Chapter 4

The Financial System: Financing of Economic Activity—Sources and Uses

- The rate of gross saving fell somewhat this year relative to 2015. The savings of the private sector were channeled to cash and deposits, the expansion of direct investment abroad and home purchases.
- Credit to the nonfinancial business sector grew by 4 percent, in contrast to the period 2008–15 during which it grew by lower rates. The main increase this year was in nonbank credit. The upward trend in bank credit to small businesses continued.
- Total credit to households grew this year by 6 percent, similar to the rate in recent years. The increase in housing debt totaled 5.5 percent and nonhousing debt grew by 7.6 percent.
- Since 2011, the rate of increase in housing credit has moderated. Consumer credit grew faster than housing credit during the last three years.
- New mortgage volume this year was lower than in previous years by 8 percent. This year, the rise in the average interest rate on new mortgages continued, a trend that began in mid-2015. The increase in mortgage interest rates and the slowdown in the supply of credit are the result of, among other things, the higher cost of sources for the banks, against the background of increased capital requirements.
- Apart from housing credit, there was no change in the transmission from the Bank of Israel's accommodative monetary policy to the interest rate in the other sectors. Thus, the lack of change in the Bank of Israel interest rate was reflected in the stability of the interest rates on deposits, on consumer credit and on bank credit to the business sector and was also reflected in the narrowing of spreads in the corporate bond market.
- As part of the government's steps to increase competition in retail credit, the Knesset approved the Increasing Competition in the Banking System Law (following the recommendations of the Strum Committee) which specifies that if a bank's retail credit exceeds 20 percent of the market it must sell any credit card company that it owns. The law establishes a Committee to Examine Competition in the Credit Market which will monitor the success of this measure.
- Despite the low interest rate environment, the total exposure of financial institutions that manage long-term savings to equities and foreign assets is low relative to other countries. In recent years, the exposure to direct loans has grown considerably, as has investment in "other" assets (primarily investment funds).

The accelerated growth in GDP, the strength in the labor market and the increase in the real wage per salaried position led to an increase in disposable income in the economy, which was reflected in an increase in gross national saving and in consumption. Consumption rose sharply by a rate of 6.1 percent (for further details on private consumption and saving in the economy, see Chapter 2). The increase in consumption was reflected in a slight decline in the saving rate. Thus, the rate of gross national saving relative to GDP stood at 23.9 percent this year, as opposed to 24.2 percent in 2015. In previous years, the saving rate grew from a low of 21.1 percent of GDP in 2008 to 24 percent of GDP in 2015. The increase in gross national saving was based on the increase in gross private saving, while gross public saving declined (for further details on public saving, see Chapter 6). Again this year, nonresidents contributed financing sources to the domestic economy by means of investment in the amount of about NIS 18 billion, twice its level during the last two years.

The increase of financing sources was used for the continued growth in household credit. Its rate of increase of 6.2 percent was similar to previous years, which supported the continuing high level of activity in the housing market and in private consumption. The increase in financing sources was used for the growth in total credit to the business sector, primarily by way of the net issue of tradable corporate bonds and an increase in debt to abroad. The increase in credit to the business sector this year (by 4.1 percent) was higher than in 2015 and significantly higher than the average during the period 2012–15, in which it hardly grew. The financing sources were also channeled to investment abroad, where the direct investment of Israeli residents increased, alongside a virtual standstill in financial investments.

Since 2011, the rate of increase in housing credit to households has gradually moderated.

This year, the rate of increase in housing credit to households slowed and the increase in mortgage rates continued its upward trend, which began in mid-2015. The rate of increase in housing credit to households has gradually moderated since 2011, alongside an increase in the growth rate of household credit not secured by a home. The analysis indicates that, as in 2015, there was no real constraint on the supply of credit to the business sector. This assessment was supported by the fact that large companies benefited during the year from the narrowing of corporate bond market spreads, which in any case are low; a notable increase in the issuance volume in the bond market, both gross and net; and also the continuing uptrend in bank credit to small businesses.

1. THE SOURCES OF FINANCING OF ECONOMIC ACTIVITY

a. The public's financial assets portfolio[1]

The portfolio of financial assets includes all of the financial holdings of households and the business sector. About one half of the portfolio is owned directly[2] by the public and the rest is held in a portfolio managed for them by financial institutions (hereinafter, the managed portfolio).[3] The assets portfolio grew in 2016 by about NIS 100 billion and reached a value of NIS 3.4 trillion by the end of the year,[4] an increase of 3 percent. The increase in the assets portfolio this year in nominal terms was small relative to the increases in previous years and was also lower than the rate of GDP growth. In 2010–14, the portfolio grew by a high average rate of 6.7 percent, and in 2015 the rate slowed to 4.4 percent.

The public's financial assets portfolio reached a value of NIS 3.4 trillion. The increase in the assets portfolio in 2016 was lower than the rate of GDP growth.

The moderate increase in the financial assets portfolio was the result of a 4.8 percent increase in the managed portfolio, which was due to the ongoing increase in deposits in the new pension funds and a 1.3 percent increase in the value of the portfolio held directly by the public. The upward trend in the new pension funds is due to the introduction of mandatory pensions for employees starting in 2008 and the continuous increase in the rate of funds set aside by both employees and employers since then,[5] alongside an increase in nominal wages. The introduction of mandatory pensions for the self-employed starting in 2017 is expected to increase accumulated pension savings (an annual addition of NIS 6 billion in deposits, according to the estimate).[6] Provident funds are expected to benefit from the following: the increase in saving due to the introduction of the new investment provident fund (into which can be deposited up to NIS 70,000 per year); the option provided to investors in the home market who sell their third (and above) apartment to deposit the proceeds in these funds[7]; and the opening of the "Saving Plan for Each Child" program (an addition of

Provident and pension funds are expected to receive fresh inflows of funds, estimated at billions of shekels per year.

