

Chapter 4

The Financial System and Its Stability

- ◆ In 2009, prices in the domestic financial markets rose steeply and gradually approached the early-2008 level, after a year (2008) of severe systemic shock due to one of the greatest financial crises in history and with share and corporate bond prices plummeting.
- ◆ The price declines in the domestic markets in 2008 resembled trends in markets abroad; the upturns in 2009, in contrast, surpassed those in other markets and were accompanied by falling market volatility and risk premiums.
- ◆ The global crisis dealt a milder blow to Israel's financial system than to those in other advanced economies; it focused mainly on the financial markets, whereas the financial institutions maintained relative stability.
- ◆ The corporate bond market exposed the domestic financial system to the ravages of the crisis abroad, following rapid expansion in 2005–07 and allowing an increase in the share of issues for the acquisition of real estate abroad—an industry that lay at the focus of the global crisis.
- ◆ In 2009, the corporate bond market started to function again: risk spreads narrowed sharply and issues gradually resumed, allowing the business sector to expand its activity despite the decrease in bank credit.
- ◆ The profitability of Israel's financial institutions—banks and insurance companies—increased notably in 2009 as the state of the real economy improved and the capital markets surged. Capital adequacy also improved markedly, partly due to capital issues and against the background of the supervisors' demand to refrain from distributing dividends.
- ◆ Despite the turn for the better, the global financial system remains clouded by uncertainty and is more susceptible to moral hazard than before. This is due to unprecedented government intervention designed to stave off the collapse of large financial institutions that, had they failed, might have aggravated the crisis and led to collapse of the financial system at large.
- ◆ Uncertainty in the domestic financial system also remained high due to the combination of uncertainty abroad and domestic factors including the resumed expansion of corporate bond issues before the adjustments warranted by the lessons of the crisis were implemented; the concentration of the financial system, which makes it necessary to contend with institutions deemed “too big to fail” and the attendant moral hazard, and the financial system's severe dependency on the resilience of large and complex business groups.

1. MAIN DEVELOPMENTS

The global financial system stabilized in 2009 and immediate risks to its stability diminished significantly.

The global crisis peaked in Q4:2008, forcing central banks and governments around the world to take unprecedented measures to restore the financial system to stability.

The unprecedented measures by authorities around the world allowed the financial system to stabilize rapidly and impressively as the year progressed.

The global financial system stabilized in 2009 and the immediate risks to its stability ebbed considerably. The previous year had witnessed one of history's most acute financial crises, that had paralyzed the global financial system, including the core of the inter-bank money market, and had evoked concern about a deep global crisis. The global crisis broke out in the wake of enormous liquidity surpluses in the global financial system and the rapid expansion of credit to the real estate industry in the US and various European countries, which fueled a real estate price bubble in these countries.

The crisis peaked in the last quarter of 2008 with the collapse of the Lehman Brothers investment bank and some of the world's most important financial institutions. Central banks and governments around the world took unprecedented measures to ease the uncertainty and systemic risk in the financial system and to restore the public's confidence in system functioning. Thus, monetary lending rates were slashed to near-zero levels, struggling financial institutions received massive injections of capital, short-term loans, and guarantees; programs for the restoration of bank lending by cleansing banks' balance sheets of toxic assets were implemented; and a process of far-reaching regulatory change was instigated to systematize and tighten the supervision of financial institutions.

Thanks to the authorities' unprecedented intervention, the financial system achieved a rapid and impressive return to stability. The money market began to function again (Figure 4.1) and inter-bank interest rates returned to their pre-crisis level, albeit at a much lower level of activity; nonbank financial intermediation resumed; liquidity pressures in the system diminished considerably; and expectations of the worsening of the global crisis receded. The decrease in risks and interest rates, which were held to very low levels, mitigated investors' uncertainty and allowed the capital markets

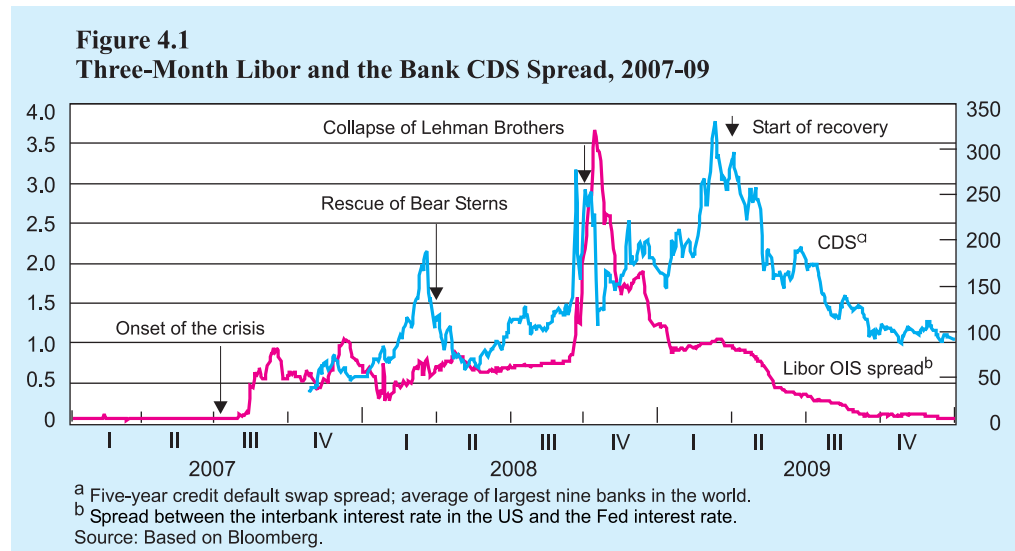


Figure 4.2
Indices of NIS/\$, NIS/Euro and Nominal Effective Exchange Rate, 2006-09
(31 Dec. 2005 = 100)

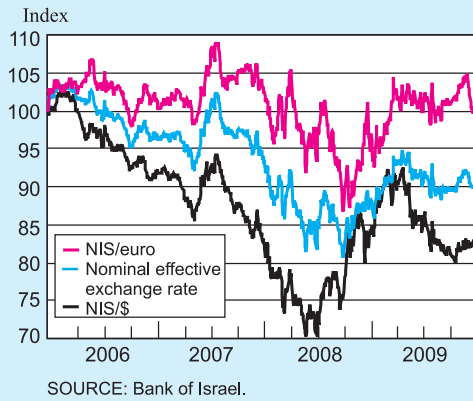
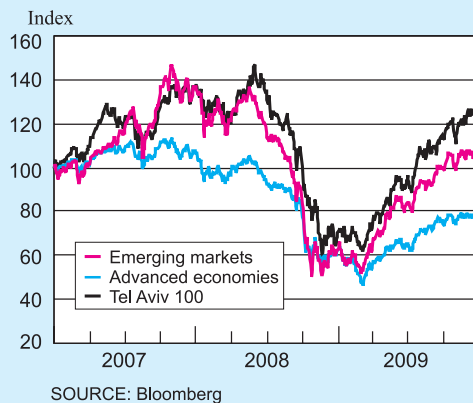


Figure 4.3
Share Price Indices in Israel and World Wide (Based on Dollar Prices), December 2006 to December 2009
(31 Dec. 2006 = 100)



depreciation in the first third of the year, and a similar extent of appreciation later on, accompanied by intervention in trading by the Bank of Israel most of the year (Figure 4.2).¹ The financial markets' rebound resulted directly from expectations of a return to economic growth; indeed, the domestic economy started growing again in the second quarter of the year—before other developed markets did so—despite its severe dependence on export markets, due to domestic-demand-orientated growth.

¹ The depreciation in the first third of 2009 coincided with steep interest rate reductions during that time; until April, the rate of NIS depreciation against the dollar surpassed that of dollar appreciation abroad. The appreciation of the NIS later in the year approximated the depreciation trend of the dollar abroad.

to turn around, replacing the negative trends in 2008 with steep increases in places. Economic activity also regained its balance gradually and the global economy shifted from a state of acute contraction of activity to a slow process of recovery. Despite the impressive recovery of the global financial system and the elimination of immediate risks to its stability, the system remained fragile and the sustainability of the stability attained is not clear. Furthermore, moral hazard in the system worsened considerably due to the salvation of large financial institutions from the risk of collapse in response to the fear that their failure would topple the entire financial system.

The stabilization abroad was evidenced in the Israeli financial system and the real economy as well (Table 4.1): equity and bond prices rose sharply, market volatility decreased, the country risk premium declined, yields and risk spreads in the nonbank credit markets fell, the primary market for corporate bond issues rebounded, and profitability, including that of banks and insurance companies, improved strongly. The foreign-currency market also became less volatile, despite steep

During 2009, prices in domestic financial markets rose steeply, gradually verging on early-2008 levels, after the enormous shock and the tumbling of share and corporate bond prices in 2008

In 2008, prices in the domestic markets fell much as those in markets abroad did; in 2009, domestic price increases outpaced those of the other markets.

Table 4.1**Main Stability Indicators of Israel's Financial System, 2004–09**

	(percent)					
	2004	2005	2006	2007	2008	2009
A. The global environment						
Rate of growth of global GDP	4.9	4.5	5.1	5.2	3.0	-0.8
Increase in world trade	10.7	7.8	9.1	7.3	2.8	-12.3
Emerging markets' bond index (EMBI) spread (annual average)	4.4	3.2	2.0	1.9	3.8	4.5
VIX (volatility) index of Chicago Board Options Exchange (annual average)	15.5	12.8	12.8	17.5	32.7	31.5
B. The domestic environment						
Government debt/GDP ratio (end of period)	95.2	91.5	82.5	76.3	75.2	77.7
Net external debt/GDP ratio (end of period)	-8.1	-15.6	-21.1	-24.2	-22.9	-28.0
Private credit/GDP ratio (end of period)	132.1	137.3	135.9	143.0	142.4	136.7
Business-sector credit/product ratio (end of period)	127.9	133.6	133.2	142.0	139.7	132.3
Household credit burden (credit/disposable income ratio) (end of period)	61.8	61.1	57.3	59.4	60.0	59.5
Israel's risk premium (the CDS spreads, annual average)	0.55	0.32	0.31	0.22	0.98	1.57
Yield gap between 10-year government shekel bonds and 10-year US T-bonds (annual average)	3.30	2.09	1.52	0.94	2.24	1.83
C. Financial assets						
Risk indices (annual averages)						
Implied volatility of:						
Exchange rate	6.2	6.3	7.3	9.3	15.1	13.7
Tel Aviv 25 share price index	20.0	19.3	21.1	21.2	33.8	32.1
Actual volatility of:						
Exchange rate	4.1	4.6	5.3	7.0	14.6	10.4
General share price index	12.6	12.9	13.0	14.1	24.2	18.6
Unindexed government bonds	1.5	1.5	1.2	2.0	2.5	2.9
Indexed corporate bonds	0.9	1.7	1.2	2.3	9.4	7.4
Prices and yields (in annual terms)						
Change in NIS/\$ exchange rate (during the year)	-1.6	6.8	-8.2	-9.0	-1.1	-0.7
Change in effective exchange rate (during the year)	4.4	1.1	-0.1	-3.1	-10.1	4.3
Change in general share price index (during the year)	17.4	33.2	5.4	23.3	-46.4	78.7
Yield to maturity of 5-year unindexed government bonds	6.6	5.6	6.0	5.2	5.2	3.9
D. Resilience of the financial system						
The banking system						
Risk-weighted capital ratio ^a	10.8	10.7	10.8	11.0	11.1	13.7
Ratio of balance sheet credit to GDP	82.9	81.4	79.2	81.1	84.4	79.9
Ratio of problem loans to total balance sheet credit	10.8	9.7	8.3	6.1	6.9	6.5

(Cont.)

Table 4.1 (cont.)
Main Stability Indicators of Israel's Financial System, 2004–09

	(percent)					
	2004	2005	2006	2007	2008	2009
Insurance companies^b						
Core capital/assets ratio	---	---	---	5.6	5.0	5.8
Share of risk assets in total assets	---	---	---	41.6	34.5	40.3
Provident funds^c						
Share of liquid accounts in total liabilities	47.4	50.1	52.3	56.5	57.0	58.4
Ratio of liquid assets to liquid liabilities	13.2	23.6	22.6	18.4	23.2	28.7
Provident funds' share in government indexed bonds market	43.5	39.7	34.1	26.0	21.5	17.9
Share of risk assets in total assets	38.4	49.9	58.6	68.0	50.3	58.0
Market liquidity						
Change in total daily turnover in the markets	9.0	35.6	27.1	42.7	4.6	-5.7
Bid-ask spread in NIS/forex market	0.10	0.08	0.08	0.08	0.11	0.10

^a The five major banking groups.

^b The figures for 2009 are to September.

^c Including central severance pay funds and advanced study funds.

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

The financial markets began to recover in March, in tandem with those abroad,² and the pace of their recovery far surpassed that of other developed markets and slightly exceeded that of emerging markets (Figure 4.3). Despite the impressive recovery, market volatility, the country risk premium, and corporate bond spreads did not return to their pre-crisis levels (Figure 4.4). Furthermore, lending to the business sector contracted pursuant to the slowdown in the growth of this activity in 2008, despite the recovery of the nonbank market.

Another reason for the faster recovery of the domestic economy than of markets abroad was the much milder blow that the crisis inflicted on Israel, focusing on the financial markets and the real economy and leaving the financial institutions unscathed and in no need of supportive government injections. The damage to real activity was also much less intensive and protracted in Israel than elsewhere; accordingly, real activity in Israel did not need massive fiscal injections of the sort that were essential in other economies.³

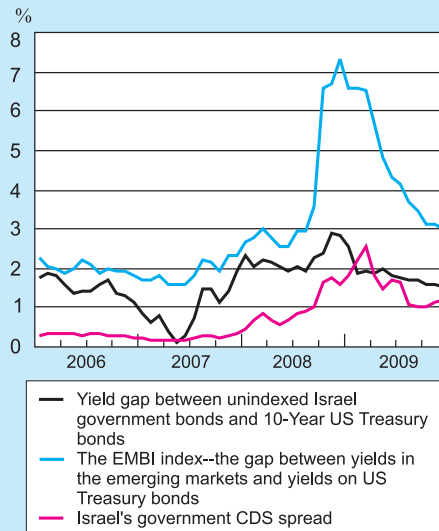
The reasons for the relative strength of the Israeli economy relate to several factors, including the limited exposure of Israel's financial institutions to the foreign complex financial assets on which the global financial crisis centered; the conservatism of the domestic banking system, which has been showing much greater resilience and higher

The blow to the financial system during the crisis was milder in Israel than in other developed economies, focusing largely on the financial markets and leaving the financial institutions relatively stable.

² This is the case when one relates to the share indices in dollar terms. In NIS terms, the domestic recovery began in January.

³ In the Eurozone, the US, and the UK, for example, monetary and fiscal injections in support of the financial system and real activity added up to 50 percent, 100 percent, and 150 percent of GDP, respectively, in 2008–2009. See Bank of England, *Financial Stability Report December 2009*.

Figure 4.4
Yield Gap between Unindexed Israel Government Bonds and 10-Year US Treasury Bonds, Israel's Government CDS Spread, and the Emerging Markets Bond Index (EMBI) spread, 2006-09
 (monthly averages)



SOURCE: Based on Bloomberg.

capital ratios in recent years and operates under comprehensive regulation and close supervision—which had been upgraded due to the lessons of the crisis at the beginning of the decade—and the coupling of a conservative mortgage market with the absence of significant money and securitization markets. The economy's resilience was also abetted by its situation on the eve of the crisis, after several years of rapid growth and responsible management of macroeconomic policy.⁴ The scanty involvement of foreign banks in domestic financial intermediation, along with limited reliance of domestic banks on foreign funding, deflected the risk of being “infected” by developments abroad and, thereby, contributed to the domestic economy's resilience. This was also manifested in the domestic housing market, which avoided the kind of bubble

situation that typified many of its counterparts abroad.⁵

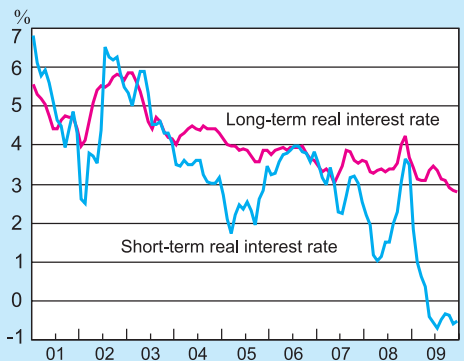
In 2009 the financial ratios of Israel's financial institutions—banks and insurance companies—improved perceptively due to the improvement in the real economy, the surging capital markets, and increases in capital that they carried out at their initiative in order to satisfy, if not surpass, the regulatory requirements. The banks' capital-adequacy ratio vaulted to a record 13.7 percent, resembling that of the banks in Israel's reference group. Their profitability escalated steeply and their credit risk remained stable. The insurance companies also improved their capital appreciably, surpassing the requirement established by Commissioner of the Capital Market at the end of 2009 but still below what is required by the Finance Ministry's new regulations, which constitute an interim stage in the implementation of the Solvency 2 Directive in Israel. The steep price rises in the capital markets helped the insurance companies improve their earnings markedly while showing how dependent their performance is on the markets.

