CHAPTER 1

DEVELOPMENTS IN THE BANKING SYSTEM

- The Israeli banking system maintained its robustness in 2012, despite the slowdown in domestic real activity and the continued slowdown in the global growth rate. The banking system's resilience is supported by the growth in core Tier 1 capital, and is also reflected in the results of stress tests carried out by the Banking Supervision Department this year.
- During the year, the core Tier 1 capital ratio of the five major banking groups grew significantly, from 8.0 percent to 8.7 percent. This increase is part of the banking corporations' preparations for the implementation of the Basel III recommendations. The Supervisor of Banks recently published updated guidelines regarding capital adequacy: the March 2012 guidelines set forth new minimum core Tier 1 capital ratio targets, while the June 2013 guidelines relate to implementing the Basel III recommendations, and deal mainly with the total capital ratio and its composition.
- The net profit of the five major banking groups totaled about NIS 6 billion in 2012, a decline of 15% compared to 2011; albeit, profit before tax grew by 6 percent. The return on capital totaled 7.9 percent in 2012.
- The total balance sheet of the banking corpotations grew by about 3.7 percent in 2012, and totaled about NIS 1.3 trillion. On the liabilities side, the balance sheet was affected by the initiated increase in capital equity, as a result of the banking corporations' preparations for implementing the Banking Supervision Department's new guidelines for minimum capital ratio (Basel III), and from the continued expansion of the public's deposits. On the assets side, the balance sheet was affected mainly by the increase in investing in Israel government bonds, leading to a growth of about 17 percent in the securities portfolio.
- The banks' credit portfolio grew by 2 percent in 2012, mostly due to the increase in housing credit; business sector credit did not increase. The level of borrowers' risk remained medium high in 2012, against a backdrop of the slowdown in domestic real activity and developments in the global economy. Borrower concentration in the credit portfolio remained high, although there has been some decline in recent years due to the reduction in exposure to large borrowers, alongside an increase in the share of retail credit.
- One of the main focal points of risk in the bank credit portfolio is leveraged credit. Holding companies are a source of some of the leveraged credit. During 2012, the increase in risk of holding companies continued, and its level is appreciably higher than that of other industries.
- The banks' exposure to the construction and real estate industry declined by 2 percent this year as a result of the decline in credit to the real estate industry being greater than the increase in credit to the construction industry. As of December 2012, the banks had not reached the industry-specific indebtedness limitation, and they are able to provide

Table 1.1
Principal banking system indices, the five major banking groups, December 2001 to December 2012

Year	Ratio of market value to book value[a] (MV/BV)	Average yield gap between the banks' bonds and government bonds (percentage points)	Ratio of credit to GDP[b] (percent)	Rate of change in balance-sheet credit to the public[c] (percent)	Loan loss provision to total credit to the public[d] (percent)	Ratio of liquid assets[e] to liquid liabilities[f]	Ratio of credit[g] to deposits	Capital adequacy ratio (percent)	Core Tier 1 capital ratio (percent)	ROE (percent)	Risk adjusted return on capital (RAROC)
2001	0.9	0.8	102.3	11.3	0.85		0.81	9.4		5.8	0.1
2002	0.6	0.8	107.5	8.2	1.32	0.42	0.83	9.9		2.8	-0.2
2003	0.8	0.7	104.0	-3.2	1.12	0.41	0.82	10.3		8.4	0.3
2004	1.1	0.8	100.0	0.4	0.90	0.41	0.80	10.7		13.2	0.8
2005	1.4	0.7	97.5	3.3	0.69	0.42	0.82	10.7		14.5	1.0
2006	1.3	0.6	94.8	5.1	0.52	0.38	0.80	10.8		17.3	1.0
2007	1.2	1.1	97.0	9.0	0.28	0.29	0.85	11.0		15.6	0.8
2008	0.6	1.9	101.6	10.3	0.72	0.27	0.90	11.2		0.3	-0.1
2009	1.1	1.7	94.7	-1.6	0.75	0.38	0.86	13.7[h]		8.8	0.4
								13.6[i]	7.9		
2010	1.1	1.7	95.0	6.9	0.41	0.32	0.91	14.0	8.0	9.8	0.5
2011	0.7	1.5	91.9	6.5	0.39	0.37	0.89	14.0	8.0	10.2	0.5
2012	0.8	1.4	88.0	2.1	0.41	0.39	0.87	14.9	8.7	7.9	0.4

[a] In calculating the MV/BV ratio, the book value (BV) is calculated with a delay of one quarter after the market value (MV).

[b] Measured using gross credit.

[c] Until December 2011—net credit to the public; from December 2012—gross credit to the public.

[d] Until December 2010—net credit to the public; from December 2011—gross credit to the public.

[e] Liquid assets include cash as well as deposits at the Bank of Israel and at other banks with up to 3 months to maturity, and government bonds.

[f] Liquid liabilities include total deposits with up to 3 months to maturity.

[g] Calculated in relation to net credit.

[h] Calculated in accordance with Basel I principles.

[i] Calculated in accordance with Basel II principles.

SOURCE: Banking Supervision Department based on Central Bureau of Statistics, Bank of Israel, published financial statements, and reports to the Banking Supervision Department.

further credit to the industry. The risk of companies in the construction and real estate industries remains high compared with the risk of companies in other industries.

- Housing credit continued its sharp expansion this year, growing by 10 percent. In light of the accelerated growth in the housing credit portfolio and the increase in home prices, the Supervisor of Banks recently took two further steps intended to reduce the exposure to the risk inherent in the housing loan portfolio and to mitigate the possible ramifications of a crisis materializing in the real estate market: (1) limiting the loan to value ratio (LTV) on housing loans; and (2) updating guidelines on the capital allocation and provisions for credit losses in respect of housing loans.
- In 2012, Israel's banking system recorded a slight improvement in its relatively high level of liquidity. Most of the banks benefited from a surplus in funds this year, and increased their balance of liquid assets in shekels. The banks in Israel rely primarily on the public's deposits as their sources of funding, and less so on interbank and financial markets. Therefore, their liquidity risk is low by international comparison.

1. GLOBAL AND DOMESTIC MACROECONOMIC DEVELOPMENTS

a. The global economy

The global growth rate slowed in 2012 compared with 2011. Advanced economies grew by just 1.2 percent, while developing economies grew by 5.1 percent, a relatively low rate compared with 2011. The slowdown in the growth of global activity affected the Israeli economy mainly through the moderation in growth of world trade, which grew by just 2.8 percent—less than in the previous year.

One of the main factors in the slowdown of the global growth rate was the increasing clarity of the large dimensions of the government debt crisis in some of the eurozone countries, which led to recessions in their economies and a slowdown among other eurozone member countries. In contrast with most European countries, the growth rate in the US was slightly higher this year than in 2011, and it appears that the US economy is continuing its trend of slow recovery. With that, the concern over the "fiscal cliff", and the uncertainty regarding how the US government would deal with it, weighed on domestic demand, particularly demand for investments.

With the aim of reducing the high debt levels, governments in some advanced economies adopted policies of fiscal restraint, which made economic recovery more difficult. Therefore, most of the advanced economies continued to implement accommodative monetary policy, marked by a low interest rate environment.

During the first half of the year, with increasing concerns of a worsening of the crisis, stock prices on global markets declined. In August, markets calmed somewhat due to a series of significant steps taken by the authorities in Europe, including the formulation of a program for closer cooperation among financial regulators in the eurozone countries, including central supervision of large banks in the eurozone. Another contribution to global financial market stability came from the Federal Reserve, which declared a third program of quantitative easing in September. Owing to the quantitative easing programs, stock prices increased during the second half of the year. Over the course of the year, the MSCI developed markets share index increased by 13.2 percent, and the MSCI emerging markets index increased by 15.1 percent.

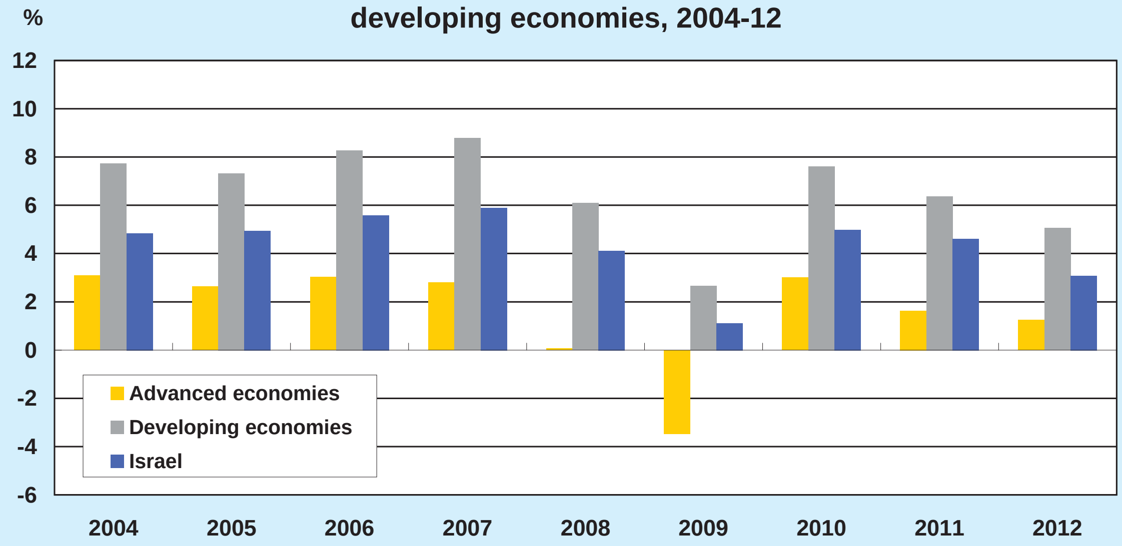
b. Israel's economy

Economic growth slowed to 3.1 percent in 2012 (Figure 1.1), mainly due to the slowdown in global growth, but also as a result of the increase in expenditure on energy product imports and a moderation in growth of the domestic construction industry. Growth in all three of the main components of GDP—exports, private consumption and investments—was slower than in 2011. Private consumption grew this year by just 2.7 percent, with a 4.5 percent decline in durable goods consumption. Fixed capital formation, which includes investment in residential buildings, increased by just 3.6 percent this year, compared with an increase of 16 percent in the previous year.

Employment increased rapidly by 3.4 percent during the year. The labor force participation rate increased, and the unemployment rate remained stable at a low level (an annual average of 6.9 percent).

In response to the slowdown in the growth rate, and with inflation of 1.6 percent during the year, monetary policy acted to support economic activity. The Bank of Israel continued the trend it began during the second half of 2011, lowering the interest rate slowly—from 2.75 percent at the beginning of the year to 2 percent at the end of the year—with the aim of strengthening domestic demand in the principal industries and supporting a depreciation of the shekel. The nominal effective exchange rate remained almost unchanged at the end of the year compared with the beginning of the year, but there was significant volatility in the rate during the year. There was a 4 percent depreciation during the

Figure 1.1
Annual rates of change in GDP—Israel, advanced economies and developing economies, 2004-12



SOURCE: Foreign countries - IMF; Israel - Based on Central Bureau of Statistics.

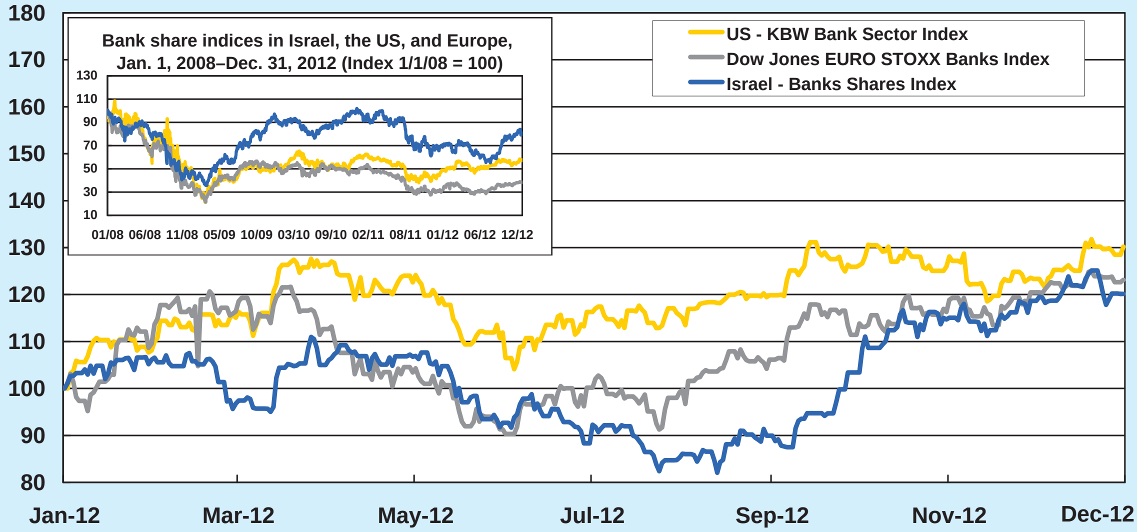
summer, which was offset by a similar rate of appreciation starting in September. This path mainly reflects developments in geopolitical risk as perceived by foreign investors.

The current account was balanced this year, following a long period during which it was in surplus. The decline in the surplus, following its contraction the previous year, derives from a sharp increase in expenditure on energy product imports and from a slowdown in exports, alongside the moderate effects that the global slowdown had on domestic uses.

Home prices increased by 5 percent in real terms this year, following a cumulative increase of about 40 percent between 2008 and 2011. Home prices began to increase again in the second half of 2012, following a decline in prices during the second half of 2011 and only a slight increase in the beginning of 2012. The number of transactions grew significantly, although there was some slowdown in construction starts. These developments were affected, inter alia, by a shortage of homes relative to the population's needs; by the limitations in the issuance of building permits, which negatively impacted the supply of homes; and by the fact that interest rates and alternative yields in the economy declined and supported demand for housing both for residential purposes and as an investment asset.

Developments in the capital and money markets in Israel during 2012 reflected developments in the global environment and Israel's geopolitical risks. Stock prices increased during the year, but at a lower rate than the increases seen globally. The Tel Aviv 100 Index increased by 7 percent. The Bank Shares Index increased by 20 percent, with volatility over the course of the year—during the first three quarters, it was marked by a downward trend, while in the fourth quarter, the index increased, similar to parallel indices in the US and Europe (Figure 1.2).

Figure 1.2
Bank share indices in Israel, the US, and Europe, January 1–December 31, 2012[a]
(Index 1/1/12 = 100)



[a] On days with no trading, the previous closing figure was used.
SOURCE: Tel Aviv Stock Exchange, finance.yahoo.com, and stoxx.com

Nominal and real yields to maturity on long-term government bonds continued to decline during the year, reaching historically low levels, but higher than the levels in advanced economies that are considered safe and stable. The corporate bond market continued to reflect the level of companies' bankruptcy risk, which has remained stable at a high level since the middle of 2011. While the yield spreads of business firms remained high and stable, the yield spreads of holding companies continued to increase markedly during the year, against the background of the high leverage rates to which these companies are exposed. The high yield spreads were reflected, inter alia, in the high number of debt restructuring proceedings. Whereas in the past two years, these proceedings included mainly real estate companies, this year, they included a wider range of companies, from various industries.

The volume of bond issues in the nonfinancial business sector[1] reached about NIS 28 billion in 2012, slightly higher than the average in the previous two years. However, excluding bond issues by the Israel Electric Corporation—which were mostly guaranteed by the government—issuance volume reached just NIS 20 billion. Net issuance in the bond market (gross issuance minus redemptions) was only about NIS 3 billion, compared to about NIS 8 billion in 2011. Total bond issues by the banks in 2012 totaled NIS 9.6 billion. There was a clear preference in 2012—as in 2011—for issues from top tier companies, and the share of issues rated AA- or higher out of total issues continued to increase to 65 percent in 2012 from 62 percent in 2011 and 44 percent in 2010. Likewise, the share of unrated issues in total issuance volume declined from 7 percent in 2011 to just 4 percent in 2012.

2. THE STRUCTURE OF THE BANKING SYSTEM IN ISRAEL

a. Description of the system

The banking system in Israel consists of five major banking groups—Leumi, Hapoalim, Discount, Mizrahi-Tefahot, and First International—which hold about 94 percent of commercial bank assets, as well as three small independent banks (Union Bank, Bank of Jerusalem, and Dexia Israel Bank) (Table 1.2 and Figure 1.3). There are also four branches of foreign banks operating in Israel.[2] These branches are a part of the system, but as the volume of their operations is low, they do not significantly contribute to competition with the Israeli banks. In addition to the branches of foreign banks, representative offices of foreign financial institutions also operate in Israel, however, these are not considered part of the banking system, since they do not provide credit in parallel with receiving deposits.

The banking corporations provide the full range of banking services, including commercial banking, mortgages and credit cards. They also deal in capital market activity (customers' activity in securities, buying and selling securities in Israel and abroad, and providing pension and investment advice), but they do not deal with insurance activities.

1 Excluding banks and insurance companies.

2 The four branches belong to four foreign banks: Barclays Capital, HSBC, Citibank, and State Bank of India. Their credit granting operations are small, both in absolute terms and compared to their total assets. They are more active with respect to deposits, constituting about 2 percent of total activity in the system. BNP Paribas closed its Israeli branch in November 2011, after 5 years of operations, but it continues to operate a representative office in Israel.

Table 1.2
Banking system structure, December 2012[a]

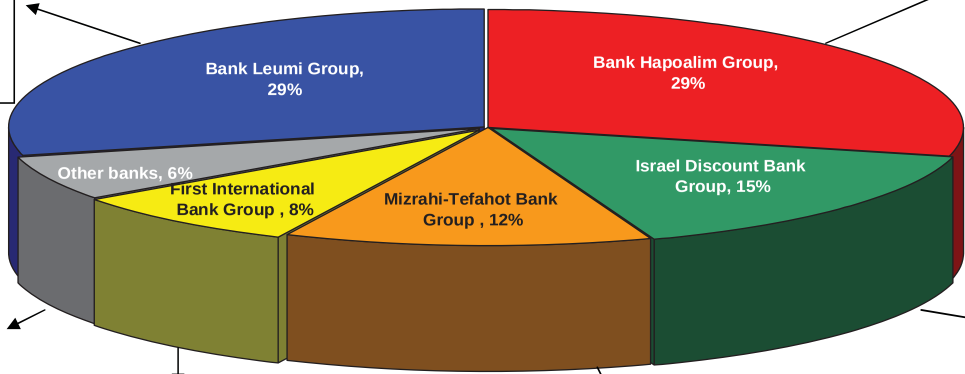
	Balance sheet data						Direct holdings[b]			Size data	
Bank	Share of total assets	Share of total bank credit	Total assets	Credit to the public	Total deposits	Equity	Interested parties' holdings[c]	Institutional investors' holdings[d]	Public holdings	Number of branches	Number of employee posts[e]
	(Percent)		(NIS million)				(Percent)				
The five major banking groups											
Leumi[f]	28.9	28.4	376,160	245,378	289,538	25,228	14.5	4.0	81.4	326	13,566
Hapoalim	28.9	29.3	376,388	253,268	271,411	25,057	23.5	6.0	70.5	316	13,629
Discount	15.4	13.9	200,880	119,696	151,935	12,134	25.2	0.0	74.8	250	10,016
Mizrahi-Tefahot	12.5	15.1	162,242	130,244	128,499	9,252	47.3	0.0	52.7	175	5,613
First International	8.1	8.0	105,387	68,715	84,365	6,772	80.0	0.0	20.0	181	5,186
Total for the five major banking groups	**93.9**	**94.6**	**1,221,057**	**817,301**	**925,748**	**80,443**				**1,248**	**48,010**
The independent banks											
Union Bank of Israel	3.0	2.8	38,825	23,858	30,890	2,191	75.1	0.2	24.7	36	1,284
Bank of Jerusalem	0.9	1.1	12,292	9,672	9,814	694	91.6	0.0	8.4	17	479
Dexia Israel Bank	0.6	0.7	8,284	6,110	3,451	716	65.3	0.0	34.7	1	45
Total for the three independent banks	**4.6**	**4.6**	**59,401**	**39,641**	**44,155**	**3,601**				**54**	**1,808**
Total of foreign bank branches	**1.6**	**0.8**	**20,212**	**6,755**	**17,957**					**4**	
Total for banking system	**100.0**	**100.0**	**1,300,669**	**863,696**	**987,860**	**84,044**				**1,306**	**49,818**

[a] Financial data for the five major banking groups is on a consolidated basis, and the number of branches and employee posts include all banks belonging to the group.
[b] Based on reports to the stock exchange and published financial reports, as of the end of 2012.
[c] An "interested party" is defined as someone holding five percent or more of the issued share capital of a corporation or of voting rights in the corporation. Reporting on interested parties' holdings includes the holdings of the CEO and directors.
[d] As defined in Regulation 33(i) of the Securities Regulations (Periodic and Immediate Reporting), 5730-1970.
[e] On a monthly average basis.
[f] Bank Leumi is the only banking group in the system where there is still a government holding (about six percent of the bank's capital).
SOURCE: Based on published financial statements, reports to the Banking Supervision Department, and reports to the stock exchange.

Figure 1.3

The structure of Israel's banking system and investments in main investee companies[a], December 2012

Total assets: NIS 1,301 billion
Herfindahl index: H = 0.217
CR_2 = 58%



Bank Leumi Group

A. Banking and finance in Israel
Bank Leumi Le-Israel Ltd. (1)
Arab Israel Bank Ltd. (1)
Leumi Mortgage Bank Ltd. (merged with Bank Leumi Le-Israel Ltd. as of December 31, 2012) (2)
Leumi Leasing and Investments Ltd. (3)
Leumi Finance Company Ltd. (4)
Leumi Industrial Development Bank Ltd. (7)
Leumi Real Holdings Ltd. (7)
Leumi Financial Holdings Ltd. (7)
B. Banking and finance abroad (6)
Bank Leumi (USA)
Bank Leumi (UK) plc
Leumi Private Bank S.A.
Bank Leumi Luxembourg
Bank Leumi Romania
Leumi International Investments NV
Leumi Re Limited (9)
C. Capital market and financial companies
Leumi Card Ltd.(5)
Leumi Securities and Investments Ltd. (9)
Leumi Capital Market Services Ltd. (9)
The Bank Leumi Le-Israel Trust Co Ltd. (9)
Leumi Partners Ltd. (7)(9)
D. Non-banking corporations
The Israel Corporation Ltd.

Bank Hapoalim Group

A. Banking and finance in Israel (1)
Bank Hapoalim Ltd.
B. Banking and finance abroad (6)
Bank Hapoalim (Switzerland) Ltd.
Bank Hapoalim (Luxembourg) Ltd.
Bank Hapoalim (Cayman Islands) Ltd.
Bank Hapoalim (Latin America) S.A.
Bank Pozitif Kredi Ve Kalkinma Bankasi A.S. (with a holding in JSC Bank Pozitif)
C. Capital market and financial companies (9)
Isracard (5)
Poalim Express Ltd. (5)
Poalim Capital Markets Ltd. (8)
Poalim Sahar Ltd. (9)
The Bank Hapoalim Trust Co Ltd. (9)
Poalim Asset Management (9)
Poalim Securities Ltd. (8)
Peilim Investment Portfolio Mgt. (9)

Other banking corporations

A. Banking and finance in Israel (1)
Union Bank of Israel Ltd.
Bank of Jerusalem Ltd.
Dexia Israel Bank Ltd.
B. Foreign banks
Citibank N.A.
HSBC Bank PLC
Barclays Capital PLC
State Bank of India
C. Financial institutions
'Hesech' Kupat Hisachon Lehinuch Ltd.
D. Joint service companies owned by the five major banking groups
Automated Clearing House (Masav) Ltd.
Automated Banking Services (Shva) Ltd.

First International Bank Group

A. Banking and finance in Israel (1)
The First International Bank of Israel
Poalei Agudat Israel Bank Ltd.
U–Bank (Israel) Ltd.
Otsar Hahayal Bank Ltd.
Bank Massad Ltd.
B. Banking and finance abroad (6)
FIBI Bank (UK) plc
FIBI Bank (Switzerland) Ltd.
C. Capital market and financial companies (9)
The First International Leasing Ltd. (9)
Modus Selective Investment Management and Investment Consulting (9)
U–Bank Investments and Holdings Ltd. (9)
U–Bank Trust Company Ltd. (9)
Cal (Cartisey Ashrai Le'Israel)–Israel Credit Cards Ltd. (5)

Mizrahi-Tefahot Bank Group

A. Banking and finance in Israel (1)
Mizrahi-Tefahot Bank Ltd.
Bank Yahav for Government Employees Ltd.
B. Banking and finance abroad (6)
United Mizrahi Bank (Switzerland) Ltd
C. Capital market and financial companies (9)
'Etgar' Portfolio Management Ltd. (4)
Mizrahi-Tefahot Issuing Company Ltd. (4)
'Tefahot' Insurance Agency Ltd. (9)
Mizrahi-Tefahot Factoring (9)
Rosario Capital Ltd. (9)
Mizrahi-Tefahot Management Ltd. (9)
D. Non-banking corporations (consolidated companies)
Pesagot Jerusalem Ltd.