1 For an examination of the changes in the public's portfolio of financial assets in 2016, see Statistical Bulletin for 2016, which was recently published by the Information and Statistics Department of the Bank of Israel.

2 The definition includes the stock of financial assets, including cash and deposits, tradable and nontradable securities and index products, which the public holds directly or by means of portfolio managers or mutual funds.

3 This definition includes the investments of institutional investors, which include provident funds and severance pay funds, advanced training funds, pension funds (veteran and new) and also life insurance plans managed by the insurance companies (not including their nostro portfolio, i.e. the portfolio that they manage for themselves).

4 An estimate up to December 2016.

5 The total amount set aside rose gradually each year from 2.5 percent in 2008 to 18.5 percent starting in January 1st, 2017. Essentially, until 2016, the deposits grew as a result of the natural growth in total income of the relevant population and the process of implementing mandatory pensions, which was completed at the beginning of 2017.

6 The estimate is based on the distribution of wages for the self-employed by deciles according to the data of the 2013 Expenditures Survey, on the number of self-employed according to the data of the National Insurance Institute for 2014 and on the rate of withholding established by law.

7 The lower of the two possibilities – up to NIS 2.5 million or the proceeds from selling the apartment(s).

Table 4.1
Public's gross financial assets portfolio[a]–distribution by asset type, 2007 to 2016, end of period data

Period	Total portfolio	Portfolio as a share of GDP	Deposits	*Makam*	Government bonds		Corporate bonds[b]	Equities in Israel[c]	Israeli residents' investments abroad			
					Tradable	Nontradable[e]			Deposits	Bonds	Equities	Other[d]
	NIS billion	percent	Distribution in percent									
2016	3,417.9	9.5	26.0	1.5	11.2	9.7	9.9	14.0	0.5	5.3	7.8	4.5
2015	3,318.2	8.3	25.5	2.2	11.9	9.7	9.5	14.9	0.8	5.3	8.0	4.0
2014	3,179.1	6.2	25.9	3.0	12.5	9.8	9.7	15.6	0.7	5.2	8.2	3.2
2013	2,977.0	4.9	27.0	2.6	12.9	9.3	10.7	16.7	0.9	4.2	7.4	3.3
2012	2,732.0	4.6	28.9	2.6	13.1	9.4	11.5	14.9	1.1	4.4	6.4	3.1
2011	2,534.0	4.4	29.5	3.0	12.1	9.6	11.5	15.4	1.8	4.2	5.7	2.8
2010	2,563.6	4.3	25.8	2.7	12.0	8.7	11.5	21.4	2.2	3.2	5.6	2.6
2009	2,302.1	4.6	27.1	2.7	12.6	9.3	11.4	18.5	3.2	3.1	4.8	2.7
2008	1,882.6	4.0	33.0	3.5	13.9	11.2	9.8	11.6	3.9	3.1	3.3	2.7
2007	2,055.5	3.0	27.8	3.2	10.1	6.6	11.2	24.0	4.0	3.6	4.0	2.5

[a] "Public" does not include the government, the Bank of Israel, nonresidents' investments, commercial banks or mortgage banks.
[b] Includes convertible bonds.
[c] Includes warrants.
[d] Including investment in Israeli securities traded abroad, and excluding investment in Exchange Trade Notes on the Tel Aviv Stock Exchange that track indices abroad.
[e] From February 2008, includes government's commitment to assist the veteran pension funds. This commitment was NIS 72 billion in February 2008.
SOURCE: Bank of Israel.

about NIS 2.9 billion per year, expected to be divided as NIS 1.9 billion in provident funds and NIS 1 billion in bank deposits).[8]

The value of the financial assets portfolio was impacted negatively by equity prices in the domestic market and positively by prices of assets held abroad.

The total price effect on the portfolio of financial assets (the change in the value of the portfolio as a result of a change in the prices of the held assets), according to its composition of assets at the end of 2015, is estimated to be negative and the main source of this effect is the domestic share market.[9] In contrast, the price effect of assets held abroad is estimated to be positive. The accumulation in the portfolio less the estimated price effect was channeled, like in 2015, primarily to the increase in the cash and deposits component (about NIS 91 billion), but there were also large accumulations in tradable corporate bonds and in Israeli shares, alongside a decline in the accumulation in shares abroad. The composition of the holdings of tradable corporate bonds in Israel indicates that since the end of 2011 the proportion of direct holdings by the public has risen continuously, at the expense of holdings of tradable bonds in the managed portfolio, which are declining. At the end of 2011, the public held 50 percent of tradable corporate bonds and institutional investors held 48 percent, while at the end of 2016 the public held 58 percent and the institutional investors 41 percent. While institutional investors, primarily the provident funds, held a high proportion of corporate bonds prior to the financial crisis, the numerous debt restructurings in this market during the period 2009–12 and the restrictions placed on investment in corporate bonds, based on the recommendations of the Hodek Committee, led them to reduce their exposure to this instrument in subsequent years and to shift sources to investments abroad and to direct loans to the business sector.

Net of the estimated price effect, the portfolio of financial assets grew by about 3.7 percent (NIS 122 billion). The remaining increase in national saving was directed to the increase in direct foreign investments by Israeli residents (about NIS 12 billion) and the purchase of real assets—first and foremost homes but also investments in domestic private companies.

