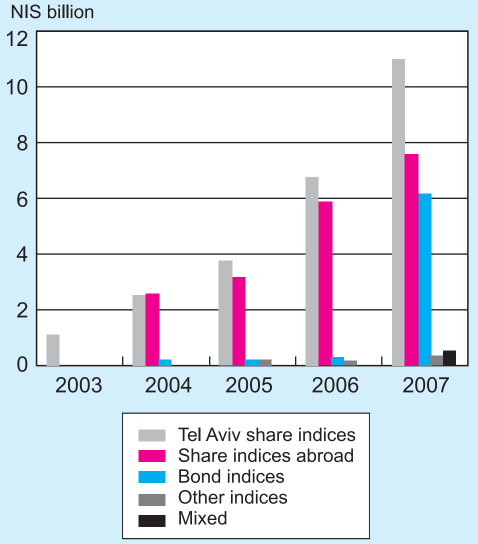
market has increased due to recent forecasts of a slower rate of growth worldwide and in Israel, which could adversely affect companies' profitability in the future.

c. ETFs (exchange traded funds)

The rapid growth in the market for ETFs, mainly bond ETFs, continued in 2007 concurrent with a large increase in the number of funds.

The year 2007 was notable for further rapid growth in the market for the ETFs that are traded in Tel Aviv. The growth was centered among bond ETFs, in which trading was negligible until the end of 2006 (Figure 4.13). The market value of ETFs at the end of the year reached NIS 25.7 billion, of which NIS 6.2 billion consisted of bond ETFs—nearly double their value at the end of 2006 and four times their value at the end of 2004. The number of funds also increased considerably, to 237 at the end of the year compared with 116 at the end of 2006 and only 19 at the end of 2004. The ETFs based on the share indices in Israel accounted for 30 percent of the total number of funds and 40 percent of their market value. ETFs based on foreign indices accounted for 40 percent of the total number of certificates and 30 percent of their value. The other ETFs were mainly based on bonds.

Figure 4.13
The Public's Holdings in Exchange-Traded Funds (ETFs), 2003-07



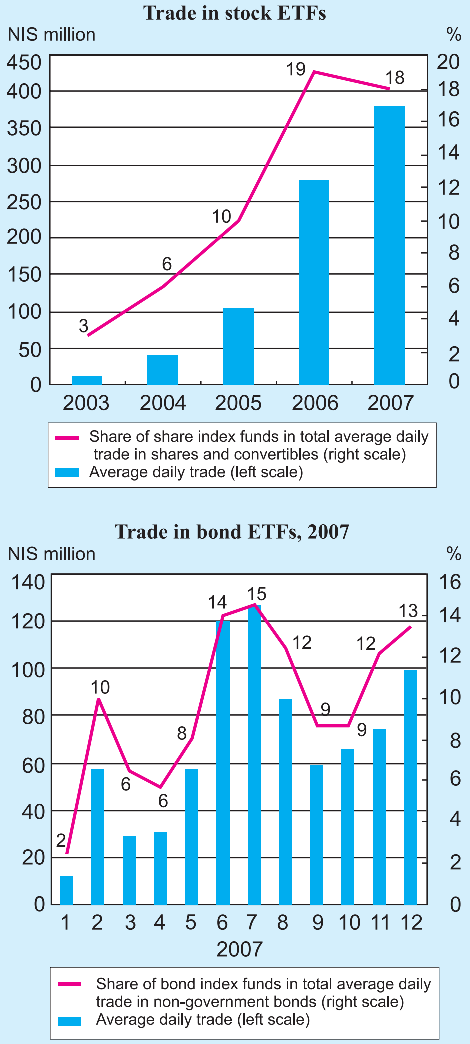
SOURCE: Tel Aviv Stock Exchange.

ETFs are a convenient investment diversification instrument and the costs involved in their purchase are less than those on mutual funds (see Box 4.2 in the Bank of Israel Report for 2006). For this reason, ETFs are a useful investment instrument for households and 70 percent of the stock of certificates is held by the public directly, and only 30 percent is held by long-term institutional investors. Turnover in ETFs is an important component in overall turnover on the Tel Aviv Stock Exchange: In 2007, 20 percent of average equities turnover derived from share ETFs and 10 percent of corporate bond turnover derived from bond ETFs (Figure 4.14).

The rapid development of the ETF market in Israel is part of a global increase in investment in index instruments.

The rapid development of ETF activity in Israel is in line with the global growth in investment in index instruments at the expense of active investment management. However, the rate of issuance of new funds in Israel appears to be far more rapid than in other advanced economies where these instruments are traded. As an example, the number of ETFs in London is less than 100. Although the number in the US is higher—about 500— this is after nearly 15 years of ETF trading.

Figure 4.14
Average Daily Trade in ETFs, 2003-07



SOURCE: Tel Aviv Stock Exchange.

The large number of series traded and the very frequent issues of new series result from fierce competition in this area and innovative marketing activity, although these factors have actually led to reduced liquidity and tradability among many of the series traded. While average daily turnover in all types of ETFs is very high, this turnover is centered among a small number of series and turnover in other series is relatively low. As an example, the segmentation of trading data by certificates shows that 122 certificates with an average daily turnover of over NIS 1 million account for 91 percent of average daily turnover in ETFs, while the other 11 account for only 9 percent of turnover. Another result of the large number of series issued is that the value of each series traded is relatively low.

The large number of series appears to impede the tradability of many of them. At the same time, the low level of supervision and transparency typical of ETFs increases the risks inherent in investment in this instrument. The authorities are endeavoring to increase the supervision and transparency of the instrument.

d. The primary market—issues by the non-bank private sector

Issues by the non-bank private sector in Israel and abroad totaled a record NIS 110 billion in 2007, compared with NIS 108 billion in 2006. The volume of issues abroad decreased in 2007 after reaching a record level in 2006, which mainly derived from a single company. Nevertheless, the volume of issues in Israel continued to grow rapidly in 2007 and again reached a new record level—NIS 105 billion compared with NIS 61 billion in 2006 (Table 4.8). The rapid growth in issue volume during recent years resulted from the favorable macro conditions in the economy and from expectations that

Private sector issues in Israel and abroad reached a new record level in 2007.

Table 4.8

Security Issues by the Nonbanking Private Sector in Israel and Abroad, by Type of Security,[a] Gross, 2003–07

	NIS million, at current prices					Composition				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
A. Raising of capital in Israel	**18,234**	**29,698**	**54,242**	**61,375**	**104,526**	**100**	**100**	**100**	**100**	**100**
of which via tradable securities	8,091	18,769	31,912	38,073	69,050	44	63	59	62	66
1. Working capital	14,664	23,214	49,733	54,548	87,922	80	78	92	89	84
Shares and convertibles	2,825	6,656	12,237	11,873	14,959	15	22	23	19	14
Tradable bonds	1,695	5,629	15,165	19,373	37,487	9	19	28	32	36
Nontradable bonds[b]	10,144	10,929	22,331	23,302	35,477	56	37	41	38	34
2. Financial instruments	3,571	6,484	4,510	6,827	16,605	20	22	8	11	16
ETFs for shares[c]	933	3,453	628	4,359	4,796	5	12	1	7	5
ETFs for bonds and CDs	0	42	83	360	6,441	0	0	0	1	6
Structured bonds and CDs	2,638	2,989	3,799	2,108	5,368	14	10	7	3	5
B. Capital raised abroad[c]	**4,475**	**24,612**	**9,806**	**46,579**	**5,149**					
Shares and convertibles	4,333	18,563	7,691	33,102	5,133					
Tradable bonds	142	5,440	2,113	13,477						
Nontradable bonds		609	2		16					
C. Total capital raised in Israel and abroad	**22,709**	**54,310**	**64,049**	**107,954**	**109,675**					

[a] Not including issues by subsidiaries and by banking corporations. Including issues by foreign companies.