During 2009, the financial ratios of Israel's financial institutions improved considerably.

⁴ This resilience is requested, among other metrics, in the debt/GDP ratio, which in contrast to other economies increased in 2009 modestly only, and also in a balance of payments surplus since 2003. (See Chapters 6 and 7 in this Report.)

⁵ When the crisis broke out, Israel's housing market coming off a decade of real price decreases, occasioned by over-investment due to mass immigration from the former Soviet Union. (See Chapter 2.)

Figure 4.5
Long- and Short-Term Real Interest Rates,^a 2001-09



^a Short-term real interest rate—the average monthly yield on government CPI-indexed bonds with 1-2 years to maturity. Long-term real interest rate—the average monthly yield on government CPI-indexed bonds with more than ten years to maturity.

SOURCE: Bank of Israel.

Real long-term interest on government bonds receded in 2009 after spiking in the last quarter of 2008, at the peak of the crisis, and fell to a historical low of 2.8 percent at year's end (Figure 4.5). Real short-term interest also tumbled as never before and even turned negative in May, reflecting the Bank of Israel's expansionary monetary policy. The continued decline of real long-term interest during 2009 was associated mainly with the same development abroad and was occasioned by the global crisis; expectations of sluggish domestic growth rates, and the strong credibility of fiscal policy, which in Israel, unlike other countries, ended the year with a deficit below the ceiling that had been established. The Bank of Israel's steep

Real short-term and long-term interest on government bonds continued to drop and fell to a historic low in late 2009.

rate cuts in the first quarter of the year and its intervention in the bond market for much of the year also contributed to the decline in long-term yields. (See Chapter 3.) Finally, the partial decline in Israel's risk premium and the increase in private saving, which whet demand for financial assets, also contributed to the steady decline in interest.

The stabilization of the global financial system and expectations of recovery in real activity mitigated risk assessments and powered the resumption of the quest for higher returns both domestically and abroad. This occurred chiefly against the background of interest rates that were held at very low levels all year long in order to bolster the recovery of real activity. Consequently, 2009 was noted for an increase in demand for riskier types of investment in the public's portfolio—such as equities, corporate bonds, and investments abroad—at the expense of low-risk investments such as bank deposits and government bonds (Table 4.2). This development, mirroring the pass-through of monetary policy to support of activity, was reflected in the resumption of corporate bond issues, the slowing of withdrawals from provident funds, and the shifting of money from money funds, the preferred investment instruments in 2008, to corporate bond funds or government-bond funds (which, however, invest a certain percent of assets managed in other instruments such as equities or corporate bonds).⁶

The low interest rates and the nil returns on solid investment vehicles also encouraged the public to take more housing loans, especially non-indexed adjustable-interest loans, to buy dwellings that were in part for investment purposes. The volume

In the public's portfolio, 2009 was noted for greater demand for riskier investment vehicles at the expense of safer ones.

Low interest and very low yields on solid investment vehicles encouraged the public to take more housing loans, foremost unindexed loans at floating interest.

⁶ NIS 30 billion was accrued in bond funds in 2009 and NIS 14 billion was withdrawn from money funds.

of housing loans increased by 56 percent in 2008–2009 relative to 2006–07 and housing prices spurted after several years of standstill. (See Box 4.1.)

Table 4.2
Composition of the Public's^a Assets Portfolio, 2005–09

	2005	2006	2007	2008	2009
Total portfolio (NIS billion)	1,648.0	1,839.2	2,055.9	1,886.7	2,301.6
Nominal rate of change (%)	16.0	11.6	11.8	-8.2 ^b	22.0
	Composition (%)				
Cash and deposits	34.6	32.4	30.8	37.0	31.6
Makam	4.1	4.6	3.2	3.5	2.6
Government bonds ^c	21.4	18.4	16.7	21.0	18.5
Corporate bonds ^d	7.6	8.9	11.2	9.8	11.3
Shares in Israel ^e	18.9	21.4	24.0	11.5	18.7
Investments abroad ^f	11.5	12.1	11.7	10.6	11.2
Other ^g	1.9	2.2	2.4	6.7	6.0

^a The public does not include the government, the Bank of Israel, nonresidents' investments, the commercial banks or the mortgage banks.

^b The nominal rate of change excluding the effect of the addition in February 2008 resulting from the government's commitment to support the pension funds was -11.7 percent.

^c Including earmarked bonds.

^d Tradable and nontradable; including convertibles.

^e Including warrants.

^f Including investment in Israeli securities traded abroad, and excluding exchange-traded funds (ETFs) traded in the Tel Aviv Stock Exchange on foreign indices.

^g From February 2008 including the government commitment to support the old pension funds. In February 2008 this commitment stood at NIS 72 billion.

SOURCE: Bank of Israel.

Box 4.1 **Israel's mortgage market**

New mortgages climbed by 56 percent in 2008–09 relative to 2006–07, to NIS 65 billion as against NIS 41 billion. The rapid escalation was accompanied by an increase of more than 30 percent in housing prices since 2008, after several years of negligible change (Figure 1).

The increase in new mortgages reflected the influence of falling domestic interest rates on the mortgage market and triggered an increase in demand for home purchases including those for investment purposes.¹ This is part of

¹ According to the State Revenues Administration report for October 2009, the proportion of purchase transactions that were made for investment purposes has been increasing steadily and came to about one-third of transactions culminated in the second quarter of 2009.

the quest for return that typified 2009 in view of low interest rates on other investment vehicles such as bank deposits and government bonds.

Mortgages figure importantly in household indebtedness in Israel and accounted for 50 percent of outstanding household debt at the end of 2009. Despite the rapid increase in the taking of housing loans in the past two years, the household-debt burden has not changed significantly. As evidence, the ratios of household debt to GDP and disposable income are much lower in Israel than in the US, the UK, and the Eurozone. For example, Israel's debt/disposable income ratio was less than 60 percent at the end of 2008 as against 110 percent in the US and the UK, respectively (Figure 2). The rates of increase in housing prices since the beginning of the decade have also been perceptibly lower in Israel than in aforementioned economies.

Falling inflation rates and structural reforms have brought about major changes in the Israeli housing-loan market in recent years. The share of CPI-indexed housing loans has fallen steadily, to only 35 percent in 2009 as against 61 percent in 2000. Still, the proportion of such loans in total housing-loan stock remains high, at 66 percent in September 2009.

The low interest rates in 2009 and the widely held belief at the beginning of the year that a further decrease in short-term interest would take place,

Figure 1
Total New Mortgages Given in Previous 12 Months, and the House Price Index as per the Central Bureau of Statistics (CBS) Survey, 2004-09

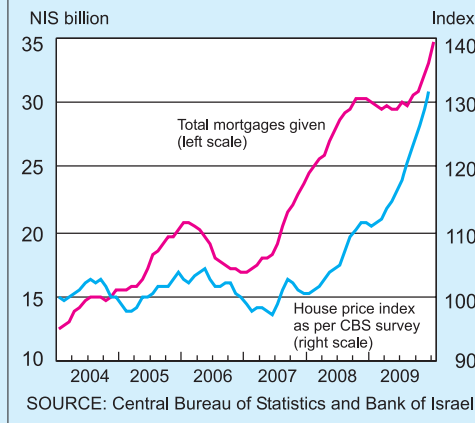
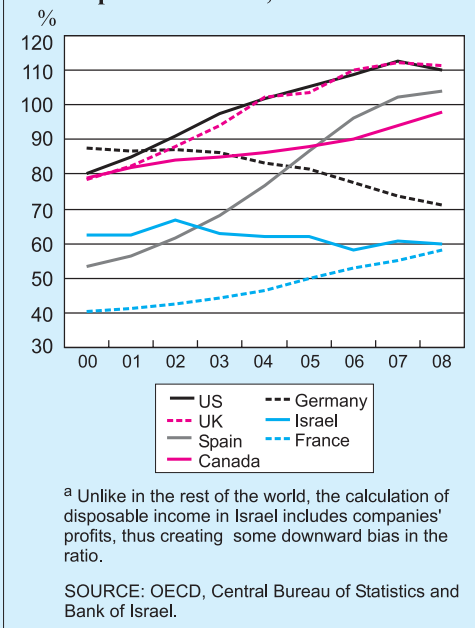


Figure 2
Ratio of Household Debt to Disposable Income,^a 2000-08



prompted homebuyers to switch to unindexed adjustable-interest housing loans, on which the interest rate is most heavily affected by changes in the Bank of Israel rate. The share of such loans in total new housing loans began to increase steadily in the middle of 2008, peaked at 77 percent in February 2009, and gradually fell back to 51 percent in December as the expectations of a further decline in interest petered out.

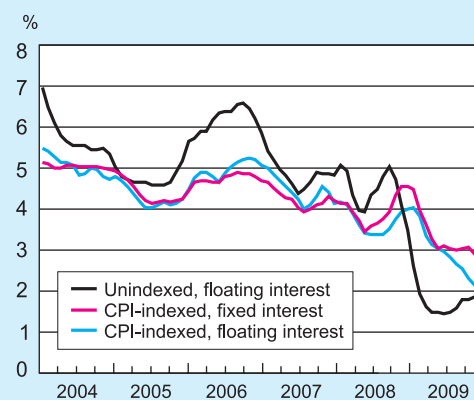
The outstanding balance of unindexed adjustable-interest housing loans was NIS 43 billion in September, and the holders of such loans have enjoyed relatively low paybacks in the past two years thanks to the low interest rates. Thus, the annual average interest rate for new housing loans taken in 2009 was 1.7 percent for unindexed and adjustable-interest loans as against 5.5 percent on unindexed fixed-interest loans and 3.1 percent on CPI-indexed fixed-interest loans.

The current Bank of Israel interest rate, however, is not indicative of the long-term equilibrium. As the economy exits the 2008 global crisis, interest is expected to rise gradually and the borrowers' payback burden will rise as well. The question is whether the increase in the interest burden occasioned by the foreseen upturn in interest will have a macro effect on private consumption and the banks' stability.

Since those who took unindexed adjustable-interest housing loans are expected to face the worst blow, we examined the extent to which the borrowers' interest payback burden will increase under various assumptions about the upward trajectory of interest. We found that interest payback in 2010 will probably climb by around NIS 1 billion relative to the 2009 level² and that the ratio of the interest-payback burden to disposable income will rise by 0.2 percent—an upturn that is unlikely to affect private consumption significantly.

² The calculation was done under the proposition that interest on new housing loans unindexed adjustable-interest will come to 4.5-5 percent by the end of 2010; this, in accordance with the expected rate of increase in the Bank of Israel rate at the end of 2009, according to various economic forecasters, plus a spread, or in accordance with the level of average nominal interest on new housing loans issued in 2006-08.

Figure 3
Interest Rates on New Mortgages, 2004-09



SOURCE: Bank of Israel.

As for the risk to the banking system, Israeli housing loans finance a much smaller proportion of home value than the norm abroad; this practice reduces the risk to the bank in the event of customer default. Furthermore, Israel has almost no mortgage securitization market, so that the mortgage risks remain on the banks' balance sheets throughout the payback term. For this reason, Israeli banks also check customers' payback ability at higher interest rates before they approve housing loans.³ Consequently, the increase in interest on housing loans is not expected to affect the banks' stability, even though it will probably lead to an increase in the rate of housing-loan delinquency, which stood at 1.08 percent of outstanding housing credit at the end of 2009.

³ See also letter from Supervisor of Banks to banking corporations, Aug. 18, 2009.

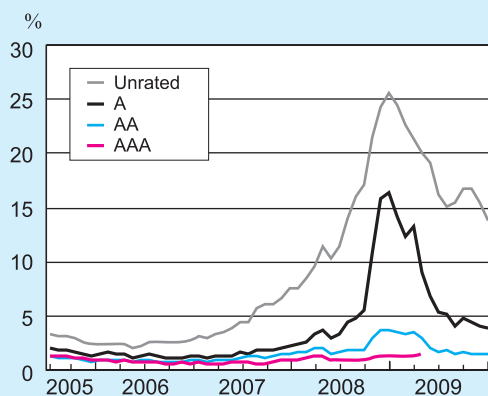
The corporate bond market, which took a severe beating and was the sector worst hit by the crisis abroad, rebounded gradually in 2009. The exposure of this market to the crisis traced to its rapid and unbalanced expansion in 2005–07, which eroded the quality of credit issued and aggravated the economy's exposure to foreign real estate projects, an industry that lay at the focus of the global crisis. The recovery of the market

took place against the background of a decline in the assessment of risk in Israel, in tandem with the rest of the world, and outlooks for the recovery of real activity. The secondary market recovered first: volatility decreased and yields and risk spreads fell gradually (Figure 4.6). The downturn in yields focused on firms that the market believed capable of meeting their obligations; more leveraged firms that had a greater risk of default continued to trade at high yields.

As decreasing yields in the secondary market allowed issues to resume, the business sector raised NIS 42 billion gross during the year, including NIS 16 billion by banks. The first to issue were blue-chip firms (rated AA and over); later in the year, lower-rated companies

The corporate bond market exposed the domestic financial system to the ravages of the crisis abroad, after rapid expansion before the crisis coupled with an increase in the proportion of issues for the financing of real-estate acquisitions abroad—an industry at the core of the global crisis.

Figure 4.6
The Gap between Yields on CPI-Indexed Corporate Bonds and Yields on CPI-Indexed Government Bonds, by Rating,^a July 2005 to December 2009



^a The gap is calculated as the gap between the weighted average yield to maturity on CPI-indexed corporate bonds, excluding convertibles, with a yield to maturity of up to 60 percent and with an average duration longer than six months, and the yield on Gallil-type government bonds with an average duration of five years.

SOURCE: Bank of Israel.

During 2009, corporate bond yields fell steeply and issuing resumed gradually.

joined them.⁷ Despite the steep increase in issues in 2009, the proceeds fell far short of the exceptional pre-crisis levels of 2006 and, especially, 2007;⁸ the spreads were wider; long-term institutional investors accounted for a smaller share of activity in the primary market, and mutual funds claimed a larger share. Additionally, while the proportions of unrated and real estate issues declined perceptibly,⁹ those of issues not backed by contractual commitments or financial yardsticks remain very high in contrast to the situation in other developed markets and standard practice in bank credit.¹⁰

Debt settlements worked out or in process in 2009 accounted for 6.7 percent of corporate debt; 80 percent of the total pertained to real-estate companies.

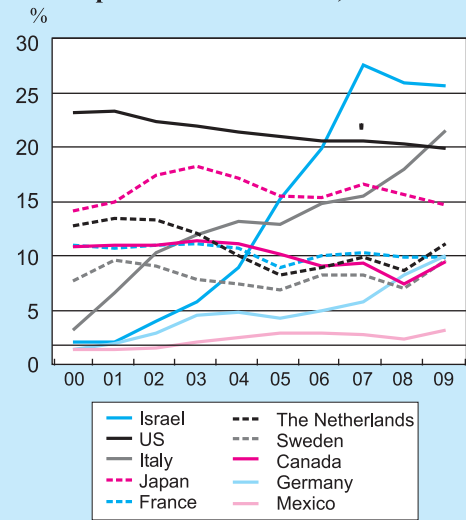
The corporate bond market recovered in 2009 even though the number of companies that announced defaults and entered into debt-settlement proceedings increased during the year. Debt settlements that were worked

out in 2009 accounted for 6.7 percent of corporate debt and 80 percent of this total pertained to real estate companies. The recovery of the market averted an even steeper decrease in lending to business sector against the background of the contraction of bank credit, abetting the fragile recovery of real activity.

The rapid growth rates of Israel's corporate bond market in recent years are exceptional relative to other economies.

The rate of price increases in the domestic corporate bond market in recent years was exceptional by other markets' standards (Figure 4.7), for reasons including firms' ability to raise large amounts of debt without collateral, contractual commitments, or financial yardsticks. This situation must change, especially since most bonds are held by financial intermediaries that manage other people's money, do not assume the credit risk themselves, and foist the risk mainly on households.¹¹ If the institutional investors develop better risk-management capabilities and are forced to comply with certain restrictions to their ability to purchase these bonds, a better balance may be attained in the market—an improvement in the quality of debt issued, a larger share

Figure 4.7
The Ratio of the Balance of Corporate Bonds to GDP,^a 2000-08



^a Bonds of companies issued on the domestic market, excluding bank and insurance company bonds and structured bonds.