This year the extent of exposure to foreign assets was stable.

The proportion of Israeli shares in the asset portfolio declined this year, continuing the trend of the previous three years (Table 4.1). While from 2013 to 2015 the drop in the proportion of Israeli shares in the portfolio was the result of a decline in the holdings of Israeli shares by Israeli residents, alongside an increase in their prices, this year the total holdings of shares by Israeli residents rose, alongside a decline in their prices. This year the total holdings of foreign investors in shares rose, after declining in the previous year. In addition, the proportion of assets invested abroad[10] in the asset portfolio fell this year, in contrast to the consistent upward trend since 2008.

[8] Estimate based on the choice of parents whether to match the amount and the choices of investment channel through the beginning of February 2017. According to CBS data for 2015, this involves about 42 percent of all children aged 0–17.

[9] The domestic equities market has been affected by the weakness of the largest companies in the economy, i.e., the pharmaceutical companies, which constitute about 30 percent of the general share index. This is in contrast to the positive trend in the TA 75 Index and the Yeter share index.

[10] Total assets invested outside of Israel. This includes holdings of securities issued by Israeli companies abroad and does not include holdings of foreign assets in Israel.

Starting in 2008, the exposure to foreign assets[11] has grown continually, from 6.8 percent to 24 percent in 2015. This year, the proportion remained unchanged, a result of the reduction in exposure during the first half of the year and its increase during the second half. It is possible that the stability in the exposure to foreign assets during the year, in contrast to the trend in previous years and the relatively positive performance of markets abroad, is a result of the high level of uncertainty that prevailed in foreign markets this year, particularly in view of events such as Brexit in Britain and the elections in the US.

Since 2012, the public has increased its holdings in cash and current accounts at a rapid pace. Net withdrawals by the public from money market funds continued this year.

Total liquid assets[12] rose by 6 percent, such that their proportion in the portfolio of financial assets has been rising moderately since 2011. While in previous years both the holdings of liquid assets in the managed portfolio and the direct holdings of the public increased, this year the proportion of the liquid portfolio within the managed portfolio fell, while the direct holdings of the public continued to grow. The public directly holds almost half of their investments in liquid assets, while in the managed portfolio the proportion of this component is about 8 percent. This is explained by the difference between the investment channels: institutional investors manage long-term saving while the public holds investments with a shorter horizon and a higher level of liquidity. The change in the liquid assets component this year was the result of the 18 percent increase in total cash and current accounts—a high rate of increase but lower than during the last two years—and an increase in short-term deposits, alongside a decline in the makam component. Since 2012, the public has been increasing its holdings of cash and checking deposits at a rapid rate, alongside a slower rate of increase in short-term deposits. In addition, net withdrawals from money market funds by the public continued this year, as in the previous two. These trends are consistent with the analysis of the trend presented in the previous year, according to which the public prefers to hold liquid assets that minimize management fees and transaction costs, in view of the near-zero interest rates. Since the last interest rate reduction in 2015, the rate of growth in short-term deposits has declined continuously and in contrast the rate of growth in long-term deposits has increased. The total deposits in the banks grew this year by 5 percent, which exceeds the average during the last three years and contributed to the increase in their sources.

b. The bank credit portfolio

The domestic bank credit portfolio (loans and bond holdings) grew this year by 4 percent and reached a total of NIS 951 billion. The rate of increase this year was somewhat lower than last year (6.2 percent) and higher than the average for 2012–14 (2.6 percent). The growth in the credit portfolio is a result of, among other things, the growth in the public's bank deposits, as indicated by the analysis of the asset portfolio, and this is in addition to the net positive issues of corporate bonds. It should be recalled

[11] The monetary amount subject to risk in the event of a drop in the value of assets issued by foreign residents.

[12] Cash, deposits for up to a year in Israel and *makam*.

that during the period 2012–15, the banks were required to raise their rate of Tier 1 capital to a level of 9 percent and from then until the beginning of 2017 the two largest banks had to raise this level even further to 10 percent, which limited their ability to expand their credit portfolios. In actuality, the two largest banks have already arrived at the required capital ratio and currently they are not required to raise it any further. The restrictions imposed by the Banking Supervision Department and measures it has taken, which were reflected in, among other things, the capital requirements on the two largest banks, had an influence this year on the trend in credit for mortgages and also on credit to large businesses. Thus, the two largest banks reduced their market share of mortgages and the credit they provide to large companies declined, in parallel to an expansion at other banks.

The two largest banks reduced their market share in mortgages, and the credit they extend to large companies declined.

The bank credit portfolio is composed of NIS 457 billion in household debt, NIS 400 billion in business sector debt (including the holdings of corporate bonds) and approximately NIS 100 billion more of government debt. The growth in the bank credit portfolio this year was composed of an increase of 5.3 percent in credit to households and a more moderate increase of only 1 percent in nonfinancial business sector debt. Figure 4.1 indicates that bank credit to the business sector has been characterized by several periods of expansion and contraction since the 2000s and therefore it has grown to only a small extent for the period as a whole. Since 2003, there has been a downward trend in bank credit to the business sector, at first due to the recession in the economy and later due to the accelerated growth in nonbank credit to the business sector following the reform of provident funds and mutual funds. The growth of bank credit to the business sector restarted in 2006 but within a short time the trend was reversed due to the financial crisis. The recovery in credit to the business sector, which began in 2010, came to a halt a third time in 2012, possibly due to the requirement imposed on the banks to increase their core capital ratio[13] and also as a result of the low demand for credit by the business sector. In contrast, there was continuous growth in credit to households during this period. Between 2007 and 2010, its average annual rate of growth was particularly high at 11.5 percent, which since then has fallen to 7.4 percent due to the combination of the increased capital requirements and macroprudential measures taken by the Banking Supervision Department in the area of housing credit. Even though some of the factors that influenced the growth in credit to the business sector were temporary, it is reasonable to assume that the change in the focus of domestic bank activity—beyond the concentration in credit to households and small businesses[14] at the expense of credit to large businesses—is not of a temporary nature and is explained by the reforms in pension saving and the rapid and consistent increase in the asset portfolio of the entities that manage it. These factors support the alternatives to bank credit for large businesses. A similar change has occurred in recent decades in other advanced economies, against the background of an increase in