[b] Including bond issues by municipalities totaling NIS 140 million in 2005 and NIS 330 million in 2006.

[c] Net issues.

SOURCE: Tel Aviv Stock Exchange and returns to the Bank of Israel.

these favorable conditions would continue, the low interest environment, the structural reforms that were implemented, and the decrease in government borrowing.

The global crisis slowed the pace of issues, principally unrated issues.

The global crisis had the effect of increasing risk assessments in the financial markets and led to a considerable decrease in issues in the second half of the year. Particularly notable was a decrease in the volume of unrated issues, which accounted for only 2 percent of total issues in the second half compared with 19 percent in the first half. Concurrently, the proportion of BBB-rated issues increased to 5 percent of issue volume. Also notable was the decrease in non-marketable bonds, which for the first time accounted for less than 50 percent of the volume of bond issues.

It should be noted in this respect that investment in non-marketable bonds is regarded as a high risk investment because of the inability to realize it during the holding period, and due to the difficulty of pricing it in the absence of a price that is set in the stock market. For many years however, institutional investors preferred to invest in non-marketable bonds because such investment reduced the yield volatility in their portfolios. During recent years, a number of regulatory changes have been introduced in order to reduce the incentive for issuing non-marketable debt instruments and for investors to hold them. These changes included a relaxation of the requirements governing prospectuses, the opportunity for issuing by means of off-the-shelf prospectuses, and the introduction of regulations for the revaluation of non-marketable debt in accordance with market prices.

Most of the issues in 2007 were of bonds.

Bonds again accounted for the majority of issues (70 percent) in 2007. The proportion of equity issues has been falling since 2004 and in 2007 accounted for only 14 percent of the total.[18] The reasons for the preference for bond issues included the low interest environment for all terms, which provided an incentive for issuing debt, the increase in firms' profitability, which enabled them to increase the extent of their liabilities without a concurrent increase in debt burden and the firm's price of capital, and the fact the part of the funds raised were used to replace bank credit, which obviously did not increase the debt burden. Institutional investors, which are mainly long-term investors (such as pension funds, provident funds and insurance companies), also preferred investment in bonds because of the lower-risk nature of this investment, which makes it possible to increase yield without substantially raising the level of risk.

The majority of bond issues in 2007 were by companies from the real estate industry and from the investment and holding industries.

As in the previous year, the majority of issues in 2007 were floated by companies from the real-estate industry (42 percent) and from the investment and holding industries (30 percent). As for the issuing companies risk,[19] as in previous years the majority of issues floated (80 percent) were rated at A and above and the remainder consisted of unrated issues. The proportion of real estate companies in unrated issues was high, at 52 percent. The proportion of issues rated at below A was negligible and accounted for less than 3 percent of issue volume.

[18] The remaining issues consisted of structured instruments.

[19] Based on an analysis of 80 percent of the volume of marketable bond issues (excluding allocations).

Issues of shares and convertible securities totaled NIS 15 billion in 2007, a small increase compared with the previous two years. Companies from the commerce and services industry and from the real estate industry were dominant in share and convertibles issues, and accounted for over 60 percent of issue volume in these instruments. Most of the remaining issues were floated by manufacturing companies (20 percent) and holding companies (16 percent).

Apart from issues for the purpose of business-sector finance, the issue volume of structured financial instruments—ETFs, structured bonds and CDs—increased during recent years and in 2007 reached a record level of NIS 17 billion, net. The largest increase was recorded in issues of bond ETFs, which totaled NIS 6.4 million in 2007.

During recent years a number of changes were made in the regulations governing activity in the primary market, which facilitated the issue process and increased its sophistication. One of the most important changes applied with respect to many issues in 2007 was the floating of issues by means of an off-the-shelf prospectus. This change, together with stricter criteria for reporting in financial statements and the requirement for matching to the criteria required when publishing a prospectus, simplified the issue process and reduced its cost, enabling companies to react more rapidly to changing market conditions.

The primary market began to operate under the new underwriting law in 2007.

Another change, which was applied in July 2007, was the new underwriting law that led to far-reaching changes in the underwriting market, making it possible to allocate securities at the underwriter's discretion without an auction. (For more details of this change, see the Bank of Israel Report for 2006, page 126.) Since the changes increased the potential for conflicts of interest on the part of the underwriter, the new law included restrictions on sales to related entities. Despite the opportunity for selling securities without an auction, auction allocation remained standard practice in the vast majority of issues floated until now. Among the reasons for this was the implementation of the Underwriting Law in July concurrent with the shock in the primary market resulting from the global crisis. During a period subject to shock, the motivation for changes in market regulation tends to decrease. In addition, the existing restrictions on allocation to related entities place a burden on the primary market, especially when the markets are experiencing a shock.

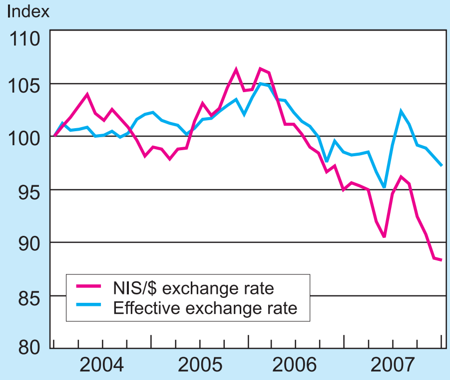
e. The shekel/foreign-currency market

(i) The development of the exchange rate and its level of risk

The shekel appreciated by 9 percent against the dollar and by 1.4 percent against the effective currency basket, which is calculated on the basis of Israel's foreign trade weightings.

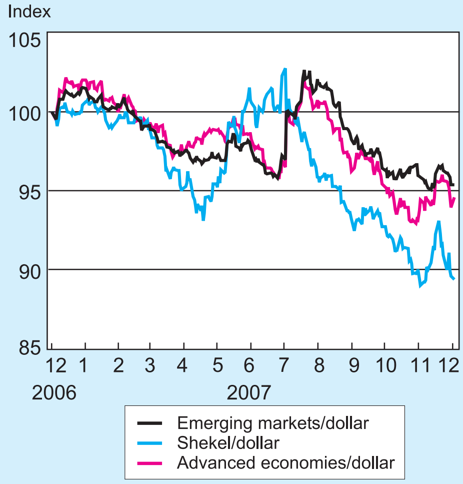
In 2007 the shekel appreciated by 9 percent against the dollar and by 1.4 percent against the effective currency basket, which is calculated on the basis of the weightings of Israel's foreign trade (Figure 4.15). The large appreciation of the shekel against the dollar as compared to its strengthening against the effective currency market mainly resulted from the worldwide weakening of the dollar, which began in the first half

Figure 4.15
Nominal Effective Exchange Rate Index and the NIS/$ Exchange Rate Index, 2004-07 (2004 index = 100)



SOURCE: Bank of Israel.

Figure 4.16
Shekel/Dollar, Emerging Market/ Dollar and Advanced Economies/ Dollar Exchange Rate Indices, December 2006 to December 2007 (December 1, 2006=100)



SOURCE: Bank of Israel.

2006 and increased in August due to the global shock in the financial markets and its implications for the American economy (Figure 4.16). Despite their differing extent, the trends in the effective exchange rate matched the trends in the dollar exchange rate due to the dollar's high weighting in the currency basket (30 percent).

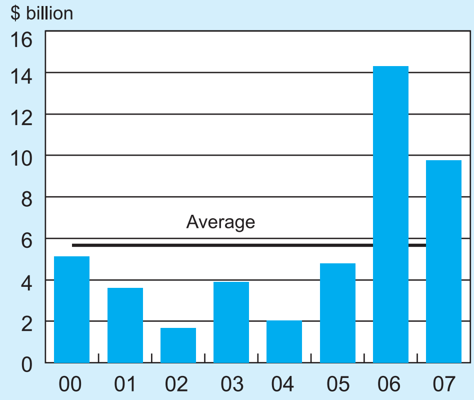
The strengthening of the shekel against the dollar mainly resulted from the worldwide weakening of the dollar.