SOURCE: Based on BIS Quarterly Review, and IMF data.

⁷ Net capital raised in 2009 (including banks) was NIS 31 billion.
⁸ Nonbank corporate bond-issue proceeds were NIS 43 billion and NIS 73 billion in 2006 and 2007, respectively.
⁹ Even though the share of real estate issues rebounded in the last two months of 2009 and in January 2010.
¹⁰ See Hodek Committee report, February 2010.
¹¹ Via the investment of households' long-term savings and via mutual funds.

of secured debt, and, perhaps, a larger proportion of equity issues as a financing instrument, a development that may also help mitigate economic concentration.

Despite the impressive recovery of the global financial system, much uncertainty remains about whether the stability attained is sustainable. The troubling questions in this context are: How and when can government support of financial institutions be discontinued without impairing the institutions' stability? Will the global economy continue to grow even after the government injections are terminated? Might the banking system's need to make further write-offs in the future undermine the fragile stability attained? How can banks and nonbank institutions be encouraged to increase their lending without impairing their stability? How and when will central banks maneuver between the need to hold interest rates low in order to support the expansion of credit and the economic recovery without exacerbating inflation risks, and fears of the development of asset bubbles? Will governments' ability to issue in the capital markets be significantly harmed by the massive deficits that they have amassed?¹² And will a blow to governmental credibility not lead to a steep increase in interest rates for the business sector as well, ultimately impairing this sector's ability to finance itself and grow?

Future risks—since the stability of the global financial system affects the stability of its Israeli counterpart, these weighty questions have implications for the domestic financial system even if some of them have no direct connection with the domestic economy. This is because the Israeli economy is a small and open one that depends on external demand and foreign capital markets, as the current crisis demonstrated. Furthermore, the high level of economic concentration in Israel and the domestic financial system's strong dependency on the financial resilience of business groups that play central roles in the business sector aggravate systemic risk in the domestic financial system (Box 4.2). Finally, the renewed expansion of the corporate bond market, fueled by brisk demand from mutual funds amid the resumption of the narrowing of spreads, is troubling largely because this market has not yet made the adjustments that the crisis has shown to be necessary. (See Section 2 below.)

Box 4.2

Too big or too complex to fail? Business groups and systemic risk in Israel

The implications of the 2008–09 global financial crisis have precipitated lively discussion about the toughening of regulation concerning financial stability and expanding it into new areas of market activity. The dire results of the crisis were reflected in the uncovering of deep fissures in the foundations of the financial system and in our understanding of the system's intrinsic risks. Consequently,

Despite the impressive recovery of the global financial system, much uncertainty remains about whether the stability attained is sustainable.

¹² This problem is especially acute in Greece, Ireland, Spain, and Portugal, where fears of default exist.

systemic risk has become an important concept in the discourse about the stability and survivability of the economic system at large.

Although the term “systemic risk” lacks a consensual formal definition, in its essence it refers to the possibility that an idiosyncratic event, e.g., the collapse of a financial corporation, will cascade into material harm to the activity of numerous other firms and quickly escalate into an event that has general economic implications. Thus, a systemic risk is one relating to the collapse of a financial system or market in its entirety, and not to that of individual elements. A financial institution, market, or instrument has systemic importance if, by succumbing to total collapse or malfunction, it spreads financial distress through the system at large and spills into real areas of activity either directly or, by “infecting” other elements, indirectly. Importantly, estimating the level of systemic risk that adheres to any particular entity is usually based on measuring its economic size, i.e., its market share in its industry or in overall economic activity, or the extent of its assets, and also on analysis of the strength and complexity of its connections with additional entities. Accordingly, when they consider the possibility that a given institution carries a risk that entails public intervention, decision-makers have to ask two main questions: is the institution “too big to fail?” and/or is it “too complex to fail?” i.e., if it should not be allowed to collapse in view of the systemic implications of such a collapse.

In many respects, systemic risk is not unique to financial institutions or markets. Historical experience,¹ however, shows that the systemic risk of real-sector firms is rather limited and does not exceed specific damage to the welfare of their investors, employees, suppliers, or direct consumers. Such is not the case when assessing the systemic risk of business groups—groups of companies that do business in different markets, are subject to single administrative and financial control, and are tied together by bonds of mutual trust based on a shared personal or business background (Khanna and Yafeh, 2007; Granovetter, 1995); these entail special treatment.

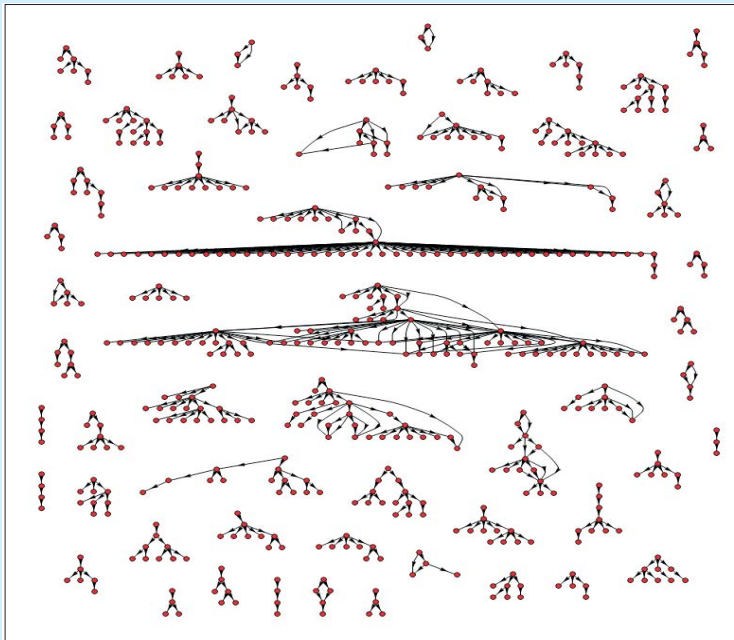
The Israeli economy, as a developed economy that has strong financial and judicial institutions, is a classic but nonetheless unusual example of an economic environment that is exposed to the wide scope of activities of business groups—which are among the characteristics of the business landscape in most countries (with the US and the UK as exceptions). Recent studies (Kosenko, 2008; Kosenko and Yafeh, 2009; Hamdani, 2009) show that these ownership structures have been the most common form of ownership in Israeli firms throughout the country’s history. This has also been so in the past decade, as some twenty business groups, nearly all of family nature and structured in a

¹ The collapses of Enron and World Com and the bankruptcies of several American aerospace firms in 2000–09.

pronounced pyramid form (Figure 1), continue to control a large proportion of public firms (some 25 percent of firms listed for trading) and about half of market share. In terms of dispersion of control, Israel is one of the most concentrated developed countries and even resembles a developing country in this respect (Figure 2). Israel's business groups are typified by broad sectoral dispersion² a significant tendency to focus on the financial sector, strong maturity of affiliated firms in terms of both age and size, slow growth, and higher levels of financial leverage—and therefore also of risk—among affiliated than among stand-alone companies.

Analysis of ownership structure in the Israeli economy provides a unique point of view for study of the nature of the business groups and elicits several

Figure 1
The Ownership Structure in Israel's Economy^a

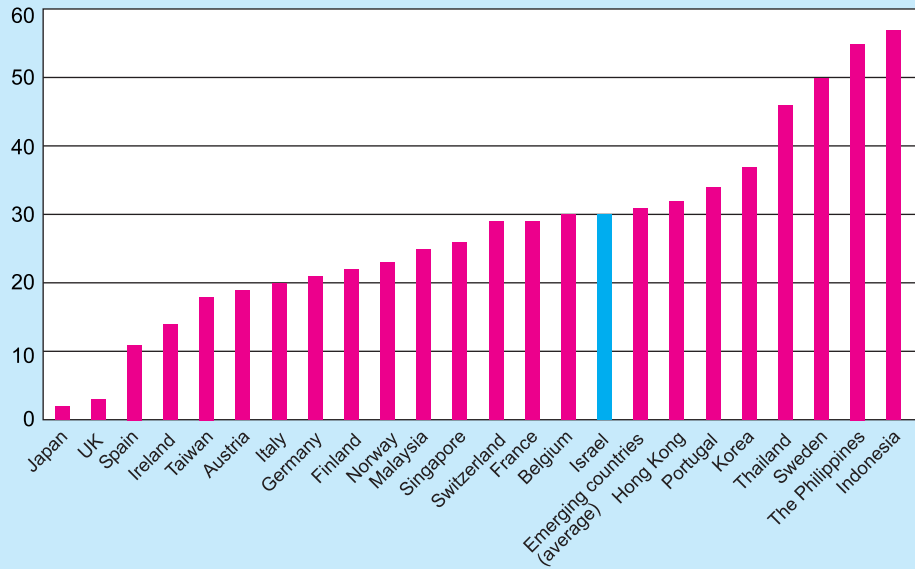


^a Every cluster represents the group hierarchy of shareholders and/or companies which have an owner/owned relation. The highest point represents the controlling entity in the business group, or the ultimate owner, and the other points represent its affiliated companies. Each such group has at least two controlled public companies. The arrows between points represent the control relation: in every group: the points from which the arrows emanate control those which the arrows reach.

SOURCE: Bank of Israel.

² As Khanna and Yafeh (2005) found, the dispersion of business activities does not shield against external shocks.

Figure 2
Holdings of the Ten Largest Business Families,^a Selected Countries



^a Percent of market value.

SOURCE: Based on Claessens (2003) and Faccio and Lang (2000)

important findings for the assessment of the systemic risk that the groups pose.

- A dense web of interrelations exists between the banking sector and the business groups; thus, the groups' owners and the groups themselves fit the definitions of the most significant risk group of bank customers—large borrowers. This problem has already been addressed in the banking system via regulatory limits to a banking corporation's liabilities to single borrowers and borrower groups—limits designed to reduce the concentration of the bank-credit portfolio and thereby help to keep the system stable.

- The group maintains ramified internal group relations, reflected in co-ownership or multiple interlocking directorships.³ This presents the Israeli economy with complex economic issues, e.g., the quality of information accessible to investors and the transparency of the business groups' activity.

- Apart from the highly concentrated corporate ownership, the nature of control in the business groups is family-related. This may have implications for the stability of the financial system and economic activity at large, because

³ See Suari et al. (2007).

both the control and ownership of firms and their performance and effect on the public's welfare depend on the quality of intra-family relations; the strategies and tastes (caprices) of a small number of people; and, above all, the quality of the successor generation's managerial capabilities.

- Lastly and importantly, not only are companies affiliated with the groups less profitable than non-affiliated companies on average; the market also assigns them lower valuations, an outcome reflected in a negative premium for them.⁴

On the basis of the totality of findings about their activities, one may include Israel's business groups among the entities that have the latent potential of systemic risk. This is because their activity satisfies two main criteria in the test of systemic risk: both their economic size and their complexity—in terms of concentration of control, ownership structure, and sectoral interrelations with financial and real institutions—create the probability of a spillover effect in the event of their failure, make it difficult to analyze information about their activity, and, in turn, make it hard to assess the risks of this activity and its relation with overall system stability. Accordingly, more active regulatory intervention may be needed, in addition to the activity of market forces, to keep sectoral shocks from evolving into systemic shocks. The involvement of business groups in the nonbank credit market illustrates this argument.⁵ (For examples, consider the settlements concluded by the Africa-Israel and the Ofer groups in 2009.) Failures of this kind did not prejudice the stability of the banking system during the crisis, for reasons including the tough regulatory restrictions that apply to this system.⁶ However, due to the involvement of Israel's business groups in the nonbank credit market, the implicit pass-through mechanisms in their *modus operandi* indirectly exposed the economy to foreign shocks.

From the regulator's standpoint, the existence of complex ownership structures generally, and the activities of business groups particularly, entail the formulation of a comprehensive and consistent policy to diagnose accurately various economic problems and estimate systemic risk (Morck et al., 2005). The very fact that business groups may become “too big to fail” or “too complex to fail,”⁷ as in the case of banking institutions, may exacerbate moral hazard and, by so doing, induce excessive taking of risks that are distributed among

⁴ Kosenko (2009); Kosenko and Yafeh (2008).

⁵ Group-affiliated companies hold 40 percent of corporate bonds in the investment and real estate sectors, which traditionally are considered relatively high-risk areas of activity.

⁶ Thus, among other things, during the current crisis, the Banking Supervision Department examined the efficacy of the various restrictions that apply to banking corporations, e.g., the single-borrower and borrower-group limits, sectoral concentration of credit, credit for acquisition of controlling stake, etc.

⁷ This phenomenon was evident during the Asian financial crisis in the late 1990s.

all savers in the economy. Thus, basing oneself on the principal motive⁸ behind international entities' proposals of ways to cope with systemic risks and following the principles of banking regulation, one may consider several solutions to this matter that are tailored to the structure of the Israeli economy.⁹

- For control and supervision purposes, a legal definition of a business group is needed.¹⁰ It is important to define the obligations and rights of such groups and give them market and legal incentives to discharge their duties.

- To enhance system transparency, compulsory reporting about business groups' activity should be expanded at both the micro level (e.g., requiring them to report transfers among affiliated companies) and at the macro (group) level.

- Similar to recommendations abroad, it may be correct to require financial entities to include an assessment of business groups' activity in their risk-management models.

- To contend with the acute concentration and the pyramid structure of ownership in the Israeli economy, one may consider imposing a dividend tax on capital transfers between firms (as was done in the US in the 1930s) or strengthening the direct linkage between ownership and control of affiliated companies (a British solution from the 1960s) by setting a minimum threshold for direct ownership. Also, strengthening the board of directors and increasing institutional investors' involvement in the holding and management of the companies may reduce concentration and improve corporate governance.

- To mitigate risks and enhance competition in the financial markets, separating the control of financial institutions from the control of real corporations may be considered.¹¹

It bears emphasis that if the business-group issue is disregarded, various policy measures may fail or their goals and outcomes may be distorted, leading in turn to impaired functioning of the financial and real systems at large. The recent crisis offers a unique platform for the striking of a balance between the roles of market forces and regulation (Morck and Yeung, 2009), in order to reshape the web of ownership relations and, thereby, to reduce systemic risk and improve resource allocation throughout the economy while strengthening and streamlining the mechanisms of supervision.

⁸ See "Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments (IMF and BIS, October 2009).

⁹ The local adjustment is needed because the mechanisms used to supervise corporations that have decentralized ownership (such as those proposed in the US) are ill suited to cope with the strength of a corporate principal; some of these mechanisms are irrelevant for corporations that have controlling principals and others may even enhance their power (Hamdani, 2009).

¹⁰ Precedents for regulation of this kind may be found in Chile, Portugal, Germany, and Hungary, among other countries.

¹¹ As recommended by the Brodet Committee (1995).

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2. INITIAL LESSONS FROM THE GLOBAL FINANCIAL CRISIS AND THE ISRAELI ASPECT

a. Lessons from abroad

The global financial crisis focused first on the American financial system and quickly spread to other economies. Developing against the background of rapid expansion of credit, it revealed many problems in the contents and structure of the US financial system and its counterparts in other developed countries. It also uncovered regulatory failures in these countries, mainly a warped structure of incentives and inadequate regulation, abetting excessive risk-taking during the upward phase of the business/credit cycle and fueling the development of the real estate bubble; overdevelopment of the securitization market toward the securitization of subprime mortgages, CDOs, CDO²s,¹³ etc.; the transfer of financial activity from banks’ balance sheets (SIVs¹⁴); the non-supervision of investment banks, which operated at very high leveraging rates and created enormous exposures to “toxic” assets; and the banking system’s reliance on short-term money-market sources to finance long-term lending.

The global financial crisis focused on the U.S. financial system and spread quickly to other economies, revealing many structural problems in the global financial system as well as regulatory failures

¹³ Collateralized Debt Obligations, bonds backed by a portfolio of securities and/or debts. CDO²s are bonds backed by a portfolio of CDOs.

¹⁴ Structured Investment Vehicles—nonbank and therefore unsupervised financial institutions, to which banks transferred balance-sheet activity.

Many institutions abroad¹⁵ dealt with, and are continuing to deal with, attempts to derive lessons from the financial crisis. Many ideas have surfaced, some in their initial stages of formulation. The lessons pertain to many diverse fields and include:

- the need for a tougher macro prudential policy—reinforcing financial stability by mating macroeconomic policy with regulatory policy at the level of the individual financial institution in order to maintain systemic financial stability. General examples of policy proposals in this field relate to the detection of evolving exposures and monitoring their progress over time; coping with pro-cyclicality in the financial system, e.g., by introducing variable capital requirements along the business cycle; and reducing leveraging in the financial system.