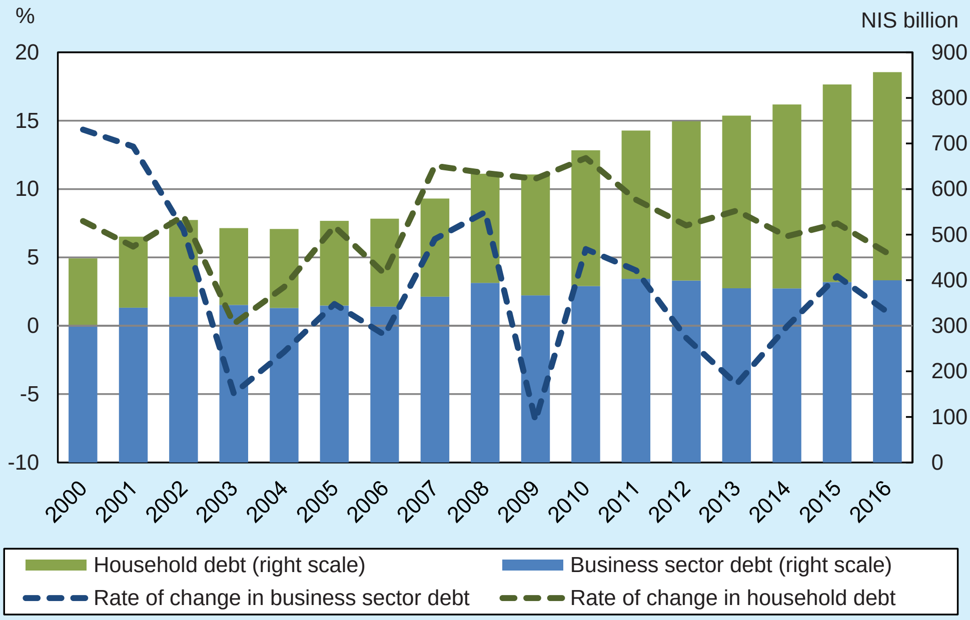
Reforms in pension savings and the rapid increase in the managed assets portfolio provide an alternative to bank credit for large businesses.

Mortgage business cycles have become a significant factor in financial crises in recent decades.

[13] For further details, see the Bank of Israel Annual Reports for 2013 and 2014, Chapter 1.

[14] The focus of the banks on small businesses is a result of, among other things, the activity of the Banking Supervision Department to reduce the exposure to large borrowers, the desire of the banks to diversify their portfolios and the low weight of this credit for the calculation of capital requirements.

Figure 4.1
Banking Credit to the Business and Household Sectors, and Rates of Change, 2000–16



SOURCE: Bank of Israel.

The economy's challenge is now to prudently channel the growing sources managed by institutional investors toward an expansion of the supply of credit and to encourage competition in other sectors as well.

private home ownership and the development of the capital markets. A database[15] of debt to the private sector in 17 advanced economies indicates that in the 1970s most of the banks' loans were concentrated in credit to the business sector while in 2010 over half of the banks' credit portfolio in these countries consisted of housing credit and household credit. This process was accompanied by an increase in households' leverage, an increase in the rate of home ownership and mortgage business cycles having become an important factor in financial crises in recent decades. The challenge to the economy is now to prudently channel the growing sources managed by financial institutions toward an expansion of the supply of credit and to encourage competition also in other sectors.

As part of the government's efforts to reduce the concentration of the banks in the provision of household credit, the Enhancement of Competition in the Banking System Law was approved this year. According to the law, the large banks are required to sell the credit card companies they own (for further details see Box 4.1 at the end of this chapter). In the Israeli market, there are three credit card companies that provide credit, part of which is under the responsibility of the bank (and included in the debt to the banking system) and part of which is under the responsibility of the companies

[15] O. Jorda, M. Schularick, and A. M. Taylor (2014, September). The Great Mortgaging: Housing, Finance, Crises, and Business Cycles. Working Paper 20501, National Bureau of Economic Research.

themselves.[16] Most of the credit supplied by the credit card companies is to households and the size of this debt (NIS 16 billion) is similar in size to the total debt of households to the financial institutions. Credit from the credit card companies that is not under the responsibility of the banks grew rapidly during the last decade (at an average annual rate of 19 percent), indicating that the companies are increasingly approaching those who are not customers of the bank that controls them (via nonbank credit cards, such as through customer loyalty programs). Thus, their ability to continue providing credit after they are separated from the banks is increasing, as long as there is no significant addition to the cost of raising their sources.

Credit card companies' ability to continue providing credit after they are separated from the banks is expected to strengthen.