Concurrent with the worldwide weakening of the dollar, various local and global factors had the effect of strengthening the shekel while other factors had the effect of weakening it. The main factors supporting a strengthening of the shekel were: (1) the continued improvement in the economy's fundamentals and the clearly established credibility of macroeconomic policy, which were recently reflected in the OECD's decision to declare Israel a candidate for participation in its ranks and by Standard and Poor's increase in Israel's credit rating. These factors continued to support FDI in Israeli companies, which although lower than in 2006 was higher than the multi-year average (Figure 4.17); (2) the current account surplus, which is expected to amount to 3 percent of GDP in 2006. This surplus and large-scale direct investment created a basic underlying pressure for an appreciation of the shekel, and for most of the year the effect of this pressure exceeded the effect of the factors supporting capital exports by Israeli residents. The main factors weakening the shekel were: (1) the continued increase in the global diversification of institutional investors' portfolios resulting from the tax reform, which increased the feasibility of investing in foreign assets: (2) the global shock in the financial markets, which derived from the global crisis.

The development of the shekel-dollar exchange rate was also affected by the reversal in the interest rate spread between Israel and the US: During the first half of the year, the negative interest rate spread with the US increased to a level of 1.75 percent due to the continued reduction in the Bank of Israel's interest rate. The increase in the negative interest rate spread with the US was one of the reasons for the large depreciation of the shekel in June and July. The direction of the spread reversed in the second half of the year, when it contracted to zero due to the rise in the interest rate in Israel and the reduction in the interest rate in the US (Figure 4.18). The contraction of the negative interest spread was a factor supporting the strengthening of the shekel during the second half of the year.

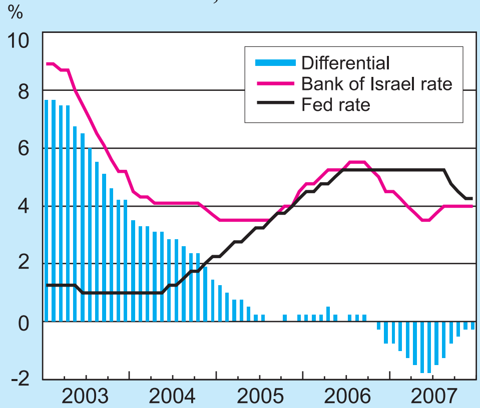
The development of the shekel-dollar exchange rate in 2007 can be divided into three sub-periods. These periods differ in the exchange rate trend, the factors affecting trading, and the nature of the activity conducted by the different sectors in the market. **The first period**—from the beginning of the year to the middle of May—was notable for an appreciation. **The second period**—from mid-May until the end of July—was notable for a depreciation and the third period—from August to December—was mainly notable for an appreciation.

Figure 4.17
Nonresidents' Direct Investments in Israel, 2000-07



SOURCE: Bank of Israel.

Figure 4.18
The Bank of Israel and the Fed Interest Rates and the Differential Between Them, 2003-07



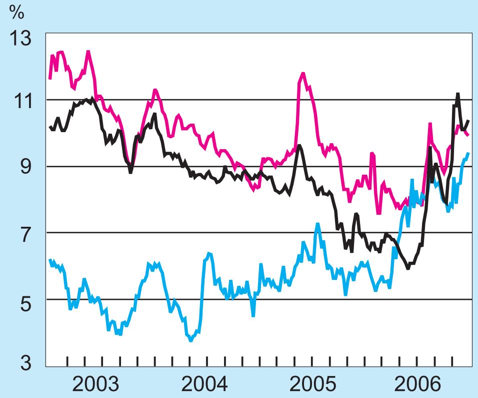
SOURCE: Bank of Israel.

The shekel appreciated by 7 percent from the beginning of the year until Mid-May due to the worldwide weakening of the dollar, the current account surplus, and the continued large-scale long-term capital imports to the economy.

During the first period the shekel appreciated by 7 percent, continuing the trend of the first half of 2006, due to the worldwide weakening of the dollar, the current account surplus, and the continued large-scale long-term capital imports to the economy. The appreciation increased towards the end of the first quarter, and the development of the shekel exchange rate disconnected from global exchange rate trends. The more rapid appreciation mainly resulted from institutional investors' reduced investments abroad and from households' increased withdrawals from mutual funds specializing in investments in foreign securities as a result of the losses in global equities markets and concern over the continued strengthening of the shekel.

During the second period, the shekel depreciated by 10 percent against the dollar concurrent with a large increase in volatility and in exchange rate risk as measured by means of the implied volatility or shekel-dollar options (Figure of 4.19). The weakening

Figure 4.19
Implied Standard Deviation of Shekel/Dollar OTC Options, €/$, and Emerging Market/$ Options, 2003-07 (weekly data)



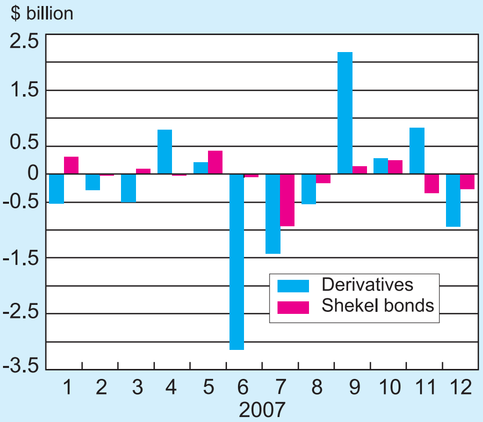
SOURCE: Bank of Israel.

of the shekel, concurrent with the further worldwide weakening of the dollar, is attributed to the continued reduction in the Bank of Israel's interest rate resulting expansion of the negative interest rate spread with the US, and the zeroing of the long-term yield spread resulting from the upsurge in the prices of shekel bonds. The zero spread in long-term yields and the negative level of the interest rate spread increased investors' sensitivity to the uncertainty in the economy, which increased in the light of publication of the interim report of the Winograd Committee on the Second Lebanon War and the concern expressed over a flare-up in the confrontation with Syria. Another factor weakening the shekel in that period was the assessment by players in the market that the Bank of Israel would stop cutting the interest rate as a result of the growing inflationary pressures in the economy, thereby reducing the feasibility of investment in unindexed shekel debt instruments as a means of achieving short-term capital gains.

The weakening of the shekel from May to August is attributed to the expansion of the negative interest rate spread with the US and the narrowing of the long-term yield spread.

These developments mainly affected activity by foreign investors, who sold shekel bonds and purchased large amounts of foreign currency, principally by means of derivative financial instruments (Figure 4.20). Also contributing to the depreciation of the shekel were institutional investors, which increased their investments abroad due to the large gains in worldwide equities markets and especially in the emerging markets.

Figure 4.20
Nonresidents' Investments in Shekel Bonds and Derivatives (Foreign Currency Sales (+)), 2007



SOURCE: Bank of Israel.

Against the background of the global shock in the financial markets in the second half of July, the shekel appreciated more rapidly and exchange rate risk rose again to a level of 9 percent. Nevertheless, the impact of the shock on the exchange rate and on the stability of the foreign

Against the background of the global shock in the financial markets from the second half of July, the shekel depreciated more rapidly and an additional increase in exchange rate risk was recorded.

currency market was more moderate than at the time of similar events in the past. The main reasons for the more moderate effect of the shock were: (1) Israeli financial institutions' low level of exposure to financial instruments directly connected with the crisis, such as mortgage-backed bonds; (2) the extent of realization of investments by foreign residents in the local stock market was less than in other emerging markets; (3) households and institutional investors brought capital back to Israel as a result of the price slide in global equities markets, a process that offset the effect of the capital exports deriving from foreign residents realization of investments in the local stock market; (4) the FDI flow by foreign investors into Israeli companies persisted throughout the entire period, and was scarcely affected by the shock.