- toughening the supervision of banks and other financial institutions, bolstering capital structure, unifying the definitions of capital, improving risk management, and resiliency testing, including a proposal, now being discussed in the US within the framework of the “Volcker Bill,”¹⁶ to limit banks’ own (nostro) portfolio activity.

- tackling moral hazard by identifying and contending with financial institutions that are too big or too complex to fail. The treatment of the current crisis in regard to such institutions included rescues and bailouts due to the fear that their collapse would bring down the entire financial system. The Lehman Brothers failure and its implications for the global financial system demonstrated the steep price that the financial system at large would pay for the failure of a financial institution of such magnitude. The bailout of institutions that had been performing improperly even before the crisis amplified the financial system’s moral hazard and made coping techniques necessary. The proposals bruited lean in the direction of creating incentives or penalties that will weaken the impetus behind the development of such institutions.

- the development of settings and tools for the systematic dismantling of troubled international financial institutions of systemic importance, minimizing harm to depositors and mitigating moral hazard in the financial system (a resolution mechanism).

- proposals for regulatory restructuring:

- In September 2009, the European Commission proposed the establishment of several EU agencies for the supervision of banks and other financial institutions of systemic importance, and of financial markets and instruments. This supervision would include two levels: a European Systemic Risk Board (ESRB), charged with macro prudential supervision policy, and a European System of Financial Services (ESFS), tasked with supervision at the financial-institution level via three European advisory authorities relating to banking, insurance, and pensions and securities.

- In November 2009, the US House of Representatives Financial Services Committee passed legislation to mitigate the threat posed by firms that present a “systemic risk” to the economy. The act will establish a supervisory council for

¹⁵ Among them are the Financial Stability Board (FSB), the Administration, the House of Representatives, and Senate in the US; the Financial Services Authority (FSA) in the UK; the IMF, the G20, the OECD, etc.

¹⁶ Named for Paul Volcker, senior adviser to the White House.

financial services, headed by the Secretary of the Treasury and including the chair of the Federal Reserve and the directors of the six regulatory authorities.

- improving international coordination and supervision of the financial system and dealing with crises involving financial institutions that have broad international “wingspans.”
- detecting the creation of asset-price bubbles—especially in real estate and equities—and monitoring the growth rates of credit in various industries, with emphasis on those in which credit is expanding rapidly and leveraging is high relative to the past or to underlying assets. By detecting the risk of the development of a bubble early on, it becomes possible to weigh an appropriate response by means of monetary-policy tools.
- dealing with the question of executive compensation at financial firms from the standpoint of improving financial stability—for example, limiting wage levels in the financial sector and tying executives’ “bonuses” to their institutions’ medium-term returns as opposed to the current-year results, as is conventional today.
- imposing tougher supervision on rating companies and improving their rating methods and incentive structure.
- cooperation and consistency in regulatory policy vis-à-vis international institutions and markets, despite the objective difficulty of implementing such a policy. This is important because it obviates the possibility of regulatory arbitrage, in which institutions and players relocate their activity to countries that have lower levels of regulation.
- strengthening regulation of the derivatives markets and, especially, over-the-counter trading, including greater use of central clearinghouses for the settlement of such assets, thereby improving transparency and standardization.

b. Measures adopted in Israel, and lessons of the crisis

(1) Measures adopted in Israel during the crisis

Even though the Israeli economy was much less affected than other economies, here, too, the government adopted several measures to alleviate the harm that crisis caused. These were in addition to the Bank of Israel’s monetary-policy measures, which included powerful expansion and the use of unusual tools, i.e., intervention in the bond and foreign-currency markets. (See Chapter 3.) The government’s policy moves were the following:

- unfurling a safety net to protect pension savers from erosion due to the steep price decreases in 2008;
- providing banks with state guarantees so that they could more easily raise sources in the capital markets;
- a joint undertaking by the Ministry of Finance and the Bank of Israel to give the banks their backing and do everything necessary to support the depositor public;

Even though the domestic economy was less hard-hit by the crisis than others, the government also took measures to mitigate the damage.

- establishing investment (leverage) funds to make credit available to entities that raised debt in the capital markets and encountered recycling difficulties;
- increasing the budget for small-business relief funds and export funds and establishing a new relief fund for medium businesses;
- establishing a mechanism allowing bondholders to cope more effectively with the reorganization of bonds issued by public companies (“credit officers”).

In several of these measures—the safety net, the guarantee for the banks, and the announcement of support for depositors—the very fact of announcing them helped to ease the public’s jitters. The other measures were ultimately put to limited use only, possibly due to the relative brevity of the crisis and the economy’s rapid recovery.

(2) Lessons of the crisis for Israel

The domestic crisis focused on the nonbank credit market, which had developed in the pre-crisis years at a pace unprecedented by international standards and attained a record size.

Israel’s financial system did not share most of the defects that beset the global financial system. The focal point of the crisis in Israel was in the nonbank credit market, which had developed in the pre-crisis years at a pace unprecedented by international standards and had grown to a record size (Figure 4.7). The process of learning lessons in Israel should have a dual focus: learning from other countries’ experience about the need for greater toughness in maintaining systemic financial stability and correcting the special problems that the crisis brought to light in the domestic financial system, foremost in the nonbank credit market and in supervising the financial institutions that provide this credit.

Learning the lessons of the crisis in Israel should focus on learning from experience abroad and correcting the special problems that came to light in the domestic financial system, in the nonbank credit market above all.

One of the most important lessons of the current crisis abroad, as stated, concerns the importance of mitigating systemic risk. For this purpose, it is important for Israel to develop a macro-prudential policy that includes tracing the development of exposures and treating systemic risks. Furthermore, since this was neither the first nor the last financial crisis that Israel will experience, the tools to deal with such events should be prepared in advance. Also, residual conflicts of interest in the domestic financial system need to be tackled, including those related to an institution managing other people’s and its own money (nostro) together.

The crisis also taught us that the accelerated development of financial markets also exacerbated the fragility of the markets and institutions and the potential of one impacting the other. This illustrates the growing importance of placing financial institutions under tighter supervision, strengthening the regulators’ status and autonomy, and improving coordination and information-sharing among regulators.

Moreover, the crisis demonstrated the difficulties that arise in coping with financial institutions that are too big to fail and in the moral hazard of rescuing them. This lesson is very important for the Israeli economy, given the size of its financial institutions and the concentrated structure of its domestic financial system.

The corporate bond market exposed the domestic financial system to the disorders of the crisis abroad due to its rapid expansion in 2005–07, which included an increase in the proportion of issues that were used to finance the acquisition of foreign real

estate—a focal industry in the global crisis. The shock that rippled through this market had implications for the entire long-term savings market, the stability of the issuing companies, and credit supply at large. Therefore, it is important to solve the problems that came to light in the market in 2008, reflected in overexposure to the real estate market, especially via debt issues for the financing of projects abroad. (See Section 3.b.3 below.)

Action to correct the deficiencies that were discovered in the functioning of the corporate bond market should include elements that will prevent the recurrence of the failures without menacing the existence of this market as a supplemental nonbank source of finance. The requisite improvements are:

- enhancing the transparency of firms' data at point of issue¹⁷ and during the lifetime of the bond, including non-public firms that raise debt from the public;
- enhancing the transparency of institutional entities' investment data and risk levels;
- preventing conflicts of interest at the stage of bond issue, the critical stage in assuring the quality of the debt raised, e.g., by placing restrictions on concurrent underwriting and management of other people's money;
- improving the risk-management abilities of institutional entities' investment managers and investment committees;
- improving the structure of executive compensation and, above all, finding a solution to the distortions that occurred due to the rewarding of executives for short-term results;
- strengthening corporate governance;
- improving the functioning of rating companies as suppliers of information about the riskiness of bond investments, on the basis of the recommendations that are being put together in various countries.

Additional proposals concern quantity limits on institutional entities' investments.¹⁸ Examples such as sectoral limits on credit that the institutions may make available, as with bank credit, and compulsory contractual obligations and financial yardsticks¹⁹ may, under certain conditions, be an appropriate response to some of the market problems that were discovered. However, it is important to apply them cautiously in both the primary and secondary markets while testing the implications for the credit market at large, in order to avoid damage to the continued functioning of this important market in the longer term.

One of the reasons for the resiliency that Israel's financial system displayed is the lag in the development of its financial markets, i.e., the unavailability of instruments

Correcting the irregularities in the functioning of the corporate bond market should include elements that will improve the quality of debt issued without menacing the existence of this market as a supplemental nonbank source of finance.

¹⁷ See recommendations of the Hodek Committee, February 2010.

¹⁸ A quantity limit is tantamount to a zero-rate tax up to the limit and an infinite-rate tax above it—something that attracts the system in the direction of the limit.

¹⁹ Financial undertakings such as a negative pledge—an undertaking by a lender not to pledge any of its assets without existing debt holders' prior consent. Financial yardsticks—limits relating to the lending company's maintaining certain financial ratios during the life of the debt. Failure to satisfy these conditions would be grounds for demanding early payback of the debt.

that developed markets already have. To benefit from the advantages of a developed capital market that promotes growth, the development of financial instruments that hardly exist in Israel—e.g., the repo market, “plain vanilla” securitization transactions,²⁰ and synthetic securitization mechanisms such as the CDS²¹—should continue. Despite the financial crisis and the securitization market’s contribution to its progression, everyone agrees that this instrument is essential for a modern capital market. However, it is important to develop this market prudently, basing such action on other countries’ experience in the crisis in order to mitigate the systemic risks that these instruments pose.

3. CREDIT TO THE NON-FINANCIAL PRIVATE SECTOR AND THE CORPORATE BOND MARKET

Outstanding credit to the non-financial private sector²² increased by a moderate one percent in 2009 and reached NIS 1,043 billion in December, as a result of the continued expansion in credit to households (mainly mortgages), which was partly offset by a decrease in credit to the business sector.

a. Outstanding credit to the business sector

Outstanding credit to the business sector fell by 1.1 percent²³ in 2009, after the rate of expansion in this credit had slowed in 2008 following several years of rapid growth (principally in local nonbank credit) concurrent with the reduction in the business sector’s dependence on the banks as its almost only source of credit (Table 4.3 and Figure 4.8).

The decrease in credit to the business sector in 2009 appears to have mainly reflected the drop in demand for credit resulting from the slower pace of growth and economic uncertainty. This was at a time when supply-side shortage of credit, which had prevented its expansion at the beginning of the year because of the lack of banks’ capital and increased level of risk, became less severe in the course of the year. Supporting this assessment are a number of indicators, including: the resumption of issues by the private sector (including the banks), an improvement in the banks’ capital adequacy ratio which enabled most of them to free themselves of the capital restrictions to which they had effectively been subjected at the beginning of the year, a

Outstanding credit to the business sector decreased in 2009. The decrease reflected mainly a drop in demand for credit while the supply-side restriction on credit, which had prevented its expansion at the beginning of the year, became less severe in the course of the year.

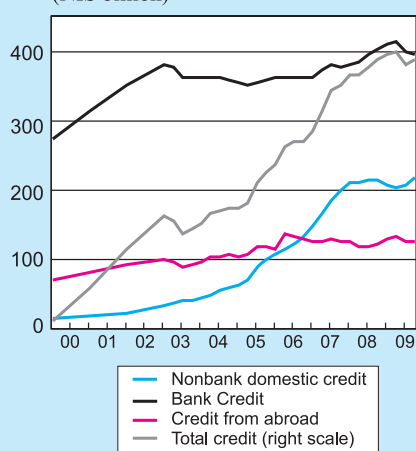
²⁰ In an examination by the World Economic Forum of the size of the securitization market as a percent of GDP in 2007–09, Israel ranked in 49th place among the 53 countries examined.

²¹ Credit default swap—a transaction that involves, in its economic essence, the purchase of insurance against credit risk.

²² Comprised of credit to the business sector (excluding credit to banks and to insurance companies) and credit to households. Sources of the credit include credit from banks, and from local and foreign non-bank entities.

²³ An even larger decrease of 3 percent exclusive of the effect of exchange-rate and interest-rate adjustments on outstanding credit.

Figure 4.8
Outstanding Credit to the Business Sector, 2000-09
 (NIS billion)



SOURCE: Bank of Israel.

decrease in the average cost of bank credit and a large drop in yields in the corporate bond market, which was accompanied by a considerable contraction in the yield spread against government bonds. This assessment received additional backing from the evidence apparent from the Bank of Israel's Companies Survey regarding a relaxation of the financing restriction, and from periodic conversations with the banks. However, the possibility should not be ruled out that small and medium-sized companies, for which the capital market is not accessible and whose bargaining power vis-à-vis the banks is poor, are still encountering more serious difficulties than in the past when they attempt to raise sources.

The decrease in credit to the business sector in 2009 resulted from a contraction in bank credit, which was partly offset by an increase in local nonbank credit—principally issues of bonds by the business sector. The relatively rapid recovery of the local nonbank market after the crisis of 2008 prevented a larger decrease in credit to the business sector, and highlights the importance of diversification in the sources of credit. This is because nonbank credit markets usually react more rapidly to economic developments,

Credit to the business sector fell despite the resumed flow of issues, reflecting mainly a drop in bank credit which was partly offset by an increase in nonbank credit.

Table 4.3
Distribution of Credit to the Private Sector, by Type of Borrower, 2006–09

	Balances, ^a NIS billion, at current prices				Rate of change from previous period (%)			
					(end of period)			
	2006	2007	2008	2009	2006	2007	2008	2009
Debt of the private nonfinancial sector (1+2)	883	981	1,033	1,043	6.7	11.1	5.3	1.0
<i>of which:</i> Bank credit ^b	554	592	645	649	0.9	7.0	8.9	0.5
1. Business sector debt	635	713	743	735	8.4	12.4	4.2	-1.1
Bank credit ^b	360	380	410	389	-0.7	5.6	7.8	-4.8
Corporate bonds and nonbank credit	148	209	205	216	38.1	41.2	-1.9	5.4
Credit from abroad	127	124	128	130	9.5	-2.0	3.5	-0.3
2. Households' debt	248	268	289	310	2.6	7.9	8.1	7.2
Bank credit	193	212	235	258	3.8	9.6	10.9	9.8
<i>of which:</i> Mortgages	112	122	138	156	0.9	9.4	13.3	12.5
Nonbank credit	55	56	54	52	-1.6	1.6	-2.4	-4.5

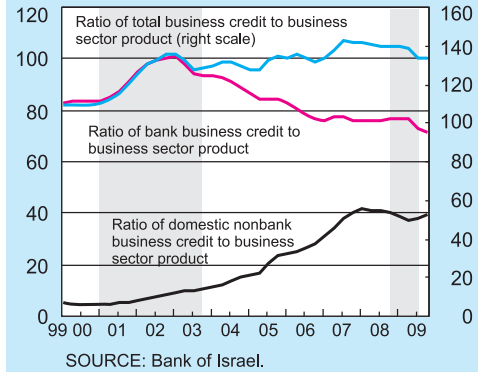
^a Bank credit data before loan-loss provisions; tradable bonds data at par value plus accrued interest.

^b Excluding bonds issued by the business sector and purchased by the banks. This balance appears under the item "Tradable bonds in Israel."

SOURCE: Bank of Israel.

and preempt the response by the banking system. Now that the economy is exiting the crisis, the nonbank market provides an alternative to the banking system, which is still in the process of absorbing the shock as evident from its loan-loss provisions and write-offs. During the onset of the crisis however, the nonbank market was almost completely stagnant, while the banks' slower response effectively helped companies wishing to raise capital and enabled the banks to base their credit-granting decisions on broader considerations. As a result of these developments in credit, the ratio of credit to the business sector to business-sector product in the period of the crisis remained largely unchanged (Figure 4.9).

Figure 4.9
Ratio of Credit to the Business Sector to Business Sector Product, December 1999 to December 2009 (percent)



b. The corporate bond market

(1) The primary market

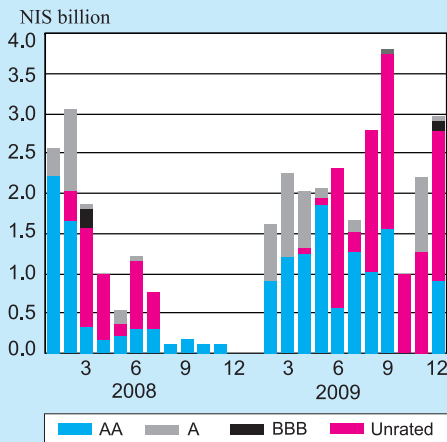
The crisis in the corporate bond market resulted from the rapid and unbalanced expansion of the market during the years preceding the crisis. This expansion resulted from the structural reform in the long-term saving industry, from reduced government borrowing, from institutional investors' tendency to take more risks in an attempt to achieve higher yields against the background of the low interest-rate environment, from the growth in competition and from the decrease in the risk premium in the entire world.