The analysis of the asset portfolio indicates that financial institutions that manage the long-term saving portfolio have in recent years preferred to reduce their holdings of corporate bonds in favor of foreign investments and direct loans to the business sector. In parallel, the banks have not increased their credit to large businesses, perhaps due to the restrictions on capital or their preference for other sectors. Syndication transactions[17] can combine the need and desire of the financial institutions to increase the share of business sector loans, with reliance on the existing expertise of the banks in providing and monitoring loans—for a fee. In 2014 and 2015, the five large banks carried out syndication transactions in the amount of NIS 13 billion and NIS 15 billion, respectively. About 60 percent and 70 percent of total syndication transactions in those years, respectively, were carried out in partnership with financial institutions and the rest were carried out within the banking system. As of now, the volume of syndication transactions is low in Israel—in the advanced economies, it serves as a major source of financing for the business sector and provides an amount of credit similar to that obtained through the issue of corporate bonds. In Israel, the volume of syndication transactions is currently one-third the size of total bond issues.

Syndication transactions with banks can integrate the need and desire of the financial institutions to increase the share of loans to the business sector.

(a) Transmission from monetary policy to banks' interest rate

Since February 2015, the Bank of Israel interest rate has remained unchanged at 0.1 percent. In October 2015, the Monetary Committee used forward guidance in order to impact on the public's expectations regarding the interest rate and inflation in the short and medium terms. The message that the Monetary Committee wished to convey was that it intends to maintain an accommodative monetary policy in the future as well.[18] One of the ways in which the Bank of Israel interest rate is meant to influence economic activity is the transmission from it to the interest rates on deposits and on gross short-term credit to the public. A reduction of the interest rate in these two channels works to increase investment and consumption.

[16] For further details on the use of credit cards in Israel and the credit provided by the credit card companies, see the Bank of Israel Annual Report for 2015, Chapter 4.

[17] A syndication transaction is the provision of credit by several lenders to one borrower. In general, worldwide, syndication transactions are carried out by a consortium of banks for the provision of large loans.

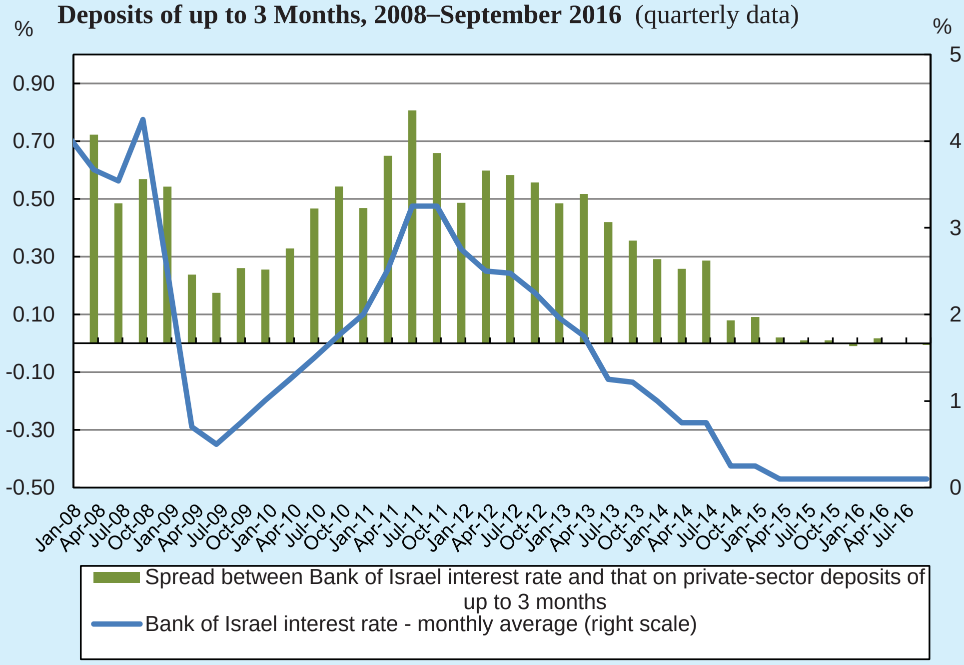
[18] For further details, see Chapter 3 in this report.

The public internalized that interest rates are expected to remain low in the short term, and thus reduced its savings.

Figure 4.2 indicates that in parallel to the consistent downward trend in the Bank of Israel interest rate since 2011 the gap between it and the interest rate on unindexed deposits of up to three months has narrowed. In other words, the interest rate on deposits has declined in parallel to the reduction in the Bank of Israel interest rate, although at a slower pace as rates approached the vicinity of zero. In February 2015, when the interest rate was last changed, the gap between the Bank of Israel interest rate and the average interest rate on deposits of up to three months reached zero and has remained at that level. Since the Bank of Israel interest rate was left unchanged during the year, the stability of the interest rate on short-term deposits indicates that there has been no change in the transmission between the interest rates. During the year, the average interest rate on new deposits by households declined, alongside a shortening of the term to maturity. The shortening of the term to maturity for new deposits alongside the increase in the public's holdings of cash and checking accounts indicates that the public has internalized that the interest rates are expected to remain low in the near future and therefore it has reduced its savings.

The new credit provided to the business sector during the year was largely characterized by stability in both its quantity and the interest rate on it in all of

Figure 4.2
Bank of Israel Interest Rate and Spread between it and Interest Rate on Deposits of up to 3 Months, 2008–September 2016 (quarterly data)



SOURCE: Bank of Israel.