Israel Discount Bank Group

A. Banking and finance in Israel (1)
Israel Discount Bank Ltd.
Mercantile Discount Bank Ltd.
The First International Bank of Israel
B. Banking and finance abroad (6)
Israel Discount Bank of New York
Discount Bank (Latin America)
IDB (Swiss) Bank Ltd.
C. Capital market and financial companies
Discount Leasing Ltd. (9)
Manpikim—Discount Bank Issues Corporation (9)
Discount Israel Capital Markets and Investments Ltd.(9)
Tachlit Discount Portfolio Management Ltd. (9)
Cal (Cartisey Ashrai Le'Israel)–Israel Credit Cards Ltd. (5)
Diners Club Israel Ltd. (5)
Discount Trust Ltd. (9)

Definitions
(1) Commercial banks
(2) Mortgage banks
(3) Investment finance banks
(4) Financial institutions
(5) Credit card companies
(6) Subsidiaries abroad
(7) Consolidated holding companies
(8) Investment houses
(9) Capital market companies, including companies supplying operating services to institutions, and underwriting, trust, leasing, insurance agencies, insurance, and asset management companies.

[a] **Groups on consolidated basis. The calculation is based on total assets.**
SOURCE: Banking Supervision Department based on published financial reports.

Over the past decade, the major banks merged with or acquired all of the mortgage banks as part of a process to increase efficiency and to exploit economies of scale. The activities of the mortgage banks were integrated into the activities of the merging or acquiring bank. In 2012, Discount Mortgage Bank was merged into Bank Discount, and Leumi Mortgage Bank was merged into Bank Leumi. With the completion of these mergers, the process of merging all of the mortgage banks operating in Israel was completed.

The domestic Israeli banking system is therefore concentrated in a small number of large banks, which operate throughout Israel via 1,306 branches. These branches provide most of the banking services both to the business sector and to households. In addition to the branches, there are about 5,800 automated teller machines throughout Israel for withdrawing money, and about 2,240 other machines that provide information and allow the self-execution of financial activities and provision of other banking services. The work of the branches and automated machines is assisted by, among other things, advanced and secure Internet services, services provided through mobile devices, and staffed call centers that enable customers to execute banking activity during most hours of the day, including when the bank branches are closed.

The major Israeli banks also operate abroad, via branches and subsidiary companies (representative offices).[3] However, this activity, despite its widespread deployment and the marked investment in it, has not succeeded in creating significant and stable profit centers. The attempts by Israeli banks to penetrate the market abroad have not succeeded in any great measure, and the share of foreign representative office assets out of the total assets of the banking system is in decline.

b. Concentration and competition in the system

Concentration in the banking system is among the factors that affect the level of competition in the system.[4] Concentration is commonly measured through two indices. The first is the Herfindahl-Hirschman Index (H Index)[5], which is calculated here on the total assets of the banks. The second—the concentration ratio (CR_2)[6]—measures the market share of the two largest banks (Leumi and Hapoalim) out of total assets. As of the end of 2012, there were slight increases in the two indices: the H Index to 0.20, and CR_2 to 0.58 (Figure 1.4). This increase continued the increase in these indices in the second half of 2011, following a gradual decline since 2004. An international comparison according to the H Index on a bank by bank basis shows that concentration in the Israeli banking system is markedly higher than the average in EU countries (Figure 1.5).

In March 2013, the final report of the Team to Examine Increasing Competitiveness in the Banking System was published. The team's findings showed that the main source of credit for the banks' retail activity sectors—households and small businesses—is the banking system. As such, and in light of the relatively high level of concentration within the banking system, there is a concern that the level

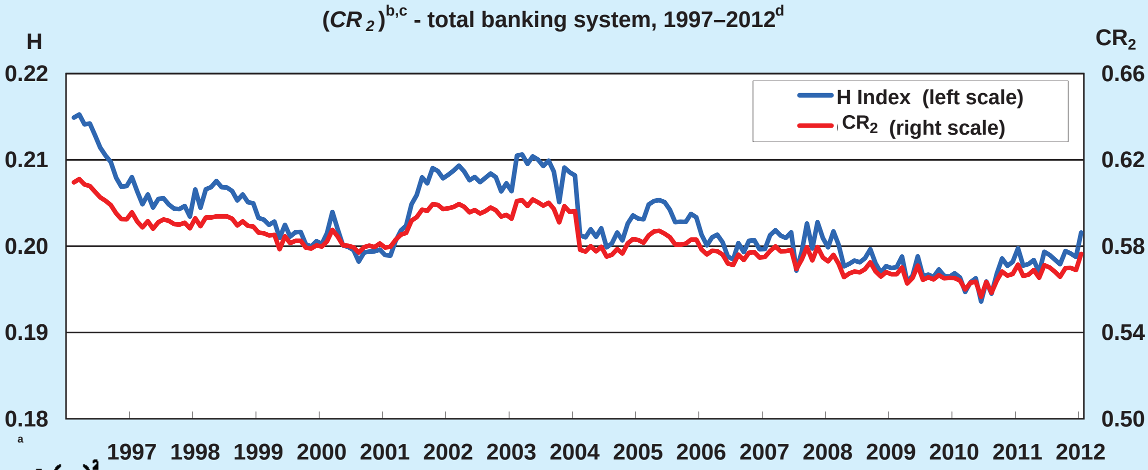
3 These representative offices are mainly in the US, Switzerland and the UK.

4 This is in line with the Structure Conduct Performance (SCP) approach, which maintains that there is a connection between the structure of the banking system, the bank's conduct and its performance. According to this approach, the more concentrated the banking system is, the greater the ability of the banking corporations to use market force and present better performance. Other approaches, in contrast, hold that there is not necessarily a connection between the levels of concentration and competition in the system.

5 $\sum_{i=1}^{n}\left(\frac{y_i}{y}\right)^2 = H$ where y_i = output of bank i (total assets) and y = the industry's output.

6 CR_2 = The market share of the two largest banks in the system (Leumi and Hapoalim).

Figure 1.4
The Herfindahl-Hirschman (*H*) Index[a,c] and the Market Share Index for the two largest banks (CR_2)[b,c] - total banking system, 1997–2012[d]



[a] $\sum_{i=1}^{n}\left(\frac{y_i}{y}\right)^2 = H$ = The Herfindahl-Hirschman Index of industry concentration, where y_i = output of bank *i* (total assets) and *y* = the industry's output.

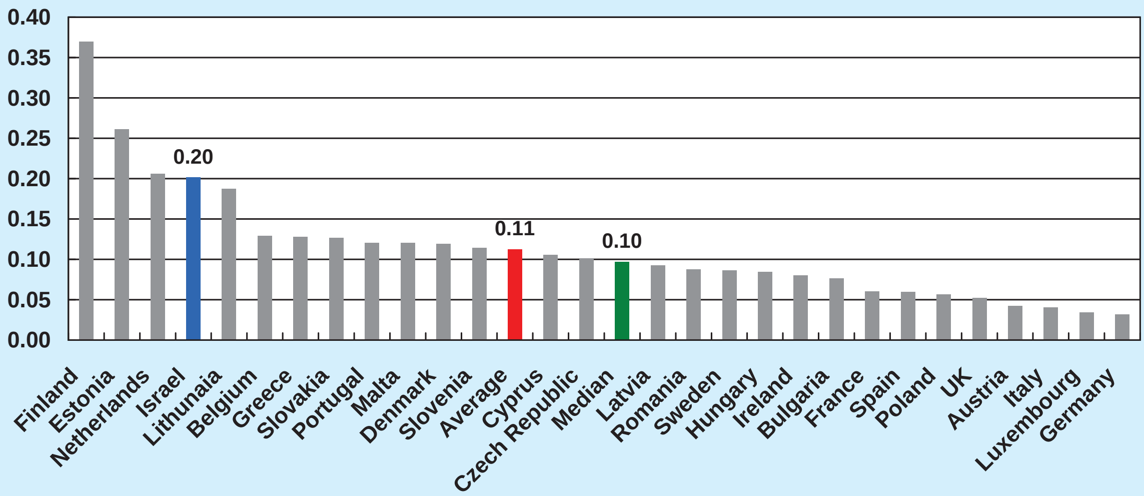
[b] CR_2 = The market share of the two largest banks in the system (Leumi and Hapoalim).

[c] Calculated based on the total assets of the commercial banks.

[d] In 2012, the indices were affected, *inter alia*, by the completion of the mergers of Discount Mortgage Bank and Leumi Mortgage Bank into their parent banks.

SOURCE: Based on published financial statements, and reports to the Banking Supervision Department.

Figure 1.5
International comparison: The Herfindahl-Hirschman (*H*) Index[a] in EU countries and Israel, 2011[b]



[a] Calculated based on total assets of the commercial banks.

[b] The figure for Israel is as of December 2012, is calculated based on the total assets of commercial banks, and does not include activity of foreign banks in Israel. Figures for other countries are as of December 2011, and include activity of foreign banks in each country.

SOURCE: Foreign countries—ECB; Israel—published financial statements and Banking Supervision Department calculations.

of competition in these sectors is low. As such, the team focused its work and recommendations on promoting competition in the field of savings, credit and payment system services to these sectors, both within the banking system and outside it. (A more in-depth discussion can be found in Box 2.3.)

3. MAIN DEVELOPMENTS IN BALANCE-SHEET AND OFF-BALANCE-SHEET ACTIVITY

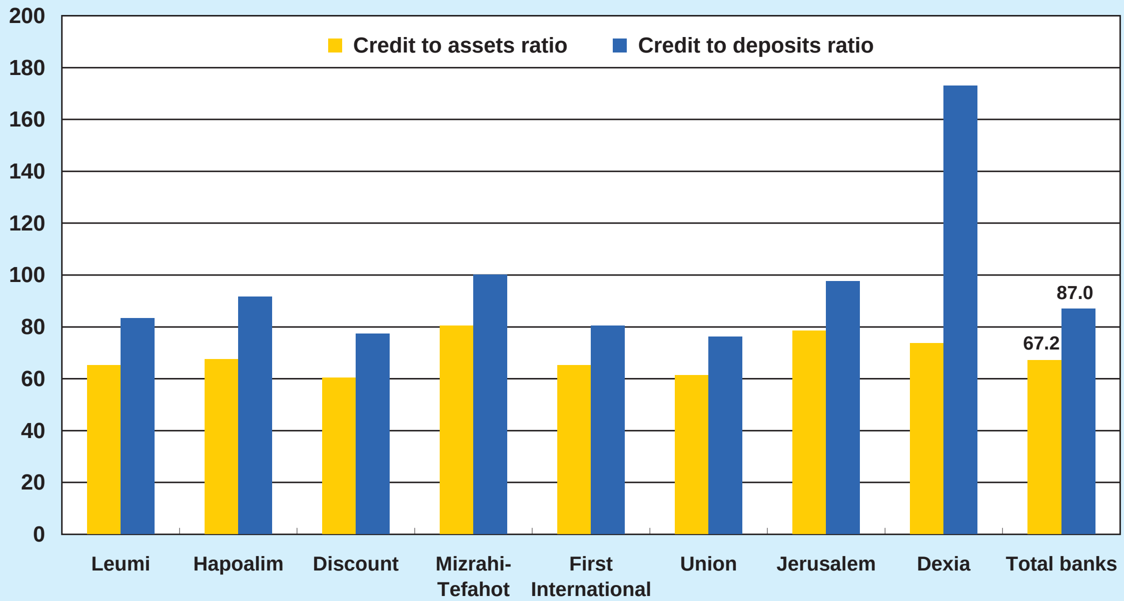
a. Balance-sheet activity

The total aggregate balance sheet of the banking corporations in Israel increased in 2012 by about 3.7 percent, to about NIS 1.3 trillion (Table 1.3). The balance sheet growth rate this year was similar to the average rate during the past decade (4 percent), but is lower than the rate in 2011 (10.1 percent). Asset growth this year stemmed mainly from sharp growth in the securities portfolio (16.5 percent), but also from slight growth in credit to the public (2 percent), most of which is a result of growth in housing credit.

The composition of the balance sheet maintained its familiar structure this year, reflecting a conservative banking system that relies for the most part on the classic activities of providing credit and taking deposits. This is expressed in the high share of credit to the public out of total assets—about 67 percent this year (Figure 1.6)—and the low and stable share of credit to the public out of total public deposits, which was about 87 percent this year (as a result of the wide base of public deposits existing in the Israeli banking corporations, which serves as their main source of funding).

Balance-sheet developments were affected this year by a range of factors that created a funds surplus in the banking system. Similar to last year, the surplus of funds was created from the positive gap

Figure 1.6
Credit to deposits ratio and credit to assets ratio, the five major banking groups and the three independent banks, December 2012



SOURCE: Based on published financial statements.

Table 1.3
Balance sheet of the Israeli banking system[a], 2010–12

	Current prices			Rate of change during 2011	Rate of change during 2012	Distribution		
	2010	2011	2012			2010	2011	2012
	(NIS million)			(Percent)		(Percent)		
Assets								
Cash and deposits at banks	135,648	182,944	184,764	34.9	1.0	12.1	14.8	15.0
Of which:								
Cash[b]	110,686	155,748	158,085	40.7	1.5	81.6	85.1	85.6
Deposits at commercial banks	23,814	26,626	26,367	11.8	-1.0	17.6	14.6	14.3
Securities	154,358	154,428	180,084	0.1	16.5	13.8	12.5	14.1
Of which:								
Securities provided as collateral to lenders	13,388	13,563	13,688	1.3	0.9	8.7	8.8	7.6
At fair value	31,781	44,810	46,995	41.0	4.9	20.6	29.0	26.1
Securities borrowed or bought under agreements to resell	3,429	3,021	3,076	-11.9	1.8	0.3	0.2	0.2
Credit to the public[c]	809,217	839,202	856,942	-	2.1	72.1	68.0	66.9
Allowance for credit losses[c]	35,469	13,084	13,230	-	1.1	3.2	1.1	1.0
Net credit to the public	773,748	826,117	843,712	6.8	2.1	69.0	66.9	65.9
Of which:								
Unindexed local currency	435,412	466,654	490,922	7.2	5.2	56.3	56.5	58.2
CPI-indexed local currency	186,375	195,068	203,564	4.7	4.4	24.1	23.6	24.1
Foreign-currency indexed and denominated	150,904	163,633	148,336	8.4	-9.3	19.5	19.8	17.6
Of which: In dollars	103,856	115,098	103,159	10.8	-10.4	68.8	70.3	69.5
Nonmonetary items	1,057	763	890	-27.8	16.6	0.1	0.1	0.1
Credit to governments	2,379	2,910	3,256	22.3	11.9	0.2	0.2	0.3
Investments in subsidiary and affiliated companies	4,141	4,437	4,417	7.1	-0.5	0.4	0.4	0.3
Buildings and equipment	13,862	13,783	13,777	-0.6	0.0	1.2	1.1	1.1
Intangible assets	1,029	1,114	1,050	8.3	-5.7	0.1	0.1	0.1
Assets in respect of derivative instruments	22,372	30,748	29,593	37.4	-3.8	2.0	2.5	2.3
Other assets	10,851	15,272	16,728	40.7	9.5	1.0	1.2	1.3
Total assets	**1,121,817**	**1,234,874**	**1,280,458**	**10.1**	**3.7**	**100**	**100**	**100**
Liabilities and equity								
Deposits of the public	847,077	933,625	969,903	10.2	3.9	75.5	75.6	75.7
Of which:								
Unindexed local currency	473,083	538,690	572,833	13.9	6.3	55.8	57.7	59.1
CPI-indexed local currency	95,056	95,417	95,990	0.4	0.6	11.2	10.2	9.9
Foreign-currency indexed and denominated	277,826	298,639	299,926	7.5	0.4	32.8	32.0	30.9
Of which: In dollars	204,048	222,005	223,611	8.8	0.7	73.4	74.3	74.6
Deposits from banks	15,832	20,203	17,746	27.6	-12.2	1.4	1.6	1.4
Deposits from governments	3,431	3,236	2,878	-5.7	-11.1	0.3	0.3	0.2
Securities lent or sold under agreements to repurchase	8,619	8,447	7,575	-2.0	-10.3	0.8	0.7	0.6
Bonds and subordinated notes	88,862	100,061	103,124	12.6	3.1	7.9	8.1	8.1
Liabilities in respect of derivative instruments	28,772	36,298	35,849	26.2	-1.2	2.6	2.9	2.8
Other liabilities	54,683	56,933	59,338	4.1	4.2	4.9	4.6	4.6
Of which: Allowance for credit losses in respect of non-balance sheet credit instruments	784	1,237	1,262	57.7	2.0	0.1	0.1	0.1
Total liabilities	**1,047,275**	**1,158,803**	**1,196,414**	**10.6**	**3.2**	**93.4**	**93.8**	**93.4**
Minority interest	1,759	1,429	1,555	-18.8	8.8	0.2	0.1	0.1
Shareholders equity	72,783	74,642	82,489	2.6	10.5	6.5	6.0	6.4
Total liabilities and equity	**1,121,817**	**1,234,874**	**1,280,458**	**10.1**	**3.7**	**100**	**100**	**100**

[a] On a consolidated basis. Includes the five major banking groups (Leumi, Hapoalim, Discount, First International and Mizrahi-Tefahot), Union Bank, Bank of Jerusalem and Dexia Bank, but does not include branches of foreign banks operating in Israel.

[b] Including deposits at the Bank of Israel.

[c] In light of the implementation of the reporting to the public directive, "Measurement and disclosure of impaired debts, credit risk, and allowance for credit losses", figures for 2010 can not be compared to figures from later years.

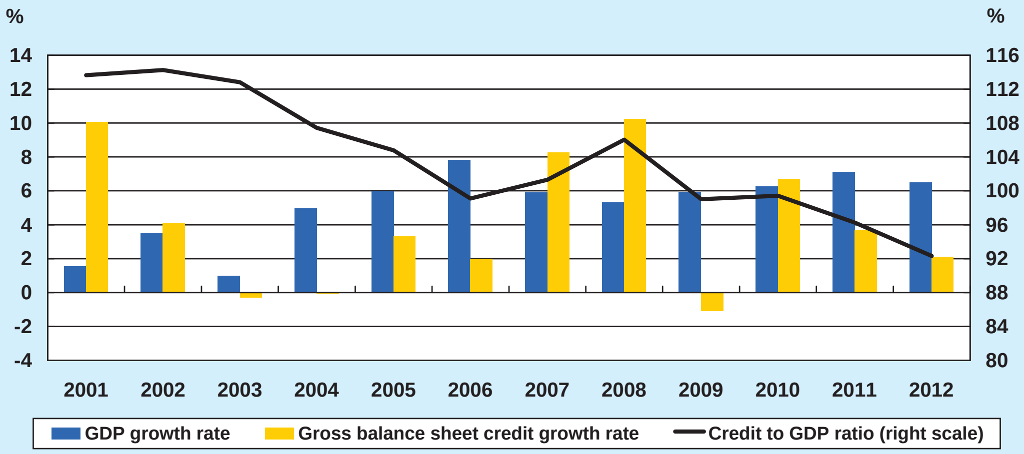
SOURCE: Banking Supervision Department based on published financial statements.

between the volume of the public's deposits raised and capital accumulated and the rate of growth in the supply of credit to the public. However, in contrast to last year, the volume of the public's deposits raised moderated and declined to an average level, and the growth rate of credit to the public was low. The development of the balance sheet over the past two years could indicate a decline in the appetite for risk at some of the banking corporations during that period, and a preference for investing their funds in low-risk assets. As such, the funds surplus last year was directed toward increasing cash balances and deposits with the Bank of Israel, while this year, they were directed for the most part to increasing Israel government bond holdings in the securities portfolio.

As noted, various factors stand behind these developments. Two are on the liabilities side. The first is the growth in deposits of the public (about 4 percent). Though this growth was moderate compared to last year (about 10 percent), it constituted a direct continuation of the growth trend that has marked deposits over the past ten years. The increase in the past two years occurred mainly because bank deposits are considered low-risk, and individuals preferred them, notwithstanding their low rates of return. This preference apparently developed in view of geopolitical developments and the uncertainty prevalent in capital markets in recent years, which was reflected in volatility and price declines in the stock market in 2011, and a mixed trend in stock and bond markets in 2012.

The second factor on the liabilities side is the deliberate increase in capital by the banking corporations (about 10.5 percent) most of which was created by retaining earnings without distributing dividends. This is a direct result of the banking corporations' preparations for the implementation of the new requirements by the Banking Supervision Department regarding minimum capital ratios. These requirements were issued within the framework of adopting and implementing the Basel III guidelines in Israel's banking system.

Figure 1.7
Growth rates of nominal GDP and balance sheet credit to the public, and credit to GDP ratio[a], the five major banking groups, 2001–12



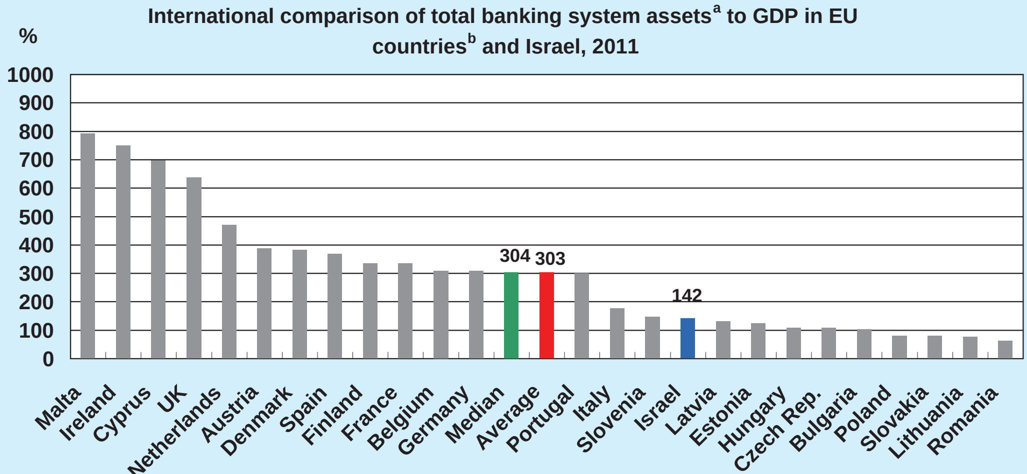
[a] By gross credit.
SOURCE: Based on published financial statements and Central Bureau of Statistics.

Among the factors on the assets side, of particular note is the low rate of growth in credit to the public (about 2 percent; Figure 1.7). This was affected by the decline in business sector demand for bank credit in some industries (due to the slowdown in the growth rate of business sector product), and by the virtual standstill in the volume of credit to the business sector in light of the risk level of business borrowers and perhaps also as a result of an intentional step intended to minimize the exposure to risk.

An assessment of credit by indexation segments indicates growth in the balance of credit in the CPI-indexed and unindexed shekel segments and a contraction in the foreign currency segment. The low interest and inflation rates, and the decline in inflation uncertainty, contributed to the continued growth trend in demand for unindexed shekel-denominated credit (about 5.2 percent), and its share of total credit to the public was about 58 percent this year (Table 1.3). CPI-indexed credit increased by about 4.4 percent this year, despite the decline in business sector demand for bank credit, and derived partially from growth in CPI-indexed credit granted as housing credit. Foreign currency denominated and indexed credit declined by about 9.3 percent this year. This derived mostly from the decline in demand for dollar-denominated credit in light of the decline in domestic demand and the resulting slowdown in imports. It also partly derived from the revaluation of credit denominated and indexed in foreign currency in light of the nominal appreciation of the shekel against the dollar.

An international comparison and assessment of the volume of the banking system's assets relative to economic activity in Israel and in European Union countries indicates that there is a gap between the high level of the assets to GDP ratio in European countries (365 percent) and the low level in Israel (142 percent). It also shows that the level in Israel is more similar to that of banking systems in developing

Figure 1.8
International comparison of total banking system assets[a] to GDP in EU countries[b] and Israel, 2011



[a] Total assets are calculated on a consolidated basis and include all banking groups and independent banks operating in the domestic economy, as well as subsidiaries and banking branches controlled by foreign corporations and operating in the domestic economy.
[b] For Luxembourg (which does not appear in the graph), the ratio is 1,866. Sweden and Greece are not included due to the absence of data.
SOURCE: Foreign countries - the European Central Bank (ECB) and Eurostat; Israel - published financial reports and Central Bureau of Statistics.

economies in Europe than it is to advanced economies in Europe (Figure 1.8). While high levels of asset to GDP ratio and credit to GDP ratio may be an indication of a high extent of financial intermediation, levels that are too high are liable to expose the domestic economy to risk. This risk is related to the ability of authorities to provide assistance, if needed, to the large banking corporations and the entire banking system (Too Big to Save).

b. Off-balance-sheet activity

Total guarantees and commitments to provide credit increased slightly by about 3 percent this year, and totaled about NIS 457 billion. This activity is directly connected to developments in balance-sheet credit to the public. In particular, it brings into sharp focus the extent of housing credit activity this year, which was reflected in growth of 14 percent in guarantees to those purchasing homes, and the slowdown in business activity, which was reflected in the decline in documentary credit (24 percent) and in credit guarantees (12 percent; Table 1.4).

The volume of banking corporation activity in derivative instruments in notional amounts grew slightly during the year by about 1.5 percent, to NIS 1.7 trillion (Table 1.5). Most of the increase was due to activity in interest rate contracts, which was offset by a decline in the volume of activity in exchange rate contracts.