The rapid expansion in the economy reduced the quality of the debt that was issued and the premium required for investment in corporate bonds, with the result that the premium did not accurately reflect the risk inherent in the investment. This increased firms' tendency to take more risks, including channeling a large part of the amounts raised into investment in real estate projects abroad—a sector that was at the center of the global crisis.

The stabilization of the global financial system in 2009 and the forecast, which actually materialized, of a recovery in the non-financial markets and a higher rate of growth, increased the optimism in the global and local financial markets, leading to greatly reduced assessments of risk, to the contraction of spreads in the bond market and to the resumption of issues. As a result of the recovery, the nonbanking business sector raised NIS 26 billion via issues of bonds compared with NIS 10 billion in the whole of 2008, of which only NIS 1.4 billion were raised in the second half of the

The stabilization of the financial system and the reduced assessment of risk led to the contraction of spreads in the bond market and to the resumption of issues.

Figure 4.10
Bond Issues by the Nonbank Business Sector, by Rating,^a 2008-09



^a Some of the data are estimates.

SOURCE: Based on Tel Aviv Stock Exchange data.

year (Table 4.4).²⁴ Net issues of capital totaled NIS 17 billion.²⁵

The majority of issues that were floated until May were of top-rank companies rated at AA and above. From June however, A-rated companies joined the issues market. The proportion of issues by non-rated companies was low (Figure 4.10). Issues were floated by companies from a wide range of industries. The most prominent issues came from the commerce and services industries (27 percent of issues), investment (24 percent) and real estate (23 percent). As regards the identity of the issuing companies, all the bond issues in 2009²⁶ were of companies that had already issued bonds in the past, and 70 percent of the total amount issued

The majority of issues that were floated until May were of top-rank companies rated at AA and above. From June however, A-rated companies joined the issues market.

was by companies whose bonds were scheduled for redemption in 2009–10.

The proportion of unindexed shekel issues rose in 2009 and reached 55 percent of marketable issues compared with 25 percent in 2008, and much lower if not zero ratios in the previous years. The majority of unindexed issues (70 percent) were at fixed-rate interest. Despite the growth in unindexed issues, 85 percent of the stock of bonds is still CPI-indexed (Table 4.5). The increased proportion of unindexed issues may have resulted from the reduced involvement of long-term institutional investors in the issues market during 2009, possibly as part of their strategy of reducing the proportion of corporate bonds in their portfolios due to the lessons learned from the crisis. Since long-term institutional investors hold a very high proportion of the portfolios which they manage in CPI-indexed assets,²⁷ at times when they are less involved in issues the demand for CPI-indexed issues decreases.

The proportion of unindexed shekel issues rose in 2009 and reached 55 percent of marketable issues

Against the background of the exceptional developments in nonbank credit during the years preceding the crisis, it would be interesting to examine whether the pattern of issues has changed, and if lessons have been learned from the crisis. Some degree of change is indeed apparent in a number of areas. The first change evident is the much smaller amount of issues than the exceptional issues raised in the years 2005–07,²⁸

²⁴ In addition, the banks raised NIS 16 billion in 2009 via issues of capital notes for the purpose of adhering to the Basel 2 capital requirements.

²⁵ Issues minus redemptions of bonds that were issued in previous years.

²⁶ With one exception.

²⁷ As an example, CPI-indexed assets counted for 67 percent of total assets holdings at the new pension funds at the end of 2009, 52 percent at the provident funds, and 39 percent in the insurance companies' profit-sharing plans.

²⁸ In 2007 alone, the nonbanking business sector issued bonds at an overall amount of NIS 73 billion.

Table 4.4
Security Issues by the Nonbanking Private Sector, by Type of Security,^a 2005–09

	NIS million, at current prices							Composition			
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	
Capital raised	54,242	61,375	109,367	22,704	40,619	100	100	100	100	100	
<i>of which</i> via tradable securities	31,912	38,073	73,891	19,066	35,157	59	62	68	84	87	
1. Working capital	49,733	54,548	87,922	15,648	32,191	92	89	80	69	79	
Shares and convertibles	12,237	11,873	14,959	5,855	6,393	23	19	14	26	16	
Tradable bonds	15,165	19,373	37,487	6,155	20,336	28	32	34	27	50	
Nontradable bonds ^b	22,331	23,302	35,477	3,638	5,462	41	38	32	16	13	
<i>of which</i> commercial paper					965						
2. Financial instruments	4,510	6,827	21,445	7,056	8,429	8	11	20	31	21	
ETFs for shares ^c	628	4,359	4,987	-1,358	7,934	1	7	5	-6	20	
ETFs for bonds ^c	83	360	6,257	8,124	2,207	0	1	6	36	5	
Structured bonds	3,593	1,946	5,283	829	249	7	3	5	4	1	
CDs ^d	206	163	4,918	-1,224	-1,961	0	0	4	-5	-5	

^a Not including issues to subsidiaries. Since 2008 not 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, not including issues to subsidiaries

^d Since 2007 net issues, not including issues to subsidiaries

SOURCE: Based on Tel Aviv Stock Exchange data.

Table 4.5
Total Market Value of Securities Traded on the Tel Aviv Stock Exchange, 2005–09

	2005	2006	2007	2008	2009
	(NIS billion, at current prices)				
Total	834.7	980.7	1,171.2	874.9	1,283.1
Percent of GDP	139.7	153.2	174.5	163.3	168.2
Shares and convertibles	379.6	472.3	591.4	271.5	521.4
Government bonds	261.4	265.1	269.4	316.8	367.5
<i>Makam</i>	87.2	96.9	77.5	72.0	85.5
Corporate bonds	58.0	87.2	148.1	130.8	201.3
Convertibles	11.1	9.7	8.4	3.9	5.1
Structured bonds and CDs	29.1	34.7	49.4	55.3	55.9
ETFs ^a	7.0	13.1	25.7	23.2	43.1
Futures contracts	1.4	1.7	1.3	1.4	3.3
Composition of government bonds by indexation base	(percent)				
CPI indexed	42.0	42.6	41.2	41.4	43.4
Foreign currency indexed	0.1	0.1	1.6	1.3	1.3
Unindexed fixed interest	36.0	38.9	38.9	42.3	42.5
Unindexed floating interest	22.0	18.4	18.3	15.0	12.8
Composition of corporate bonds by indexation base	(percent)				
CPI indexed	91.8	90.5	92.6	90.8	85.0
Foreign currency indexed	4.7	3.8	2.6	1.7	1.3
Unindexed	3.5	5.8	4.8	7.4	13.7

^a Exchange traded funds.

SOURCE: Based on Tel Aviv Stock Exchange data and direct reports to the Bank of Israel by issuers of ETFs.

and the level of margins increased, principally among low-rated or unrated bonds and companies from the real estate industry. The second change was the considerable decrease in the amount of unrated issues: While in 2007, which was the record year for issues, 40 percent of the total amount raised was in unrated issues, in 2009 only 15 percent of issues were floated by unrated companies. On the assumption that the unrated companies are companies that would have been conferred with a low rating, this finding is indicative of an increase in the quality of the bonds that were issued.²⁹ Real estate companies' share in issues also fell, and reached 23 percent of the total issue amount in 2009 compared with 40 percent in 2007. Nevertheless, the widespread practice in the local capital market of issuing debt without collateral and without contractual conditions requiring the issuer to conform to certain financial standards remained common even after the crisis, and 82 percent of the issues in 2009 were without collateral or contractual conditions.³⁰ The duration of the debt issues remained short, and in the case of real estate industry issues was even considerably shorter than that prior to the crisis.³¹ This was the result of investors' requirements, despite the fact that most issues in the industry are intended to finance long-term

²⁹ However, one of the lessons from the crisis is that reliance should not be placed on the rating companies' rating alone, and the borrower himself should make a sophisticated assessment of the quality of the bonds.

³⁰ On the basis of a sample of 75 percent of issues to the public.

³¹ The duration of issues by companies from the real estate industry in 2009 was 3.8 years compared with 5.2 years in the first half of 2007.

investments. Finally, the market again saw business groups that increased their level of leverage by means of extensive capital raising, directly and via companies under their control, usually without any collateral, even when part of those groups' bonds were trading in the market at high yields that were indicative of a high level of risk and a considerable chance of repayment default.

Even though little time has passed since the height of the crisis and many of the problems revealed in the market have yet to be solved, the corporate bond market again appears to be expanding rapidly. This is concurrent with a decrease in the share of long-term institutional investors, who had fed demand for issues before the crisis, while the share of the mutual funds has increased. This is apparent from the large accrual in corporate bond funds, which reached NIS 16.2 billion in 2009 compared with only NIS 4.6 billion in 2007—the record year for issues. Although there is no danger to pension saving holdings here and the saver himself chooses the form of investment, by selecting one of the mutual funds' specialization tracks, the extent to which savers are aware of the level of risk in the corporate bond market is not clear, especially against the background of the numerous problems that were revealed in the market, most of which have yet to be solved.

The flow of issues resumed in 2009 even though many of the problems revealed in the market had not been solved.

(2) *Developments in yields and yield spreads during the year*

Yields and spreads in the corporate bond market fell heavily during 2009, among all grades and among all industries, concurrent with a large increase in yield dispersal (Figure 4.11), although the level of such spreads at the end of the year remained higher than that prior to the crisis (Figure 4.12). The lower was the rating of the bonds, the larger was the spread compared with that before the crisis, and among companies from

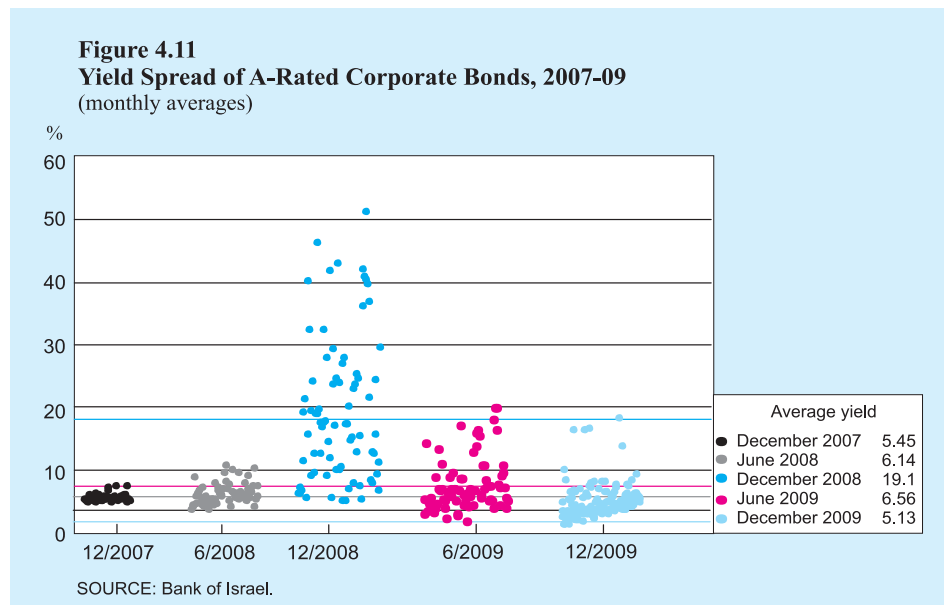
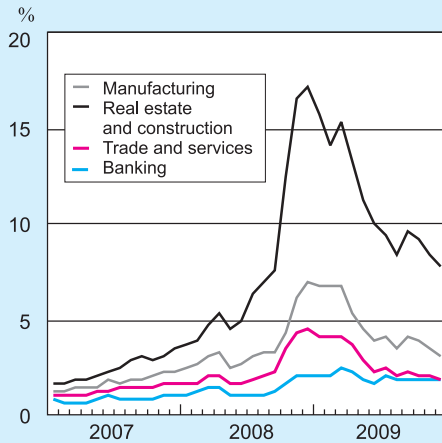


Figure 4.12
The Gap between Yields on
CPI-Indexed Corporate Bonds and
Yields on CPI-Indexed Government
Bonds^a, by Industry.
 (monthly average)



^a The gap is calculated as the gap between the weighted average yield to maturity on CPI-indexed corporate bonds, excluding convertibles, with a yield to maturity of up to 60 percent and with an average duration longer than six months, and the yield on Galil-type government bonds with an average duration of five years.

SOURCE: Bank of Israel.

the real estate industry, which constituted a focus of risk for the local bond market, the spread was even larger. The fact that spreads in the bond market did not revert to their level prior to the crisis reflected the level of uncertainty, which remained high because of the fragile nature of the recovery, and also possibly the turmoil created by the crisis, which left the risk premium required in the financial markets higher than that prevailing before the crisis.

(3) *The stock of bonds*

The balance of corporate bonds at the end of 2009 totaled NIS 236 billion nominal value,³² and was comprised of bonds of companies from the real estate (27 percent), banking (23 percent), commerce and services (21 percent) and the investment and holding (19 percent) industries (Figure 4.13). Such a

The proportion of finance to the real estate industry in the local bond market is exceptional both with respect to the banks and to other markets worldwide.

high proportion of companies from the real estate industry is exceptional both with respect to the banks, whose finance to the industry is restricted to 20 percent of their outstanding credit, and to other markets around the world. Worldwide, the majority of finance in the capital market is usually raised by companies from the telecom, manufacturing and energy industries, while real estate companies are financed mainly via the banking system. The banks abroad usually provide credit against collateral and financial conditioning, and if the credit is for real estate project development, it is granted gradually, according to the pace of progress in the project. Such a state of affairs is not practical in the case of credit that is raised in the capital market. Against this background and since institutional investors do not have the banks' level of credit control experience and capability, it is best for them to focus on credit that is easier to price. For example, they should place the long-term sources available to them at investment in infrastructure projects and mortgage-backed bonds, which will enable them to reduce their exceptionally high investment in corporate bonds. For this purpose financial assets that have not yet been seen in the Israeli capital markets need to be developed, such as traditional securitization—mortgage-backed bonds.

³² Marketable bonds and non-marketable bonds, excluding structured bonds and certificates of deposit.

As a result of the large drop in yields in 2009, 84 percent of the stock of bonds at year-end nominal value traded at a yield of less than 8 percent—a yield level indicative of players’ confidence in the market’s ability to repay most of the bonds that are traded—compared with only 46 percent at the height of the crisis in November 2008 (Figure 4.14).

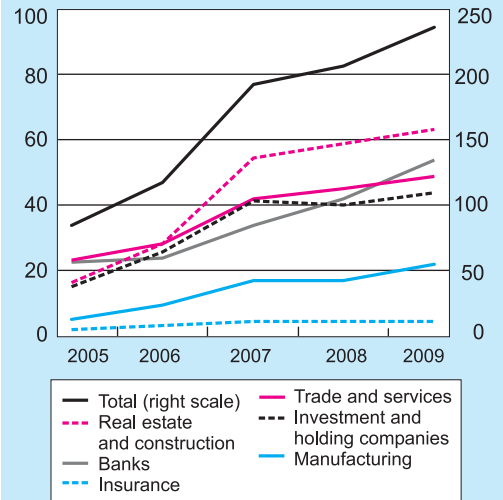
Most of the bonds trading at a yield of over 8 percent at the end of 2009 were issued by companies from the real estate industry.

An analysis of bonds traded at a yield of over 8 percent shows that 54 percent of them were issued by companies from the real estate industry, and 35 percent by companies from the investment and holding industries, which also invest part of their assets in real estate. Such a high concentration of companies trading at high yields in the real estate industry results from the large issues in the local capital market by such companies in the years preceding the crisis for the purpose of financing investment in real estate, part of it abroad in countries where real estate prices rose sharply, against additional leverage. Real estate companies’ high rate of leverage, the global credit crunch and the large drop in assets prices abroad are the factors that contributed to the high level of real estate corporate bond yields.

(4) Rating reductions

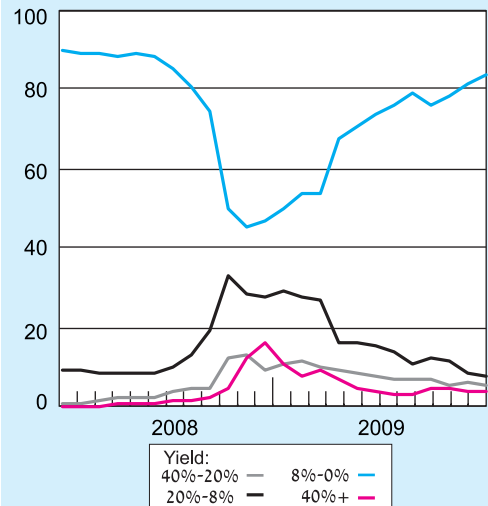
Rating reductions during 2009 provided further evidence of the problems involved in real estate companies’ debt issues. The rating of 230 bonds was reduced during the year, and nearly 50 percent of them were bonds of companies in the real

Figure 4.13
Outstanding Balance of Corporate Bonds, by Industry, 2005-09
 (NIS billion, nominal value, excluding structured bonds)



SOURCE: Bank of Israel.