The expected interest rate on unindexed business credit increased, among other reasons due to a shift of banking credit from large companies to small companies.

the business sector's activity segments.[19] The estimated interest rate on unindexed business credit (which constitutes 70 percent of total business credit) rose somewhat this year relative to 2015, despite the lack of change in the Bank of Israel interest rate. A partial explanation of the widening of the interest rate gap involves the change in the composition of credit, i.e. the continuing shift of credit from large to small businesses. Micro and small businesses are considered to have a higher risk profile and therefore the interest rate they are charged is higher than that charged to medium-sized and large businesses. An examination of the ratio of net interest income from credit activity to the total credit by category (a ratio that is used to estimate the average interest rate on credit) indicates that there has been no increase relative to 2015 in each category on its own. This implies that there has been no change in the transmission from the Bank of Israel interest rate to the interest rate on credit. An examination of the banks' sources points to an increase in the banks' assets as a result of the increase in deposits. In addition, the average spreads on corporate bonds in the banking industry fell somewhat in 2016 relative to 2015. Total bond issues by the banking industry this year were similar to last year's and were more than double the average for the period 2012–14. It therefore appears that there has not been an increase in the cost of raising money from these two sources for the banks or a reduction in availability. Indirectly, the cost of the banks' sources has risen due to increased capital requirements.

c. The financial account of the balance of payments

There were capital outflows of $7.1 billion.

The financial account of the balance of payments[20] reflects the financial transactions of Israeli residents abroad and of nonresidents in Israel and is composed of the net flow of payments for direct investment in securities,[21] financial investments in securities,[22] other investments and reserve assets (managed by the Bank of Israel). The movements in the financial account reflect the domestic sources of financing that were channeled to investments abroad and in contrast the additional sources of financing from abroad enjoyed by the domestic economy. The net financial account of the Israeli economy has remained negative (net capital outflow of investments) since 2001. In 2016, there was a net capital outflow of $7.1 billion, which is less than during the previous two years, when the average annual net capital outflow totaled about $15 billion. Net of reserve assets, the Israeli economy became a net importer of capital this year on a small scale ($1.4 billion).

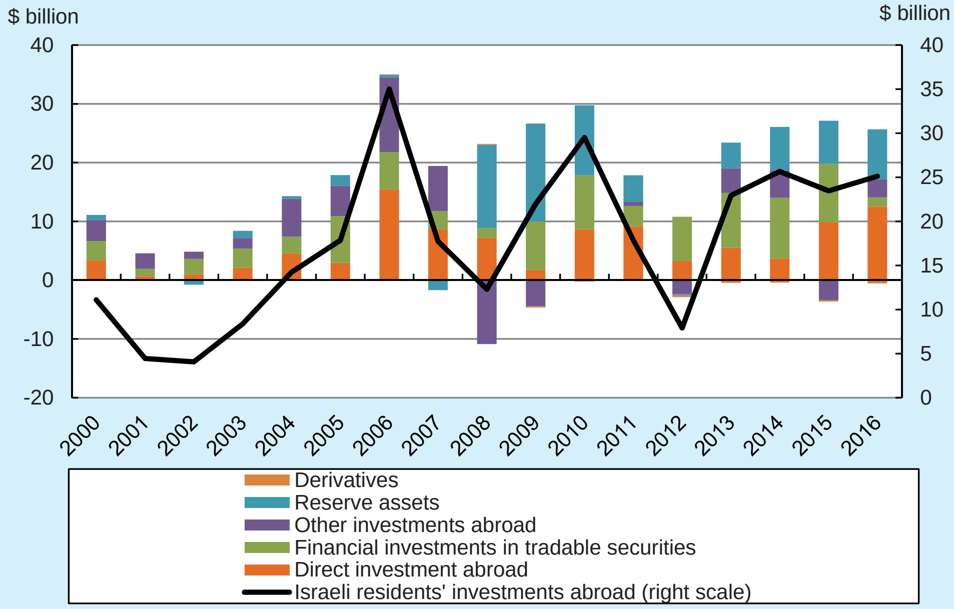
[19] In January 2016, the Bank of Israel changed the definitions of the activity segments, such that a uniform system would apply to all the banks. The categories are currently households, private banking, micro businesses, small businesses, medium sized businesses, large businesses and the financial management sector.

[20] For further details on the financial account of the balance of payments in 2016, see the Statistical Bulletin for 2016, published by the Information and Statistics Department of the Bank of Israel.

[21] Investments that provide voting rights on the board of directors of the company and the possibility of participating in its management, including the purchase of shares, shareholder loans and other types of loans.

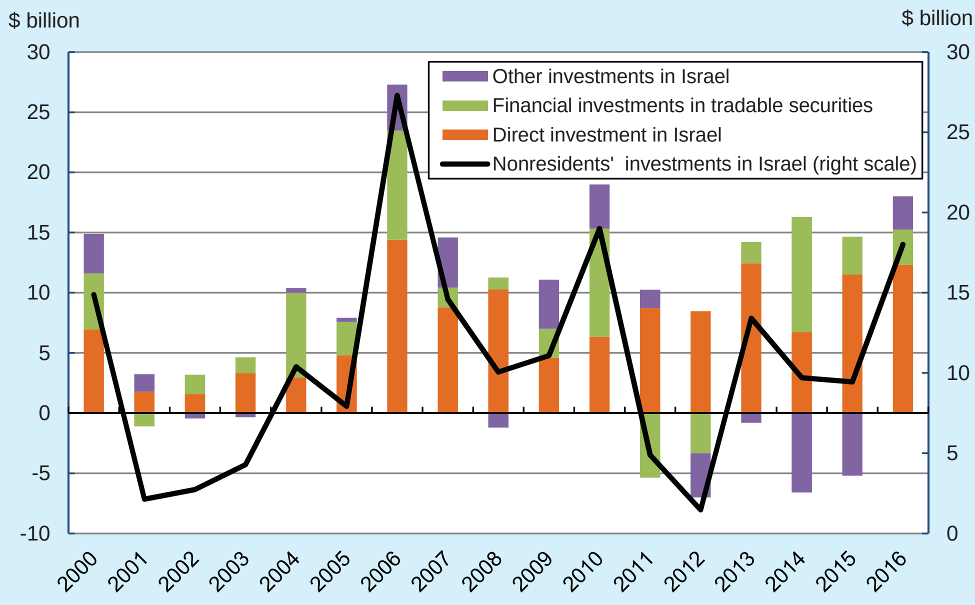
[22] All investments in tradable securities that are not defined as direct investments.