The strengthening of the shekel in the last quarter is attributed to the global financial crisis and the contraction of the negative interest rate spread with the US.

During the third period the shekel appreciated by the high rate of 10 percent, and the upturn in exchange rate risk ceased. The strengthening of the shekel is mainly attributed to global developments resulting from the financial crisis in the western world and the contraction of the negative interest rate spread with the US. These global developments were: (1) the relative calm apparent in global financial markets as a result of the willingness of central banks in the US and Europe to inject liquidity into the market, supported a renewed upturn in share prices in the local stock market and halted the rise in shekel bond yields: (2) indicators in the American economy showing that the shock in the financial markets was encroaching onto real activity, led to a cut in the interest rate in the US which together with the upturn in the Bank of Israel's interest rate led to a considerable decrease in the negative interest rate spread with the US; (3) the worldwide weakening of the dollar became more intense due to the interest rate cut in the US and the growing expectations of a slowdown in the American economy.

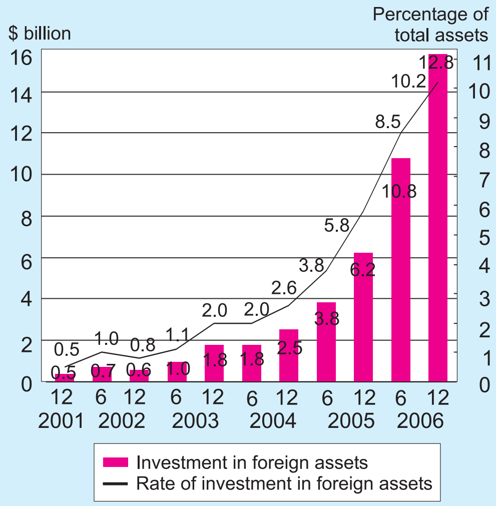
These factors reversed the trend in activity by foreign residents, who re-invested in shekel bonds and shares traded in the local stock market and sold foreign-currency by means of derivative financial instruments. Supporting these developments were the Israeli economy's resilience and favorable performance, which encouraged direct foreign investment in Israeli companies.

(ii) Analysis of the different sectors' activity in the foreign currency market

The analysis of activity in the foreign currency market is based on a segmentation of the entities operating in the different segments on the basis of past trends in activity and the investment considerations that can be attributed to them. The four principal sectors operating in the foreign currency market are foreign residents and three sectors comprised of Israel residents—households, the business sector and institutional investors.

Activity by **households and institutional investors** during the year under review was mainly affected by the tax reform (which went into effect at the beginning of 2005), the development of relative prices in the local and global financial markets, and by assessments regarding the development of shekel exchange rates. Households'

Figure 4.21
Investments and Rate of Investment of Institutional Investors in Foreign Assets, December 2001 to December 2007



SOURCE: Bank of Israel.

response to geopolitical developments in the course of the year—unlike in the past—appears to have been moderate.

Since the implementation of the tax reform, long and medium-term institutional investors have increased their rate of investment in foreign assets.

At the beginning of 2005, the terms of taxation applying to investments abroad and in Israel for households, mutual funds and part of the institutional investors (provident funds and pension funds) were equalized. This measure, which increased the relative attractiveness of investment in foreign assets, spurred a process of portfolio adjustment by households and institutional investors. Since the implementation of the tax reform, long and medium-term **institutional investors**[20] increased their rate of investment in foreign assets by 8 percentage points (Figure 4.21). Their rate of investment abroad, which amounted to 10 percent at the end of 2007[21], is still lower than the rates usual in similar countries (25 percent on average). This is indicative of the potential for further portfolio adjustment in the future. Institutional investors' rate of investment abroad is notable for high variability: While life insurance plans' rate of investment abroad amounted to 18 percent at the end of 2007, the rate of investment by the provident funds and new pension funds was 10 percent and that of the established pension funds—only 4 percent. The differences in the rates of investment mainly derived from differences in the timing of the removal of the barriers to investment abroad: The permit to invest abroad for the established pension funds was only issued at the end of 2005 and these funds are just beginning the process. But the insurance companies, to which the tax discrimination preceding the reform did not apply, have been diversifying their assets globally since 2001.

Institutional investors' investments abroad totaled $ 3.4 billion in 2007, similar to the amount recorded in the previous two years since the implementation of the tax reform. However, the pace of institutional investors' investment abroad was not uniform throughout the year, and was influenced by the relative attractiveness of the local capital market compared with foreign markets and by expectations regarding the development of shekel exchange rates. For example, following the heavy price slides in global financial markets in August, institutional investors realized investments

[20] Provident funds, advanced study funds, insurance companies and pension funds.
[21] Including investment in ETFs on foreign equities markets and excluding investment in Israeli shares traded abroad.

abroad. Despite their nature as long-term investors, institutional investors sometimes adopt short-term investment considerations because of their obligation to frequently report to the public the value of their assets and their performance.

Households diversify investments abroad directly and indirectly by accruing assets in mutual funds specializing in investment in foreign securities, and via investment in ETFs on foreign share indices. Households' activity in these asset types during 2007 was not uniform: While households' redemptions from mutual funds specializing in investment in foreign securities which began in the second half of 2006 continued, the growth in their balance of foreign investments, direct investments and investments via ETFs on foreign indices continued as well. However, during the time of the global shock in the financial markets—in July and August—households' direct and indirect activity amounted to net offloading, which together with offloading by institutional investors offset the effect on the exchange rate of such activity by foreign investors on the Tel Aviv Stock Exchange.

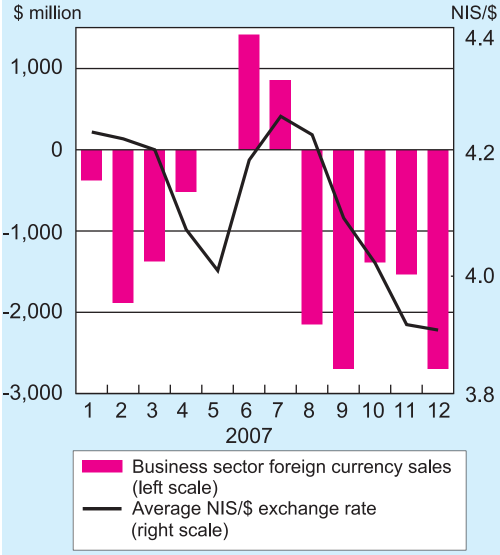
The business sector continued to operate in the short term counter to the trend in the exchange rate.

In line with its past pattern of activity, for most of the time the **business sector** continued to operate in the short term, counter to the trend in the exchange rate, and was the main source of demand surpluses during the period of depreciation and accounted for most of the uptake of the supply surpluses that arose when the shekel appreciated (Figure 4.22). This trend in business-sector activity usually has the effect of moderating fluctuations in exchange rate and in the foreign currency market.

The flow of FDI into the shares of Israeli companies continued

Foreign residents' activity in capital instruments was more moderate than in 2006, while their activity in debt instruments increased—due inter alia to the implementation of the market makers reform—and usually matched the trend in the exchange rate. Foreign residents' investments in Israeli equities totaled $ 12 billion in 2007. The vast majority of this activity took the form of FDI, which although more moderate than in 2006 was higher than the multi-year average. Unlike in 2006, direct investments were dispersed evenly throughout the year, and were comprised of numerous small transactions. The expansion in direct investment in recent years, which was centered among high-tech companies and that continued in 2007 despite the cessation of the privatization process, reflects foreign investors' confidence in the Israeli economy and its technological advantages. The volume of foreign investment in shares traded on the Tel Aviv Stock Exchange

Figure 4.22
Business Sector Foreign Currency Sales (+) and the NIS/$ Exchange Rate, 2007



SOURCE: Bank of Israel.

increased compared with 2006. The development of this investment in the course of the year was mainly affected by trends in global investment in the emerging markets. However, the influx of foreign investment onto the Tel Aviv Stock Exchange during the year and the offloading at the time of the global crisis were more moderate than the capital flows in the emerging markets.