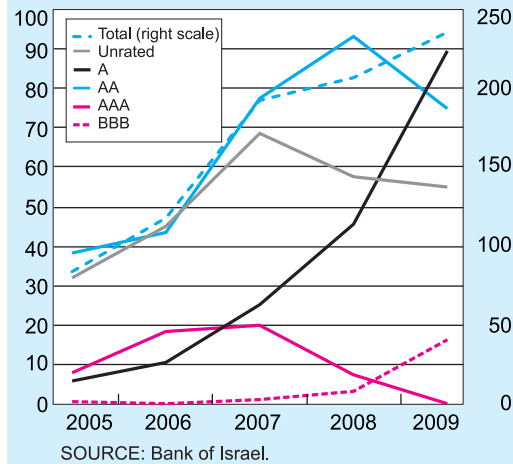
Figure 4.14
Outstanding Balance of CPI-Indexed Corporate Bonds, by Yields, 2008-09
 (percent of nominal value, excluding convertibles and structured bonds)



SOURCE: Bank of Israel.

estate industry. The numerous rating reductions in the course of the crisis changed the rating-related distribution of the debt to a considerable extent: The proportion of debt with high grades of AA and above fell heavily and reached 36 percent of debt at the end of the year, compared with 52 percent at the end of 2007. Concurrently, the proportion of companies with low ratings increased (Figure 4.15). This was even more notable in the real estate industry, where the proportion of companies with high ratings reached only 4 percent at the end of 2009 compared with 45 percent at the end of 2007.

Figure 4.15
Outstanding Balance of Corporate Bonds, by Rating, 2005-09
(NIS billion, nominal value, excluding structured bonds)



(5) Debt arrangements in the corporate bond market

In 2009, 56 companies accounting for 17 percent of the companies that had issued bonds³³ announced that they would be unable to fulfill their debt repayments on time and that they would require a debt arrangement. The companies in question included those with very large amounts of debt, the most notable being Africa Israel Investments and Zim. Since the corporate bond market in Israel is a relatively new market, orderly debt arrangement processes have yet to be compiled for it, in contrast to the situation in other developed markets. Moreover and from the very outset, a debt arrangement in the capital market is more complex than a debt arrangement with the bank. This is because of the extensive dispersal of debt among numerous borrowers, who sometimes act out of opposing interests; the large number of bond series for different periods; debt holders' exposure to public criticism at the time of the debt rescheduling process due to the fact that the debt is towards the general public and finally, the fact that debt holders are sometimes also shareholders in the debtor body, a situation that presents them with conflicting interests. Part of the companies that reached an arrangement in 2009 or which may have to reach such an arrangement at a later stage,³⁴ are companies with very large amounts of debt which also owe money to the banks, thereby increasing the complexity of the arrangement even more.

The volume of the debt arrangements that were compiled or that were being compiled in 2009 reached 6.7 percent of the value of corporate debt, of which 80 percent was debt of companies from the real estate industry (Figure 4.16). The proportion of debt

³³ Companies that had issued bonds and had a bond balance at the end of 2009.

³⁴ On the basis of the yields at which the bonds they issued are trading in the market.

under rescheduling was much higher than the proportion of doubtful debts in the banks' balance sheets (0.63 percent in the first quarter of 2009), but similar to the proportion of problem loans in the banks' balance sheets (7 percent).³⁵

Although the corporate bond market was depressed by the large number of debt arrangements in 2009, this did not prevent it from reverting to its normal functioning and the effect of the arrangements was mainly apparent at problematic companies. This state of affairs derived from the unique characteristics of the bond market, including: the widespread dispersal of the debt among numerous debt holders, with the result that no institutional investor is heavily exposed to a specific company;³⁶ the corporate bond market's rapid response to economic developments, with the result that many of the companies requiring an arrangement had long since been trading at a value reflecting a high probability of bankruptcy, which even if it were to materialize would involve only a minor incremental loss in the future; and finally, since the credit was granted by nonbank financial institutions, the loss in respect of debt write-off or a decline in the value of the debt does not impair the financial institution's capital, and thereby does not endanger its stability.

(6) Bond redemptions

Bond redemptions totaled NIS 11 billion in 2009.³⁷ The redemptions due in 2010 are larger and amount to NIS 21 billion (principal). The majority of redemptions expected (78 percent of them) are attributed to bonds that were trading at a yield of less than 8 percent at the end of 2009. About 28 percent of the scheduled redemptions are of companies from the real estate industry.

c. Credit to households

Outstanding bank credit to households expanded by 9.8 percent in 2009, following similar rates of growth in 2007 and 2008. Most of the increase was in the mortgage component, which accounts for 50 percent of households' outstanding debt—a proportion much lower than in other economies. (See Box 4.1). The ratio of households' overall outstanding debt to GDP is also considerably lower in Israel than in other economies (Figure 4.17)—a situation that facilitated a rapid rebound in private consumption in Israel in the present crisis compared with other economies. (See Chapter 2).

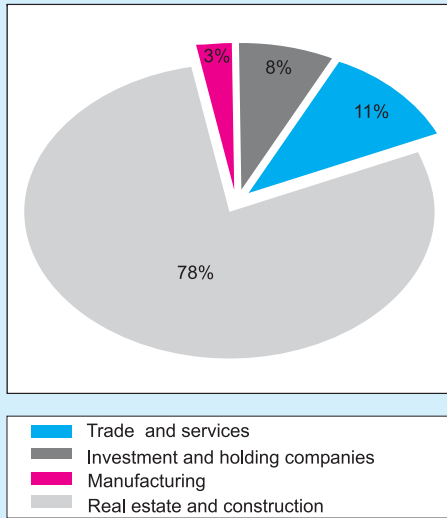
³⁵ A clear-cut comparison cannot be made between the debt under rescheduling and the definition of problem loans at the banks. Problem loans in the banks' balance sheets include loans involving different types of collection difficulties, such as debts under special supervision, temporary arrears, and debts designated for rescheduling, while debts defined as doubtful are debts where non-collection is very likely. The debts under arrangement in the bond market by contrast is debt which the borrower has announced he will be unable to repay on time.

³⁶ As an example, even in the case of Africa Israel Investments, whose debt requiring rescheduling reached NIS 7.6 billion (of which NIS 2.75 billion to institutional investors), no institutional manager was exposed to the debt by more than 4 percent of its assets.

³⁷ Estimated. Part of the redemptions did not occur because the companies in question entered into an arrangement.

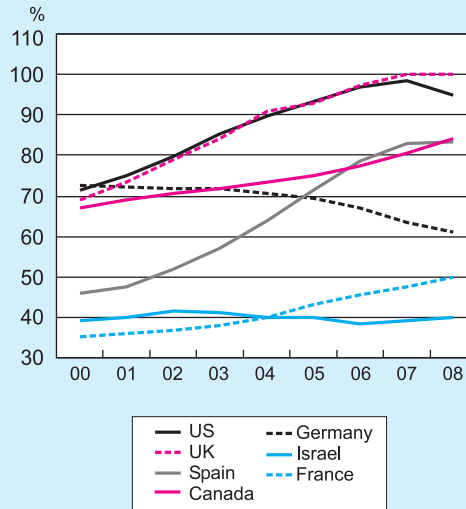
The fact that a large number of companies needed debt arrangements in 2009 did not prevent the bond market from resuming its normal functioning.

Figure 4.16
Outstanding Balances of Bonds of Companies that Made Special Repayment Arrangements in 2009, by Industry (percent)



SOURCE: Bank of Israel.

Figure 4.17
Ratio of Household Debt to GDP in Selected Countries, 2000-08



SOURCE: Based on IMF and OECD data.

4. THE FINANCIAL INSTITUTIONS

a. The banks³⁸

(1) Financial intermediation activity and its pricing

The banking system experienced a recovery following the global financial crisis after suffering from this crisis in 2008. In 2009 the main challenge facing the banks was the indirect impact of the crisis, namely the decrease in the repayment ability of firms and households as a result of the downturn in activity. Nevertheless, the Israeli banks remained stable due to their conservative policy and the rebound in economic activity—the positive GDP growth rate in the second half of the year and the fall in unemployment. As described in Section 3 of this chapter, the bond market recovered in the course of the year. Companies again began to issue at substantial amounts, thereby re-diverting demand for credit from the banking system to the nonbank markets. All this was against the background of expansionary monetary policy, which was reflected by low interest rates in Israel and worldwide, and the banking system’s continued preparation for the adoption of the Basel 2 directives.

The main challenge facing the banks was the indirect impact of the crisis, which was apparent from the decrease in the repayment ability of firms and households, although not to an extent that impaired the system’s stability.

³⁸ The analysis in this section is based partly on data from published financial reports for the first three quarters of 2009.

The direct impact of the crisis on banks eased.

The direct impact of the crisis on the banks in Israel became less apparent during the year. This impact derived from the Israeli banks' exposure to credit risks, which materialized, subprime mortgages and mortgage-backed assets, and the realization of market risks resulting from the decreases in asset prices in Israel (financial assets) and abroad (financial and real estate assets). These decreases ceased and among certain assets (mainly equities), the trend actually reversed.

The banking system maintained its stability due to its slow adoption of securitization instruments; a conservative approach and early detection of the toxic assets abroad by the Banking Supervision; liquidity supplied under monetary policy; the provision of government guarantees for raising capital; and policymakers' assurances that the public's deposits would be protected.

The banking system in Israel succeeded in functioning normally and maintaining its stability during the crisis, as it did in the second half of the year as well when the economy recovered and reverted to sustained growth. However, a high level of risk is still apparent as a result of the crisis, and this will be mentioned below. What are the reasons for the Israeli banking system's success in view of the crisis's serious impact on the financial system in the developed economies and in the American economy in particular?

The first reason is the Israeli banks' relatively low exposure to local and foreign toxic assets (such as mortgage-backed bonds). This low level of exposure results from Israeli financial institutions' tardiness in adopting securitization instruments for financial purposes and in using these instruments; from the more conservative approach of the Banking Supervision Department and early detection of the high risk inherent in the Israeli bank's exposure to toxic assets abroad; and from the requirement imposed on Israeli banks to increase their capital ratio³⁹ as part of the process of adaptation to international standards, and the preparations for applying the Basel 2 directive in recent years even before the onset of the crisis.

The second reason for the Israeli banks' stability at the time of the crisis was the expansionary monetary policy, which provided the banks with low-cost liquidity and sources for financial intermediation. The third reason was the provision of government guarantees for raising capital at the banks (although these were not actually used) and as elsewhere worldwide, assurances by policy-makers (the Governor of the Bank of Israel and the Minister of Finance) that deposits of the public would be protected. These assurances strengthened the public's confidence in the banks' ability to fulfill their obligations. The rescue programs for the financial systems in the developed countries, and especially in the USA, indirectly helped the banks in Israel to maintain their stability. Another contributory factor was the high profitability recorded by the banks in Israel in the years preceding the crisis (Table 4.6).

Firms' demand for bank credit did not increase to any major extent during the year. Outstanding bank credit as a percentage of business-sector product decreased. However, demand for credit from households increased, especially demand for mortgages.

As a result of the recovery in economic activity, the renewal of firms' inventories and the growth in demand for their production, firms are increasing their financing requirements and these are being supplied only partly by increased working capital. Due however to the resumption of firms' issues in the capital markets, firms' demand for credit from the banks did not increase to any major extent during the year. Nevertheless, a growth in demand for credit was recorded from households, since

³⁹ An increase in the capital ratio involves a decrease in exposure to high-risk assets and/or in capital raising.

their financing requirements are supplied mainly, directly or indirectly,⁴⁰ by the banks (Table 4.6). The main growth in demand was for credit for housing (mortgages) *inter alia* for financing the purchase of apartments for investment as a result of the increased risk inherent in financial assets. Outstanding bank credit for mortgages increased by 13 percent, most of it indexed to the prime rate, concurrent with the decline in the interest rate.

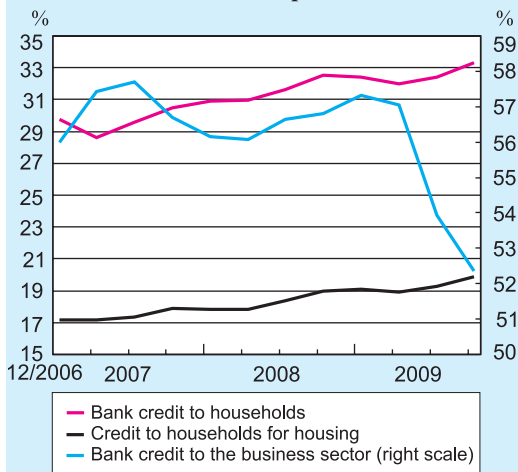
The global financial crisis led to a growth in the loan losses of the banks in Israel and their loan-loss provisions (Table 4.6), thereby eroding their stock of financial capital and increasing the risks inherent in their assets (credit crunch). Concurrently, the crisis had the effect of reducing firms' collateral (collateral squeeze). The combination of these two developments would normally have the effect of reducing the supply of bank credit and its share in sources for financing business activity in the economy (Table 4.6). In 2008 however, the drying-up of the corporate bond market had the opposite effect, and the share of bank credit therefore actually increased. When issues in the non-bank financial market resumed in 2009, the share of bank credit in total credit in the economy fell again (Table 4.3), and outstanding bank credit as a percentage of business-sector product decreased as well (Figure 4.18).

Another development in the banks' uses of their sources was a large increase in their deposits at the Bank of Israel (at a low yield, risk-free). These assets totaled over NIS 80 billion at the end of the year. The banks can use these deposits as liquid

assets, whose importance increases in this period of crisis. However, such a large stock of assets, which mainly resulted from monetary policy, will have to be reduced when routine activity resumes. In order to determine whether an exceptional development in the banks' balance sheets was involved and the reasons for it, Figure 4.19 presents a comparison of the ratio of the banks' deposits at the Bank of Israel (in excess of the liquidity requirement) to the amount of deposits of the public available to them in 2009 compared with this ratio during the previous crisis in 2001. The rise in the ratio may derive from the banks' increased deposits at the Bank of Israel (which mainly resulted from

The banks' deposits at the Bank in Israel expanded to a considerable extent in 2009. The banks can use these deposits as liquid assets whose importance increased in the crisis period. Such a large stock of assets, which mainly resulted from monetary policy (Bank of Israel foreign currency and bond purchases) will have to be reduced when routine activity resumes.

Figure 4.18
Bank Credit to the Business Sector, to Households and To Households for Housing, in Terms of GDP, December 2006 to September 2009



SOURCE: Bank of Israel.

⁴⁰ Mainly by means of the postponement of consumers' payments to businesses, which usually rely on credit from the banks as their source of finance.

Table 4.6
Indices of the Bank's Performance,^a 2006–09

	2006	2007	2008	2009
	(percent)			
Profitability				
Return on equity (ROE)	17.3	16.6	0.4	8.2
Activity				
Credit to the public/total assets	63.9	66.1	69.3	66.2
Credit to households/total credit	48.8	48.0	50.2	52.6
Operating efficiency				
Operating expenses/total assets	2.6	2.5	2.5	2.4
Assets per employee post (index, at constant prices)	109.7	114.9	121.0	126.7 ^b
Risk				
Credit to problem borrowers/total credit	8.3	6.1	6.9	6.5
Total loan-loss provision/total credit	5.5	4.9	4.7	5.1
Capital adequacy				
Risk-based capital ratio	10.8	11.0	11.2	13.7
Risk-based equity ratio	7.5	7.5	7.1	8.3

^a The five major banking groups.

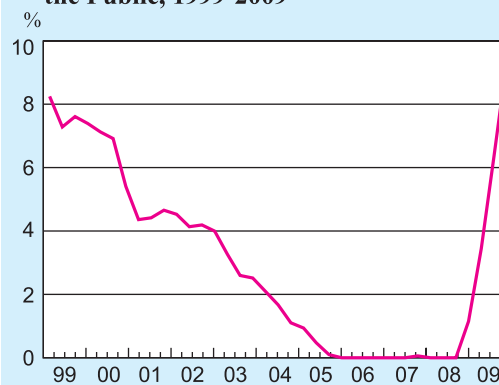
^b 2009:Q1-Q3.

SOURCE: Banks' published financial statements, and the Annual Survey of Israel's Banking System

monetary policy), and from the reduced volume of deposits at the banks, which resulted from decisions made by the public and by the banks.