Table 1.4
Transactions in off-balance-sheet financial instruments (credit risk) total banking system[a], 2011 and 2012

	End of year balance		Rate of change	Distribution	
	2011	2012		2011	2012
	(NIS million)		(percent)	(percent)	
Documentary credit	7,243	5,494	-24.1	1.6	1.2
Credit guarantees	21,846	19,289	-11.7	4.9	4.2
Guarantees for home purchasers	40,057	45,827	14.4	9.0	10.0
Other guarantees and liabilities	68,839	72,892	5.9	15.5	16.0
Unutilized credit card lines of credit	92,226	94,423	2.4	20.8	20.7
Unutilized lines of credit to the public	85,103	91,236	7.2	19.2	20.0
Irrevocable commitments to provide credit that has not yet been extended	87,626	84,968	-3.0	19.8	18.6
Commitments to issue guarantees	40,223	42,423	5.5	9.1	9.3
Total	**443,163**	**456,551**	**3.0**	**100**	**100**

a) The five major banking groups, Union Bank, Bank of Jerusalem and Dexia Israel Bank.
Source: Banking Supervision Department based on published financial reports.

Table 1.5
Distribution of the balance of derivative instruments, Israel's banking system[a], 2012 compared with 2011
(NIS million)[b]

	By type of instrument		Rate of change compared with 2011	By type of transaction			Rate of change compared with 2011
	2011	2012			2011	2012	
Interest rate contracts	697,848	832,458	19.3	Hedging derivatives[d]	17,972	21,069	17.2
Exchange rate contracts	811,518	669,736	-17.5	ALM derivatives[d,e]	1,460,998	1,482,539	1.5
Other contracts[c]	176,672	209,757	18.7	Other derivatives[f]	207,068	208,344	0.6
Total	**1,686,038**	**1,711,951**	**1.5**	**Total**	**1,686,038**	**1,711,951**	**1.5**

[a] Includes the five major banks and the independent banks (Union, Jerusalem and Dexia).
[b] In notional amounts, at current prices.
[c] Contracts in respect of shares, commodity contracts and other contracts.
[d] Excluding credit derivatives.
[e] Derivatives constituting part of the bank's assets and liabilities, for which hedging ratios were not designated.
[f] Including credit derivatives and currency swaps.
SOURCE: Banking Supervision Department based on published financial statements.

4. THE CREDIT PORTFOLIO AND CREDIT RISK

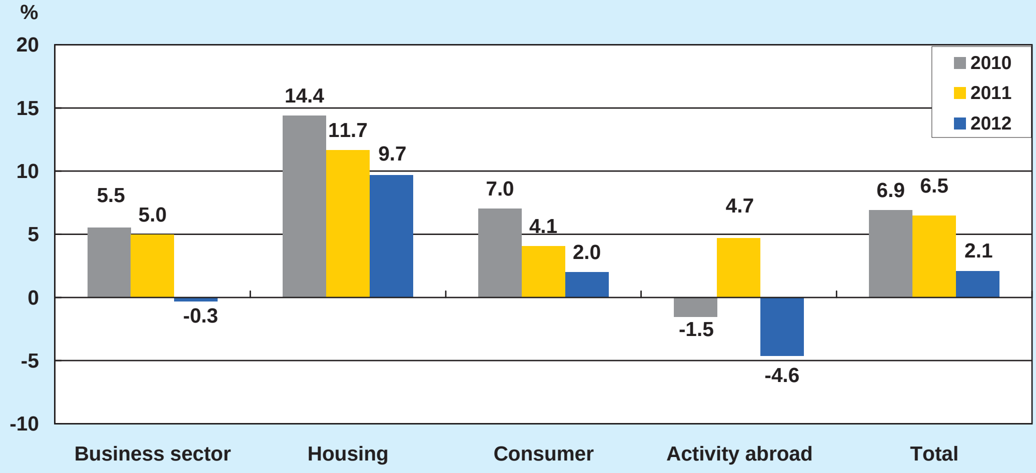
a. Main developments in the bank credit portfolio

In 2012, the total credit portfolio[7] of the five major banking groups grew by only 2 percent, to NIS 1,241 billion. Outstanding balance-sheet credit[8] grew at a similar rate, to about NIS 819 billion. The development of the credit portfolio this year was a result of the continued growth in housing loans, the freeze in business credit and the continued reduction of the banks' exposure to borrowers whose main activity is located abroad (Figure 1.9; Table 1.6). Recent years have seen double digit growth rates in housing credit. This trend continued in 2012, with housing credit growing by 10 percent. In contrast, credit to the business sector did not grow, despite the growth in business sector product. As a result, the ratio of business sector bank credit to business sector product declined from 62 percent to 58 percent. Against the background of the expansion of the housing loan portfolio, the reduction in exposure to borrowers whose main activity is located abroad, and the past few years' moderate growth rates of business sector credit, there was a sharp change in the composition of the bank credit portfolio: between 2008 and 2012, the share of housing credit grew from 20 percent to 28 percent, at the expense of the share of business sector credit and credit to borrowers whose main activity is located abroad (Figure 1.10).

7 Total credit portfolio includes total balance-sheet credit to the public, investment in corporate bonds, other assets in respect of derivative instruments, and credit risk from off-balance-sheet financial instruments as calculated for the purpose of the limit on a borrower's indebtedness.

8 Outstanding balance-sheet credit (debts) includes credit to the public, excluding bonds and securities that were borrowed or purchased as part of reverse repurchase agreements.

Figure 1.9
Annual change in balance-sheet credit to principal sectors, the five major banking groups, December 2010–December 2012



SOURCE: Based on published financial reports and reports to the Banking Supervision Department.

Table 1.6
Distribution of outstanding credit to the public by principal industries, the five major banking groups, December 2011 and December 2012

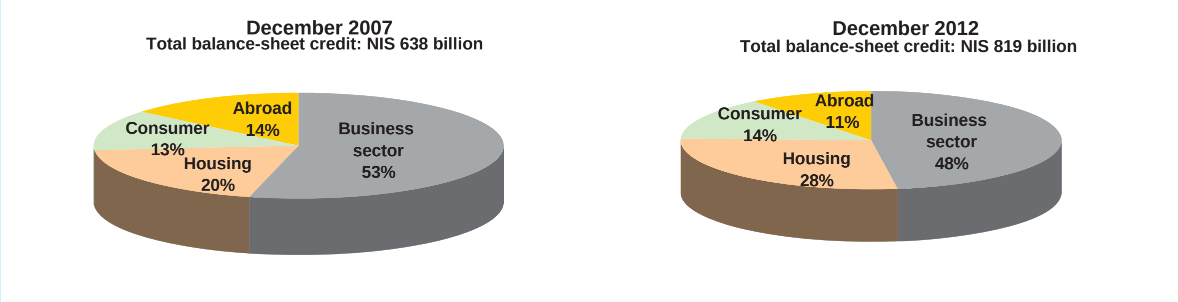
	Total balance of credit risk[a]					Balance-sheet credit to the public[b] (debts)				
	Balance		Distribution of credit to the public		Change in credit	Balance		Distribution of credit to the public		Change in credit
Principal industries	2011	2012	2011	2012	2012	2011	2012	2011	2012	2012
	(NIS million)		(percent)		(percent)	(NIS million)		(percent)		(percent)
Borrower activity in Israel	**1,062,046**	**1,088,004**	**87.0**	**87.6**	**2.4**	**711,515**	**732,593**	**88.7**	**89.5**	**3.0**
Business sector	**632,938**	**631,853**	**51.9**	**50.9**	**-0.2**	**393,100**	**391,901**	**49.0**	**47.9**	**-0.3**
Agriculture	7,626	7,400	0.6	0.6	-3.0	6,173	5,982	0.8	0.7	-3.1
Manufacturing	117,733	109,933	9.6	8.9	-6.6	69,511	65,457	8.7	8.0	-5.8
Construction and real estate	202,290	203,943	16.6	16.4	0.8	113,363	111,252	14.1	13.6	-1.9
Of which: Construction	126,512	134,856	10.4	10.9	6.6	47,900	50,328	6.0	6.1	5.1
Real estate	75,778	69,087	6.2	5.6	-8.8	65,463	60,924	8.2	7.4	-6.9
Electricity and water	13,921	19,613	1.1	1.6	40.9	6,013	8,263	0.8	1.0	37.4
Commerce	77,682	81,213	6.4	6.5	4.5	57,820	61,993	7.2	7.6	7.2
Tourism	14,585	14,172	1.2	1.1	-2.8	12,697	12,453	1.6	1.5	-1.9
Transport and storage	19,550	20,220	1.6	1.6	3.4	15,055	16,038	1.9	2.0	6.5
Communications and computer services	27,627	22,373	2.3	1.8	-19.0	18,023	16,262	2.2	2.0	-9.8
Financial services	97,120	96,122	8.0	7.7	-1.0	53,307	51,821	6.6	6.3	-2.8
Other business services	33,836	35,205	2.8	2.8	4.0	24,612	25,553	3.1	3.1	3.8
Public and community services	20,968	21,659	1.7	1.7	3.3	16,526	16,827	2.1	2.1	1.8
Private individuals	**429,108**	**456,151**	**35.2**	**36.7**	**6.3**	**318,415**	**340,692**	**39.7**	**41.6**	**7.0**
Of which: Housing loans	215,806	237,034	17.7	19.1	9.8	206,180	226,195	25.7	27.6	9.7
Non-housing loans	213,302	219,117	17.5	17.6	2.7	112,235	114,497	14.0	14.0	2.0
Borrowers' activity abroad	**158,069**	**153,457**	**13.0**	**12.4**	**-2.9**	**90,196**	**86,063**	**11.3**	**10.5**	**-4.6**
Total	**1,220,115**	**1,241,461**	**100.0**	**100.0**	**1.7**	**801,711**	**818,656**	**100.0**	**100.0**	**2.1**

[a] Includes balance-sheet and non-balance-sheet credit risk.

[b] Includes credit to the public, excludes bonds and securities borrowed or purchased under reverse repurchase agreements.

SOURCE: Banking Supervision Department based on published financial reports.

Figure 1.10
Distribution of balance-sheet credit



SOURCE: Published financial reports and reports to the Banking Supervision Department.

(1) Business sector credit

Total balance-sheet credit to the business sector remained unchanged in 2012, totaling NIS 392 billion. The development of business credit in the various industries was not uniform: Credit to the commerce industry expanded by 7 percent, continuing the trend of the previous two years, while credit to the construction industry[9] grew by 5 percent. In contrast, credit to the communications industry contracted by 10 percent, and credit to the real estate industry[10] contracted by 7 percent.

Some of the business credit provided by the banks to their customers is leveraged credit.[11] This includes, among other things, credit for the acquisition of means of control of a corporation, which declined—by NIS 4 billion this year—to NIS 19 billion, constituting about 5 percent of the business sector credit portfolio. Some of the leveraged credit transactions involve holding companies. During 2012, the increase in holding companies' risk continued, and the high level of this risk was prominent compared to other industries. The deterioration in the quality of these companies' debts is reflected in the bond yield spreads (Figure 1.11), in debt restructuring proceedings in the bond market, in an increase in the internal rating of the companies' bank credit risk[12] (Figure 1.13), in the classification of some of the bank debt of the companies as problematic, and in the write-offs and credit loss allowances.

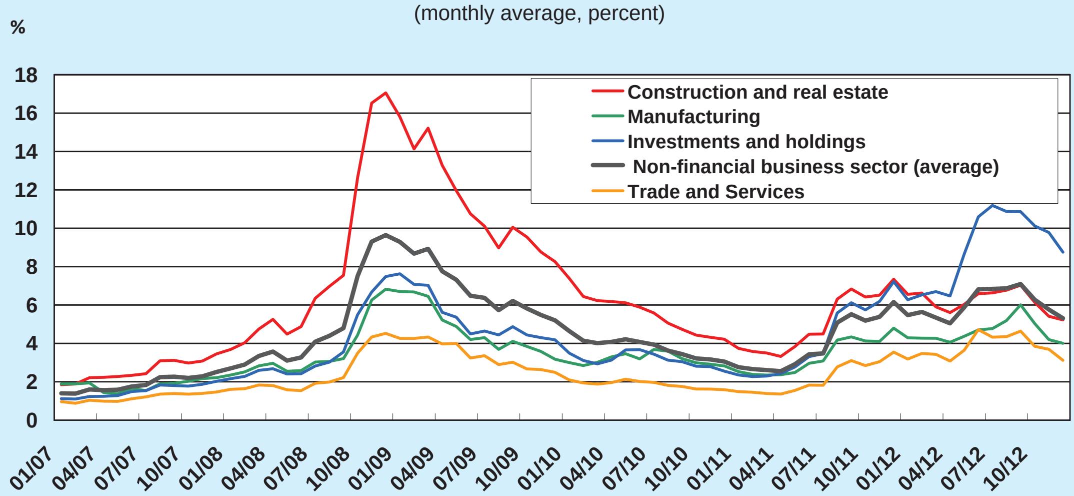
9 Most of which was in construction activity (development work at building sites; the construction of complete buildings or partial buildings; carpentry and metal work; installation of water, electricity and air conditioning facilities and other systems; building completion; renovations and repairs to buildings; and the erection, assembly and positioning of prefab buildings) and civil engineering work (earthworks, paving and infrastructure; other engineering work; and the rental of construction or demolition equipment with operators).

10 Trade and intermediation in real estate, rental, management and maintenance, rent collection and connected activity.

11 This credit includes transactions whose level of financial leverage significantly exceeds the industry norms.

12 As part of the reports to the Banking Supervision Department, the banking corporations rate the credit risk of the companies whose debt balance is greater than NIS 20 million. Since the rating scales of the banks differ from one another, we built a uniform rating scale for the five major banks, whose values range between zero and 100. (A credit rating of 0–36 denotes low risk, 37–57 denotes medium risk, and 58–100 denotes high risk.) The lower the value, the higher the quality of the company's credit.

Figure 1.11
Yield spread between corporate bonds[a] and CPI-indexed government bonds, by industry, January 2007–December 2012
(monthly average, percent)



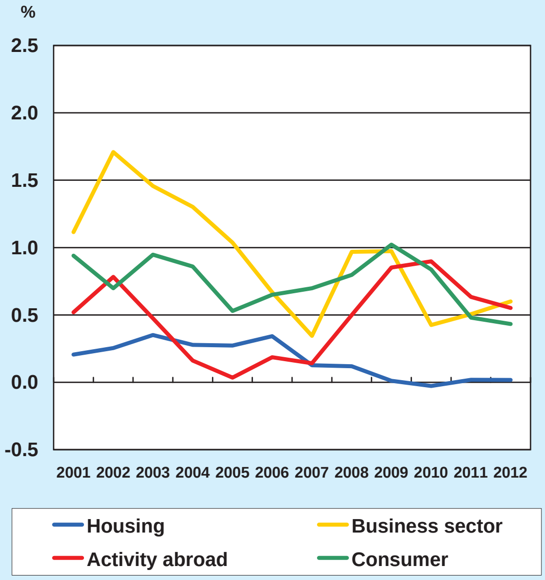
[a] Bonds traded on the Tel Aviv Stock Exchange, excluding convertible bonds, structured bonds and bonds issued by foreign companies.
SOURCE: Bank of Israel.

The banks' largest exposure among the various industries of the economy is to the construction and real estate industry, which accounts for about 28 percent of the banks' business credit. Outstanding balance-sheet credit to this industry declined by 2 percent in 2012, as a result of a 7 percent contraction in credit to the real estate industry. In contrast, credit to the construction industry increased by 5 percent against the background of the high level of activity in the industry and against the background of home prices, which continued to increase in 2012, for the fifth consecutive year. The banks have not reached the industry-specific indebtedness limit[13], and they are able to provide additional credit to the industry. Borrowers in the construction and real estate industry have a high level of risk, but that level declined somewhat during the year, and was reflected in a decline in corporate bond yields in the industry. In the second half of the year, yields reached a level similar to the average in the nonfinancial business sector (Figure 1.11).

In addition to bank credit, the business sector receives about half of its overall credit from non-bank sources (domestic and foreign), which totaled about NIS 364 billion in December 2012 (Figure 1.14). During the course of the year, the business sector raised a net amount of just NIS 3 billion through the issue of bonds in the domestic market. A further NIS 9 billion was raised through direct loans from institutional investors—a channel that has developed greatly in recent years. The slight growth in outstanding corporate bonds is apparently connected with the relatively high level of risk reflected in the level of spreads in the market. Therefore, the primary market was accessible, almost throughout the entire year, only for issues by large companies with high ratings.

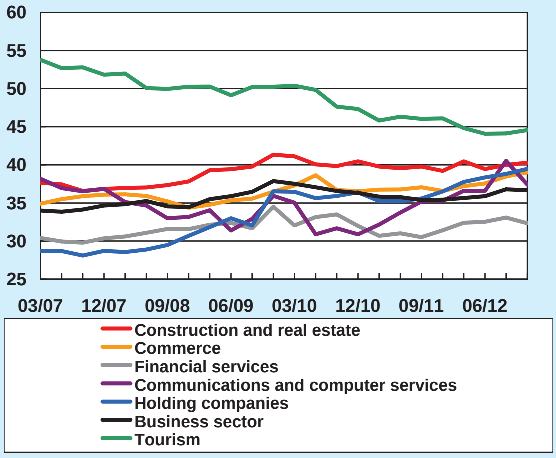
[13] When the industry's total indebtedness to a banking corporation exceeds 20 percent of total public debt to that banking corporation, the indebtedness above 20 percent is considered a deviation from the generally accepted bounds.

Figure 1.12
Ratio of loan loss provisions to total balance sheet credit by industry, the five major banking groups, 2001–12



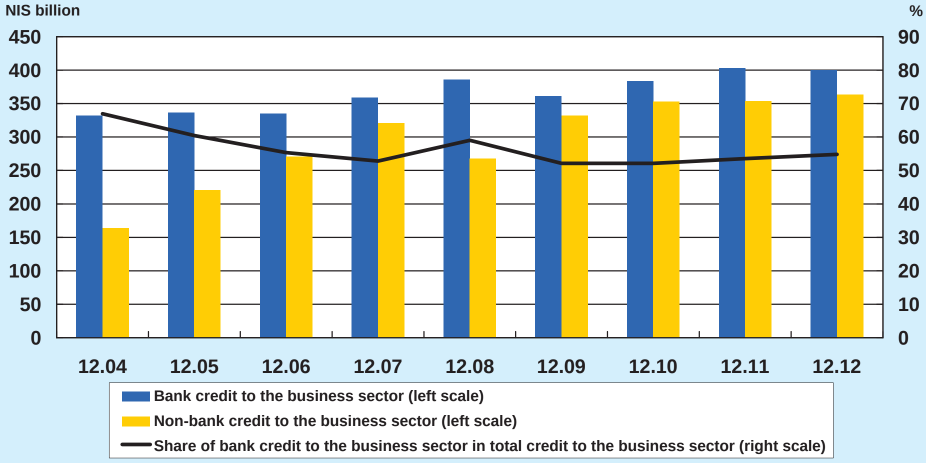
SOURCE: Based on published financial statements.

Figure 1.13
Average credit risk rating by principal industries at the five major banking groups[a], March 2007–December 2012



[a] Within the context of reports to the Banking Supervision Department, banking corporations rank the credit risk of companies whose outstanding indebtedness exceeds NIS 20 million. Since the rating scales reported by the banks differ from bank to bank,we constructed a standard rating scale for all five major banking groups, with values ranging from 0 to 100. (Credit ratings of 0-36 denote low risk, 37-57 medium risk, and 58-100 high risk). The lower the reported value, the higher the quality of the company's credit.
SOURCE: Reports to the Banking Supervision Department.

Figure 1.14
Bank[a] and non-bank credit[b] to the business sector, December 2004–December 2012



[a] Total banking system.
[b] Credit estimate is from the viewpoint of lenders as listed on their books: Value of credit is calculated as bank credit after allowance for credit losses; tradable bonds are by market value; and non-tradable bonds by fair value.
SOURCE: Bank of Israel.

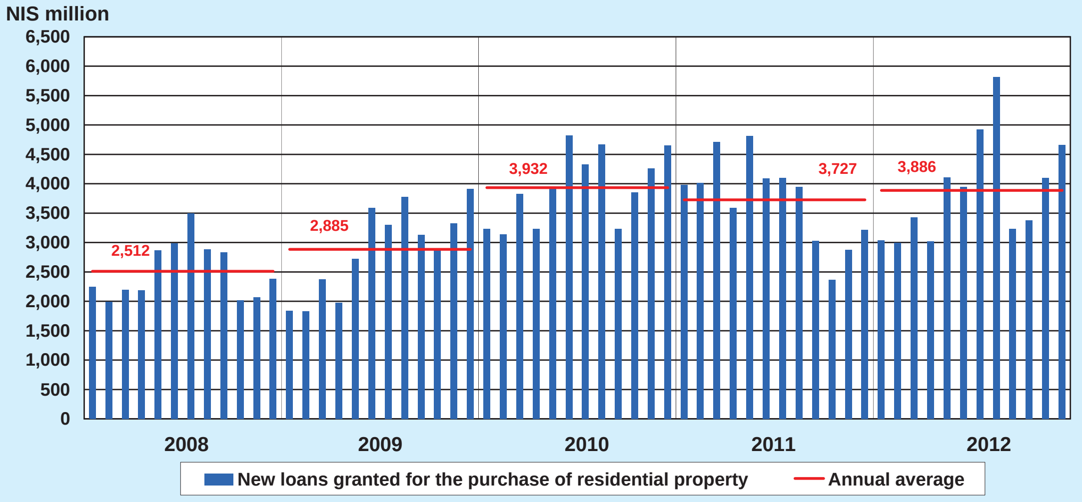
(2) Credit to households

Outstanding balance-sheet credit to private individuals grew by 7 percent in 2012, to NIS 341 billion. Most of the growth in credit to households was due to credit for housing (10 percent), with a smaller amount made up of consumer credit[14], which grew by just 2 percent against the background of the slowdown in consumption (Figure 1.9). Despite the sharp expansion of credit to households in recent years, the ratio of household debt to disposable income remained low relative to other Western countries.

Housing credit makes up about two-thirds of outstanding balance-sheet credit to private individuals. Total outstanding balance-sheet credit from housing loans grew by 10 percent in 2012, to about NIS 226 billion (Table 1.6). At the beginning of the year, the relatively low rate of growth in new mortgage volume continued, but the rate began to accelerate in the second half of the year (Figure 1.15). As of December 2012, about half of the outstanding loans were at LTV ratios lower than 60 percent, and the average LTV ratio for housing loans provided in recent years is just 55 percent—lower than those generally found worldwide. In about 20 percent of the mortgages issued during the year, the payment to income ratio was greater than 40 percent.

The low interest rate environment and the weight of unindexed variable rate mortgages in the housing credit portfolio increase the banks' potential risk in the portfolio. As a result, the Supervisor of Banks limited the share of the variable rate component of housing loans[15] to 33.3 percent as of May 2011. The Banking Supervision Department, as part of sensitivity analyses it carries out, examined how an increase in the Bank of Israel interest rate affects the payment to income ratio of the average household. The analysis indicates that an increase of 4 percentage points in the Bank of Israel interest rate increases

Figure 1.15
New loans granted for the purchase of residential property, total banking system
January 2008 to December 2012



SOURCE: Based on reports to the Banking Supervision Department.

[14] Non-housing credit.
[15] Loans whose interest rate may change within five years of the date of approval.

Table 1.7

Credit quality indices, by principle industry, the five major banking groups, December 2011 and December 2012

Principal industries	Impaired credit as a share of total balance-sheet credit to the public		Ratio of loan loss provision to total balance-sheet credit to the public		Ratio of net write-offs to total balance-sheet credit to the public		Ratio of credit loss allowance to total balance-sheet credit to the public		Coverage ratio: the ratio between credit loss allowance to total impaired credit to the public	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Borrowers' activity in Israel	**2.87**	**2.87**	**0.36**	**0.39**	**0.55**	**0.29**	**1.71**	**1.68**	**59.4**	**58.7**
Business sector	**4.83**	**5.00**	**0.51**	**0.60**	**0.88**	**0.42**	**2.03**	**2.15**	**42.1**	**43.0**
Agriculture	2.88	2.77	-0.75	-0.22	1.85	-1.30	1.81	1.81	62.9	65.1
Manufacturing	5.13	5.16	0.00	0.47	1.20	0.49	2.72	2.63	52.9	50.9
Construction and real estate	7.39	7.48	1.44	-0.18	1.83	0.51	2.79	2.33	37.8	31.1
Of which: Construction	10.56	9.53	1.72	-0.11	0.89	0.32	3.58	3.00	33.9	31.5
Real estate	5.07	5.78	1.24	-0.24	2.53	0.66	2.22	1.78	43.8	30.7
Electriciy and water	1.86	1.13	0.15	-0.18	0.90	0.12	0.75	0.24	40.2	21.5
Commerce	2.83	3.00	0.50	1.00	-0.33	0.41	1.66	2.11	58.7	70.3
Tourism	11.99	8.15	-0.53	0.08	0.89	-0.02	1.95	1.39	16.2	17.0
Transportation and storage	1.53	3.48	0.06	1.02	0.48	0.10	0.86	1.98	56.3	56.8
Communications and computer services	2.18	3.39	-0.89	-0.25	-0.20	-0.17	1.14	1.26	52.2	37.1
Financial services	4.09	5.28	0.38	2.71	0.40	0.89	1.29	2.85	31.6	54.0
Other business services	1.70	1.86	0.28	0.15	0.47	0.16	1.70	1.49	99.8	80.4
Public and community services	2.23	2.63	0.27	0.48	0.59	0.43	0.78	0.76	35.1	28.9
Private individuals	**0.45**	**0.42**	**0.18**	**0.16**	**0.13**	**0.14**	**1.30**	**1.15**		
Housing loans	0.01	0.01	0.02	0.02	0.02	0.00	1.01	0.87		
Non-housing loans	1.26	1.22	0.48	0.43	0.33	0.41	1.83	1.69		
Borrowers' activity abroad	**5.41**	**5.73**	**0.63**	**0.55**	**0.77**	**0.51**	**2.02**	**2.08**		

SOURCE: Banking Supervision Department based on published financial reports.

the payment to income ratio by an average of 6 percentage points, from 29 percent to 35 percent. An assessment of the share of high-risk loans[16] in the total housing portfolio indicates that an increase of four percentage points in the Bank of Israel interest rate increases the share of such loans from 7 percent to 14 percent. This increase in the payment to income ratio is expected to increase borrowers' debt burden and to increase the risk in the housing loan portfolio.