6. THE FINANCIAL INSTITUTIONS

a. The banks[22]

The growth in banking activity continued in 2007, and the performance and robustness of the banking system continued to improve as well.

The rapid growth in banking activity that began in 2003 continued in 2007, and the added value[23] of the five largest banking groups rose by the high rate of 15 percent. The performance of the Israeli banking system continued to improve, and was reflected by the retention of a relatively high level of probability, a stable capital adequacy ratio and a decrease in credit risks. The continued expansion of economic activity, a process that began four years ago following the economic recession of 2001, increased aggregate demand for credit. The growth in demand derived from business firms and from households, where an overall expansion of 8 percent was recorded. Concurrently, the range of non-bank credit substitutes continued to expand. An examination of the industry-specific distribution of outstanding credit to the public shows an increase in all principal industries, including the real-estate and construction industry following the stagnant level of activity in the industry since the year 2000. The largest increase in credit was recorded in the unindexed shekel segment, where the banking system enjoys a relative advantage because of the very low level of competition from non-bank credit substitutes. Despite the rapid development of the credit substitute market, most of the substitutes are unavailable to small borrowers or for the purposes of short-term credit. For as long as there is no supply of short-term commercial papers, it can be assumed that the proportion of unindexed credit will continue to increase, while CPI-indexed and foreign-currency credit will expand slowly.

The banking system’s financial results in the first three quarters of 2007 were good, mainly due the economy’s location in the rising part of the business cycle and the continued improvement in the performance of the business sector. The aggregate net profit of the banking system rose by 17 percent in 2007 compared with 38 percent in 2006. The results were not uniform among the different banking groups.

The aggregate growth in profit in 2007 was centered in the operating profit item, which rose by 72 percent in the first three quarters of the year after falling by 7 percent in 2006. This was in contrast with the previous year, when the growth in aggregate

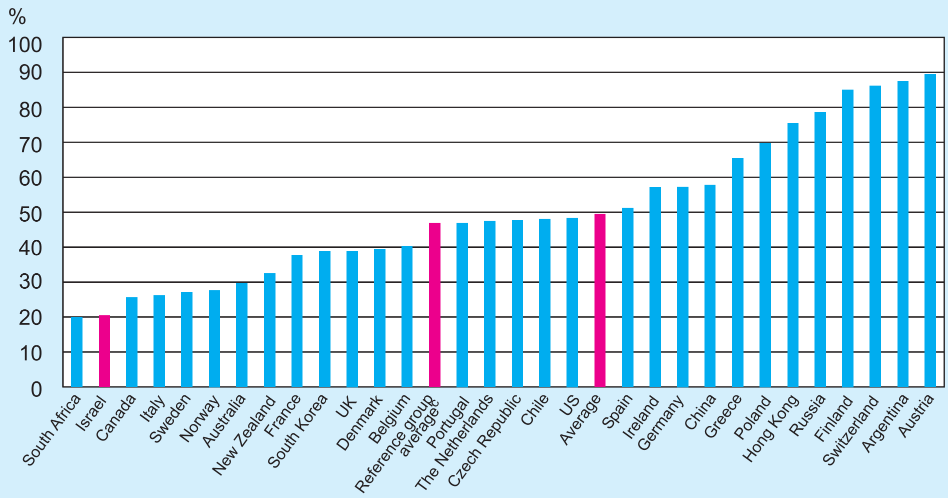
[22] A more extensive review of the banking system in Israel will be published later in the year, in the Supervisor of Banks’ Annual Survey.
[23] Added value is calculated as the amount of net operating profit before taxes, plus salary expenses, general expenses, and expenses on the maintenance and depreciation of premises and equipment.

profit derived from extraordinary profit items resulting from the implementation of the Bachar reform. The improvement in 2007 was recorded in all profit items: net interest income rose by 11 percent; a large 43 decrease was recorded in loan-loss provisions; an increase was recorded in operating income, principally from commission fees; and a decrease in salary and related expenses was recorded for the first time in four years, to the amount of 4 percent. The return on equity of the five banking groups amounted to 18.9 percent annualized in the first three quarters of the year compared with 19.5 percent in the whole of 2006.

The credit risk within the banking system declined in 2007.

The year 2007 was notable for a decline in credit risks, which derived from an improvement in the quality of credit portfolios and encompassed all the banks and all the principal industries except for the construction and real-estate industry. The capital adequacy ratio of the five banking groups rose slightly during the year and amounted to 11.1 percent compared with 10.8 percent at the end of 2006, although this ratio is still low compared with that in the advanced economies (Figure 4.23). The increase in capital adequacy mainly derived from the accrual of profits resulting from the economy's location in the rising part of the business cycle, concurrent with a growth in non-recurring profits which the banking system recorded in recent years, as well as the Supervisor of Banks' requirements to improve capital adequacy in order to ensure that its level in Israel approaches that usual in the developed countries.

Figure 4.23
Relative Excess Capital Adequacy[a] in Selected Banking Systems,[b] 2006



[a] Calculated as excess capital as a percent of minimum capital required in each country. The minimum capital ratio is 8 percent in all the countries except for Israel, where it is 9 percent , and South Africa, where it is 10 percent.
[b] In all countries in the figure the data relate to the largest ten banking groups, except for the US, where they relate to the largest 50 groups, Chile, Portugal, and South Korea, where they relate to the largest seven groups, South Africa, where they relate to the largest six groups, Israel, Belgium and the Czech Republic, where they relate to the largest five groups, and New Zealand, where they relate to the largest four groups.
[c] The reference group consists of eight countries comparable to Israel with regard to their GDP and banking systems: Belgium, Denmark, Ireland, Greece, Norway, Portugal, Finland and South Africa.
SOURCE: Based on Bankscope data.

The banking system's Tier 1 capital increased only slightly.

Tier 1 capital,[24] which is the largest and most stable part of total capital, expanded due to the growth in the banks' profits, which increased the ratio of Tier 1 capital to risk-weighted assets to a level of 7.7 percent compared with 7.5 percent at the end of 2006. The decrease in credit risk is also reflected in additional indices: The problem loans of the five large banking groups fell by 10 percent in the first three quarters of 2007, and a 6 percentage point decrease was recorded in the most problematic non-performing loans. As a result, the ratio of problem loans to total credit at the responsibility of the large banking groups and the ratio of non-performing loans to total credit at the same groups amounted to 7.2 percent and 1.7 percent respectively. Despite the improvement in the ratio of problem loans to total credit, the proportion of non-performing loans plus credit in temporary arrears (NPLs—non-performing loans)[25] to total credit in Israel is still higher than that usual in developed countries. In addition, a large decrease in the net loan-loss provision was recorded compared with the same period in 2006, and its ratio to balance-sheet credit amounted to only 0.3 percent.

Apart from the credit risks to which the banking system is exposed, the banks are exposed to market risks. Market risks are defined as the erosion in a bank's net worth resulting from unexpected changes in market prices—interest rates, shares, exchange rates and inflation. The banking system's exposure to interest-rate risk deriving from the difference between the repayment dates and the interest-rate adjustment dates of assets and liabilities in each segment of activity is limited, so is their exposure to indexation base risks—changes in the consumer price index and in the exchange rate.

Until the end of 2007, the global crisis had a relatively limited direct and indirect effect on the banking system in Israel (see section 2 for details).

To conclude, activity in the banking system increased in 2007, profitability continued at a high level, the level of capital adequacy was maintained, and risks declined somewhat.

b. Institutional investors

(i) The insurance companies

The insurance industry's assets at the end of 2007 totaled NIS 147 billion, of which 66 percent were in profit-sharing plans (Table 4.9). During recent years these plans expanded by an annual average of 20 percent and accounted for 4.6 percent of the public's asset portfolio at the end of 2007.