Figure 4.3
Israeli Residents' Investments Abroad (net flows), 2000–16



SOURCE: Bank of Israel.

Figure 4.4
Nonresidents' Investments in Israel (net flows), 2000–16



SOURCE: Bank of Israel.

Israeli residents' investments abroad (Figure 4.3) show a major increase in direct investments. However, this can be attributed primarily to the large investment of one company, alongside the low level of financial investments. The decrease in the flow of financial investments abroad by Israeli residents characterized all of the sectors in the economy, in contrast with the high level of investment in this category during the last three years, both by households and by financial institutions. Despite the decrease in the flow of financial investments, the total of these investments grew due to the increase in share prices on foreign exchanges.

The stream of financial investments to abroad by Israeli residents decreased.

Nonresidents continued to increase their direct and financial investments in Israel (Figure 4.4) at a rate similar to that of the previous year. There was an increase in "Other" investments, primarily due to the growth in loans to Israeli residents and suppliers' credit.

The increase in direct and financial investments focused on Israeli shares, as in 2015. Despite the positive flow of financial investments from nonresidents, the total financial investment by nonresidents in the economy declined, which was due to the negative price effect of shares in Israel, particularly the decline in share prices in the pharmaceuticals sector which accounts for a high proportion of the investment portfolio of foreign residents.

The overall effect of these developments on the economy's balance of foreign assets and liabilities accelerated the upward trend in the economy's surplus of foreign assets over foreign liabilities. The surplus totaled \$106 billion at the end of 2016, which was primarily due to the offsetting developments in local and foreign shares, which together resulted in a moderate net capital outflow.

2. FINANCING ECONOMIC ACTIVITY

The uses of sources of financing in the economy are divided between households, the business sector and the government. A description of the government's uses can be found in Chapter 6 of this report. The total debt of the nonfinancial private sector (including the debt of households and of the nonfinancial business sector) reached NIS 1.35 trillion in 2016. The debt of the private sector grew by 4.9 percent, which is somewhat higher than in the previous year (4 percent). The level of the debt of the nonfinancial private sector in Israel relative to GDP declined from 2007 to 2015. Its decrease since the financial crisis was a result of the slow growth of credit to the business sector due to low demand for investment alongside consistently high growth of household debt. This year, there was somewhat of a change in this trend and credit to the nonfinancial business sector grew by a higher rate than in previous years. The ratio of the debt of the nonfinancial sector to GDP (about 112 percent) is low relative to the average in emerging markets (143 percent) and in advanced economies (165 percent).

This year credit to the nonfinancial business sector grew by a high rate relative to previous years.

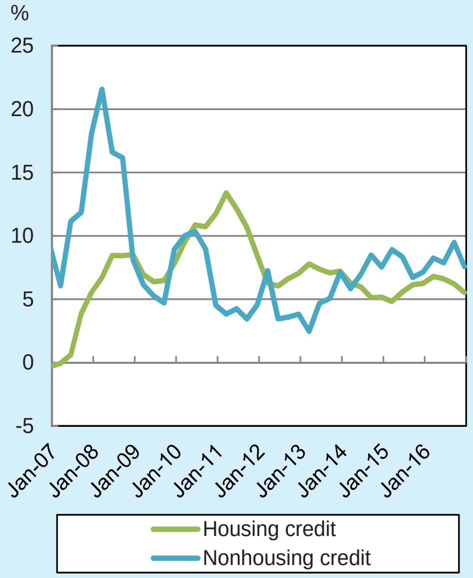
a. Households

Credit to households continued to grow at a high rate during 2016. From the beginning of the year it grew by 6.2 percent to a total of NIS 504 billion, as compared to NIS 475 billion in 2015 (including credit from the banking system, credit from the credit card companies not under the responsibility of the banks and credit from institutional investors). There is a phenomenon observed in many countries, in which the expansion in credit stimulates private consumption to create a business cycle, even if the level of leverage does not increase to an exceptional degree. First, part of the increase in consumption is channeled to domestic output and is not necessarily reflected in unusually high rates of growth in the debt-to-GDP ratio, since both of them increase. However, if there is no parallel increase in investment in the economy, there may be a decrease in GDP later on.[23] In Israel the rate of investment in the economy rose this year.

Nonhousing credit has grown rapidly in recent years.

Household credit is composed of NIS 339 billion that is secured by a home (herein: housing debt) and NIS 165 billion that is not (herein: nonhousing debt). The growth in housing debt was 5.5 percent while that in nonhousing debt was 7.6 percent. Figure 4.5 shows that since 2011 the rate of increase in housing credit has moderated, though it remained above 5 percent, while that of nonhousing credit increased and during the last three years has grown faster than housing credit.