As part of the series of measures taken by the Supervisor of Banks in recent years regarding housing credit, two additional steps were recently taken: (1) In November 2012, in light of the continued increases in housing prices and the marked growth in outstanding housing credit, the Supervisor of Banks published limitations on the LTV ratio for mortgages. In the case of a home purchased for investment purposes, a banking corporation cannot approve a loan for more than 50 percent of the value of the home. In other cases, a banking corporation cannot approve a loan for more than 70 percent of the value of the home, unless it is a first home. In the latter case, the maximum loan rate is 75 percent of the value of the home. (2) In March 2013, the Supervisor of Banks published guidelines regarding the capital allocation and allowance for credit losses in respect of housing loans. These guidelines are intended to increase the capital buffers and the allowances required in respect of the growth in risk inherent in the housing credit portfolio.

b. The quality of the credit portfolio

The risk level of companies in the Israeli economy remained medium to high, against the background of the slowdown in domestic real activity and developments in the global economy. The risk level was reflected in capital market indices, indices based on financial reports, and other internal assessments. For instance, the EDF[17] and yield spreads of companies in the economy remained relatively high, and were reflected, inter alia, in the continuing development of debt restructuring proceedings during 2012 (Figures 1.16 and 1.11). Furthermore, the internal rating of borrowers' credit risk remained unchanged this year (Figure 1.13), and the loan loss provisions ratio remained at about 0.4 percent (Table 1.8). It is important to emphasize that it is impossible to fully compare loan loss provision data for 2011–12 with data from previous periods, in light of the implementation of the Directive on

Figure 1.16
EDF[a] of Israeli corporations, January 2008 to December 2012

[a] The median EDF—Expected Default Frequency—is calculated based on 120 corporations.
SOURCE: Banking Supervision Department based on Moody's KMV.

[16] Loans with a payment to income ratio greater than 40 percent, and an LTV ratio greater than 60 percent.

[17] The Expected Default Frequency (EDF) expresses the expected likelihood of failure. The Moody's rating agency calculates this likelihood on the basis of Merton's theoretical model, with adjustments made based on bankruptcies.

Table 1.8
Indices of credit portfolio quality of the five major banking groups, December 2006 to December 2012
(percent)

	Year	Leumi	Hapoalim	Discount	Mizrahi Tefahot	First International	Five groups
Ratio of total risk-weighted assets to total assets[a]	2006	66.97	72.16	59.77	66.64	61.25	66.89
	2007	68.97	72.76	61.88	68.16	58.81	68.03
	2008	69.46	72.28	64.83	66.87	59.09	68.32
	2009[b]	64.17	67.88	60.56	67.15	54.44	64.12
	2009[c]	67.00	69.20	63.30	59.60	56.20	65.20
	2010	68.30	68.68	67.23	58.69	61.00	66.42
	2011	67.67	67.32	60.45	58.26	60.02	64.59
	2012	65.67	64.83	61.27	58.03	57.69	63.05
Loan loss provision out of total balance sheet credit to the public[d]	2006	0.51	0.53	0.63	0.44	0.42	0.52
	2007	0.21	0.25	0.44	0.31	0.33	0.28
	2008	1.01	0.68	0.67	0.44	0.39	0.72
	2009	0.74	0.93	0.87	0.39	0.44	0.75
	2010	0.26	0.46	0.69	0.44	0.18	0.41
	2011[e]	0.30	0.48	0.66	0.28	0.14	0.39
	2012	0.50	0.39	0.61	0.21	0.20	0.41
Ratio of net write-offs to total gross balance sheet credit to the public	2011	0.84	0.84	0.72	0.44	0.15	0.71
	2012	0.47	0.38	0.51	0.26	0.24	0.39
Allowance for credit losses out of total balance sheet credit to the public	2010[f]	2.30	2.12	1.66	1.62	1.33	1.96
	2011	1.62	1.63	1.67	1.35	1.33	1.57
	2012	1.68	1.61	1.74	1.22	1.22	1.56
Impaired credit as a share of total balance-sheet credit to the public	2010[f]	3.82	4.71	4.68	1.53	1.88	3.74
	2011	2.77	3.44	4.74	1.34	1.59	2.95
	2012	3.03	3.23	4.55	1.28	1.61	2.91
Ratio of allowance for credit losses[g] to impaired loans to the public	2010[f]	53.52	41.70	31.24	52.13	62.57	44.75
	2011	50.87	43.11	31.10	48.09	72.80	44.14
	2012	51.70	46.74	34.18	46.51	66.97	46.34
Ratio of net impaired loans to total equity	2010[f]	24.18	35.87	48.27	17.58	14.26	30.15
	2011	21.39	29.02	46.57	17.47	11.35	26.43
	2012	22.26	24.54	40.34	15.36	12.51	24.14

[a] Total risk-weighted assets are total (balance-sheet and off-balance-sheet) assets, weighted by risk weights. Total assets are total (balance-sheet and off-balance-sheet) assets without risk weighting.
[b] The ratio is calculated in accordance with Basel I principles.
[c] The ratio is calculated in accordance with Basel II principles. Risk assets are calculated after credit risk mitigation (CRM).
[d] Until December 2010, net credit to the public was used; since 2011, gross credit to the public has been used.
[e] Due to the implementation of the Impaired Debt Directive as of January 1, 2011, the figures for December 2011 cannot be fully compared with previous periods.
[f] Data calculated as of January 1, 2011 - after the implementation of the directive for the measuring and disclosure of impaired debt, credit risk and allowance for credit losses.
[g] Net of allowance for credit losses for housing loans, for which the credit loss allowance must be calculated according to days past due.
SOURCE: Banking Supervision Department based on published financial statements.

the Measurement and Disclosure of Impaired Debts, Credit Risk and Allowance for Credit Losses. This is because, among other things, the data for 2011–12 include the effect of the "interest income in respect of problematic debts not previously recorded" item, which lowers the loan loss provision ratio by about 0.2 percent.[18]

The share in the credit portfolio of impaired credit, which represents the most risky component of credit, was 3 percent in December 2012, similar to the level in other OECD countries (Table 1.8). With that, an examination of the ability to absorb expected credit losses in the portfolio indicates that the share of impaired debts covered by the allowance for credit losses (coverage ratio[19]) is just 46 percent—lower than observed in other countries. In 2012, balance sheet components characterized by low risk continued to increase at the expense of components characterized by high risk. Most of the growth in the banks' balance sheets came from the purchase of government bonds, while business sector credit was unchanged. These developments in the asset composition led to a decline in the ratio of total risk-weighted components to total components[20] (Table 1.8).

c. Concentration in the credit portfolio

The banks' business credit portfolio is characterized by a relatively high level of borrower concentration, due to the concentrated structure of ownership and control in the Israeli economy. The risk of this concentration can be seen in, inter alia, the results of stress tests carried out by the Banking Supervision Department, which indicate that the realization of concentration risks in stress scenarios has a major effect on banking corporations' profitability and capital. In 2012, one of the large business groups reached a situation in which it had difficulties meeting its banking and nonbanking commitments, but those difficulties were mainly concentrated in the holding companies without immediately impacting the other companies in the group.

The Banking Supervision Department monitors concentration risk in the banks' credit portfolio on an ongoing basis, and acts to reduce it. For example, in 2011, the Banking Supervision Department took steps which tightened the limitations on the banks' exposure to large borrowers and to large business groups.[21] The banking system is also working in several ways to reduce the concentration risk in the bank credit portfolio, including reducing exposure to large borrowers and expanding the share of retail credit in the credit portfolio. In recent years, these measures have positively affected the distribution of credit in the portfolio (Figure 1.17). In 2012 as well, there was an improvement in borrower concentration risk in the credit portfolio, which was reflected in reduced exposure of the banks to the large business groups and large borrowers. For example, at the end of 2012, the ten largest business groups had an 11

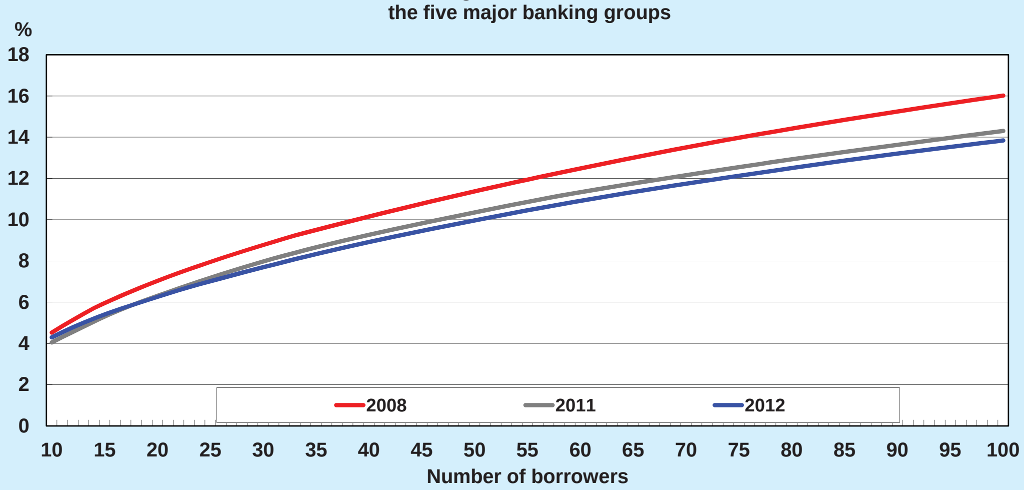
[18] This estimation is the average ratio (2005–2010) between interest income from problematic debts that were not previously collected and the total net balance-sheet credit to the public.

[19] The ratio between the balance of credit loss provisions, minus the balance of credit loss provisions in respect of housing loans for which credit loss provisions must be calculated based on the duration of the late payment, and impaired credit to the public.

[20] Total risk components are the total risk-weighted balance sheet and off-balance-sheet assets. The total components are the total non-risk-weighted balance sheet and off-balance-sheet assets.

[21] As of December 2011, the banks are required to comply with an indebtedness limit of 25 percent of the banking corporation's capital for a group of borrowers (instead of 30 percent up to that point). In addition, since December 2011, there is a requirement requiring large borrowers, borrower groups and banking borrower groups whose indebtedness exceeds 10 percent of the banking corporation's capital: Their total indebtedness shall not exceed 120 percent of the bank's capital.

Figure 1.17
Credit risk of the 100 largest borrowers[a] out of total credit risk, the five major banking groups



[a] The large borrowers do not include banking corporations.
SOURCE: Based on published financial reports and reports to the Banking Supervision Department.

percent share of the credit portfolio totaling 168 percent of equity, compared to a 12 percent share of the credit portfolio totaling 194 percent of equity at the end of 2011. Furthermore, the share of the 100 largest borrowers declined during the year to a 14 percent share of the credit portfolio, and 214 percent of equity.

The large borrowers in the banking system are for the most part also the large borrowers in the nonbank credit market. The large borrowers in the banking system who also borrow in the capital market accounted for NIS 87 billion[22] in total bank credit risk at the end of 2012, constituting 14 percent of the banks' total business credit risk. The data from the end of 2012 indicate that the companies whose nonbank debt is traded at high yields are also characterized by bank debt with a relatively high level of risk, which is reflected in the internal rating of their credit risk.

5. THE SECURITIES PORTFOLIO

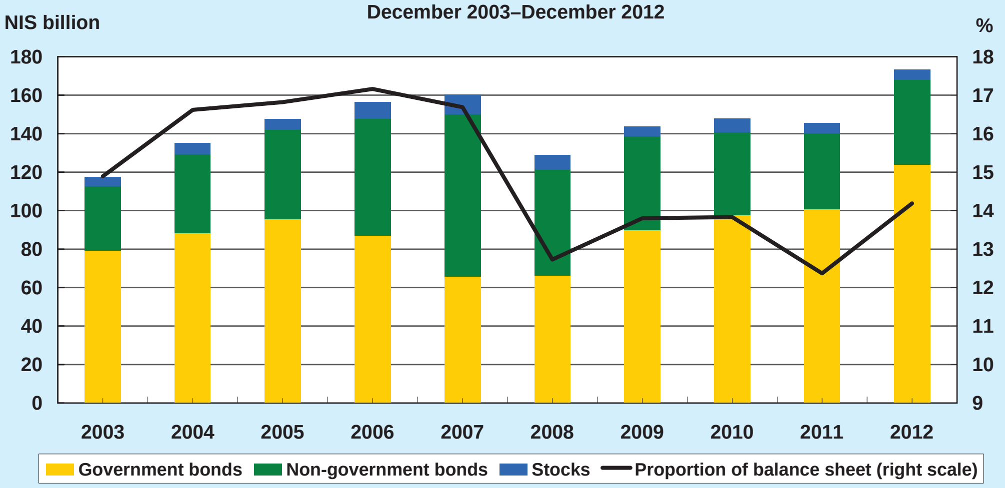
The securities portfolio of the five major banking groups totaled NIS 173 billion at the end of 2012, which represents 14 percent of their total assets. The value of the securities portfolio increased for most of the major banking groups during the course of 2012; the total increase was NIS 28 billion. This increase stems for the most part from the purchase of Israel government bonds (about NIS 20 billion[23]). Since the crisis of 2008, there has been a marked increase in the purchase of government bonds by

[22] Of which about NIS 3 billion comes from borrowers whose bonds were traded at a yield exceeding 12 percent in December 2012.
[23] Some of the increase in government bonds stems from an increase in their fair value following the lowering of the interest rate during the year.

banks, with their total in the banks' balance sheets nearly doubling—from NIS 66 billion in 2008 to NIS 124 billion in 2012 (Figure 1.18). The proportion of government bonds in the securities portfolio is 72 percent, most of which are Israel government bonds.[24]

The banks' level of risk from their investment in securities is affected by the composition and size of the portfolio, and there is wide variance among the five major banking groups in this area, reflecting differences in their risk appetites and investment strategies. As of the end of 2012, the ratio of the securities portfolio to equity ranged from 98 percent to 379 percent, and the nongovernment component[25] in the portfolio ranged from 9 percent to 40 percent.

Figure 1.18
The five major banking groups' securities portfolio[a]–size and composition, December 2003–December 2012



[a] Excluding consolidated companies which are included in the groups' equity basis.
SOURCE: Banking Supervision Department based on published financial statements.

6. COUNTRY RISK

The total balance sheet exposure of the five major banking groups to foreign countries was NIS 150 billion in December 2012, accounting for 12 percent of total assets (Table 1.9). About one-third of the exposure is to European countries, but the exposure to high-risk European countries[26] remains relatively low (about NIS 1 billion). NIS 48 billion of the exposure to foreign countries is to foreign financial institutions (Table 1.10).

This year, the downward trend continued in the exposure to borrowers whose main activity is located abroad. This trend began in 2008, and the proportion of these borrowers in total balance-sheet credit risk to the public declined from 14 percent at the end of 2007 to 11 percent at the end of 2012 (Table 1.6).

[24] As of December 2012, Israel government bonds make up 92 percent of total government bonds.
[25] The nongovernment component includes US government agency asset backed securities and US government agency mortgage backed securities.
[26] Portugal, Ireland, Greece and Spain.

Table 1.9
Exposure to foreign countries, the five major banking groups, December 2012
(NIS million)

	Balance sheet exposure abroad			Net balance sheet exposure of representative offices[a] abroad to local residents[b]	Total balance sheet exposure	Total balance sheet exposure to equity (%)	Total balance sheet exposure to assets (%)	Total off balance sheet exposure[d]
	To governments[c]	To banks	To others					
US	7,552	10,530	13,063	33,355	64,500	80.18	5.28	23,886
UK	214	11,399	7,067	7,327	26,007	32.33	2.13	8,694
Germany	553	2,297	2,571	-	5,421	6.74	0.44	571
France	-	3,502	2,523	-	6,025	7.49	0.49	2,316
Switzerland	-	742	1,433	7,846	10,021	12.46	0.82	1,118
Belgium	-	172	131	-	303	0.38	0.02	71
Turkey	-	58	6	2,438	2,502	3.11	0.20	1,038
The Netherlands	-	1,425	1,638	-	3,063	3.81	0.25	161
Italy	80	255	160	-	495	0.62	0.04	73
Spain	40	151	36	-	227	0.28	0.02	93
Portugal	-	-	2	-	2	0.00	0.00	5
Ireland	-	15	63	-	78	0.10	0.01	190
Greece	-	-	-	-	-	0.00	0.00	1
Other countries	1,115	11,154	17,238	2,152	31,659	39.36	2.59	6,920
Total exposure to foreign countries	**9,554**	**41,700**	**45,931**	**53,118**	**150,303**	**186.84**	**12.31**	**45,407**
Exposures to Ireland, Greece, Portugal, and Spain not included above	-	351	259	-	610	0.76	0.05	55
Of which: Total exposure to LDCs[e]	350	1,818	3,381	3,537	9,086	11.29	0.74	2,888
Total exposure to Europe	**887**	**20,367**	**15,889**	**17,611**	**54,754**	**68.07**	**4.48**	**14,656**
***Of which:* Total exposure to Ireland, Greece, Portugal, and Spain**	**40**	**517**	**360**	-	**917**	**1.14**	**0.08**	**344**

[a] The banking corporation's representative offices in a foreign country.
[b] Net balance sheet exposure after deduction of local liabilities.
[c] Governments, official bodies, and central banks.
[d] Credit risk in off balance-sheet financial instruments, as calculated for the borrower indebtedness limit.
[e] Least developed countries - the countries classified by the World Bank as having low or medium income.
SOURCE: Banking Supervision Department based on published financial statements.

Table 1.10

Current credit exposure to foreign financial institutions[a,b], the five major banking groups, December 2012

(NIS million)

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		Five groups, total	
Credit rating[c]	Total credit	Of which: Balance sheet credit	Total credit	Of which: Balance sheet credit	Total credit	Of which: Balance sheet credit	Total credit	Of which: Balance sheet credit	Total credit	Of which: Balance sheet credit	Total credit	Of which: Balance sheet credit
AA- to AAA	6,900	6,609	4,706	2,383	2,489	2,116	709	709	927	910	15,731	12,727
A- to A+	10,719	9,968	8,818	8,194	4,681	4,411	2,204	2,183	2,667	2,624	29,089	27,380
BBB- to BBB+	3,150	3,000	1,142	1,113	1,274	1,267	8	8	107	106	5,681	5,494
B- to BB+	430	404	45	27	512	506	7	0	26	26	1,020	963
Below B-	0	-	1	1	-	-	-	-	-	-	1	1
Unrated	1,398	1,251	287	206	260	206	5	5	50	22	2,000	1,690
Total credit exposure to foreign financial institutions	**22,597**	**21,232**	**14,999**	**11,924**	**9,216**	**8,506**	**2,933**	**2,905**	**3,777**	**3,688**	**53,522**	**48,255**
Balance of problem debts	5	5	32	32	60	60	5	5	-	-	102	102
Share of exposure out of assets (%)		0.06		0.03		0.04		0.02		0.03		0.04
Share of exposure out of equity (%)	0.90	0.84	0.55	0.44	0.76	0.70	0.32	0.31	0.56	0.54	0.67	0.60

[a] Foreign financial institutions are: investment banks, broker/dealers, insurance companies, institutions and entities controlled by those institutions. Note that credit exposure does not include exposure to financial institutions which have clear and full government guarantees, and does not include investments in asset backed securities.

[b] Balance sheet credit: deposits in banks, credit to the public, fixed income investments, securities borrowed or bought in reverse repurchase agreements, and other assets in respect of instruments. Off balance-sheet credit: primarily guarantees and commitments to grant credit, including third-party indebtedness guarantees.

[c] External credit rating is based on ratings assigned by credit rating agencies Fitch, S&P, and Moody's.

SOURCE: Banking Supervision Department based on published financial statements.

7. MARKET RISKS

a. Interest rate risk

The total exposure to interest rate risk of the five major banking groups increased in 2012 compared with the end of 2011, with most of the groups maintaining an exposure to an interest rate increase to an extent similar to the previous year.[27] For the five groups, the potential loss occasioned by a maximum increase[28] in interest rates was 1.9 percent of the fair value of capital[29], compared to 0.9 percent in the previous year.[30] At the same time, the variance among the groups' interest rate exposure was high (Table 1.11). Despite the relatively low levels of exposure, the realization of interest rate risk—due to changes in the interest rate—may lead to immediate losses.

In the unindexed segment, most activity takes place in floating rate instruments that are indexed to the prime rate and the assets and liabilities have a relatively short term to maturity. Consequently, assets and liabilities in this segment are less sensitive to changes in interest rates than those in the CPI-indexed segment. Similar to last year, the net positions in the unindexed segment[31] continued to decline for most of the banking groups in 2012, with the positions' share of the fair value of capital in the five major banking groups declining to 68 percent, on average, at the end of the year, compared to 85 percent at the end of 2011. Despite the decline in net positions in the segment, the banking system's potential loss due to changes in the interest rate increased, since this loss is affected by additional factors—including the increase in the modified duration of capital in most banking groups, the increase in the maximum change in the interest rate, and the composition of assets and liabilities.

In the CPI-indexed segment, assets and liabilities are more sensitive to changes in interest rates than in the other segments because most are fixed-rate with middle-to-long terms to maturity. Net positions in the CPI-indexed segment increased in most of the banking groups during the past two years, in parallel with the decline in net positions in the unindexed segment. With that, the potential loss at most banking groups did not increase significantly, and even declined in some of them, due to the additional factors that affect exposure to interest rate risks.

In the foreign currency segment, the banking system in recent years has adopted a policy of maintaining small positions, and this trend strengthened in 2012. At the same time, the ratio between the potential loss from the maximum change in the interest rate[32] and the net position in the foreign currency segment was significantly higher than in the shekel segments. This is due to, among other things, the fact that the duration of capital in the foreign currency segment at most of the banking groups

[27] In this chapter, the analysis of interest rate exposures is based on quarterly projections, and not on year ends like the data presented in the Table. By basing the analysis on quarterly projections, we can better analyze the risk over the course of the entire year, since it does not focus on just one point in time at the end of the year.

[28] The maximum change in interest rates is derived from monthly changes over the past seven years, assuming a normal distribution and 99 percent significance. Another assumption underlying the calculation is that there is a full positive correlation between the interest rates in the various sectors.

[29] The fair value of the bank's capital is defined as the difference between the fair value of assets and the fair value of liabilities in all segments; in both cases, the fair value includes the effect of future transactions.

[30] The calculation is based on the banking groups' board of directors' reports, which present the effects of hypothetical changes in the interest rates on the net fair value of the financial instruments held by the bank and its consolidated companies.

[31] Net positions in the segment are defined as the difference between the fair value of the assets and the fair value of the liabilities in the segment; in both cases, the fair value includes the effect of future transactions.

[32] In the foreign currency segment, exposure is to interest rates in the foreign markets.

Table 1.11

Exposure to changes in interest rates, the five major banking groups, December 2011 and December 2012

(NIS million)

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		The five groups	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Unindexed segment												
Net position in segment[a]	17,512	17,000	15,662	13,489	3,087	1,147	1,526	-611	3,347	3,997	41,166	35,002
The change in the fair value of the net position in the segment as a result of an interest rate change[b]												
1 percentage point increase	-352	-439	102	-26	-328	-342	148	290	-57	-107	-487	-624
1 percentage point decrease	357	485	-90	81	346	332	-174	-334	65	117	504	681
Maximum change in interest rates[c] (percentage points)	0.71	0.73	0.71	0.73	0.71	0.73	0.71	0.73	0.71	0.73	0.71	0.73
The change in the fair value of the net position in the segment as a result of the maximum change in the interest rate[d]												
Interest rate increase	-248	-319	72	-19	-231	-248	104	210	-40	-78	-343	-453
Interest rate decrease	252	352	-63	59	244	241	-123	-242	46	85	355	494
CPI-indexed segment												
Net position in segment[a]	3,414	1,456	4,278	5,885	2,172	1,954	4,991	7,029	415	367	15,270	16,691
The change in the fair value of the net position in the segment as a result of an interest rate change[b]												
1 percentage point increase	109	90	195	-16	-11	-24	-109	-169	-60	-72	124	-191
1 percentage point decrease	-132	-181	-114	37	12	22	247	424	70	84	83	386
Maximum change in interest rates[c] (percentage points)	0.95	0.93	0.95	0.93	0.95	0.93	0.95	0.93	0.95	0.93	0.95	0.93
The change in the fair value of the net position in the segment as a result of the maximum change in the interest rate[d]												
Interest rate increase	104	84	185	-15	-10	-22	-104	-157	-57	-67	118	178
Interest rate decrease	-126	-169	-108	34	11	20	235	395	67	78	79	359
Foreign currency segment[e]												
Net position in segment[a]	-4,351	-364	-2,228	28	-1,013	2,136	207	113	-616	-253	-8,001	1,660
The change in the fair value of the net position in the segment as a result of an interest rate change[b]												
1 percentage point increase	-3	-130	-76	-36	-185	-310	-70	-95	2	-15	-332	-586
1 percentage point decrease	-7	125	61	84	-255	-38	72	132	0	21	-129	324
Maximum change in interest rates[c] (percentage points)	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
The change in the fair value of the net position in the segment as a result of the maximum change in the interest rate[d]												
Interest rate increase	-2	-81	-48	-23	-117	-194	-44	-59	1	-9	-210	-367
Interest rate decrease	-4	78	38	53	-162	-24	46	83	0	13	-82	203
Total												
Total fair value of bank's net worth[f]	16,575	18,092	17,744	19,402	4,246	5,237	6,724	6,531	3,146	4,111	48,435	53,373
The change in the fair value of the bank's net worth as a result of an interest rate change[b]												
1 percentage point increase	-246	-479	221	-78	-524	-676	-31	26	-115	-194	-695	-1,401
1 percentage point decrease	218	429	-143	202	103	316	145	222	135	222	458	1,391
The change in the fair value of the bank's net worth as a result of the maximum change in interest rates[d]												
Interest rate increase	-146	-316	209	-56	-359	-465	-44	-6	-96	-154	-436	-997
Interest rate decrease	122	262	-133	146	94	238	158	235	112	176	353	1,056
As a percentage of the fair value of the bank's net worth												
Interest rate increase	-0.9	-1.7	1.2	-0.3	-8.5	-8.9	-0.6	-0.1	-3.1	-3.7	-0.9	-1.9
Interest rate decrease	0.7	1.4	-0.8	0.8	2.2	4.5	2.3	3.6	3.6	4.3	0.7	2.0

[a] The difference between the fair value of assets and the fair value of liabilities, including the effect of futures transactions in each indexing segment.