The insurance companies' financial resilience did not improve in the first three quarters of 2007 as the ratio of core capital to total assets rose only slightly compared

[24] Tier 1 capital—issued and paid-up share capital, funds, surpluses, receipts on account of shares and minority interest in consolidated subsidiaries.

[25] For further details of the NPL ratio, see the Bank of Israel Report for 2006, Box 4.4, page 154.

Table 4.9
Institutional Investors: Main Developments, 2003–07

	Mutual funds	Provident and severance pay funds	Advanced study funds	Pension funds: Established	Pension funds: New[a]	Life insurance schemes[b]: Guaranteed yield	Life insurance schemes[b]: Profit sharing	Total
Balance[c] (NIS billion, current prices)								
2003	83.2	134.7	54.7	120.6	18.7	42.6	49.8	504.3
2004	101.1	147.0	61.9	124.4	23.8	43.6	58.2	560.0
2005	124.6	165.6	72.0	142.5	44.7	47.3	71.1	667.7
2006	111.5	175.8	79.9	146.6	54.6	48.5	83.3	700.2
2007	119.4	188.6	89.7	159.4	64.3	50.1	97.1	768.6
Percent of total institutional investors' savings[d]								
2003	16.5	26.7	10.9	23.9	3.7	8.5	9.9	100.0
2004	18.1	26.2	11.0	22.2	4.3	7.8	10.4	100.0
2005	18.7	24.8	10.8	21.3	6.7	7.1	10.6	100.0
2006	15.9	25.1	11.4	20.9	7.8	6.9	11.9	100.0
2007	15.5	24.5	11.7	20.7	8.4	6.5	12.6	100.0
Percent of public's asset portfolio								
2003	6.4	10.4	4.2	9.3	1.4	3.3	3.8	38.8
2004	7.1	10.3	4.3	8.7	1.7	3.1	4.1	39.3
2005	7.5	10.0	4.3	8.6	2.7	2.8	4.3	40.1
2006	6.0	9.4	4.3	7.9	2.9	2.6	4.5	37.6
2007	5.7	9.0	4.3	7.6	3.1	2.4	4.6	36.5
Net accrual[e] (NIS billion, current prices)								
2003	30.7	-2.7	0.9	-4.2	3.4			28.1
2004	13.9	1.0	2.7	-4.2	3.7			17.1
2005	16.0	2.5	2.8	-3.8	17.9[f]			35.4
2006	-18.3	-0.8	3.0	-4.3	7.2			-13.2
2007	5.0	-0.7	3.7	-4.2	6.3			10.1

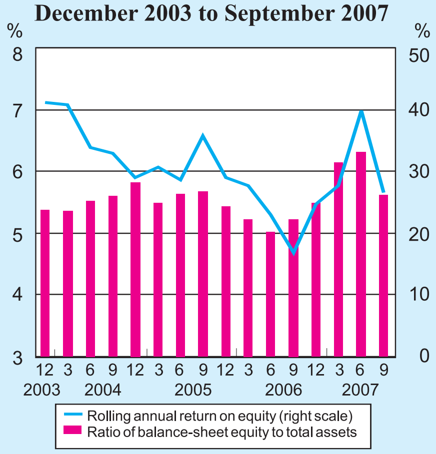
[a] Including general pension funds and central pension provident funds.
[b] Asset balances of life insurance plans do not include fixed assets, receivables and deferred purchasing expenses.
[c] All institutional investor assets are net of mutual fund investments.
[d] Includes: mutual and training funds–defined as short- to medium-term investments, and provident funds, pension funds and life insurance plans–defined as institutional and contractual long-term savings.
[e] Excluding inter-fund transfers.
[f] Including a one-time deposit in a central pension provident fund.
SOURCE: Based on mutual funds' returns to the Bank of Israel and data of the Capital Market, Insurance and Savings Division of the Ministry of Finance.

The insurance companies' resilience did not improve in the first nine months of the year.

with 2006, profitability, which remained high, nonetheless declined, and the ratio of risk assets to total assets continued to rise. The ratio of core capital to total assets rose considerably in the first half of the year, to 6.3 percent, but fell heavily in the third quarter, to 5.6 percent, slightly more than its level at the end of 2006. The large increase in the ratio of core capital to total assets in the first half of the year derived mainly from the transfer of part of the reserve for extraordinary risks to core capital as the result of directives issued by the Control of Insurance, and from large profits. However, this ratio fell again in the third quarter of the year due to large-scale dividend distribution concurrent with the considerable losses which the insurance companies incurred in that quarter as the result of increased financing expenses and the price slides in the financial markets. Despite the losses in the third quarter, the cumulative profitability of the insurance companies from the beginning of the year remained positive and high, although lower than in previous years: Return on equity fell to 22 percent annualized compared with 25 percent in 2006 and nearly 30 percent in the previous two years (Figure 4.24). In summary, in 2007 the insurance companies appear to have missed an opportunity to expand their capital base and improve their capital ratios, an opportunity provided to them by their high profitability in that year and by the accounting change in capital.

The developments in the third quarter of 2007, when the insurance companies' performance was affected by the shock in the financial markets, highlight the major extent to which the insurance companies have been dependent on the behavior of the markets in recent years. This dependency has increased because of the rise in the ratio of marketable assets in profit-sharing life insurance plans and in the nostro portfolio (including general insurance), and due to the requirement for the revaluation of non-marketable assets in profit-sharing life insurance plans on the basis of market value.

Figure 4.24
Ratio of Balance-Sheet Equity to Assets and Annual Return on Equity of Insurance Companies, December 2003 to September 2007



SOURCE: Based on data of the Capital Market Division in the Ministry of Finance.

(ii) The provident funds, advanced study funds and pension funds

The assets of the provident and severance pay funds totaled NIS 188.6 billion at the end of 2007, an increase of 7.2 percent compared with 2006. The increase resulted from a rise in prices, while the accrual in the industry was negative again in 2007 to the amount of NIS 0.7 billion. The negative accrual appears to be connected with the new directives that went into effect at the beginning of 2006 and which reduced the attractiveness of depositing in the funds (see the Bank of Israel Report for 2006). However, the new directives that are due to go into effect in 2008 are intended to equate the conditions in all long-term saving industries, and thereby enable the provident fund industry to compete with other saving industries—insurance and pensions—at equal terms.

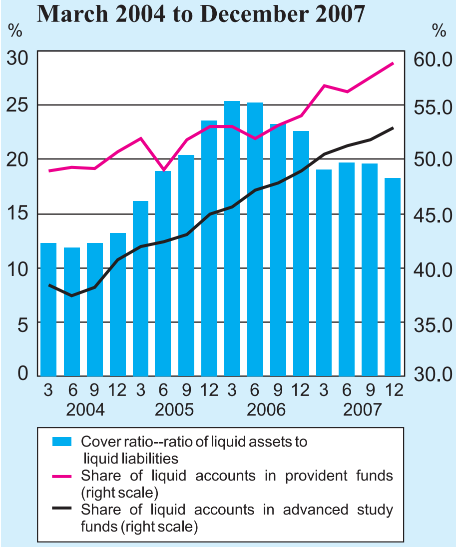
The assets of the advanced study funds totaled NIS 89.7 billion at the end of 2007, an increase of 12 percent compared with the end of 2006. The growth in the asset balance resulted from a positive accrual of NIS 3.7 billion and from an increase in prices. The advanced study fund industry is the only saving industry that is relatively short-term and that is subject to tax benefits.

The resilience of the provident funds deteriorated to some extent in 2007.