As can be seen, the ratio rose considerably in 2009 and reached 9.3 percent. Even at the beginning of the decade (actually as early as 1999, before the crisis at the beginning of the decade), the ratio amounted to 8.4 percent and to over 7 percent in the year 2001 as a whole. As it did at the beginning of the decade, the Bank of Israel used the banks' deposits with it as a monetary policy instrument in 2009. During the year, the Bank of Israel purchased large amounts of foreign currency from the public, and at the same time adopted policy measures for sterilizing the expansionary effect of these purchases on the money supply. The growth in the banks'

Figure 4.19
The Ratio of Banks' Term Deposits in the Bank of Israel to Total Bank Deposits of the Public, 1999-2009



SOURCE: Bank of Israel.

deposits at the Bank of Israel was to a large extent a reflection of this sterilization.⁴¹ (See Chapter 3).

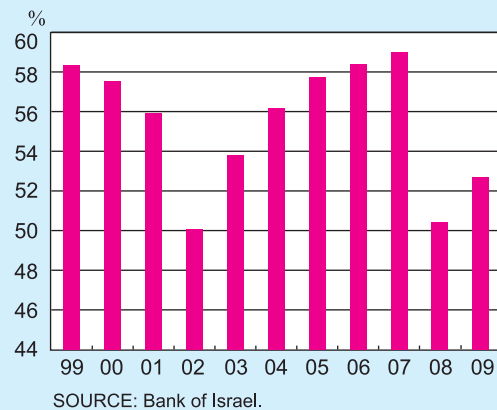
In 2009 however, additional factors had the effect of increasing the ratio of the banks' deposits at the Bank of Israel to deposits of the public with them. Firstly, at times of crisis and an increase in borrowers' risks (as occurred at the beginning of the decade and in the present crisis), the banks preferred to increase this ratio because despite their low yield, deposits at the Bank of Israel are a risk-free asset. Secondly, the banks are required to increase their capital ratio and reach a ratio of at least 12 percent by the end of the year. After having exhausted the possibilities for raising Tier 2 capital,⁴² and in order to prevent a dilution of their shares as much as possible, the banks prefer to increase in their balance sheets the proportion of assets in respect of which the holding of capital is not required (such as deposits at the Bank of Israel). Moreover, under the Basel 2 directives, from the beginning of 2010 the banks will be required to hold additional capital against operational risk. This requirement also prompted them to hold a larger proportion of their sources in deposits at the Bank of Israel, which are not included in the calculation of the minimum capital ratio. For the same reason, the banks increased the proportion of their holdings of other low-risk assets, for which the capital requirements are low, such as cash, deposit with banks and investment in government bonds.

The financial results of the five large banking groups in 2009 show a considerable improvement in profitability (Table 4.6). Return on equity in 2009 amounted to 8.2 percent compared with 0.4 percent in 2008. The growth in profitability resulted from an increase in net interest income and in operating income. As at the beginning of the decade, a decrease in the share of interest income to the banks' total income (net interest income and operating income) was apparent in the present business cycle, down to a rate of 50 percent in 2008, but then increased in 2009 as a result of the economic recovery (Figure 4.20). This development indicates that the banks' operating income in Israel, which is mainly comprised of commission income, is less sensitive to business cycles in the current decade than net interest income.

As in other crisis periods, this time the reduced demand for financial

The profitability of the five large banking groups improved considerably in 2009 due to a growth in net interest income and an increase in operating income.

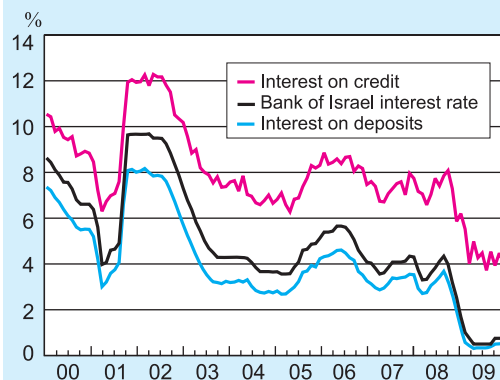
Figure 4.20
The Share of Net Interest Income of the Five Largest banks in Israel in Their Total Income, 1999-2009



⁴¹ It should be noted that the Bank of Israel could have used Makam for sterilization purposes, and had it done so at larger amounts, the banks' deposits with it would have increased to a lesser extent.

⁴² Here too capital is comprised mainly of deferred deeds of liability, and is limited to half the amount of Tier 1 capital (shareholders' equity).

Figure 4.21
The Marginal Rates of Short-Term
Interest in Unindexed Bank
Intermediation,^a 2000-2009
 (monthly data)



^a The average of the interest paid during the month on 1–3 month unindexed deposits and the average of the interest charged during the month on 1–3 month unindexed fixed-interest credit.

SOURCE: Banks reports to the Bank of Israel.

intermediation enabled the banks to adopt a policy of increasing their operational efficiency (Table 4.6): From 2004 until 2008, the number of employee posts at the banks rose by a relatively high average annual rate of 4.9 percent.⁴³ During the first three quarters of 2009 however, the number of employee posts rose by only half a percent.

The transmission from monetary policy to prices passes through the market interest rates which the banks charge from borrowers and pay to depositors. The Bank of Israel cut the interest rate to close to the zero limit during the year. These rate cuts were thereby reflected in the interest rates which the banks paid to depositors and the rates which they

charged from borrowers. Figure 4.21 presents the response of the banks' interest rates to developments in the Bank of Israel interest rates with reference to the zero limit.⁴⁴

Concurrent with the Bank of Israel's interest-rate reductions in 2009, the interest rates on deposits fell as well (Figure 4.21), and at the beginning of the year these rates approached the zero limit. A large degree of adjustment to the Bank of Israel interest rate was also apparent in the interest rate on short-term credit, which therefore also fell during the year. The spread between borrowing and lending rates is the basis for the banks' financing income,⁴⁵ and despite the numerous changes in the level of interest rates in the past decade, this spread has been stable (Figure 4.21). Since 2000, it averaged 4 percentage points, with a standard deviation of only half a percent.

No further deterioration in credit risk as a result of the global financial crisis was recorded in financial reports for 2009.

(2) Stability of the banking system: Risks and capital adequacy

No further deterioration in credit risk as a result of the global financial crisis was recorded in 2009. The ratio of the cumulative expense on loan-loss provisions to credit

⁴³ This was after three years of payroll cuts resulting from the downturn in economic activity in that period.

⁴⁴ As a rule, the interest rate on deposits does not fall below the zero limit. But in Switzerland for example, in an attempt to encourage the public to stop placing deposits at the bank, the nominal interest rate on deposits of the public there was negative.

⁴⁵ This spread is affected by borrowers' repayment ability, by the availability of forces for financial intermediation, by the public's demand flexibility for credit and by the banks' marketing power in extending this credit.

remained at 0.7 percent. The proportion of problem loans in total credit actually fell, to a level of 6.6 percent (Table 6). Although the proportion of loan-loss provisions to total credit increased, its rate did not exceed the 5 percent average for the past decade. The global financial crisis did however highlight the credit risk inherent in investment in foreign markets, especially in real estate investment. Due to the growth in Israeli investors' investment in foreign real estate assets during recent years, following the crisis the banks in Israel are having to cope with increased exposure to credit risk in their asset portfolios.

The average capital ratio at all the banking groups reached a record level of 13.7 percent compared with 11.2 percent in 2008 (Table 6). This resulted *inter alia* from NIS 16 billion of issues of Tier 2 capital during the year. An international comparison shows that for the first time, the capital adequacy in the Israeli banking system is no less than the average in the peer group.⁴⁶ The ratio of shareholders' equity to total risk assets (as calculated under the Basel 1 directives) also increased, from 7.1 percent in 2008 to 8.3 percent in 2009. Contributing to the increase was the Supervisor of Banks' directive to the banks to refrain from dividend distribution, as well as a 2 percent decrease in total risk assets in 2009. The banks therefore appeared to have enhanced their ability to cope with shocks when necessary. However, the resumption of growth in the Israeli economy will increase the demand for bank credit, and will therefore compel the banks to increase their equity capital in order to maintain the level of capital adequacy which they have managed to reach.

b. The insurance companies⁴⁷

After facing the financial crisis in 2008, the insurance companies in Israel benefited from the vibrant trading in the capital market during the first nine months of 2009. The equity capital of the insurance companies in Israel expanded considerably, with the result that they presented capital surpluses larger than the minimum capital requirements of the Ministry of Finance. The insurance companies will however need to continue increasing their capital during the next two years in order to conform to the capital requirements stipulated under the new regulations, which are an intermediate stage in the application of the Solvency II directives in Israel.

During the first three quarters of 2009, the insurance companies recorded an average profit of NIS 1.9 billion, compared with a loss of NIS 24 million in the same period of 2008,⁴⁸ before the crisis had reached Israel. The improvement can be attributed mainly to the increased profits from investments, which accounted for over 50 percent of the

The global financial crisis highlighted the credit risk inherent in investment in foreign markets, especially in real estate investment.

The capital adequacy ratio at all the banking groups reached a record level in 2009. An international comparison shows that for the first time, the capital adequacy in the Israeli banking system is no less than the average in the peer group.

After facing the financial crisis in 2008, the insurance companies in Israel benefited from the vibrant trading in the capital market during the first nine months of 2009.

⁴⁶ The peer group includes the USA, Canada, Australia, Belgium, Norway, Holland, the Czech Republic, Poland, Chile and South Africa.

⁴⁷ The analysis in this section is based on the insurance companies' financial statements for the first three quarters of 2009.

⁴⁸ Data for all of insurance companies except Karnit and Avner.

insurance companies' total income in that period⁴⁹—a result of the price increases in the capital market, which almost totally offset the losses from 2008.⁵⁰ The amount of premiums charged also increased to a moderate extent, by 3 percent in the first three quarters of 2009 compared with the same period of 2008—following a large increase of 8 percent in 2008 compared with 2007.

Despite large profits in the first three quarters of 2009, the insurance companies were unable to charge variable management fees on profit-sharing policies, which are major source of profit for them.

The insurance industry's assets in September 2009 totaled NIS 242 billion, of which NIS 173 billion were life insurance assets.⁵¹ Assets in life insurance activity increased by 22 percent from the end of 2008 and by 17 percent from the end of 2007. Of these, 66 percent are concentrated in profit-sharing life insurance policies⁵² which increased by 31 percent in 2009 following a large 11 percent decrease in 2008. However, the losses from investments in 2008 led to a sharp drop in the management fees which insurance companies charge on these policies. The move to negative yields in profit-sharing policies prevents the companies from charging variable management fees, which are a major source of profit for them. They can resume charging these fees only when the cumulative yield (including the period of negative yield) again becomes positive⁵³—which has yet to happen, even after the large profit recorded during the first three quarters of 2009.⁵⁴ Another result of the crisis was that most of the companies presented a relatively high rate of policy redemptions in 2009, as well as a decrease in the volume of new sales. This may have resulted from the downturn in non-financial activity in the economy from the fourth quarter of 2008, which led *inter alia* to a wave of dismissals. The rise in the consumer price index at the beginning of 2009 also burdened the insurance companies, by increasing their CPI-indexed insurance liabilities.

The move to losses and the erosion in the value of assets, which is charged to capital, led to a decrease in the insurance companies' equity capital in 2008.⁵⁵ In order to conform to the capital requirements, the companies reached the level of capital required in various ways, by injecting Tier 1 capital from the parent company in return for an allocation of shares, by issuing deferred deeds of liability, which increased

⁴⁹ For the sake of comparison, in 2007 which was also notable for large gains in the capital market, this ratio amounted to only 29 percent.

⁵⁰ Also notable was the substantial tax benefit which the insurance companies were entitled in that period due to the Increased Economic Efficiency Law, which was passed by the Knesset in July 2009.

⁵¹ Guaranteed-yield and profit-sharing policies.

⁵² In these plans, the investment risks are imposed on the insured persons and not on the insurance companies.

⁵³ In respect of the management of assets in profit-sharing policies, the insurance companies are entitled to fixed management fees at a rate of 0.05 percent a month of the accumulated assets, and variable management fees at a rate of up to 15 percent of the real yield received minus fixed management fees. In the event of a loss, the insurance company is not entitled to variable management fees until the cumulative loss is covered.

⁵⁴ In their financial statements for the third quarter of 2009, most of the insurance companies reported that they expect to be able to again charge variable management fees from the fourth quarter of 2009.

⁵⁵ Equity capital is intended to serve as a buffer for the absorption of losses deriving from the materialization of unexpected risks to which the insurance company is exposed and which it has not been identified or has assessed inadequately.

their recognized Tier 2 capital, and by transferring the parent company's holdings in subsidiaries to the insurance company. As a result of these actions and due to the positive yields in the markets, which led to a rise in profitability, the companies' Tier 1 capital rose by 30 percent in the first half of 2009 compared with the end of 2008 (and by 14 percent compared with the end of 2007), and by another 7 percent in the third quarter of the year.⁵⁶ The ratio of the companies' Tier 1 capital to their assets therefore gradually rose from 5.0 percent in 2008 to 5.8 percent in the third quarter of 2009. The five largest insurance companies⁵⁷ ended the third quarter of 2009, according to their financial statements, with substantial capital surpluses of over NIS 250 million each in excess of the minimum capital requirements. At nearly all the insurance companies, the growth in capital during 2009 mainly derived from the positive yields in the markets, which increased their nostro investment income, and from an increase in the capital fund,⁵⁸ which derived from financial assets available for sale that have yet to be realized, and not from issues of capital by the parent company.⁵⁹ This means that most of the increase in the companies' equity capital in 2009 can be attributed to the performance of the financial markets.

On July 10, 2007, the European Union decided to adopt the Solvency II directives.⁶⁰ These directives express a fundamental and comprehensive change in the regulation concerning the assurance of the insurance companies' repayment ability and capital adequacy in the countries of the European Union, and are intended to enhance the protection of policy-holders' money, to deepen the integration between the markets and to increase the competition in them. The insurance supervisory authority in Israel decided to adopt the directives concerning insurance companies in Israel at the same time as they are scheduled for implementation in the European Union countries, in 2013. Under the Ministry of Finance's new regulations, which increased the insurance companies' equity capital requirements by an average of 40 percent—as an intermediate stage in the adoption of the Solvency II directives in Israel—the insurance companies will have to gradually increase their equity capital over three years: 30 percent by the end of 2009, at least another 30 percent by the end of 2010, and the remaining 40 percent by the end of 2011. The largest insurance companies' financial statements for the third quarter of 2009 show that on the basis of the capital surplus currently existing at the companies, they already conform to the capital requirements for 2009, and will have to increase their capital by an overall amount of NIS 650 million by the end of 2011, that is, by another 15 percent of the total amount of capital required. It should however be noted that the repayment ability (ratio of recognized capital to required

At nearly all the insurance companies, the growth in capital during 2009 mainly derived from the positive yields in the markets, which increased their nostro investment income, and from an increase in the capital fund, and not from issues of capital by the parent company.

Under the Ministry of Finance's new regulations, which are an intermediate stage in the adoption of the Solvency II directives in Israel, the insurance companies will have to gradually increase their equity capital by the end of 2011.

⁵⁶ For the sake of comparison, according to the ECB's Financial Stability Review, which was published in December 2009, the shareholders' equity of the insurance companies in Europe increased by only 8 percent in the first half of 2009 and by another 13 percent in the third quarter of the year.

⁵⁷ Migdal, Clal, Menorah, Phoenix and Harel.

⁵⁸ Which is included in the insurance company's overall profit.

⁵⁹ Only one of the five largest insurance companies issued shares in the first three quarters of 2009.

⁶⁰ The term implies repayment ability, that is, the ability to adhere to the repayment of debt.

On the basis of the capital surplus currently existing at the five largest insurance companies, they already conform to the capital requirements for 2009, and will have to increase their capital by another 15 percent of the total amount of capital required by 2011.

The proportion of the insurance company's risk assets to total assets increased in 2009, mainly due to developments in securities prices during 2009.

capital) of the insurance companies in Israel is still lower than at insurance companies in Europe.⁶¹

The move from a loss in 2008 to a profit in 2009 reflects as stated an increase in investment income following substantial losses in 2008, which derived mainly from developments in the capital markets in Israel and abroad. This therefore highlights the insurance companies' major dependence on the performance of the capital markets, as well as the exposure of the assets which they manage to market risks.⁶² An examination of the composition of the insurance companies' investments over time shows that their proportion of risk assets⁶³ to total assets (mainly shares in Israel and abroad^{64,65}) increased in 2009, while the exposure of the assets managed by them to government bonds decreased to a moderate extent.⁶⁶ It should be noted that the change in the investment percentages in the different investment channels derived mainly from developments in securities prices during 2009.