[b] Based on published financial statements - directors report.

[c] The maximum change in the yield-to-maturity on *makam* (short term securities) for a year in the unindexed segment, on 3-year CPI-indexed bonds in the indexed segment and on the 1-year LIBOR in the foreign currency segment is derived from monthly changes over the past 7 years, on the assumption of a normal distribution and a confidence level of 99 percent. We note that in calculating the maximum change in the yield-to-maturity, the redemption periods of bonds were set according to the average duration of the assets and liabilities in each segment.

[d] Based on published financial statements - directors report, and on the Banking Supervision Department's estimate of the maximum change in the interest rate. This calculation is an approximation, as it assumes linear behavior of interest rate risk.

[e] Including the foreign-currency-indexed segment.

[f] The total of net positions in the three indexing segments.

SOURCE: Banking Supervision Department based on published financial statements.

was higher in absolute values than the duration of capital in the shekel segments. While there is a high positive correlation among the interest rates in the shekel activity segments, the correlation between the shekel interest rates and the foreign market interest rates is lower. Therefore, the potential losses in this segment are not always in line with those in the shekel segment in terms of their size or direction. In 2012, most of the major banking groups were exposed to the risk of an increase in the interest rate, similar to previous years.

b. Indexation base risks

The five major banking groups' total exposure to indexation base risk declined in 2012 relative to previous years, mainly due to the decline in the position in the foreign currency segment.[33] At the end of 2012, the potential loss from the maximum change in the exchange rate and inflation[34] was NIS 401 million—about 0.7 percent of the five groups' total capital (Table 1.12).

At the end of 2012, much as in recent years, most of the major banking groups had asset surpluses in the CPI-indexed segment, meaning that they were exposed to unexpected price declines. The Consumer Price Index increased by 1.6 percent in 2012—lower than inflation expectations derived from the capital markets in 2012. Therefore, at least some of the risk was, apparently, realized.

In the foreign currency segment, the exposure of most of the major banking groups to the exchange rate declined relative to 2011, mainly due to the decline in foreign exchange assets. All of the major banking groups except for Discount[35] were exposed to a depreciation in the shekel rate due to surplus liabilities over assets in the segment.[36] The shekel appreciated against the dollar by about 2.3 percent in 2012, which positively affected profits from the exchange rate differentials in most of the banking groups.

[33] In this chapter, the analysis of indexation base risk exposures relies on quarterly projections, and not on year ends like the data presented in the Table. By basing the analysis on quarterly projections, we can better analyze the risk over the course of the entire year, since it does not focus on just one point in time at the end of the year.

[34] The maximum change in inflation and the maximum change in the exchange rate are derived from monthly changes in inflation expectations and monthly changes in the nominal shekel exchange rate against the dollar, respectively, over the past seven years, assuming a normal distribution and 99 percent significance.

[35] In 2012, Bank Discount moved from negative positions in the foreign currency segment to positive positions, following a change in the accounting definition of the investment in IDB New York (as a result of the Supervisor of Banks Circular of September 14, 2012 regarding the currency of operations of representative offices operating abroad). As a result of the change, the hedge in respect of the investment was cancelled, such that the ratio of capital to risk weighted assets would not be sensitive to changes in the exchange rate.

[36] The banking corporations' foreign currency exposures were calculated for this survey on the basis of the positions obtained from Note 16 to the financial statements. The positions shown below do not take into account the taxation effects that banking corporations may bear in mind when managing their exposures. Changes in the exchange rate have an impact on the effective tax rate, because exchange rate differentials between investments abroad are not taken into account in calculating the income basis for the purpose of calculating provisions for taxes, while exchange rate differentials in respect of financing sources are taken into account, so that a lack of symmetry develops in respect of exchange rate differentials. In calculating the scope of investments abroad, these changes may have a significant effect on provisions for taxes. Some of the banks hedge against tax exposure in respect of investments abroad.

Table 1.12

Exposure to changes in the CPI and the exchange rate, the five major banking groups, December 2011 and December 2012

(NIS million)

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		The five groups	
	2011	2012	2011	2012	2011	2012[i]	2011	2012	2011	2012	2011	2012
Unindexed segment												
Total assets (excluding futures transactions and options)	199,647	216,020	203,177	226,661	109,575	110,760	80,612	89,941	67,891	72,664	660,902	716,046
Total liabilities (excluding futures transactions and options)	164,770	177,449	185,628	202,802	99,908	100,536	80,216	92,205	56,749	63,055	587,271	636,047
Difference between assets and liabilities excluding the effect of futures transactions and options	34,877	38,571	17,549	23,859	9,667	10,224	396	-2,264	11,142	9,609	73,631	79,999
Difference between assets and liabilities including effect of futures transactions and options	19,557	19,583	14,476	13,008	2,765	717	1,205	-246	3,571	3,935	41,574	36,997
The bank's net worth[a,b]	15,208	16,973	18,637	21,332	5,545	6,595	6,564	7,597	3,350	4,228	49,304	56,725
CPI-indexed segment												
Total assets (excluding futures transactions and options)	61,163	60,341	60,607	60,780	26,211	24,810	45,856	50,540	15,872	15,776	209,709	212,247
Total liabilities (excluding futures transactions and options)	56,494	55,847	48,970	50,539	21,539	20,732	34,859	35,296	15,284	15,316	177,146	177,730
Effect of futures transactions and options	-4,472	-6,280	-4,834	-1,802	-1,700	-867	-5,754	-7,286	-327	29	-17,087	-16,206
Total position in the segment[c]	197	-1,786	6,803	8,439	2,972	3,211	5,243	7,958	261	489	15,476	18,311
Maximum change in the CPI[d] (percent)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Loss as a result of the maximum change in the CPI												
CPI increase		19										19
CPI decrease	2		73	91	32	34	56	85	3	5	166	216
Foreign currency segment[e]												
Total assets (excluding futures transactions and options)	95,674	90,191	86,716	82,607	60,653	59,527	21,941	19,820	13,900	13,508	278,884	265,653
Total liabilities (excluding futures transactions and options)	120,012	116,283	97,265	95,375	69,445	67,234	26,795	25,205	22,280	19,349	335,797	323,446
Effect of futures transactions and options	19,792	25,268	7,907	12,653	8,600	10,374	4,970	5,270	7,898	5,645	49,167	59,210
Total position in the segment[c]	-4,546	-824	-2,642	-115	-192	2,667	116	-115	-482	-196	-7,746	1,417
Maximum change in the exchange rate[f] (percent)	6.8	7.0	6.8	7.0	6.8	7.0	6.8	7.0	6.8	7.0	6.8	7.0
Loss as a result of the maximum change in the exchange rate[g]												
Increase in the exchange rate (weakening of the shekel)	307	57	179	8	13			8	33	14	532	87
Decrease in the exchange rate (strengthening of the shekel)						185	8				8	185
Total maximum loss to the bank's net worth as a result of indexation base risk[h]	**310**	**76**	**252**	**99**	**45**	**220**	**64**	**93**	**35**	**19**	**689**	**401**
As a percentage of the bank's net worth	2.0	0.5	1.4	0.5	0.8	3.3	1.0	1.2	1.1	0.4	1.4	0.7

[a] The difference between assets and liabilities in all sectors includes the effect of futures transactions (excluding nonmonetary items), per Note 16 to the published financial statements.

[b] The bank's net worth is attributed (by definition) entirely to the unindexed segment, with the result that the nominal exposure to indexation bases occurs in the indexed segment and in the foreign currency segment.

[c] The difference between assets and liabilities in the segment includes the effect of futures transactions.

[d] The maximum change in the CPI derived from monthly changes in inflation expectations during the past 7 years, assuming a normal distribution and a confidence level of 99 percent.

[e] Including foreign-currency indexed. The calculation of the banking corporations' exposure to foreign currency in this survey is based on the positions obtained from Note 16 to the financial statements. The positions presented do not take into account taxation effects, which the banking corporations may take into account when managing the exposure.

[f] The maximum change in the nominal shekel-dollar exchange rate, which is derived from monthly changes in the exchange rate over the past 7 years, assuming a normal distribution and a confidence level of 99 percent.

[g] The change that will occur in the bank's position as the result of a maximum change in the shekel-dollar exchange rate.

[h] The total maximum loss as a result of indexation base risk is obtained by simple addition of the maximum losses as a result of risks in the indexed segment and the foreign currency segment, assuming that the maximum change will occur in the direction that causes the bank the maximum loss in each segment.

[i] The change in the total position in unindexed local currency and in foreign currency derives primarily from cancellation of the hedge of the investment in IDB New York following the publication on February 14, 2012 of a Supervisor of Banks circular on "Currency of activities of overseas branches." This Circular amended the Reporting to the Public Directives and enabled banking corporations to determine a currency of operations other than the shekel for some of their branches.

SOURCE: Banking Supervision Department based on published financial statements and Central Bureau of Statistics data.

8. OPERATIONAL RISK

The central role played by the banking system in financial intermediation, advancement of economic activity, and settlement processes, as well as the importance of the public's trust in the system's ability to function continuously, requires the ensuring of the system's resilience to significant operational interruptions.

The realization of operational risk and the loss inherent in it may stem from the inadequacy or failure of internal processes, employees or systems, or as a result of external events, including emergency situations and the ability to conduct business continuity during such times. The most important factors to which this risk relates are: embezzlement; fraud; employment and workplace safety practices; customers, products and business practices; damage to physical assets; interruptions in business continuity or system failure; distribution and management processes.

Operational risk has grown stronger in recent years due, among other things, to the banking system's increasing dependence on technological development, and, as a result, on the components of the physical infrastructure that supports automation, such as communications and electrical components. The increase in the complexity of managing various products and processes due to the acceleration in technological development, alongside the increasing geopolitical threats and the cyber warfare being directed against banking systems in Israel and abroad[37], have increased the importance of operational risk management from the standpoint of business continuity and information technology management. The banking corporations, in conjunction with the Banking Supervision Department, are taking measures to minimize the expected ramifications of a realization of these risks for the proper functioning of the banking corporations.

The risk assets in respect of the five major banking groups' operational risk totaled about NIS 69 billion in 2012 (Table 1.15).

9. LIQUIDITY RISK

The relatively high liquidity level of the Israeli banking system improved slightly this year, continuing the increase in 2011. This improvement stemmed from a funds surplus in the local currency segments of the banking system—due to a lack of growth in the supply of bank business credit and a decline in demand for this credit, and due to the growth in deposits of the public and the increase in capital (Section 3 above). The banking corporations channeled their surplus funds to increasing their holdings of low-risk bonds (particularly Israel government bonds), and to slightly increasing their cash balances and their deposits with the Bank of Israel. This line of action developed, inter alia, in light of the positive developments in the bond market in 2012, and taken together with the increase in the cash balances and deposits with the Bank of Israel in 2012, it may suggest that the banking corporations preferred to invest in low-risk assets. This is apparently in light of the medium-to-high risk levels of business borrowers, and the banking corporations' desire to reduce their risk assets and improve their capital and liquidity coverage ratios as part of their preparations for the implementation of the Basel III guidelines.

[37] Events of this type include the publication of Israeli credit card numbers on Internet sites, warnings and threats regarding attacks on banking corporations' mail servers, and an attack on the computer systems of financial institutions around the world, among others.

Table 1.13
Selected liquidity indices, the five major banking groups, 2007–12

	Year	Leumi	Hapoalim	Discount	Mizrahi-Tefahot	First International	The five groups
Ratio of liquid assets[a] to liquid liabilities[b]	2007	0.31	0.24	0.35	0.24	0.33	0.29
	2008	0.31	0.23	0.32	0.18	0.33	0.27
	2009	0.39	0.37	0.41	0.24	0.42	0.38
	2010	0.33	0.38	0.32	0.20	0.33	0.32
	2011	0.38	0.38	0.39	0.27	0.37	0.37
	2012	0.39	0.42	0.40	0.27	0.36	0.39
Ratio of liquid assets[a] to total assets	2007	0.17	0.15	0.20	0.13	0.23	0.17
	2008	0.17	0.15	0.17	0.10	0.23	0.16
	2009	0.23	0.23	0.24	0.13	0.29	0.23
	2010	0.19	0.23	0.21	0.12	0.24	0.20
	2011	0.22	0.23	0.25	0.15	0.26	0.23
	2012	0.24	0.26	0.25	0.14	0.27	0.24
Ratio of credit to the public to deposit of the public	2007	0.83	0.88	0.78	0.99	0.73	0.85
	2008	0.87	0.98	0.84	0.97	0.77	0.90
	2009	0.82	0.93	0.81	1.00	0.73	0.86
	2010	0.90	0.96	0.86	1.01	0.79	0.91
	2011	0.86	0.96	0.76	1.00	0.80	0.89
	2012	0.83	0.92	0.77	1.00	0.80	0.87

[a] Liquid assets include total government bonds, as well as cash and deposits at the Bank of Israel and at banks with an original term to redemption of up to 3 months.
[b] Liquid liabilities include total deposits with an original term to redemption of up to 3 months.
SOURCE: Banking Supervision Department based on published financial statements.

The high level of liquidity in the domestic banking system is affected to a certain extent by the unique structure of its resources, which are comprised of a stable core of the public's deposits for the most part and, to a lesser extent, of other financing sources (such as deposits of banks and governments and debt instruments). This is reinforced by the ratio of credit to deposits in the five major banking groups, which was 87 percent in 2012, a figure which has remained relatively low and stable, over time, in an international comparison (Table 1.13). This stable structure of sources is a direct result of the public's trust in the Israeli banking system and of high savings rates among households. This is particularly prominent in recent years in light of the difficulties experienced by banks around the world in raising deposits from the public and the increasing reliance on wholesale funding, which was proven to be unreliable during the recent financial crisis.

The slight improvement this year in the system's liquidity was reflected in the various liquidity ratios that are used by the Banking Supervision Department to assess the adequacy of liquidity in the banking system (Table 1.13 and Table 1.14): The Supervisory Model ratio[38] (total operations in shekels and foreign currency) increased further in 2012, to 1.61, compared with 1.58 in the same period in 2011[39] (Table 1.14). An assessment of the "core liquidity"[40] of the system, relating total short term assets and short-term liabilities (Table 1.13), shows similar results. A comparison of the ratio between total assets with a maturity of up to three months (including total government bonds and total bonds rated investment grade) and total short-term deposits in the banking systems in OECD countries indicates that the level of liquidity in the Israeli banking system is similar to the average of the banking systems in the other member countries in the organization.

Additionally, as part of the regular evaluations carried out by the Banking Supervision Department to assess the resilience of the banks and the banking system in general to a possible situation of liquidity distress, the effect of a possible stress scenario—the immediate redemption of 10 percent of the public's short-term deposits—on the value of the Regulatory Model ratio was estimated. The results of the stress test indicate both that the system as a whole is resilient to shocks and that each of the banks is resilient (Table 1.14).

Concentration of deposits in the banking system remained stable, and showed slight growth in the share of the 20 largest deposits of up to one month out of total deposits of the public for a period of up to one month, from 12 percent last year to 14 percent (Table 1.14). Institutional investor deposits as a share of deposits of the public in Israel's banking corporations were 9.4 percent in 2012.

[38] The Supervisory Model ratio was developed by the Banking Supervision Department, and is calculated as the ratio between liquid assets and liquid liabilities for a period of up to one month. This ratio is used by the Department to assess trends in the banking corporations' level of liquidity. A value of 1 is the minimum required in order to ensure meeting liquidity needs. The ratio also enabled a broad comparison.

[39] An assessment of the Regulatory Model method among the five major banking groups shows a slight increase in variance among the banks. The maximum value recorded this year among the five major banks was 1.79, and the lowest value was 1.38.

[40] "Core liquidity" as defined here relates to total cash and deposits with the Bank of Israel and with banks, whose original term to maturity was up to three months, plus total government bonds.

Table 1.14

The supervisory model ratio[a], stress scenario, and selected liquidity concentration indices[b], the five major banks

	2010	2011	2012
Supervisory model ratio (baseline scenario)	**1.42**	**1.58**	**1.61**
Minimum value of the supervisory ratio	1.21	1.41	1.38
Maximum value of the supervisory ratio	1.67	1.74	1.79
Scenario 1: Immediate redemption of 10% of total public short-term deposits	**1.28**	**1.25**	**1.27**
Average change in baseline value[c]	0.35	0.34	0.34
Maximum change in baseline value[d]	0.36	0.37	0.39
Concentration and stability of deposits			
Deposits up to NIS 1 million as a share of total deposits	0.35	0.35	0.35
Deposits above NIS 50 million as a share of total deposits	0.28	0.27	0.27
The 20 largest deposits of up to one month as a share of total deposits up to one month	0.14	0.12	0.14

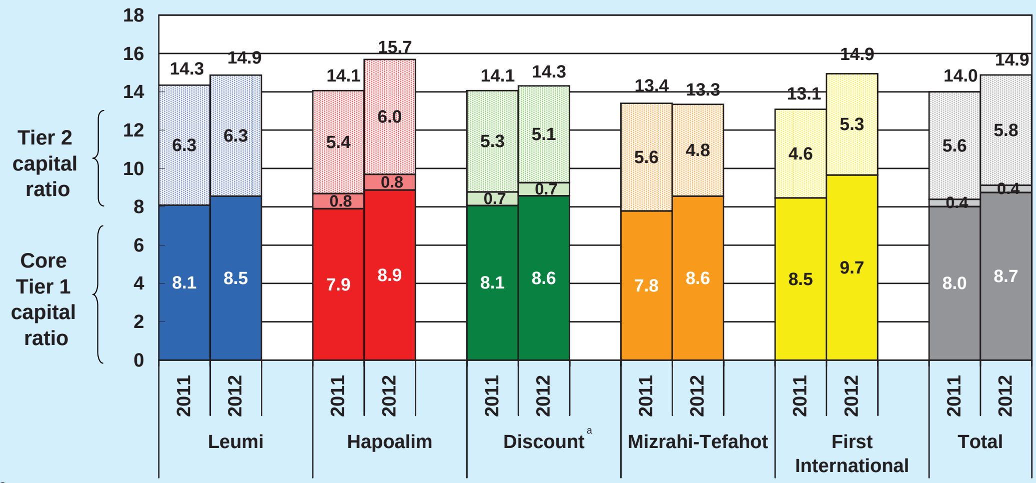
a) The supervisory model ratio was developed at the Banking Supervision Department, and is calculated as the ratio between liquid assets and liquid liabilities with one month duration. This ratio serves to assess trends in the banking corporations' level of liquidity. A value of 1 is the minimum required to ensure meeting liquidity needs.
b) The indices relate to activity in both Israeli and foreign currency (indexed and denominated).
c) The average gaps between the index value in the baseline scenario and its value after implementation of the scenario in each of the five major banking groups.
d) The maximum spread between the index value in the baseline scenario and its value after implementation of the scenario.
SOURCE: Based on reports to the Banking Supervision Department.

10. CAPITAL ADEQUACY

During 2012, the banks continued to act to increase the core Tier 1 capital ratio in order to meet the new core Tier 1 capital targets.[41] The ratio increased sharply, by 0.7 percentage points, from 8.0 percent to 8.7 percent (Table 1.15, Figure 1.19). As of December 2012, the core Tier 1 capital ratio in each of the banking groups was not lower than 8.5 percent[42], while the First International group has already reached the new target with a ratio of 9.7 percent. The increase in the core Tier 1 capital ratio included all five of the major banking groups, and we attribute this to four main factors: (1) The banks have thus far not distributed dividends for 2012, in order to reach core Tier 1 capital targets; (2) the profits that the banks accumulated over the course of the year; (3) the absence of growth in credit risk assets; and (4) the increase in the capital reserves as a result of the increase in the value of securities in the available for sale portfolio.

The weighted credit risk assets of the banks did not increase this year[43], as a result of the change in the composition of the asset portfolio: Business credit[44] that is weighted at 100 percent contracted slightly, while in contrast, assets with a lower risk weighting—housing credit and Israel government bonds—increased.

Figure 1.19
Core Tier 1 and Tier 2 capital ratios and total capital ratio at the five major banking groups, December 2011 and December 2012



[a] The Discount group's core Tier 1 capital ratio does not include the deduction for the group's investment in First International Bank.

SOURCE: Banking Supervision Department based on published financial statements.

41 Details appear below.

42 The Core Tier 1 capital ratio at Discount does not include the deduction in respect of its investment in the First International Bank. If this investment is deducted, Discount's Core Tier 1 capital ratio is 8.0 percent.

43 Other than at Mizrahi-Tefahot bank.

44 Mainly credit in respect of borrowers' activities abroad.

Table 1.15

Distribution of capital and capital ratios at the five major banking groups, December 2011 and December 2012

	Leumi		Hapoalim		Discount		Mizrahi-Tefahot		First International		Five groups	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
						(NIS million)						
Equity[a]	23,628	25,228	24,101	27,057	11,021	12,134	8,054	9,252	5,995	6,772	72,799	80,443
Core Tier 1 capital[b]	23,255	24,312	23,769	26,323	10,164	10,814	7,912	9,145	5,764	6,516	70,864	77,110
Tier 1 capital[b]	23,225	24,312	26,157	28,745	11,887	12,562	7,912	9,145	5,764	6,516	74,945	81,280
Tier 2 capital[b]	18,020	17,978	16,175	17,801	7,173	6,862	5,722	5,129	3,151	3,573	50,241	51,343
Tier 3 capital[b]	-	-	-	-	-	-	-	-	-	-	-	-
Total capital base	41,245	42,290	42,332	46,546	19,060	19,424	13,634	14,274	8,915	10,089	125,186	132,623
						(NIS million)						
Total balance sheet	365,854	376,160	356,662	376,388	202,472	200,880	150,246	162,242	101,113	105,387	1,176,347	1,221,057
Total exposure[c]	464,761	475,306	523,429	538,207	256,525	253,310	201,226	213,575	127,267	132,116	1,573,208	1,612,514
Credit risk	258,601	253,838	274,037	269,948	120,256	120,686	92,973	98,736	60,240	59,734	806,107	802,942
Market risks	9,011	9,710	7,018	5,557	1,875	2,238	947	1,119	1,446	1,168	20,297	19,792
Operational risk	20,095	20,841	20,047	21,302	13,418	12,788	7,851	7,093	6,438	6,619	67,849	68,643
Total risk-weighted assets	287,707	284,389	301,102	296,807	135,549	135,712	101,771	106,948	68,124	67,521	894,253	891,377
						(Percent)						
Ratio of core capital to total exposure	5.0	5.1	4.5	4.9	4.0	4.3	3.9	4.3	4.5	4.9	4.5	4.8
Core Tier 1 capital[d] ratio	**8.1**	**8.5**	**7.9**	**8.9**	**8.1**	**8.6**	**7.8**	**8.6**	**8.5**	**9.7**	**8.0**	**8.7**
Tier 1 capital ratio	8.1	8.5	8.7	9.7	8.8	9.3	7.8	8.6	8.5	9.7	8.4	9.1
Tier 2 capital ratio	6.3	6.3	5.4	6.0	5.3	5.1	5.6	4.8	4.6	5.3	5.6	5.8
Total capital ratio	**14.3**	**14.9**	**14.1**	**15.7**	**14.1**	**14.3**	**13.4**	**13.3**	**13.1**	**14.9**	**14.0**	**14.9**

[a] Including minority interest in accordance with the groups' balance sheet.

[b] After deductions.

[c] Balance-sheet and off-balance-sheet balances after balance-sheet and off-balance-sheet offsets, after allowance for credit losses and excluding the effect of credit conversion coefficients and risk-weighting coefficients as defined in Basel II.