The financial resilience of the provident funds deteriorated to some extent during the year because of the continued rise in systemic liquidity risk and the continued rapid growth in the ratio of risk assets to total assets. The rise in systemic liquidity risk during 2007 derived from the increased proportion of liquid accounts in the provident funds and advanced study funds, and from the reduced coverage ratio in these accounts, where the ratio of liquid assets to liquid liabilities fell from 23 percent at the end of 2006 to 18 percent at the end of 2007 (Figure 4.25). Concurrently, the funds continued to increase their investment diversification during 2007: Their ratio of investments abroad increased and their ratio of investments in the local market decreased (Table 4.10).

The pension industry's assets totaled NIS 224 billion at the end of 2007, an increase of 11 percent compared with the end of 2006. Some 29 percent of the industry's assets are held in the new pension funds, and the remainder in the established funds that are closed to new members. Despite the major reforms which the pension industry has undergone in recent years, it still suffers from high concentration and two funds manage over 60 percent of the new pension funds' assets.[26]

Figure 4.25
Liquid Accounts as Share of Total Liabilities of Provident Funds and Advanced Study Funds, and their Cover Ratio, March 2004 to December 2007



SOURCE: Based on data from the Ministry of Finance Capital Market, Insurance and Savings Division.

[26] Excluding Israel Electric Corporation employees' annuity provident funds.

Table 4.10

Share of Institutional Investors' Asset Portfolios Invested Abroad, in Shares and in Tradable Private and Government Bonds, 2005–07

(percent)

	Investments abroad[a]			Shares			Private bonds			Government bonds			Other assets[b]		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Provident and severance pay funds	7.0	8.9	10.5	17.3	18.5	19.3	24.9	29.7	36.7	33.4	28.0	20.5	17.4	14.9	13.0
Advanced study funds	7.6	9.6	9.6	15.8	18.2	19.6	24.5	29.9	37.9	31.9	25.1	18.1	20.2	17.2	14.8
Established pension funds	0.7	3.3	7.9	3.3	3.5	3.8	6.6	9.0	12.8	84.6	78.1	70.4	4.8	6.1	5.1
New (general) pension funds	4.6	6.3	6.9	13.6	16.4	17.2	27.2	30.9	35.8	35.9	29.4	22.9	18.7	17.0	17.2
New (comprehensive) pension funds[c]	3.5	7.9	10.7	6.0	7.4	9.5	16.1	19.5	21.7	61.6	51.5	44.7	12.8	13.7	13.4
Mutual funds	16.3	17.4	13.4	10.7	14.2	13.3	8.9	14.4	20.1	33.3	29.6	32.1	30.8	24.4	21.2
Guaranteed-yield insurance plans[d]	1.7	1.7	1.8	0.7	1.5	1.5	6.7	7.5	9.3	66.3	66.6	65.4	24.6	22.7	22.0
Profit-sharing insurance plans[d]	15.0	18.0	19.6	17.6	19.8	19.7	22.5	24.2	27.5	23.9	18.1	14.4	20.7	19.4	18.6
All institutional investors	7.7	9.7	10.9	11.0	12.8	13.3	11.0	19.6	25.1	47.3	41.7	36.5	23.0	16.2	14.2

[a] Including investments in Israeli securities traded abroad, foreign securities, deposits abroad and mutual funds. Does not include investments in ETFs traded in Tel Aviv that track indexes abroad.

[b] *Makam,* indexed and unindexed deposits, loans, mutual fund units, property rights, futures, mortgage portfolios and other assets.

[c] Including the Central Pension Provident Fund.

[d] Investment assets for life-insurance schemes.

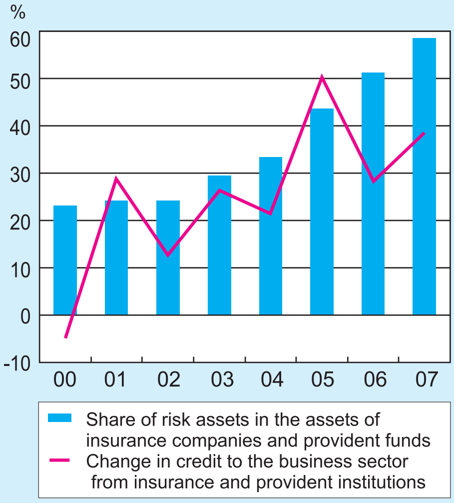
SOURCE: Based on returns of insurance companies, provident, advanced study and pension funds to the Capital Market, Insurance and Savings Division of the Ministry of Finance, and returns from the mutual funds to the Bank of Israel.

(iii) Institutional investors' risk assets and credit risks[27]

The volume of risk assets in institutional investors' asset portfolios continued to expand during 2007.

The rapid increase in risk assets in institutional investors' portfolios—including credit to the business sector—continued in 2007. The actual rate of increase also remained high, with risk assets at the provident funds growing by 22 percent during the year and by 25 percent at the insurance companies. The proportion of institutional investors' risk assets now accounts for a major part of the total: 68 percent at the provident funds and 72 percent in profit-sharing life insurance plans (Figure 4.26). The proportion of risk assets in the insurance companies' nostro portfolios (which include general insurance and guarantee-yield insurance plans), where the risk falls on the company and not on members, has also been rising persistently although it is far lower than in profit-sharing plans and amounts to 26 percent. Credit to the business sector, which accounts for half of all risk assets, also continued to expand rapidly in 2007. Nevertheless, the quality of the credit still appears to be satisfactory: Most of the credit has been granted in the form of medium/high-rated bonds (BBB and above) issued by large companies or against collateral, while the low-rated or unrated and unsecured part accounts for only 3 percent of institutional investors' total assets (Table 4.11).

Figure 4.26
Share of Risk Assets in the Assets of Insurance Companies and Provident Funds, and Change in Credit to the Business Sector from Insurance and Provident Institutions, December 2000 to September 2007[a]



[a] For September 2007 the change in credit is by comparison with September 2006.
SOURCE: Based on data from the Ministry of Finance Capital Market, Insurance and Savings Division.

(iv) The risks of contagion between institutional investors and the stock markets and the banks

The local stock market's major dependency on the financial position of the institutional investors again declined during 2007, continuing the gradual downtrend apparent

[27] Risk assets include credit to the private sector (loans and bonds to the business sector and households), foreign bonds, share-oriented mutual funds in Israel and abroad, and other securities such as ETFs and structured bonds.

Table 4.11
Distribution of Risky Assets[a] in Portfolios of Institutional Investors (Insurance Companies and Provident Funds), September 2007

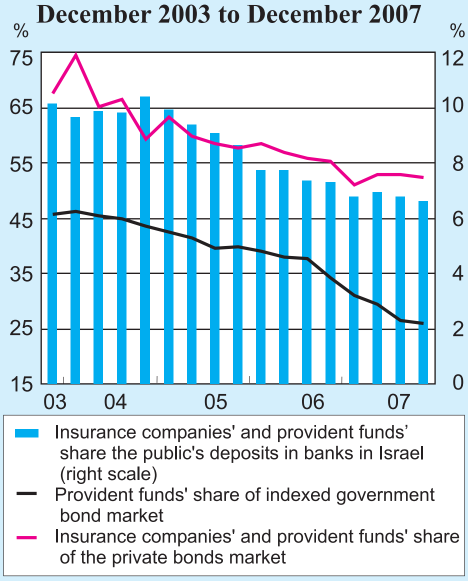
	Balances (NIS billion)	Composition (Percent)
Total assets	484	100
of which Total risky assets (in Israel and abroad)	280	58
Credit (loans and bonds)	165	34
of which With low rating or unrated, and with no collateral	14	3
Shares	84	17
Other	31	6

[a] Assets not included in risky assets are mainly assets issued by the government (mainly bonds), deposits in banking institutions and accounts with reinsurers.