Over the years, the large insurance companies transferred part of their reserves against guaranteed-yield policies from designated bonds to the capital market in order to achieve excess yields. This was because in boom years in the capital market, the margin between the yield actually achieved and the yield guaranteed to members increased.⁶⁷ As a result, the heavy price slides in the capital market in 2008 led to losses on guaranteed-yield policies for those insurance companies that had taken the risk and redeemed a large part of their designated bond holdings in favor of assets traded in the capital market. Although these companies' position improved in 2009, it should be remembered that the markets are highly volatile, and therefore an element of risk is implied in their transfer of reserves.⁶⁸ Nevertheless, the majority of the guaranteed-yield life insurance plans' assets—59 percent (NIS 35 billion)⁶⁹—is still

⁶¹ In the first stage in the application of the Solvency II directives, the insurance companies have been required to calculate the quantitative requirements according to QIS 4 - Quantitative Assessment Review, the fourth such review compiled by the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). In this respect, they had to calculate by means of simulation the effect of the adoption of the proposed requirements on their financial sources, and to submit the results of the calculation to the Supervisor's office by September 30 2009. They will have to complete the next review—QIS 5—in August 2010.

⁶² The insurance companies' reinsurers only provide insurance coverage for insurance risks, and not for the companies' investment risks.

⁶³ The reference to risk assets in this section is to the amount invested in non-government certificates of liability, loans, shares, mutual fund participation certificates, options, warrants and futures contracts.

⁶⁴ Including basket certificates that invest in shares

⁶⁵ The rate of investment in shares of the insurance companies in Israel is still considerably lower than the rate of such investments among the public, even though the revaluation of their liabilities is for the long term—the ideal term for investment in this channel.

⁶⁶ This trend was reflected in the insurance companies' nostro portfolio and in profit-sharing policies.

⁶⁷ Since 1997, the Capital Market Division has held tenders for the early repayment of designated bonds held by these insurance plans.

⁶⁸ Unless the insurance companies resort to the relatively safe sector of the capital market, by purchasing government bonds and not selling them until maturity.

⁶⁹ The insurance companies are required to maintain a balance of investment in designated bonds at a rate of not less than 50 percent of the reserve for investment.

invested in designated bonds, and the remainder is held in such assets as government bonds, corporate bonds, *Makam* and shares. Moreover, the decline in government bond yields benefits these policies, by increasing their profits from investment although this also has an adverse effect: Since these yields are used for discounting future liabilities, their low level will lead to an increase in the present value of these liabilities. The uncertainty over future developments in the markets in which the insurance companies invest is still high, and their investment strategy should therefore be closely monitored.

The collapse of AIG in 2008 highlighted the question of whether the insurance companies are a major source of systemic risk. These companies are regarded as large investors in the financial markets;⁷⁰ a growing relationship exists between the banks and other financial institutions, and this is in addition to the insurance coverage which the companies apply for firms' and households' risks. All these factors are indicative of a close relationship between the insurance companies and the markets and of the importance of financial stability in the economy. But since the insurance companies' liabilities are long-term—unlike the banks, where liquidity risk is the main risk—they have the potential to stabilize asset prices in the financial markets because they will be the last investors to realize assets when prices start to plummet. It should be noted with respect to this aspect of insurance risks that the collapse of the global insurance company AIG in the crisis did not result from the materialization of the risks involved in its traditional areas of activity, but actually derived from its substantial involvement in the credit derivative markets.⁷¹ This was in contrast to the insurance companies in Israel and the majority of insurance companies worldwide, which invest in more solid structured credit products, and whose exposure to American subprime mortgage-backed product was very low. The collapse of AIG also reflected the close relationships between it and banks throughout the world. This is because its losses from CDS structured credit products led to a reduction in the rating of the securities which it had issued, which in turn led to decreases in the asset value of the banks which had purchased CDS instruments from it.

c. The provident and severance pay funds

The large gains in the capital markets in 2009 led to a rapid recovery of the provident fund industry after it had experienced a difficult year in 2008, and the funds presented high positive yields averaging 29 percent compared with average losses of 18 percent in 2008. As a result, the proportion of assets managed increased by 25 percent and reached NIS 176.6 billion. This was despite continued withdrawals in 2009, although the volume of these withdrawals decreased considerably (Table 4.7).

⁷⁰ In Israel, they hold nearly 20 percent of the local bond market.

⁷¹ The company's net exposure to CDS decreased considerably, from \$ 447 billion in June 2008 to \$ 205 billion in September 2009.

The insurance companies that had redeemed a large part of their designated bonds in favor of assets traded in the capital markets recorded an improvement in results in 2009. These insurance companies are likely to suffer in the event of a downturn in the capital market.

The collapse of the global insurance company AIG in the latest crisis did not result from the materialization of the risks involved in its traditional areas of activity, but actually derived from its substantial involvement in the credit derivative markets. Such involvement is not typical of the insurance companies in Israel.

The provident fund industry recovered rapidly in 2009, when it achieved exceptionally high yields after recording exceptionally negative yields in 2008.

Table 4.7
Institutional Investors: Main Developments, 2005–09

	Mutual funds	Provident and severance pay funds	Advanced study funds	Pension funds		Life insurance schemes ^a		Total
				Old	New ^b	Guaranteed yield	Profit sharing	
Balance ^c (NIS billion, current prices)								
2005	124.6	163.7	71.2	142.3	44.3	47.3	70.9	664.3
2006	111.5	173.5	78.6	145.7	53.8	48.5	83.0	694.4
2007	119.4	186.1	88.0	157.1	62.8	50.1	96.4	760.1
2008	98.0	142.1	70.8	235.9 ^d	69.1	54.9	84.8	755.6
2009	133.2	176.6	94.5	264.3	91.0	60.6	118.4	938.6
Percent of total institutional investors' savings ^e								
2005	18.8	24.6	10.7	21.4	6.7	7.1	10.7	100.0
2006	16.1	25.0	11.3	21.0	7.7	7.0	11.9	100.0
2007	15.7	24.5	11.6	20.7	8.3	6.6	12.7	100.0
2008	13.0	18.8	9.4	31.2	9.1	7.3	11.2	100.0
2009	14.2	18.8	10.1	28.2	9.7	6.5	12.6	100.0
Percent of public's asset portfolio								
2005	7.6	9.9	4.3	8.6	2.7	2.9	4.3	40.3
2006	6.1	9.4	4.3	7.9	2.9	2.6	4.5	37.8
2007	5.8	9.1	4.3	7.6	3.1	2.4	4.7	37.0
2008	5.2	7.5	3.8	12.5	3.7	2.9	4.5	40.0
2009	5.8	7.7	4.1	11.5	4.0	2.6	5.1	40.8
Net accrual (NIS billion, current prices) ^g								
2005	16.0	2.5	2.8	-3.8	17.9 ^g			35.4
2006	-18.3	-0.8	3.0	-4.3	6.2			-14.3
2007	5.0	-0.7	3.7	-4.2	6.4			10.2
2008	-9.4	-8.8	-0.6	-4.4	8.0			-15.2
2009	21.3	-3.3	4.7	-5.1	9.0			26.6

^a Asset balances of life insurance plans do not include fixed assets, receivables and deferred purchasing expenses.

^b Including general pension funds and central pension provident funds.

^c All institutional investor assets are net of investments in mutual fund.

^d Since February 2008, assets of the old pension funds include the government's undertaking to help them. That undertaking has applied since 2003, but only in February 2008 were the funds directed to record it as part of their assets. The balance of the undertaking changes every month, and in December 2008 it totaled NIS 76.7 billion.

^e Includes: mutual and advanced study funds, which are defined as short- to medium-term investments, and provident funds, pension funds and life insurance plans, which are defined as institutional and contractual long-term savings.

^f Excluding transfers between funds.

^g 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.

Table 4.8
Composition of Institutional Investors' Portfolio, by Type of Asset, 2007–09

	Investments abroad ^a		Shares		Private bonds		Government bonds		Other assets ^b						
	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009			
Provident and severance pay funds	10.5	7.2	10	19.3	8.6	14.2	36.7	32.2	29.1	20.5	33.1	26.3	13.0	18.9	20.4
Advanced study funds	9.6	6.7	9.3	19.6	10.8	16.2	37.9	32.3	26.6	18.1	29.8	24.3	14.8	20.4	23.6
Old pension funds	5.5	4.4	5.7	3.7	1.9	3	13.0	7.1	7.3	69.8	81.1	73.7	8.0	5.5	10.3
New (general) pension funds	6.9	5.1	8.0	17.2	6.1	12.1	35.8	25.4	25.7	22.9	45.8	34.8	17.2	17.6	19.4
New (comprehensive) pension funds ^c	10.8	8.3	13.7	9.5	5.1	8.6	21.7	17.8	16.7	44.7	47.6	42.7	13.3	21.2	18.3
Mutual funds	13.4	6.1	6.2	13.2	4.2	8.1	20.1	11.3	20.2	32.1	36.6	36	21.2	41.8	29.5
Guaranteed-yield insurance plans ^d	1.8	1.4	2.8	1.5	1.3	1.8	9.3	11	11.8	65.4	66.1	64	22.0	20.2	19.6
Profit-sharing insurance plans ^d	19.6	16.3	24.7	19.7	11.2	15.6	27.5	26.7	24.5	14.4	22.9	15.7	18.8	22.9	19.5
All institutional investors	9.3	6.8	10.0	13.3	5.6	9.3	25.1	18.3	18.7	36.5	50.7	43.4	15.8	18.6	18.6

^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 indices abroad.

^b *Makam*, deposits, loans, mutual fund units, property rights, futures, mortgage portfolios and other assets.

^c Including the Central Pension Provident Fund.

^d Investment assets only for life-insurance schemes.

SOURCE: The Capital Market, Insurance and Savings Division of the Ministry of Finance, and returns from the mutual funds to the Bank of Israel.

After having increased their volume of fixed-income assets in 2008 at the expense of higher-risk assets because of the crisis, in 2009 the funds again increased their equity component and investments abroad in their portfolios at the expense of investment in government bonds and deposits. This was against the background of the reduced assessment of risk and the low level of yields in lower-risk forms of investment. The proportion of corporate bonds in the funds' portfolios continued to decline in 2009, apparently as a result of the lessons learned from the crisis (Table 4.8). The crisis in the industry in 2008 highlighted the problematic nature of this form of saving: Although it constitutes a form of pension saving, 60 percent of the assets accrued in the industry are liquid cash, and can be withdrawn at any time at short notice. During periods of uncertainty, withdrawals from the funds therefore increase, requiring them to hold a high proportion of liquid cash and preventing them from managing assets while focusing on short-term yields.

The reform in the industry in 2004 allowed new money to be deposited in the funds for retirement age only. Although this is likely to gradually reduce the proportion of liquid cash in the funds, the effect is indeed slow and gradual because it only applies to new deposits.

Another attempt to reduce the funds' and savers' tendency to focus on short-term yields was made in 2009 by means of a new directive, which went into effect at the beginning of 2010 and prohibits the fund managers from publishing yields for periods of less than twelve months. The idea behind this directive is that although the information that will be published every month will enable the public to calculate the current monthly yield achieved by the funds, it will nevertheless reduce the exposure of this yield, and will thereby gradually reduce the importance attributed to it both in the funds' investment decisions, and in the savers' decisions on whether to withdraw money from the funds.

Another problem in the industry's activity highlighted by the crisis is that most of the money accrued in it is managed in general tracks, without the saver being aware in advance of the level of risk which the fund is taking, and without taking into account the characteristics of each and every saver, including his age, for the purpose of adapting the risk profile suited to him. The funds thereby manage the assets of members who are close to retirement age together with the money of young members, and invest the money of both populations in the same manner. Moreover, even at funds managing specialist investment tracks, the asset composition of these tracks is similar or identical, and because of the large number of tracks, the asset volume managed in each of them is very small.

In order to solve these problems, the Finance Ministry decided to apply a comprehensive reform for reducing the number of specialist investment tracks while determining clearly defined names for each track which would be indicative of the composition of the assets in which the fund invests—in a manner similar to that adopted by the mutual funds several years ago. Also determined will be a limited number of default investment tracks suited to the member's age, to which members

Most of the public's money in the provident fund industry is managed in general tracks, without the member being aware in advance of the level of risk which the fund is taking.

will be assigned automatically according to their age: The higher will be the saver's age, the greater will be the proportion of more solid assets in the default option track suited to him. Members already receiving an annuity will be allocated to a highly conservative investment track. Although the assignment to default investment tracks will be automatic, without the need for the saver's intervention, the saver will be given the opportunity to select a specialist track or another default track.

The Finance Ministry's proposal to stipulate default choice tracks has not yet been approved, and is based on a model similar to the pension fund management method practice in Chile since 2002. The model is built around the assumption that the average saver is not adequately acquainted with the pension markets, and will not have the knowhow necessary for making the changes necessary in accordance with his own preferences in the composition of his investments as he approaches retirement age. Under the model, the pension savings of young members will be invested in higher-risk tracks, in order for them to be able to achieve a higher yield and a larger annuity. The more the saver approaches retirement age, the investment tracks will reflect a lower level of risk in order to prevent a serious erosion of savings at times of crisis in the markets, as happened in 2008.

All agree that when the member approaches retirement age, the composition of the assets managed for him must be more solid. But since the Finance Ministry proposal is based on a retroactive adjustment that will apply to the entire stock of assets accrued in the funds, and on the assumption that a large part of them were accrued by members in older age groups, such an adjustment of the asset composition will have a far-reaching impact on the local capital markets and on the demand for specific assets such as shares or corporate bonds. Accordingly, the Finance Ministry is examining alternatives whereby the portfolio will be adjusted gradually over a number of years, while examining the potential implications of the transition for the local capital markets.

The personal provident fund management regulations were approved in 2009. This was an important development that enables more sophisticated savers to manage their pension savings themselves or via a portfolio manager which they will select.⁷² Assets will be managed and reported via the provident fund's managing company, which will receive prior approval to manage a personal provident fund. Under the regulations, a managing company managing a personal provident fund will be prohibited from paying distribution fees to an insurance agent or pension consultant. Money management by means of a personal provident fund will enable the saver to enjoy all the benefits granted on pension saving, to determine his desired investment composition, and possibly even to reduce payments on management fees. This measure is of major importance in view of the criticism that was leveled in 2008 at the method in which the existing managers managed provident fund savings and in view of the high level of risks which the funds took without the members being adequately aware of this.

⁷²In the first stage, only money accrued in an advanced study fund and in provident funds for the self-employed was approved for personal provident fund management.

The Finance Ministry's proposal to stipulate default choice tracks will enable the pension savings of young members to be invested in higher-risk tracks, and the closer the saver approaches to retirement age, the lower the risk reflected in the default tracks.

d. The new pension funds

The new pension funds' assets at the end of 2009 totaled NIS 70 billion (excluding assets of central annuity provident funds), an increase of 45 percent compared with the asset volume at the end of 2008.⁷³ The large growth in asset volume resulted from the high, 27 percent return on investment, and NIS 9 billion of new deposits by members. The industry achieved this high yield after ending 2008 with exceptionally high negative yields averaging 11.2 percent.

The high negative yields in 2008 and positive yields in 2009 resulted from the funds' increasing exposure to the capital market following the reforms implemented in the industry.

The high negative yields in 2008 and positive yields in 2009 resulted from the pension funds' increasing exposure to the capital market following the reforms implemented in the industry. The proportion of earmarked bonds in the funds' portfolios amounts to only 30 percent, and the remaining assets are invested mostly in the financial markets in Israel and abroad. The pension funds reduced their proportion of government bonds and deposits in their portfolios in 2009, and increased the equity component and investment abroad. As part of the lessons learned from the crisis, the proportion of corporate bonds continued to fall in 2009.

A compulsory pension requirement was applied to all salaried employees in the economy at the beginning of 2008. In 2009, the Finance Ministry announced that it intended to extend the requirement to the self-employed as well from 2011. While the law governing a compulsory pension for salaried employees requires provision for pension at every income level, the draft law for a compulsory pension for the self-employed requires provisions only at a salary exceeding half the average wage in the economy. This will minimize the adverse impact on low wage-earners, for whom enforced saving impairs the smoothing of their consumption and creates an excessively high substitution ratio for them at retirement age.⁷⁴

⁷³ Apart from the new pension funds, established funds that are closed to new members exist. The asset volume of those funds at the end of 2009 amounted to NIS 267 billion.

⁷⁴ Adi Brener (2009), "The Effect of Saving Arrangements for Retirement Age in Israel on the Distribution of Income," Bank of Israel, Research Department, Discussion Papers, 2009.10.