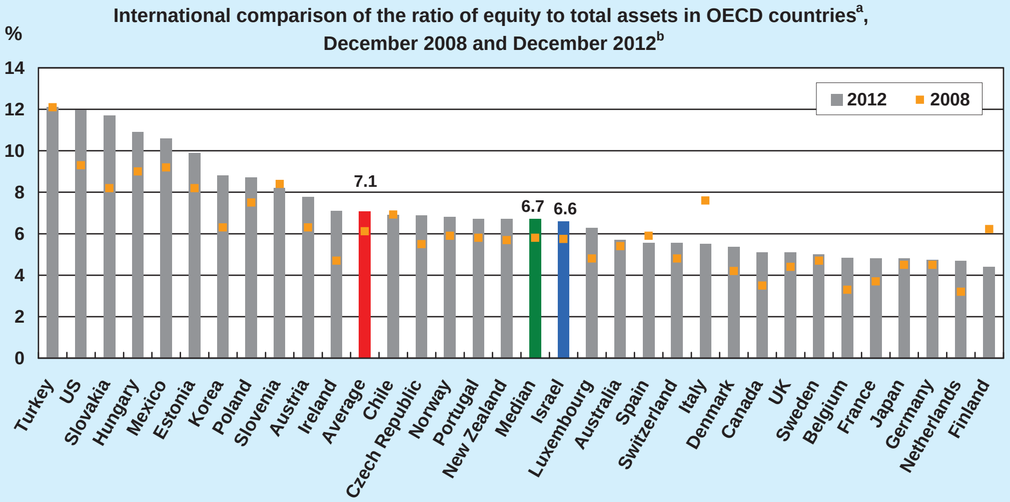
[d] The core Tier 1 capital ratio of the Discount group does not include the deduction in respect of the group's investment in First International.

SOURCE: Based on published financial statements and reports to the Banking Supervision Department.

In March 2012, the Supervisor of Banks published updated guidelines regarding minimum core Tier 1 capital ratios. According to these guidelines, all of the banking corporations are required to meet a minimum core Tier 1 capital ratio of 9 percent (in Basel III terms) by January 1, 2015.[45] In addition, the guidelines require that banking corporations whose assets exceed 20 percent of the total balance-sheet assets of the banking system are required to increase their minimum core Tier 1 capital ratio by one percentage point to reach a ratio of 10 percent by January 1, 2017. This additional directive applies to Bank Leumi and Bank Hapoalim, which together constitute about 60 percent of the banking system.

In June 2013, the Supervisor of Banks published guidelines for the adoption of Basel III regarding capital adequacy measurement, which mainly deal with setting the overall capital ratio and its composition.[46] All banking corporations must hold total capital of 12.5 percent, and those required to meet a core Tier 1 capital ratio of 10 percent must hold total capital of 13.5 percent. This directive will come into force on January 1, 2014. According to estimates by the banks in their financial reports, the full implementation of Basel III directives is expected to lead to an average reduction of about 0.5 percentage points in the core Tier 1 capital ratio in the Israeli banking system: 0.3 percentage points at Leumi; 0.3 to 0.5 percentage points at Hapoalim; 1.2 percentage points at Discount; 0.3 percentage points at Mizrahi-Tefahot; and 0.15 percentage points at First International. Most of the effect on the core Tier 1 capital ratio comes from the new rules concerning deductions from capital, deferred taxes and credit valuation adjustments (CVA).

Figure 1.20
International comparison of the ratio of equity to total assets in OECD countries[a], December 2008 and December 2012[b]



[a] Greece is not included due to outlier data (-1.9). Iceland was not included due to missing data.
[b] Data for Sweden are correct as of December 2009. Data for Slovnia are correct as of December 2010. Data for Switzerland, Japan and the UK are correct as of December 2011. Data for Ireland, South Korea, New Zealand, and Hungary are correct as of March 2012. Data for Belgium, Italy, Finland, Chile and the Czech Republic are correct as of June 2012. Data for Denmark and Poland are correct as of September 2012. Data for Israel, Portugal, Australia, Canada, France, Norway, Estonia, Germany, Luxembourg, the Netherlands, Austria, Mexico, Spain, the US and Turkey are correct as of December 2012.
SOURCE: Foreign countries - IMF; Israel - Banking Supervision Department based on published financial reports.

45 This ratio includes a capital retention buffer of 2.5 percent.
46 More information can be found in Table 2.1.

The banks in Israel are preparing for the adoption of the new capital targets and the implementation of the Basel III guidelines. These preparations are strengthening the banks' core Tier 1 capital and contributing to the resilience and stability of the banking system as a whole. The strengthening of the core Tier 1 capital in the Israeli banking system and in banking systems around the world is reflected in the improvement in the leverage ratio that has taken place in recent years[47] (Figure 1.20).

Box 1.1: A macroeconomic stress test of the banking system, based on a uniform scenario

The Banking Supervision Department conducts stress tests of the banking system, on both regular and ad-hoc bases, for specific as well as systemic needs. Stress testing is an important tool used by the Banking Supervision Department to evaluate the stability of the banking corporations and to identify both specific and systemic risks. Stress tests are also used to assist in evaluating capital adequacy.

A macroeconomic stress test based on a uniform scenario was carried out by the Banking Supervision Department for the first time in 2012. Each of the five major banking groups conducted the test in accordance with detailed guidelines sent to it, and was required to report to the Banking Supervision Department on the methodologies used to conduct the tests, and on their results. At the same time, the Banking Supervision Department conducted the test on each of the banking groups using a consistent and uniform methodology. This process, through which the regulatory authority and the banks conduct a macroeconomic stress test in parallel, is among the recommendations of the Basel Committee, and the international standard is to uphold it. In some countries, these tests are included in the regulatory authority's SREP processes and the banks' ICAAP processes, and they assist in the evaluation of capital adequacy.[1]

Throughout the test there was professional collaboration between the Banking Supervision Department and the banks, enabling the Department to evaluate the banks' ability to conduct a macroeconomic stress test—including basing the test on optimal databases, constructing models, and understanding the focal points of risk and the effects of the main macro variables on a bank's profitability and stability.

The test was based on three scenarios—a base scenario and two stress scenarios:

1. The base scenario: This scenario is based on the quarterly projections of the Bank of Israel's Research Department and of other entities around the world regarding expected global developments.

2. Scenario 1: A moderate local security scenario: This scenario reflects the possible ramifications of a moderate security incident in Israel. The scenario is characterized by an increase in the State of Israel's risk premium and in a capital outflow that leads to a significant depreciation

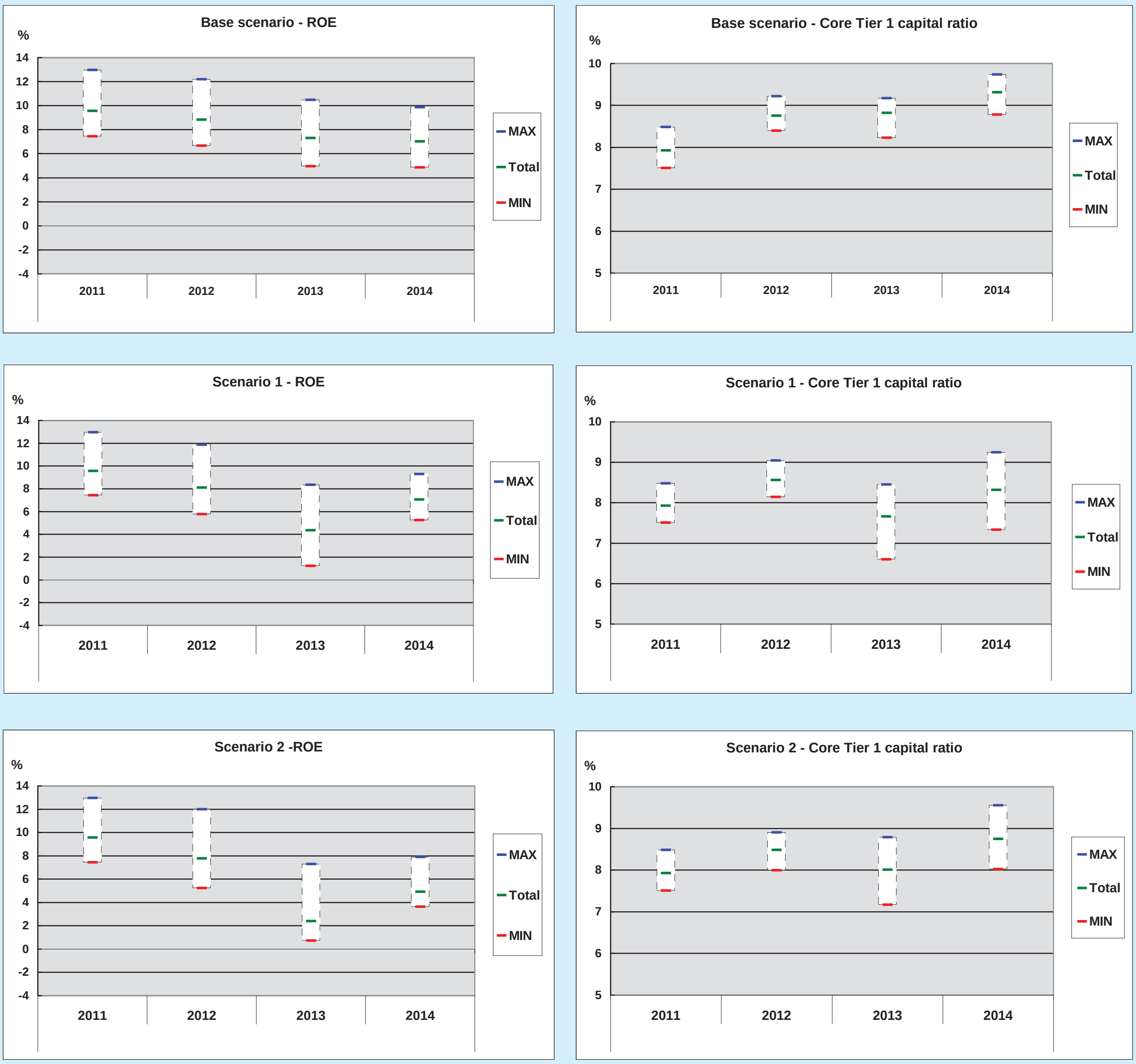
[1] It should be emphasized that this test does not replace the stress tests currently carried out by the banks as part of the ICAAP, but comes in addition to them.

[47] The ratio of equity to total assets.

of the shekel. This in turn leads to high inflation and an increase in the Bank of Israel interest rate. But the negative impact on GDP and the increase in unemployment are moderate.

3. Scenario 2: Global stress scenario: The assumption in this scenario is that there is a deterioration in the macro variables due to a severe global crisis. The crisis is of a similar dimension to the 2008 crisis, but has a more serious effect on the economic situation in Israel. The deterioration is reflected in a contraction of GDP for four quarters (the contraction in 2008 lasted for just two quarters) and in low growth rates thereafter.

Figure 1
Results of macroeconomic balance sheet stress test



SOURCE: Based on reports to the Banking Supervision Department.

These scenarios were constructed by the Bank of Israel's Research Department. For each one, the Research Department formulated forecasts for the macroeconomic variables. These forecasts are partially based on the Dynamic Stochastic General Equilibrium (DSGE) model, which is used in the formulation of the Bank of Israel's monetary policy decisions. The starting point was based on data from the financial reports for December 2011, and the forecast covers the period to the end of 2014.

The stress test was carried out using a top-down approach[2], and was based on Banking Supervision Department data and on the methodologies developed in the Department. These include satellite models connecting the macroeconomic variables and the credit risk and profitability variables of the banks; a methodology to determine dividend distribution policy; and a methodology to determine the change in value of government bonds and bonds of foreign financial institutions.

The results indicate that the global scenario and the moderate local scenario have significant effects on the banking system, but these effects do not constitute a threat to the system's stability. The banking system will still show a positive return on equity, although profitability will decline significantly—to just 2 percent in 2013 under the global scenario. Under that scenario, the core Tier 1 capital ratio of the banking system will decline to 8.0 percent in 2013. For the purpose of stress tests, the generally accepted minimum core Tier 1 capital ratio worldwide is 5.0 percent (Figure 1).

The macroeconomic models do not fully capture all of the potential risk factors, such as the effect of feedback and contagion on markets and institutions, the risk of borrower group concentration, the risk of industry concentration, leveraged credit, and more. The Banking Supervision Department therefore integrated other methodologies that capture additional risk factors, which significantly increased the negative impact on the banking groups resulting in an overall loss. However, in all banking groups, the core Tier 1 capital ratio remained above 6 percent.

Among the factors that contributed to the banking system's resilience in the stress scenarios were the strong data at the starting point of the scenarios, including capital levels and profitability.

[2] When the stress test is carried out top-down, the regulatory authority defines the stress scenario, estimates its effect on the individual bank's portfolio or on the aggregate portfolio of all the banks, and analyzes its effect on the banking system.

11. FINANCIAL RESULTS

a. Profits and profitability of the banking groups

The net profit of the five major banking groups totaled about NIS 6 billion in 2012, a decline of 15 percent compared with 2011. At the same time, profit before taxes grew by 6 percent (Table 1.16).

The net profit of the five major banking groups reflects a return on equity of 7.9 percent, which is lower than in 2011 (10.2 percent) and the long-term average (9.9 percent) (Figure 1.21). This low return was affected mainly by the sharp decline in the return on equity for the Bank Leumi group, to only 3.8 percent. The return was also affected by the increase in capital as part of the banking groups' preparations to meet the new capital targets.

Table 1.16

Main items in consolidated profit and loss statements of the five major banking groups, 2010–12

(NIS millon, at current prices)

	Leumi				Hapoalim				Discount			
	2010	2011	2012	% change in 2012 compared with 2011	2010	2011	2012	% change in 2012 compared with 2011	2010	2011	2012	% change in 2012 compared with 2011
Interest income	12,489	14,283	13,507	-5.4	12,806	14,793	14,346	-3.0	7,400	8,413	7,843	-6.8
Interest expenses	5,517	7,176	6,099	-15.0	4,853	6,696	6,186	-7.6	2,849	3,796	3,384	-10.9
Net interest income	**6,972**	**7,107**	**7,408**	**4.2**	**7,953**	**8,097**	**8,160**	**0.8**	**4,551**	**4,617**	**4,459**	**-3.4**
Loan loss provisions	584	734	1,236	68.4	1,030	1,202	987	-17.9	821	778	726	-6.7
Net interest income after loan loss provisions	**6,388**	**6,373**	**6,172**	**-3.2**	**6,923**	**6,895**	**7,173**	**4.0**	**3,730**	**3,839**	**3,733**	**-2.8**
Non interest income	**4,767**	**4,175**	**4,774**	**14.3**	**4,890**	**4,991**	**5,477**	**9.7**	**2,996**	**2,937**	**3,257**	**10.9**
of which: Noninterest financing income	475	11	444		-457	-213	255		172	98	352	
of which: stocks	397	-12	0		77	55	90	63.6	87	141	80	-43.3
bonds	108	441	520	17.9	390	136	347		223	143	341	
activity in derivative instruments	-1,782	1,064	-673		-3,210	384	-315		-783	-156	-333	
exchange rate differentials	1,752	-1,482	597		2,286	-799	114		648	-76	265	
of which: Fees	4,129	4,116	4,199	2.0	5,167	5,098	5,105	0.1	2,725	2,670	2,685	0.6
Total operating and other expenses	**7,961**	**8,341**	**9,100**	**9.1**	**8,291**	**8,365**	**8,825**	**5.5**	**5,659**	**5,845**	**5,826**	**-0.3**
of which: salaries and related expenses	4,686	5,061	5,290	4.5	4,631	4,759	5,012	5.3	3,218	3,466	3,444	-0.6
Pre-tax income	**3,194**	**2,207**	**1,846**	**-16.4**	**3,522**	**3,521**	**3,825**	**8.6**	**1,067**	**931**	**1,164**	**25.0**
Income tax provision	1,241	418	811	94.0	1,342	809	1,254	55.0	479	114	407	
After tax income	**1,953**	**1,789**	**1,035**	**-42.1**	**2,180**	**2,712**	**2,571**	**-5.2**	**588**	**817**	**757**	**-7.3**
Net income attributed to shareholders	**2,334**	**1,891**	**931**	**-50.8**	**2,201**	**2,746**	**2,543**	**-7.4**	**690**	**847**	**802**	**-5.3**
Capital for calculating ROE[a]	22,682	22,866	24,436	6.9	21,204	22,883	25,178	10.0	9,857	10,329	11,296	9.4
Total pre-tax ROE (percent)	**14.08**	**9.65**	**7.55**		**16.61**	**15.39**	**15.19**		**10.82**	**9.01**	**10.30**	
Total after tax ROE (percent)	**10.29**	**8.27**	**3.81**		**10.38**	**12.00**	**10.10**		**7.00**	**8.20**	**7.10**	
Total ROA (percent)	**0.72**	**0.55**	**0.25**		**0.70**	**0.81**	**0.69**		**0.37**	**0.44**	**0.40**	
Interest margin (percent)[b]	**2.28**	**2.24**	**2.18**		**2.75**	**2.57**	**2.35**		**2.59**	**2.52**	**2.30**	

Table 1.16 continued

Main items in consolidated profit and loss statements of the five major banking groups, 2010–12

(NIS millon, at current prices)

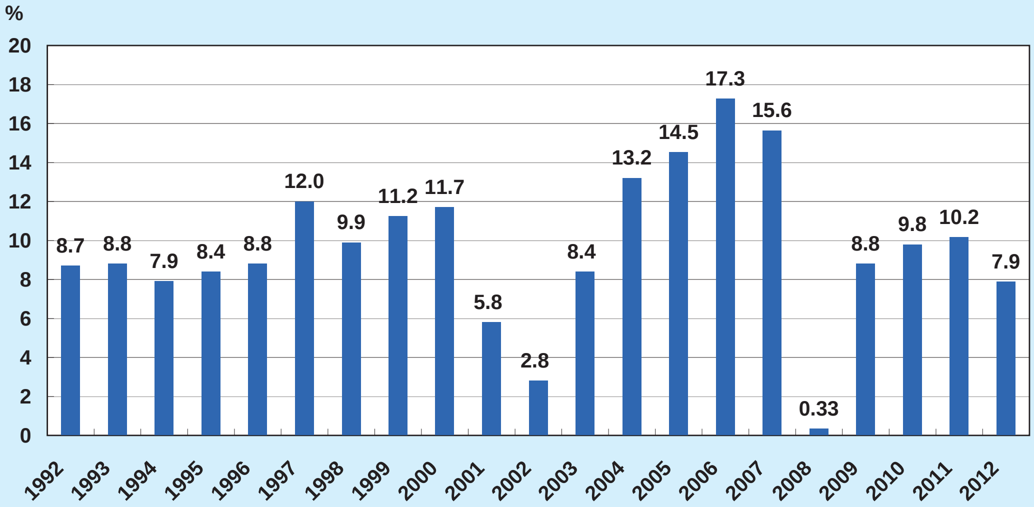
	Mizrahi-Tefahot				First International				Total for all groups			
	2010	2011	2012	% change in 2012 compared with 2011	2010	2011	2012	% change in 2012 compared with 2011	2010	2011	2012	% change in 2012 compared with 2011
Interest income	5,509	6,840	6,591	-3.6	3,293	4,096	3,787	-7.5	41,497	48,425	46,074	-4.9
Interest expenses	2,621	3,741	3,377	-9.7	1,375	1,919	1,537	-19.9	17,215	23,328	20,583	-11.8
Net interest income	**2,888**	**3,099**	**3,214**	**3.7**	**1,918**	**2,177**	**2,250**	**3.4**	**24,282**	**25,097**	**25,491**	**1.6**
Loan loss provisions	473	338	276	-18.3	115	93	134	44.1	3,023	3,145	3,359	6.8
Net interest income after loan loss provisions	**2,415**	**2,761**	**2,938**	**6.4**	**1,803**	**2,084**	**2,116**	**1.5**	**21,259**	**21,952**	**22,132**	**0.8**
Non interest income	**1,440**	**1,509**	**1,573**	**4.2**	**1,712**	**1,392**	**1,547**	**11.1**	**15,805**	**15,004**	**16,628**	**10.8**
of which: Noninterest financing income	-25	18	95		176	-94	150		341	-180	1,296	
of which: stocks	-1	6	29		8	-33	38		568	157	237	51.0
bonds	37	18	149		176	131	164	25.2	934	869	1,521	75.0
activity in derivative instruments	-235	397	-62		-393	59	-50		-6,403	1,748	-1,433	
exchange rate differentials	174	-409	-21		385	-251	-2		5,245	-3,017	953	
of which: Fees	1,432	1,474	1,452	-1.5	1,501	1,447	1,362	-5.9	14,954	14,805	14,803	0.0
Total operating and other expenses	**2,566**	**2,667**	**2,786**	**4.5**	**2,783**	**2,816**	**2,791**	**-0.9**	**27,260**	**28,034**	**29,328**	**4.6**
of which: salaries and related expenses	1,529	1,615	1,701	5.3	1,552	1,630	1,633	0.2	15,616	16,531	17,080	3.3
Pre-tax income	**1,289**	**1,603**	**1,725**	**7.6**	**732**	**660**	**872**	**32.1**	**9,804**	**8,922**	**9,432**	**5.7**
Income tax provision	469	522	599	14.8	319	216	324	50.0	3,850	2,079	3,395	63.3
After tax income	**820**	**1,081**	**1,126**	**4.2**	**413**	**444**	**548**	**23.4**	**5,954**	**6,843**	**6,037**	**-11.8**
Net income attributed to shareholders	**801**	**1,044**	**1,076**	**3.1**	**438**	**480**	**577**	**20.2**	**6,464**	**7,008**	**5,929**	**-15.4**
Capital for calculating ROE[a]	6,788	7,151	8,214	14.9	5,475	5,647	6,074	7.6	66,007	68,876	75,197	9.2
Total pre-tax ROE (percent)	**18.99**	**22.42**	**21.00**		**13.37**	**11.69**	**14.36**		**14.85**	**12.95**	**12.54**	
Total after tax ROE (percent)	**11.80**	**14.60**	**13.10**		**8.00**	**8.50**	**9.50**		**9.79**	**10.18**	**7.89**	
Total ROA (percent)	**0.64**	**0.74**	**0.69**		**0.43**	**0.48**	**0.56**		**0.61**	**0.62**	**0.50**	
Interest margin (percent)[b]	**2.43**	**2.24**	**2.15**		**2.10**	**2.34**	**2.27**		**2.47**	**2.40**	**2.26**	

[a] Capital for the purpose of calculating total ROE includes total capital resources minus the average balance of minority interest minus/plus the average balance of losses/profits that have yet to be realized from reconciliations to fair value of bonds for trading and losses/profits in respect of bonds available for sale, which are included in shareholders equity.

[b] Net interest income to total financial assets that yield financing income.

SOURCE: Banking Supervision Department based on published financial statements.

Figure 1.21
Return on Equity (ROE) of the five major banking groups, 1992–2012



SOURCE: Banking Supervision Department based on published financial statements.

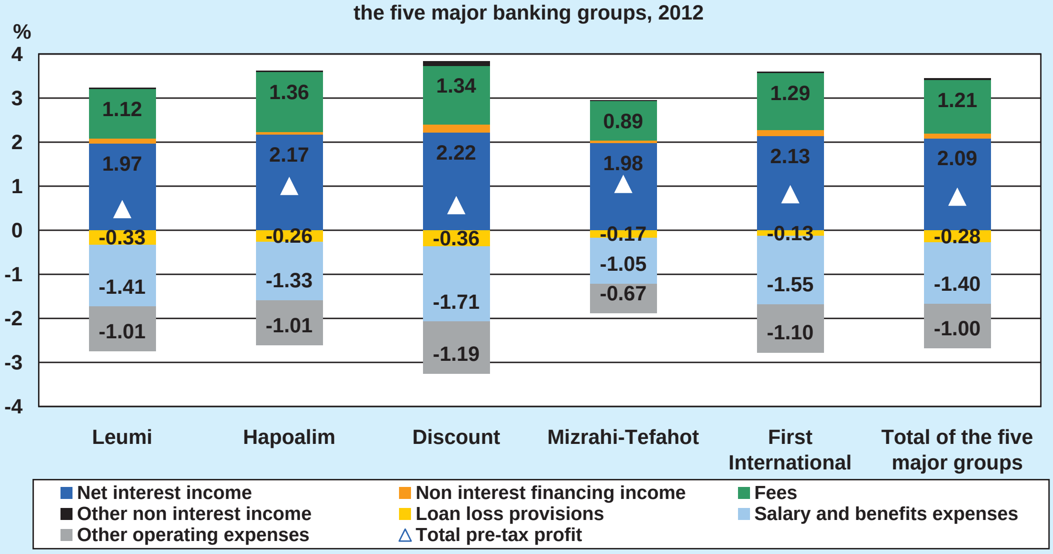
An examination of the average pre-tax return on equity rates in OECD countries between 2006 and 2012 shows that the profitability of the Israeli banking system is similar to the average in the other countries in the organization.[48]

Developments of profit before taxes were affected by various factors, exogenous to the banking system, during the year, related to the business environment in which the banking groups operated. Among the factors with a negative impact were the slowdown in business activity in the Israeli economy, which was reflected in the freeze in business sector credit, among other things; the decline in market interest rates, which serve as an anchor for the banking groups' activities in each of the indexation segments; and the change in the composition of the credit portfolio. In contrast, the positive developments in the stock and bond markets, the growth in bond holdings by the banking corporations, and the increase in credit (for housing) had a positive effect on profit.