SOURCE: Based on data of the Capital Markets, Insurance and Savings Division of the Ministry of Finance.

since 2003.[28] The insurance companies' and provident funds' share of the government bond and corporate markets decreased in 2007. Particularly notable was the decrease in the provident funds' share in the CPI-indexed government bond market (Figure 4.27). The contagion risks for the equities market and the *makam* market remained low because of the relatively small proportion of insurance companies and provident funds in them. The risks of contagion from the institutional investors to the banks also continued to decline in 2007: The share of the insurance companies and the provident funds in deposits of the public fell slightly, and the significance of the exclusive affiliation between the provident funds and the banks decreased because most of the funds which they had held were sold as a result of the Bachar legislation.

Figure 4.27
Insurance Companies' and Provident Funds' Share of Israel's Bond Market and of the Public's Deposits in Banks in Israel, December 2003 to December 2007



SOURCE: Based on data from the Ministry of Finance Capital Market, Insurance and Savings Division.

[28] It should be remembered that institutional investors are a major player in the local market and account for 40 percent of holdings in the government bond and *makam* market, 70 percent in the corporate bond market and over 10 percent in the equities market.

APPENDIX

Changes made in the financial infrastructure during 2007

Changes in regulatory coverage governing the strengthening of supervision

- The Finance Ministry prescribed regulations for **strengthening the internal management, supervision and control mechanisms** of the institutional investors. The institutional investors were required to allocate resources for improving the management of risks in all matters relating to the extension, management and operation of credit. The institutional investors were also required to expand the range of information which they report to the public concerning the performance of their investments, and the frequency of the reporting requirement was increased.
- The reporting requirements were expanded and the level of transparency available for those investing in sophisticated financial instruments was increased.
- The Finance Ministry made progress in providing regulatory coverage for the **financial advice** market at the banks in accordance with the principles determined in the Bachar reform, whereby preference will be given for the entry of small and medium-sized banks over the two largest banks in order to help reduce the concentration in the banking system. In July 2007 the Controller of the Capital Market devised a blueprint for Bank Hapoalim's gradual entry into financial advice activity. In August 2007, Bank Mizrahi-Tefahot obtained a permit to engage in pension advice, and the banks began to provide such advice to salaried employees and to the self-employed.[29]
- At the beginning of 2007, the Banking Supervision Department started to implement the recommendations of the **Basel II** international committee for the measurement of capital and capital standards prior to the application of these guidelines at the banking corporations in Israel from December 2009. The implementation of the recommendations will strengthen the stability of the banking system in Israel, will match it to international standards, and will increase its competitiveness with foreign banks. This is because the propriety of

[29] The Bachar legislation stipulates that the two largest banks must sell their entire provident fund and mutual fund holdings as a condition for the receipt of a license for engaging in pension advice , while the small banks must sell only part of their holdings. However, this preference model as determined in the Bachar legislation proved to be ineffective. In practice, the sale of the largest banks' assets was more rapid than the legislator had expected and the preference model failed to achieve its objective. The Controller of the Capital Market, who is legally empowered to consider the impact of the large banks' immediate entry into pension advice activity on the concentration and competition in the market for the distribution of pension products, decided that the large banks' entry would be gradual while the small banks will be able to begin pension advice activity for the entire public immediately. On the basis of this principle, Union Bank obtained a license for providing advice to the self-employed back in June 2006. This license will shortly be expanded to cover salaried employees as well. The First International Bank and Mercantile Discount Bank expect to obtain a license for advice to salaried employees and the self-employed in the near future.

capital adequacy will cease to be a major source of inequality among the banks operating internationally.[30]

- Israel completed another stage in the implementation of generally accepted international supervisory best practices standards, following the signing of a **memorandum of understanding** in June 2007 for cooperation and know-how-sharing between the Supervisor of Banks, the Director-General of the Securities Authority and the Controller of the Capital Market, Insurance and Savings, concerning the supervision of the financial system in Israel. The memorandum validates the informal cooperation that had existed between these bodies for some considerable time.

Changes in the regulatory coverage governing increased competition and enhancement of the money and capital markets

- A decision was made to introduce a **compulsory pension** for all employees in the economy. Apart from its sociological implications, this process is likely to increase the volume of saving in the economy and the liquidity in the financial markets. However, the extension of pension coverage to new populations that are less conversant with the details of the relevant arrangements heightens the need for an improvement in the regulatory coverage and supervisory mechanisms of the institutions that manage the public's money.
- In addition, two types of **long-term saving—capital and annuity**—were amalgamated and the preferential tax benefits, which until then had been granted to savers in the pension funds, were expanded to include the provident funds and insurance companies. A minimum amount for pension saving was determined, and above this amount the member can decide the amount which he wishes to allocate to the annuity facility and the amount which he wishes to withdraw as capital. The decision will be made at the time of retirement. In addition, members have been given an increased opportunity to move their funds between all types of long-time saving.
- In 2007 the Bank of Israel in cooperation with the Finance Ministry, the Securities Authority and the Tel Aviv Stock Exchange stepped up their efforts to remove additional barriers and to complete the infrastructure necessary for the development of a repo market in Israel, and to increase the awareness of its importance. The following measures were applied in this respect: (1) The Bank of Israel began to hold reverse repo auctions (in which it lends sources to the financial system) for monetary management purposes and in order to promote the development of the market; (2) In order to make it easier for the parties involved to conduct a repo transaction, the Bank of Israel compiled a draft framework agreement whereby such a transaction can be conducted between the parties. The agreement matches the generally accepted worldwide framework; (3) In cooperation with

[30] See the Bank of Israel's Internet site for more details of the Banking Supervision Department's preparations for the implementation of the Basel II directives.

the Tax Authority, a team is examining the legislative measures necessary to provide regulatory coverage for the taxation aspects of repo transactions in Israel. The Tax Authority has already given initial authorization for Bank of Israel repo transactions to be classified as a credit transaction; (4) The Tel Aviv Stock Exchange is promoting the establishment of a central settlement system that will greatly facilitate trading in repo contracts. The system is due to begin operating in mid-2008.

- In October 2007 approval was given for legislative changes in mutual fund activity, which are intended to increase transparency for the investor and the supply of financial instruments in this area of activity, and to remove the obstacles hindering the activity. This legislation standardizes regulations for the classification of the funds' investment policy, and provides regulatory coverage for the supply of new instruments such as a "fund of funds," a fund that invests in other mutual funds in Israel and abroad, and a money market fund, a fund for short-term investments that constitutes a competitive alternative to short-term bank deposits. In addition, regulatory coverage was provided for a closed fund traded in the stock market and a levered fund.
- In July 2007 the Knesset passed the **Supervision of Bank Commissions Law**. The law provides the Bank of Israel and the Banking Supervision Department with the authority to determine a uniform and transparent list of banking services for which the banking corporations are entitled to charge commission fees, concurrent with a substantial decrease in the number of such fees. The main objective of the law is to encourage competition in the banking system by increasing the level of transparency and the ability to compare fees between different banks. In November 2007 the Banking Supervision Department completed the first stage of its preparations for applying the law, and distributed to the banks a draft summary of the full commission-fee scale which it had compiled. The number of the most common commissions was reduced by two-thirds in this fee-scale.
- In July 2007 the primary market in Israel began to operate under the rules determined in the new legislation concerning the **underwriting reform.**[31]
- The Telbor Interest Rate Committee for regulating the Telbor market was established. The Telbor market is reliable and transparent, and is likely to contribute to the development of the money market in Israel.
- In August 2007 the payments system in Israel began to operate under the Zahav, RTGS system. The new payments system enables money to be transferred between bank accounts immediately and finally.[32]
- A Capital Market Forum for identifying obstacles in the financial system by means of periodic meetings between representatives of the authorities and players in the markets was established.

[31] For further details of the reforms' contribution to the development of the primary market and its additional implications for the capital markets in Israel, see the Bank of Israel Report for 2006.

[1] For details of the various aspects of the new system, see the Bank of Israel's Financial Statements for 2006.