An assessment of the effects these factors have on each of the profit and loss components shows that the increase in the bond portfolio, together with the improvement in the capital markets, acted to increase net interest income as well as noninterest financing income (by increasing profits derived from adjustments to fair value and the sale of bonds). However, the reduction of the Bank of Israel interest

[48] At the same time, the global financial crisis did not impact the local banking system to the same extent that it did the banking systems in the other countries in the organization.

Figure 1.22
Pre-tax profits as a percentage of assets, the five major banking groups, 2012



SOURCE: Banking Supervision Department based on published financial statements.

rate—alongside the moderate growth in credit to the public, which was characterized by relatively low profits—negatively affected net interest income, and partially offset the increase.

On the operational side, banking groups' profits were affected by growth in salaries and related expenses in respect of voluntary severance plans and organizational changes implemented in some of the banking groups. Income from fees remained stable—a result of the increase in the volume of fee-bearing activity at the same time as a decline in fee rates.

While pre-tax profit increased in 2012, net profit attributed to shareholders declined, as noted, by 15 percent compared with 2011, due to the low tax provisions recorded in 2011 as a result of the tax law change enacted, which cancelled the corporate tax reduction path.

(1) Net interest income

Net interest income increased by about 2 percent during the year, compared with 2011, and totaled NIS 25.5 billion. This was mainly the result of the fact that interest income showed a more moderate decline than interest expenditures. In 2012, two sources of interest income led to this development—interest income from classic financial intermediation activity[49] and interest income from bond holdings.

Net income from classic financial intermediation—from credit to the public and deposits by the public—is the main source of net interest income. Compared to 2011, this income declined by 1 percent,

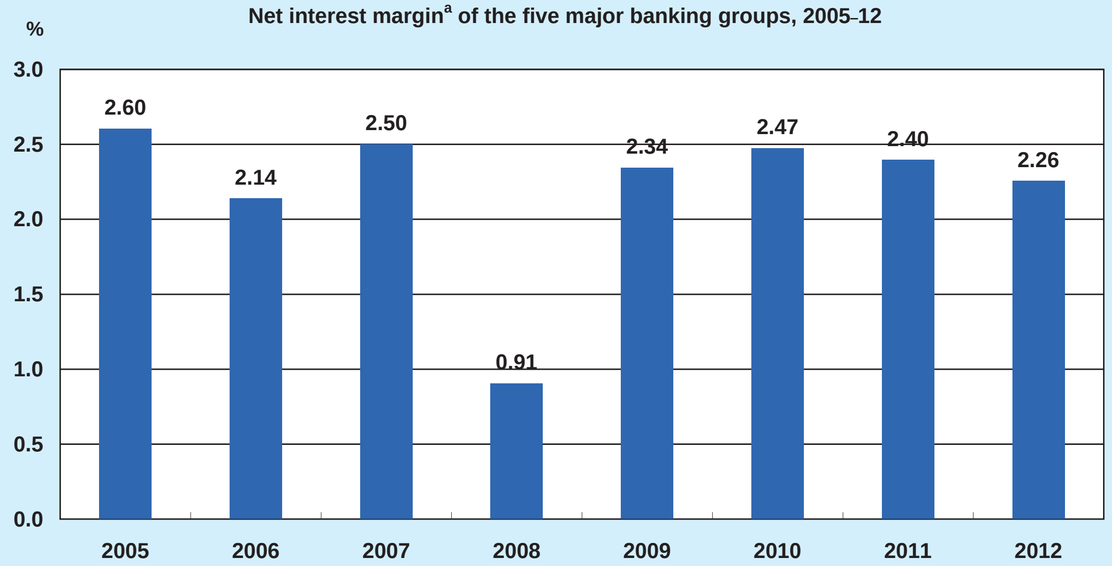
[49] Providing credit and accepting deposits.

to NIS 24.7 billion, as a result of channeling funds to uses other than credit to the public, and of the reduction in the spread between the interest rate on credit to the public and the interest rate on deposits by the public. The reduction in the interest rate spread derives from the decline in the base interest rates that serve as anchors for activity in each of the indexation segments (the Bank of Israel interest rate, yields on CPI-indexed government bonds, and the LIBOR interest rate), and from an increase in activity volumes in the field of housing credit, which is characterized by narrow spreads.

An assessment of income from bond interest shows that the main factor in the increase of this income is the marked growth in the securities portfolio—a direct result of the increase in the volume of bond holdings, mainly in Israel government bonds. This increase in bond holdings led to an increase in bond interest income, which acted to offset the decline in interest income from classic intermediation activity. As a result, total net interest income increased compared to 2011.

The net interest margin, which reflects the return on yield-generating assets, declined from 2.4 percent in 2011 to 2.26 percent in 2012 (Figure 1.23). The decline was a result of the decline in the inflation environment among other things, and was partially offset by the slight increase in the scope of activity, mainly among households.

Figure 1.23
Net interest margin[a] of the five major banking groups, 2005–12



[a] Net interest income to average interest-earning assets.
SOURCE: Banking Supervision Department based on published financial statements.

(2) Loan loss provisions

Total loan loss provisions increased in 2012 by about 6.8 percent to NIS 3.4 billion. These provisions constitute 0.4 percent of total balance-sheet credit to the public, a similar rate to the average of the past three years.

The development of loan loss provisions was not consistent among the five major banking groups in 2012, rather, it was characterized by considerable variance.

An assessment of the development of loan loss provisions by industry shows that the increase in loan loss provisions stems mainly from the financial services industry, where the ratio of loan loss provisions to total credit increased from about 0.4 percent to 2.7 percent, totaling about NIS 1.4 billion. The growth in provisions in the financial services industry stems mainly from the large holding companies.

(3) Noninterest and other income

The five major banking groups' total noninterest income was about NIS 17 billion, an increase of 11 percent compared to 2011. This income includes revenue from the sale and adjustment to fair value of stocks and bonds, income from exchange rate differentials, income from activity in derivatives, fee income and other income.

As a result of developments in the domestic financial markets and the increase in major indices, income from the sale and adjustment to fair value of stocks and bonds increased to about NIS 2 billion (an increase of 71 percent compared to 2011). The appreciation of the shekel against the dollar led to an increase in income from exchange rate differentials due to the surplus of the banking corporations' foreign currency liabilities. This income totaled about NIS 1 billion, and stands in contrast to the loss recorded in 2011.

Fee income and other income remained stable compared to 2011, totaling NIS 15.3 billion (Table 1.17). This income was affected by two factors this year, which acted in opposite directions: The increase in the activity volume of households (the quantity factor) was offset by the decline in fee rates (the price factor).

(4) Operating and other expenses

Total operating expenses in 2012 reached about NIS 29 billion, an increase of about 5 percent over 2011. Similar to previous years, the increase derived primarily from an increase in salaries and related expenses, which are the largest component of the banking groups' operating expenses.

In 2012, salary and related expenses increased by about 3 percent to NIS 17 billion (Table 1.17). This increase derived for the most part from a multiyear streamlining program and from changes in the organizational structure and the workforce structure, including early retirement, which some of the banking groups are carrying out. The effect of these programs is expected to be reflected in the coming years, but since their implementation began in 2012, the banking groups recorded an increase in related expenses.

The expenses recorded by the banking corporations in 2012 in respect of information technology totaled about NIS 5 billion, which is about 17 percent of total operating and other expenses. These expenses were designated for, among other things, updating the technology systems to the Basel guidelines and regulations, improving infrastructure, strengthening the information security systems and ensuring business continuity during emergencies.

Table 1.17
Fees and other income, and operating expenses, the five major banking groups, 2010 to 2012

	Amounts			Distribution			Changes compared with previous year	
	2010	2011	2012	2010	2011	2012	2011	2012
	(NIS million, current prices)			(Percent)			(Percent)	
1 Fees and other income								
Income from banking services								
Account management	3,053	3,036	3069	19.7	20.0	20	-0.6	1.1
Credit cards	3,414	3,568	3617	22.1	23.5	23.6	4.5	1.4
Credit services and contracts	1,202	1,224	1290	7.8	8.1	8.4	1.8	5.4
Foreign trade activity and special services	388	383	392	2.5	2.5	2.6	-1.3	2.4
Other fees[a]	1,529	1,486	1478	9.9	9.8	9.6	-2.8	-0.5
Total income from services	9,586	9,697	9846	62.0	63.9	64.2	1.2	1.5
Income from capital market activity								
Securities activity	3,219	2,874	2720	20.8	18.9	17.7	-10.7	-5.4
Financial products[b] distribution fees	722	745	718	4.7	4.9	4.7	3.2	-3.6
Management, operational and trust fees for institutional investors	344	302	256	2.2	2.0	1.7	-12.2	-15.2
Net profits/losses from investments in shares	151	41	288	1.0	0.3	1.9	-72.9	
Profits from severance pay funds	151	34		1.0	0.2		-77.5	
Total income from capital market activity	4,436	3,962	3982	28.7	26.1	26	-10.7	0.5
Financing transaction fees	**1,083**	**1,187**	**1,263**	**7.0**	**7.8**	**8.2**	**9.6**	**6.4**
Other income[c]	**359**	**338**	**241**	**2.3**	**2.2**	**1.6**	**-5.9**	**-28.7**
Total fee and other income	**15,464**	**15,184**	**15,332**	**100.0**	**100.0**	**100.0**	**-1.8**	**1.0**
2 Operating expenses								
Salaries and related expenses[d]	15,616	16,531	17,080	57.3	59.0	58.2	5.9	3.3
Of which: Salaries	10,336	10,717	10,694	37.9	38.2	36.5	3.7	-0.2
Maintenance and depreciation of premises and equipment	5,290	5,457	5,782	19.4	19.5	19.7	3.2	6
Amortization and write-down of intangible assets and goodwill	433	193	210	1.6	0.7	0.7	-55.4	8.8
Other expenses	5,921	5,853	6,256	21.7	20.9	21.3	-1.2	6.9
Of which: Marketing and advertising	959	964	969	3.5	3.4	3.3	0.5	0.5
Computer expenses	856	888	945	3.1	3.2	3.2	3.7	6.4
Communications	641	638	645	2.4	2.3	2.2	-0.5	1.1
Insurance	137	127	116	0.5	0.5	0.4	-7.3	-8.7
Office expenses	320	333	326	1.2	1.2	1.1	4.1	-2.1
Professional services	806	881	827	3.0	3.1	2.8	9.3	-6.1
Total operating expenses	**27,260**	**28,034**	**29,328**	**100.0**	**100.0**	**100.0**	**2.8**	**4.6**

[a] Includes mainly margin and collection fees on credit from the Finance Ministry, and from conversion and other differentials.

[b] As part of the Bachar Reform, the banks began to charge a "distribution fee". The ceiling on the distribution fee with respect to mutual funds amounts to 0.25 percent of assets in funds that invest mainly in low risk short-term investments, 0.80 percent of assets in equity funds, and 0.40 percent of assets in other funds. The ceiling with respect to provident funds and pension funds amounts to 0.25 percent of the assets in a fund.

[c] Includes profit from the realization of assets received in respect of the discharge of credit, management fees from related companies and other income.

[d] Includes payroll tax, severance pay, royalties, pension and national insurance.

SOURCE: Based on reports to the Banking Supervision Department.

Table 1.18

Salaries and related expenses of the five major banking groups, 1999 to 2012

(Reported amounts[a], current prices)

Year	Average number of posts[b]	Salaries		Related expenses[c]		Salaries and related expenses	
		Total	Per post	Total	Per post	Total	Per post
		(NIS million)	(NIS thousand)	(NIS million)	(NIS thousand)	(NIS million)	(NIS thousand)
1999	38,248	6,607	173	3,063	80	9,669	253
2000	39,251	7,220	184	3,557	91	10,777	275
2001	39,753	7,231	182	3,560	90	10,791	271
2002	39,531	6,819	172	3,976	101	10,795	273
2003	38,427	7,260	189	3,566	93	10,826	282
2004	38,170	7,898	207	3,681	96	11,579	303
2005	40,029	8,595	215	4,283	107	12,878	322
2006	42,200	9,561	227	5,354	127	14,915	353
2007	44,286	9,798	221	4,718	107	14,516	328
2008	46,628	9,015	193	5,705	122	14,720	316
2009	47,097	9,640	205	4,378	93	14,018	298
2010	47,818	10,336	216	5,280	110	15,616	327
2011	48,344	10,717	222	5,814	120	16,531	342
2012	48,010	10,694	223	6,386	133	17,080	356
			Change compared with previous year (Percent)				
2000	2.6	9.3	6.5	16.1	13.2	11.5	8.6
2001	1.3	0.1	-1.1	0.1	-1.2	0.1	-1.1
2002	-0.6	-5.7	-5.2	11.7	12.3	0.0	0.6
2003	-2.8	6.5	9.5	-10.3	-7.7	0.3	3.2
2004	-0.7	8.8	9.5	3.2	3.9	7.0	7.7
2005	4.9	8.8	3.8	16.4	11.0	11.2	6.1
2006	5.4	11.2	5.5	25.0	18.6	15.8	9.9
2007	4.9	2.5	-2.3	-11.9	-16.0	-2.7	-7.3
2008	5.3	-8.0	-12.8	20.9	14.5	1.4	-3.6
2009	1.0	6.9	6.2	-23.3	-23.8	-4.8	-5.7
2010	1.5	7.2	5.4	20.6	18.3	11.4	9.7
2011	1.1	3.7	2.8	10.1	9.1	5.9	4.6
2012	-0.7	-0.2	0.5	9.8	10.8	3.3	4.1

[a] Until 2002, amounts are adjusted for the effect of inflation on the basis of the December 2003 Consumer Price Index.

[b] The number of posts includes posts at subsidiaries abroad and at consolidated companies, translation of the cost of overtime and external personnel budgets that were required to supplement current personnel and for the integration of projects.

[c] This item includes mainly severance pay, benefit payments, advanced study fund, pension, vacation, national insurance and payroll tax, other related expenses, voluntary retirement expenses and benefits deriving from the allocation of options to employees.

SOURCE: Based on published financial statements and reports to the Banking Supervision Department.

b. Operating efficiency

Improving operating efficiency can reduce the costs of financial products and services without negatively impacting revenue. However, relative to other banking systems in the world, the Israeli banking system is typified by a low level of efficiency, as shown by an analysis of the indices customarily used for evaluating operating efficiency:

The efficiency ratio measures the share of operating expenses out of total income.[50] This ratio is about 70 percent at the five major banking groups and at the three independent banks, and has remained

[50] Total net interest income and noninterest income.

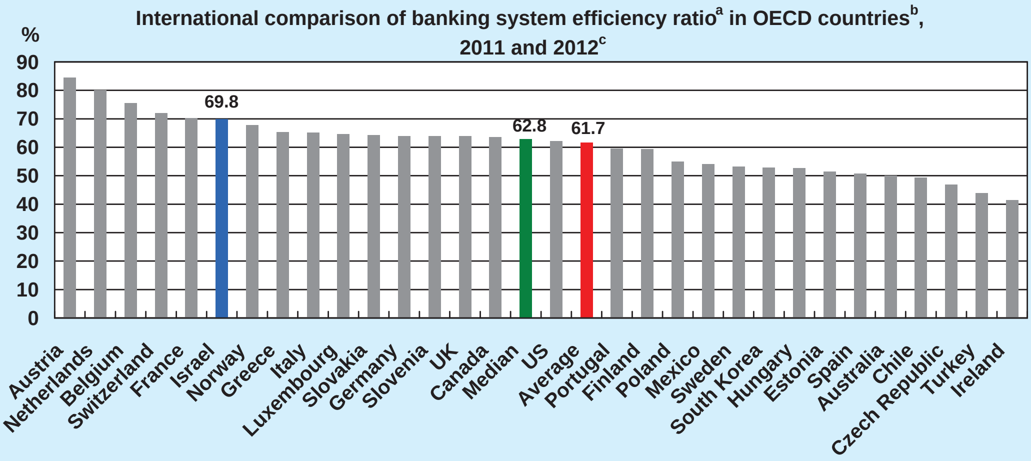
stable in recent years (Table 1.19). The efficiency ratio is directly affected by the salary and related expenses item, and as of December 2012, this item was about 58 percent of total expenses, similar to the long-term average (60 percent).

Table 1.19
Average cost [a] and efficiency ratio[b], 2010–12
(percent)

Bank	Average cost			Efficiency ratio[c]		
	2010	2011	2012	2010	2011	2012
Leumi	2.45	2.40	2.45	67.8	73.9	74.7
Hapoalim	2.63	2.47	2.41	64.6	63.9	64.7
Discount	3.03	3.01	2.89	75.0	77.4	75.5
Mizrahi-Tefahot	2.04	1.88	1.78	59.3	57.9	58.2
First International	2.71	2.79	2.70	76.7	78.9	73.5
Average of the five major banking groups	**2.58**	**2.50**	**2.45**	**68.0**	**69.9**	**69.6**
Union	2.13	2.12	2.06	69.5	81.5	78.7
Bank of Jerusalem	2.09	2.06	2.14	81.7	74.8	73.9
Dexia Israel Bank	0.60	0.57	0.53	33.8	35.4	35.9
Total	**2.55**	**2.47**	**2.42**	**68.0**	**70.1**	**69.8**

[a] The ratio of operating and other expenses to the average balance of assets (average cost).
[b] The ratio of total operating and other expenses to total income (cost to income).
[c] Some deviation is possible in the index values for 2010 compared to the values for 2011 and 2012 due to the implementation of the Directive for the measurement and disclosure of impaired debts, credit risk, and credit loss allowance.
SOURCE: Banking Supervision Department based on published financial reports.

Figure 1.24
International comparison of banking system efficiency ratio[a] in OECD countries[b], 2011 and 2012[c]



[a] Total operating expenses out of total net interest income and non interest income.
[b] Iceland, Japan and New Zealand were not included due to an absence of data. Denmark was excluded due to outlier data.
[c] Most countries' data are as of 2012. Data for Australia, Belgium, Denmark, France, Germany, Ireland, Italy, Poland, South Korea, Spain, Switzerland and the UK are as of 2011.
SOURCE: Foreign countries - IMF; Israel - Banking Supervision Department based on published financial statements.

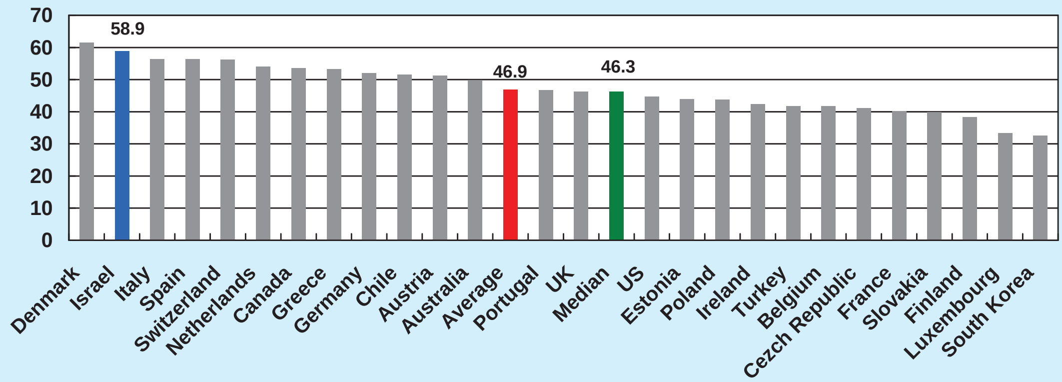
The increase in salary expenses in recent years is attributed to the relatively rapid growth in total employee posts, the low level of flexibility the banks have concerning changes in their workforce, the increase in the proportion of employees with academic degrees, and regular salary updates, grants and benefits. The streamlining programs adopted by some of the banking groups in recent years have not been reflected thus far in improved efficiency indices. The streamlining measures that began in 2012—which, as noted, include early retirement plans and organizational changes, among other things—led to a reduction in the average number of employee posts and an increase in related expenses in 2012, but should bear fruit in the coming years.

A comparison of the **efficiency ratio** and the **share of salary expenses out of total operating expenses** of the Israeli banking system to those of banking systems in OECD countries shows a gap to the disadvantage of the Israeli banking system (Figure 1.24 and Figure 1.25).

Additionally, the Israeli banking system is characterized by relatively high **average cost,** as indicated by a comparison with the banking systems of European countries (Figure 1.26).

Figure 1.25

International comparison of salary expenses[a] as a share of total operating and other expenses, banking systems in OECD countries[b], 2011 and 2012[c]



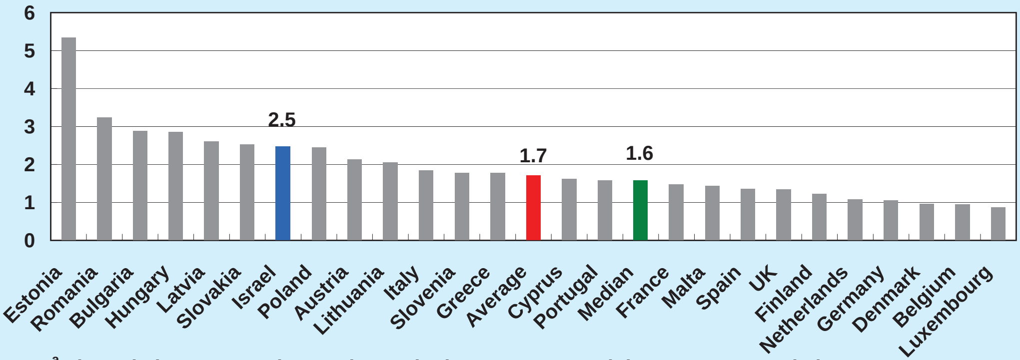
[a] Salary expenses in Israel include payroll tax.

[b] Hungary, Iceland, Japan, New Zealand, Norway, Slovenia and Sweden were not included due to an absence of data. Mexico was excluded due to outlier data.

[c] In most countries, the data are as of 2012. For Australia, Belgium, Denmark, France, Germany, Ireland, Italy, South Korea, Poland, Switzerland, the UK and Spain, the data are as of 2011.

SOURCE: Banking Supervision Department based on IMF data.

Figure 1.26
International comparison: Average cost[a] in the banking systems in European countries[b] and Israel, of the years 2009–11[c]



[a] The ratio between total operating and other expenses and the average asset balance.
[b] The calculation of the average does not include Estonia due to outlier data.
[c] Sweden is not included due to an absence of data.
SOURCE: Foreign countries - ECB; Israel - Banking Supervision Department based on published financial reports.

c. Analysis of the performance of the five major banking groups by activity segments

An examination of the five classic activity segments[51] shows that there was no significant change in the distribution of their contributions to total net profit, but there is a high level of variance between the banking groups (Table 1.20 and Figure 1.27).

The growth in activity of the household segment derives mostly from the continued expansion of credit for housing. Despite the high rates of growth in credit, net profit in this segment increased moderately, due to the unique characteristics of the housing credit market—the high level of competition and low interest rate spreads—and due to the gradual decline in the interest rate environment over the course of the year.

Most of the banking groups increased their activity in the small business segment as part of an intentional policy of increasing the focus on this segment. The expansion of activity is in its early stages, and is reflected in the establishment of special financing funds and cooperation with various entities, among other things. It has led to growth in profit and growth in this segment's contribution to total net profit.

The high levels of risk in the business and commercial segments, the slowdown in the domestic economy, and the deterioration that took place over the course of the year in some of the large holding companies, led to an increase in loan loss provisions, which in turn led to a decline in these segments' profitability for the banks and in their contribution to the banks' net profit.

[51] The activity of Israel's banking groups relies primarily on "customer-driven activity", based on five classic activity segments—business, commerce, small business, private banking, and households—through which the groups provide a range of financial products and services to their customers.

Table 1.20

Performance indices by activity segments[a,b] at the five major banking groups, 2011 and 2012

	Households segment		Private banking segment		Small business segment		Commerce segment		Corporate segment	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Items and profit components	Distribution (percent)									
Average balance of assets	36	37	6	7	8	8	14	14	35	34
Average balance of risk assets	26	26	6	6	7	7	16	16	45	45
Net interest income	38	38	10	9	14	14	15	15	23	25
Noninterest income	42	41	19	19	13	13	10	10	16	17
Loan loss provisions	19	13	2	1	14	10	20	15	45	60
Operating and other expenses	48	47	17	17	13	13	11	11	11	12
Pre-tax income	24	26	9	7	16	17	15	16	37	34
Net income	23	25	9	7	16	18	15	16	37	35
	Ratios (percent)									
Loan loss provision to total assets	0.2	0.2	0.1	0.1	0.7	0.5	0.5	0.4	0.5	0.7
Net interest income to total assets	3.1	3.0	4.6	4.0	5.3	5.2	3.1	3.0	2.0	2.2
Noninterest income to total assets	2.2	2.0	5.3	5.1	3.0	3.0	1.2	1.2	0.9	0.9
Total income[c] to total assets	5.3	5.0	10.0	9.1	8.4	8.2	4.3	4.2	2.9	3.1
Net profit to total assets	0.6	0.5	1.2	0.8	1.7	1.8	0.9	0.9	0.9	0.8
	Ratios (percent)									
Average cost[d]	4.20	3.95	8.11	7.85	5.15	4.97	2.41	2.41	0.99	1.08
Efficiency ratio[e]	0.80	0.80	0.81	0.86	0.61	0.61	0.56	0.57	0.35	0.35
Return on risk weighted assets[f]	0.79	0.77	1.29	0.90	1.88	1.98	0.81	0.79	0.73	0.62
Loan loss provision to total risk assets	0.29	0.22	0.12	0.08	0.72	0.61	0.49	0.39	0.39	0.57

[a] Each banking group defines the activity segments at its own discretion and in accordance with the characteristics and volume of its customers' activity. Generally, the households segment is comprised of private customers with low to medium financial wealth; the private banking segment is comprised of private customers with high financial wealth; the small business segment is comprised of commercial customers with a low volume of business activity; the commerce segment is comprised of business companies with a high volume of activity; the corporate segment is comprised of companies with high sales turnover and indebtedness.

[b] Not including the financial segment, the "other" segment, and reconciliations.

[c] Total income is calculated as the sum of net interest income and noninterest income.

[d] Calculated as the ratio of total operating and other expenses to the average balance of assets.

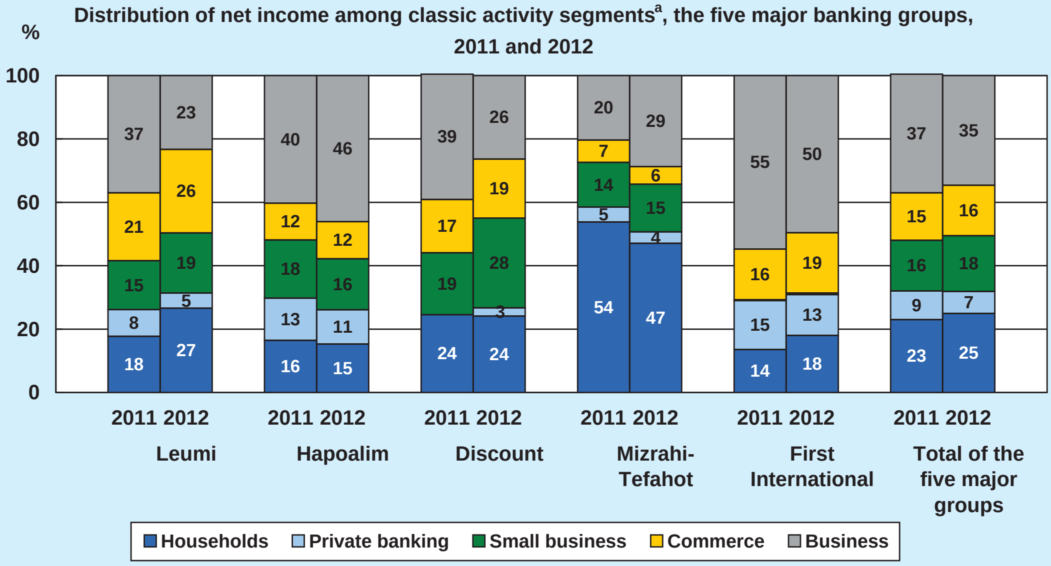
[e] Calculated as the ratio of total operating and other expenses to total income (net interest income and noninterest income).

[f] Calculated as the ratio of net profit to the average balance of risk assets.

SOURCE: Banking Supervision Department based on published financial statements.

Figure 1.27

Distribution of net income among classic activity segments[a], the five major banking groups, 2011 and 2012



[a] Does not include the financial management segment and the others segment.

SOURCE: Banking Supervision Department based on published financial statements.

Table A.1.1

Principal housing loan market indicators, entire banking system, December 2006–December 2012

	2006	2007	2008	2009	2010	2011	2012
Year-end balance of housing loans (NIS million)	126,057	136,994	154,123	172,033	200,237	224,862	246,577
Rate of change		9%	13%	12%	16%	12%	10%
Year-end balance of loans for the purchase of residential property (NIS million)	111,710	122,210	138,491	155,843	180,145	204,067	223,519
Rate of change		9%	13%	13%	16%	13%	10%
Year-end balance of loans secured by a residential property[a] (NIS million)	14,347	14,784	15,632	16,191	20,093	20,796	23,058
Rate of change		3%	6%	4%	24%	3%	11%
Average monthly volume of new loans for the purchase of residential property (NIS million)	1,409	2,044	2,512	2,885	3,932	3,727	3,887
New loans granted in the floating-rate unindexed segment (NIS million)	436	725	1,202	1,737	1,980	1,376	1,169
New loans granted in the floating-rate indexed segment (NIS million)	341	452	776	678	1,229	1,476	1,618
New loans granted in the fixed-rate indexed segment (NIS million)	474	740	448	336	464	490	584
New loans granted in the floating rate foreign currency segment (NIS million)	145	100	60	110	189	200	116
Average weighted interest rate on loans for the purchase of residential property	5.4%	4.6%	4.1%	2.2%	2.5%	3.3%	3.0%
Floating interest rate in the unindexed segment	6.2%	4.8%	4.4%	1.7%	2.6%	3.8%	3.4%
Floating interest rate in the indexed segment	5.0%	4.4%	3.7%	2.7%	2.2%	2.8%	2.6%
Fixed interest rate in the indexed segment	4.8%	4.2%	3.8%	3.1%	2.6%	2.8%	2.4%
Floating interest rate in the foreign currency segment	6.1%	6.3%	5.0%	2.8%	2.8%	3.0%	3.0%
Number of loans for the purchase of residential property granted to the public during December				7,904	8,380	5,677	7,958
Average loan size in shekels in the month of December				497,280	555,016	565,310	586,105

[a] Not for residential purposes.

SOURCE: Based on reports to the Banking Supervision Department.

Table A.1.2
Indices of concentration of the portfolio of credit to the public[a] of the five major banking groups, December 2006 to December 2012

	Year	Leumi	Hapoalim	Discount	Mizrahi Tefahot	First International	The five major groups
Concentration by principal industries							
Herfindahl-Hirschman Index *(H)* of the concentration of the aggregate credit portfolio excluding credit to individuals[b,c]	2006	0.089	0.086	0.103	0.053	0.098	0.083
	2007	0.090	0.095	0.104	0.060	0.103	0.087
	2008	0.092	0.073	0.090	0.045	0.067	0.074
	2009	0.093	0.080	0.088	0.039	0.070	0.076
	2010	0.093	0.079	0.086	0.041	0.070	0.076
	2011	0.090	0.080	0.076	0.039	0.057	0.072
	2012	0.085	0.078	0.074	0.035	0.055	0.069
Herfindahl-Hirschman Index (H) of business credit portfolio concentration[d,e]	2006	0.175	0.167	0.162	0.216	0.178	0.169
	2007	0.184	0.173	0.169	0.199	0.190	0.174
	2008	0.190	0.170	0.168	0.184	0.172	0.172
	2009	0.199	0.171	0.173	0.189	0.177	0.177
	2010	0.205	0.175	0.173	0.197	0.177	0.181
	2011	0.205	0.175	0.171	0.208	0.168	0.183
	2012	0.208	0.171	0.164	0.208	0.170	0.182
Credit to individuals as percentage of total credit	2006	26.2	30.2	21.0	49.5	26.0	29.0
	2007	27.1	28.6	22.0	44.4	26.3	28.7
	2008	27.8	33.0	26.1	50.1	37.4	32.9
	2009	29.9	29.5	27.8	54.4	37.5	33.1
	2010	30.5	30.9	28.9	54.7	37.2	34.2
	2011	31.5	30.8	29.2	57.0	41.1	35.2
	2012	33.5	31.9	29.4	59.1	42.9	36.7
Share of credit for borrowers' activity abroad in total credit portfolio (percent)	2006	20.9	22.3	19.0	3.8	7.8	18.2
	2007	20.5	21.8	21.4	3.9	5.9	17.9
	2008	19.1	13.4	21.0	3.1	4.9	14.2
	2009	18.6	13.1	23.0	3.1	4.4	14.3
	2010	17.3	11.5	21.9	2.4	3.9	13.0
	2011	15.6	11.0	26.8	1.9	3.0	13.0
	2012	15.5	10.6	25.3	1.7	2.3	12.4
Concentration by borrower size							
Gini Index[f] of credit diversification by borrower size	2006	0.905	0.886	0.901	0.798	0.903	0.891
	2007	0.907	0.896	0.909	0.825	0.897	0.897
	2008	0.908	0.909	0.904	0.810	0.837	0.896
	2009	0.905	0.903	0.912	0.808	0.854	0.897
	2010	0.907	0.913	0.908	0.813	0.855	0.902
	2011	0.901	0.924	0.911	0.811	0.846	0.904
	2012	0.894	0.920	0.908	0.806	0.846	0.902
Share in group's total credit of credit granted to borrowers whose indebtedness exceeds NIS 40 million (percent)	2006	41.9	51.6	44.8	26.0	41.5	44.3
	2007	41.6	52.0	42.9	32.6	41.0	44.5
	2008	43.6	51.1	41.6	29.0	33.7	43.1
	2009	40.6	50.2	41.8	26.1	30.8	41.4
	2010	42.0	49.0	43.2	26.1	33.3	41.6
	2011	41.9	48.9	44.5	24.6	29.3	41.2
	2012	39.2	47.9	42.6	23.1	27.9	39.4
Share in total credit of credit granted to borrowers whose outstanding indebtedness exceeds 5% of the group's equity[g] (percent)	2006	5.0	8.7	8.9	6.5	14.8	
	2007	6.1	8.8	7.4	10.2	15.9	
	2008	8.5	10.6	8.4	9.5	12.9	
	2009	5.2	11.6	9.4	7.5	10.6	
	2010	5.5	8.2	7.9	7.6	10.4	
	2011	5.6	8.4	13.0	5.2	9.1	
	2012	4.6	7.8	9.9	4.3	7.5	

[a] On balance-sheet and off-balance-sheet basis.

[b] This index is the sum of the squares of the weights of credit in a specific industry (excluding credit granted to individuals) in total credit to the public (including credit granted to individuals). The higher the index, the greater the concentration.

[c] The principal industries weighted in this index include the borrower's activity in both Israel and abroad.

[d] This index is the sum of the squares of the weights of credit in a specific industry (minus credit granted to individuals) in total credit to the public (excluding credit granted to private individuals).

[e] The principal industries weighted in this index include the borrower's activity in Israel only.

[f] The Gini Index expresses inequality in the distribution of credit by borrowers.

[g] Plus minority interest.

SOURCE: Banking Supervision Department based on published financial statements.

Table A.1.3
Distribution of outstanding credit to the public[a] by borrower size at the five major banking groups, December 2011 and December 2012

Credit to borrower	Outstanding credit to the public and off-balance-sheet credit risk		Number of borrowers		Average outstanding credit		Cumulative share of outstanding credit		Cumulative share of number of borrowers	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
(NIS thousand)	(NIS million)				(NIS thousand)		(Percent)		(Percent)	
Up to 10	12,712	13,718	3,912,043	4,112,667	3	3	100.00	100.00	100.00	100.00
From 10 to 20	17,865	20,109	1,096,582	1,326,714	16	15	98.90	98.90	52.97	54.38
From 20 to 40	36,334	39,002	1,162,223	1,316,216	31	30	97.50	97.20	39.79	39.67
From 40 to 80	54,393	55,846	922,595	983,620	59	57	94.50	94.10	25.82	25.07
From 80 to 150	56,486	56,977	507,940	525,301	111	108	89.90	89.50	14.73	14.16
From 150 to 300	67,036	66,442	314,526	317,151	213	209	85.30	84.80	8.62	8.33
From 300 to 600	93,153	96,092	215,730	224,005	432	429	79.70	79.40	4.84	4.81
From 600 to 1,200	100,570	115,906	122,596	140,623	820	824	72.00	71.60	2.25	2.33
From 1,200 to 2,000	45,721	51,127	30,367	34,050	1,506	1,502	63.60	62.10	0.78	0.77
From 2,000 to 4,000	44,645	46,356	16,337	17,155	2,733	2,702	59.80	57.90	0.41	0.39
From 4,000 to 8,000	41,745	41,833	7,517	7,534	5,553	5,553	56.10	54.10	0.21	0.20
From 8,000 to 20,000	67,703	67,524	5,405	5,413	12,526	12,474	52.70	50.70	0.12	0.12
From 20,000 to 40,000	70,144	71,317	2,518	2,612	27,857	27,304	47.10	45.20	0.06	0.06
From 40,000 to 200,000	207,530	209,029	2,602	2,647	79,758	78,968	41.20	39.40	0.03	0.03
From 200,000 to 400,000	103,155	99,409	369	359	279,553	276,905	24.00	22.30	0.00	0.00
From 400,000 to 800,000	81,458	80,200	154	148	528,948	541,892	15.50	14.20	0.00	0.00
From 800,000 to 1,200,000	36,900	27,352	39	28	946,154	976,857	8.70	7.70	0.00	0.00
From 1,200,000 to 1,600,000	15,659	14,969	12	11	1,304,917	1,360,818	5.70	5.40	0.00	0.00
From 1,600,000 to 2,000,000	15,606	10,744	9	6	1,734,000	1,790,667	4.40	4.20	0.00	0.00
From 2,000,000 to 2,400,00	6,342	8,448	3	4	2,114,000	2,112,000	3.10	3.30	0.00	0.00
From 2,400,000 to 2,800,000	10,477	7,401	4	3	2,619,250	2,467,000	2.50	2.60	0.00	0.00
From 2,800,000 to 3,200,000	-	2,940	-	1	-	2,940,000	1.70	2.00	0.00	0.00
Above 3,200,000	20,059	21,909	5	5	4,011,800	4,381,800	1.70	1.80	0.00	0.00
Total	**1,205,693**	**1,224,650**	**8,319,576**	**9,016,273**	**145**	**136**				

SOURCE: Banking Supervision Department based on published financial statements.

Table A.1.4
Securities portfolio of the five major banking groups, December 2011 and December 2012[a]

		Leumi				Hapoalim				Discount[b]			
		2011		2012		2011		2012		2011		2012	
		Fair value	Distribution	Fair value	Distribution	Fair value	Distribution	Fair value	Distribution	Fair value	Distribution	Fair value	Distribution
		(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)
Bonds held to maturitiy	Israeli government bonds	-	-	-	-	57	0.2	56	0.1	2,605	6.1	3,250	7.1
	Foreign government bonds	-	-	-	-	-	-	-	-	34	0.1	30	0.1
	Israeli financial institutions	-	-	-	-	804	2.3	693	1.3	-	-	87	0.2
	Foreign financial institutions	-	-	-	-	8	-	-	-	58	0.1	75	0.2
	MBS, ABS	-	-	-	-	-	-	-	-	1,028	2.4	1,520	3.3
	Other bonds - Israeli	-	-	-	-	-	-	-	-	-	-	-	0.0
	Other bonds - foreign	-	-	-	-	-	-	-	-	2,170	5.1	2,026	4.4
	Total bonds held to maturity	**-**	**-**	**-**	**-**	**869**	**2.5**	**749**	**1.4**	**5,895**	**13.7**	**6,988**	**15.2**
Securities available for sale	Israeli government bonds	19,775	41.3	22,998	40.8	23,859	69.3	38,123	73.2	16,991	39.6	20,610	44.8
	Foreign government bonds	3,675	7.7	6,454	11.4	2,053	6.0	2,062	4.0	837	2.0	917	2.0
	Israeli financial institutions	397	0.8	323	0.6	173	0.5	276	0.5	762	1.8	729	1.6
	Foreign financial institutions	7,854	16.4	5,281	9.4	1,026	3.0	1,345	2.6	2,067	4.8	2,567	5.6
	MBS, ABS	2,444	5.1	5,049	9.0	7	-	-	-	11,842	27.6	9,754	21.2
	Other bonds - Israeli	604	1.3	1,039	1.8	547	1.6	2,902	5.6	278	0.6	705	1.5
	Other bonds - foreign	1,254	2.6	1,583	2.8	747	2.2	956	1.8	199	0.5	74	0.2
	Total bonds available for sale	36,003	75.1	42,727	75.7	28,412	82.6	45,664	87.7	32,976	76.9	35,356	76.9
	Total stocks available for sale	2,191	4.6	2,167	3.8	1,538	4.5	1,654	3.2	658	1.5	704	1.5
	Total securities available for sale	**38,194**	**79.7**	**44,894**	**79.6**	**29,950**	**87.0**	**47,318**	**90.9**	**33,634**	**78.4**	**36,060**	**78.4**
Securities for trading	Israeli government bonds	8,153	17.0	8,980	15.9	2,924	8.5	2,993	5.7	3,218	7.5	2,822	6.1
	Foreign government bonds	183	0.4	311	0.6	50	0.1	79	0.2	6	-	4	-
	Israeli financial institutions	173	0.4	129	0.2	10	-	-	-	4	-	19	-
	Foreign financial institutions	366	0.8	88	0.2	348	1.0	608	1.2	45	0.1	33	0.1
	MBS, ABS	120	0.3	358	0.6	-	-	-	-	54	0.1	53	0.1
	Other bonds - Israeli	330	0.7	707	1.3	27	0.1	8	-	27	0.1	18	-
	Other bonds - foreign	56	0.1	742	1.3	181	0.5	272	0.5	10	-	2	-
	Total bonds for trading	9,381	19.6	11,315	20.1	3,540	10.3	3,960	7.6	3,364	7.8	2,951	6.4
	Total stocks for trading	361	0.8	199	0.4	52	0.2	43	0.1	5	-	2	-
	Total securities for trading	**9,742**	**20.3**	**11,514**	**20.4**	**3,592**	**10.4**	**4,003**	**7.7**	**3,369**	**7.9**	**2,953**	**6.4**
	Total securities, all types	**47,936**	**100.0**	**56,408**	**100.0**	**34,411**	**100.0**	**52,070**	**100.0**	**42,898**	**100.0**	**46,001**	**100.0**

Table A.1.4 (continued)

Securities portfolio of the five major banking groups, 2011 and 2012[a]

		Mizrahi-Tefahot				First International				Five largest banking groups			
		2011		2012		2011		2012		2011		2012	
		Fair value	Distribution	Fair value	Distribution	Fair value	Distribution	Fair value	Distribution	Fair value	Distribution	Fair value	Distribution
		(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS million)	(Percent)	(NIS millon)	(Percent)
Bonds held to maturity	Israeli government bonds	703	8.3	1,123	12.4	328	2.8	305	3.1	3,693	2.5	4,734	2.7
	Foreign government bonds	-	-	-	-	-	-	-	-	34	-	30	-
	Israeli financial institutions	-	-	-	-	7	0.1	5	0.1	811	0.6	785	0.5
	Foreign financial institutions	-	-	-	-	110	0.9	57	0.6	176	0.1	132	0.1
	MBS, ABS	-	-	-	-	-	-	-	-	1,028	0.7	1,520	0.9
	Other bonds - Israeli	-	-	-	-	346	2.9	332	3.4	346	0.2	332	0.2
	Other bonds - foreign	-	-	-	-	-	-	-	-	2,170	1.5	2,026	1.2
	Total bonds held to maturity	**703**	**8.3**	**1,123**	**12.4**	**791**	**6.7**	**699**	**7.2**	**8,258**	**5.7**	**9,559**	**5.5**
Securities available for sale	Israeli government bonds	5,524	65.5	4,700	52.0	6,182	52.1	4,552	46.7	72,331	49.7	90,983	52.5
	Foreign government bonds	86	1.0	95	1.1	151	1.3	372	3.8	6,802	4.7	9,900	5.7
	Israeli financial institutions	159	1.9	123	1.4	156	1.3	160	1.6	1,647	1.1	1,611	0.9
	Foreign financial institutions	412	4.9	394	4.4	955	8.0	1,244	12.8	12,314	8.5	10,831	6.3
	MBS, ABS	61	0.7	-	-	410	3.5	538	5.5	14,764	10.1	15,341	8.9
	Other bonds - Israeli	81	1.0	25	0.3	353	3.0	730	7.5	1,863	1.3	5,401	3.1
	Other bonds - foreign	135	1.6	168	1.9	28	0.2	40	0.4	2,363	1.6	2,821	1.6
	Total bonds available for sale	6,458	76.6	5,505	60.9	8,235	69.4	7,636	78.3	112,084	77.0	136,888	79.0
	Total stocks available for sale	85	1.0	119	1.3	546	4.6	451	4.6	5,018	3.4	5,095	2.9
	Total securities available for sale	**6,543**	**77.6**	**5,624**	**62.2**	**8,781**	**74.0**	**8,087**	**82.9**	**117,102**	**80.5**	**141,983**	**81.9**
Securities for trading	Israeli government bonds	1,183	14.0	2,291	25.3	1,952	16.4	830	8.5	17,430	12.0	17,916	10.3
	Foreign government bonds	-	-	-	-	176	1.5	-	-	415	0.3	394	0.2
	Israeli financial institutions	-	-	-	-	82	0.7	47	0.5	269	0.2	195	0.1
	Foreign financial institutions	3	-	3	-	35	0.3	50	0.5	797	0.5	782	0.5
	MBS, ABS	-	-	-	-	-	-	-	-	174	0.1	411	0.2
	Other bonds - Israeli	-	-	-	-	43	0.4	42	0.4	427	0.3	775	0.4
	Other bonds - foreign	-	-	-	-	2	-	-	-	249	0.2	1,016	0.6
	Total bonds for trading	1,186	14.1	2,294	25.4	2,290	19.3	969	9.9	19,761	13.6	21,489	12.4
	Total stocks for trading	-	-	-	-	10	0.1	1	-	428	0.3	245	0.1
	Total securities for trading	**1,186**	**14.1**	**2,294**	**25.4**	**2,300**	**19.4**	**970**	**9.9**	**20,189**	**13.9**	**21,734**	**12.5**
	Total securities, all types	**8,432**	**100.0**	**9,041**	**100.0**	**11,872**	**100.0**	**9,756**	**100.0**	**145,549**	**100.0**	**173,276**	**100.0**

[a] In this table, mortgage backed securities (MBS) issued by US government agencies (FNMA, FHLMC and GNMA) are included in the "MBS and ABS" item, whether or not a government guarantee exists for them.

[b] In the Discount Group, the asset backed and mortgage backed securities are primarily from US government agencies.

SOURCE: Banking Supervision Department based on published financial statements.

Table A.1.5
Risk Adjusted Return on Capital; the variance-covariance approach[a], by banking group, 2002–12

Year	R_f	Leumi	Hapoalim	Discount	Mizrahi-Tefahot	First International	The five groups
2002	4.81	-0.10	-0.17	-0.40	0.34	-0.53	-0.22
2003	4.89	0.21	0.40	-0.13	0.45	-0.02	0.28
2004	3.76	0.72	0.81	0.33	0.59	0.24	0.81
2005	2.97	0.84	1.01	0.22	0.84	0.65	0.96
2006	3.71	1.00	0.89	0.36	0.75	0.56	1.00
2007	3.19	0.83	0.60	0.48	0.90	0.73	0.83
2008	2.88	-0.10	-0.27	-0.01	0.50	0.00	-0.13
2009	1.51	0.37	0.20	0.40	0.47	0.67	0.41
2010	0.89	0.42	0.35	0.31	0.82	0.62	0.51
2011	1.34	0.30	0.40	0.34	1.03	0.56	0.50
2012	0.83	0.13	0.37	0.36	1.00	0.73	0.42

[a] RAROC is calculated by the variance-covariance approach

$$RAROC = \frac{ROE - R_f}{2.33 \cdot \sigma_{ROE}}$$

where:

ROE = Return on equity.

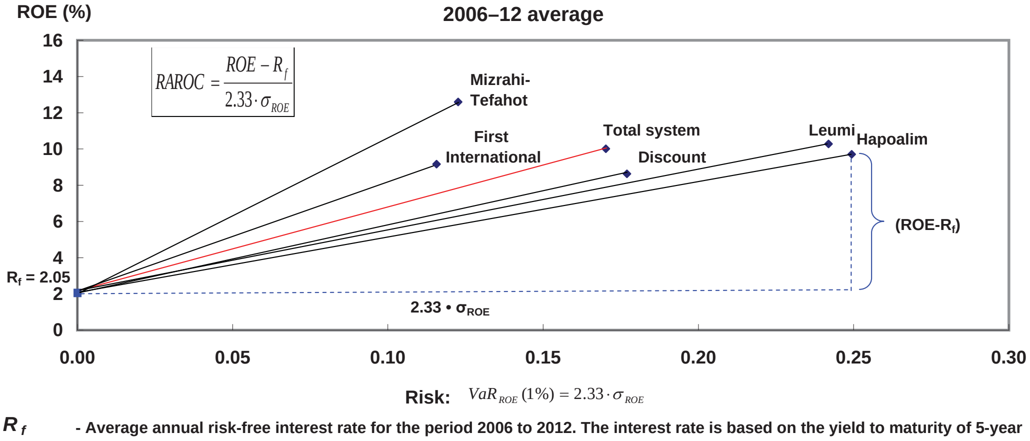
R_f = The risk-free interest rate; yield-to-maturity on 5-year (Galil) CPI-indexed government bonds during the last year.

σ_{ROE} = Standard deviation of ROE, calculated on the basis of quarterly ROE data for the past 7 years.

2.33 = Z value at a confidence level of 99 percent.

SOURCE: Banking Supervision Department based on published financial statements.

Figure A-1.1
Risk Adjusted Return on Capital, comparison between the five major banking groups and the banking system total, 2006–12 average



R_f - Average annual risk-free interest rate for the period 2006 to 2012. The interest rate is based on the yield to maturity of 5-year (Galil) CPI-indexed bonds.

ROE - Average annual return on equity for the period 2006 to 2012.

σ_{ROE} - The standard deviation is based on the ROE for each quarter in the period 2006 to 2012 (so that the calculation was made on the basis of 28 observations).

SOURCE: Banking Supervision Department based on published financial statements.