Figure 4.5
Housing and Nonhousing Credit to Households, Annual Rate of Change, 2007–16
(quarterly data)



SOURCE: Bank of Israel.

[23] For further details on the theoretical connection between household debt and growth, see Box 4.1 in the Bank of Israel Annual Report for 2015. Recently, an empirical study was also published: Atif R. Mian, Amir Sufi and Emil Verner (2015). Household Debt and Business Cycles Worldwide. No. w21581. National Bureau of Economic Research—which found a connection between a rapid increase in household debt (a cumulative increase of more than 5 basis points in the ratio between this type of debt and GDP over a period of three years, cumulative) and a contribution to growth in GDP during the expansion in credit, but also found a change in trend at a later stage and a negative effect on growth in GDP, exceeding the positive effect in the initial period. The dynamic documented in the article existed in the sample also prior to the 1990s (a period that was characterized by significantly lower levels of the ratio of household debt to GDP relative to the subsequent decade) and also in developing markets, which have lower levels of debt than the developed markets.

The balance of credit to households from institutional investors remains a small part of overall credit to households, but this component has been growing rapidly in the past two years.

The banks continued to maintain their central role as lenders to the household sector. Their share of housing credit to households is 95 percent and of nonhousing credit to households is 82 percent (Figure 4.6). While the share of the banks in housing debt to households grew in recent years due to the reduction in credit from the government, their share of nonhousing debt has declined, due to the high rates of growth in credit from the financial institutions and credit from the credit card companies that is not under the responsibility of the banks. Total credit to households from financial institutions is still only a small part of total credit to this sector, but it has grown rapidly during the last two years, doubling from NIS 9 billion in 2014 to NIS 17 billion in 2016. Of this amount, about NIS 10 billion is nonhousing credit and NIS 7 billion is housing credit. This year housing credit grew at a particularly high rate (from NIS 3 billion last year), as a result of the purchase of mortgage portfolios from the banks. In 2015, the banks sold credit portfolios in the amount of NIS 3.4 billion, of which only about NIS 0.6 billion was in the form of mortgages. In 2016, the cooperation between the banks and the financial institutions with regard to mortgages increased significantly, with the banks selling mortgage portfolios worth approximately NIS 8 billion during the past 18 months. Due to the risk implicit in this activity, the Commissioner of the Capital Market and the Supervisor of Banks issued directives that are meant to balance the risks between the banks and the financial institutions while at the time preventing the selective sale of mortgage portfolios with low risk. Thus, financial institutions are restricted from purchasing low-risk mortgages, i.e., mortgages with LTV of less than 60 percent and the banks are restricted to selling up to 6 percent of their mortgage portfolio (about NIS 18 billion). The sale of credit portfolios provides most of the advantages of securitization,[24] a market that is yet to develop significantly in Israel. First and foremost, it involves the freeing up of resources in the banking system and broadens the investment possibilities open to financial institutions. However, it has also potential drawbacks—primarily the reduced incentives of the banks to monitor the quality of credit. With that, the sale of a credit portfolio is a less transparent transaction than securitization and therefore involves other disadvantages. For example, securitization products receive a rating from the rating companies that reflects the risk implicit in the composition of loans included in the portfolio while the process of evaluating risk in the sale of a credit portfolio is the responsibility of the buyer himself. With respect to securitization, fixed standards are being introduced, such as how much of a portfolio must remain in the hands of the bank. (Thus far, in the sales of mortgage portfolios, the proportion of the portfolio remaining in the hands of the bank has been significantly higher than the threshold set for securitization.)

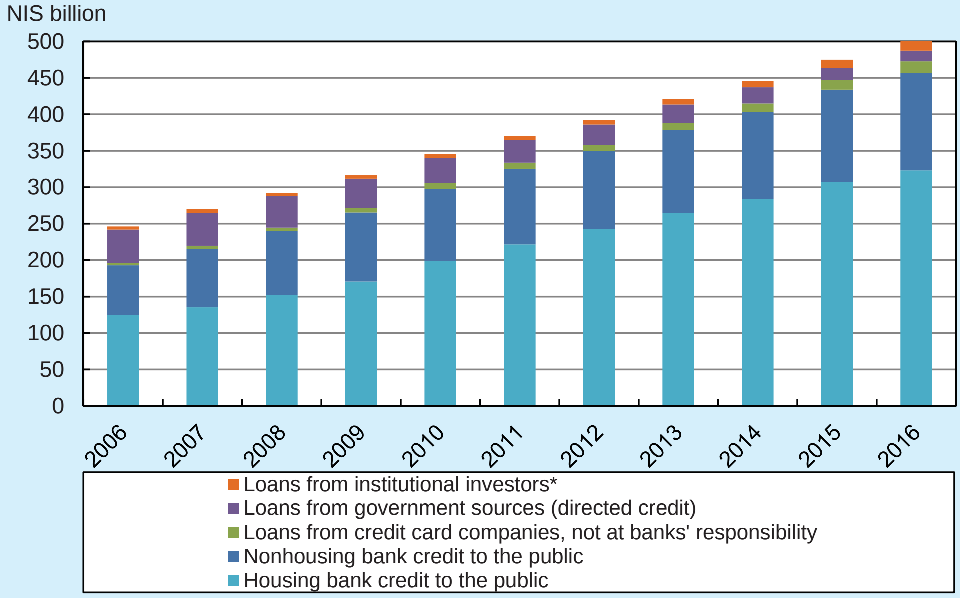
This year the scope of collaboration between banks and institutional investors in the area of mortgages increased markedly.

Credit from the credit card companies that is not under the responsibility of the banks has grown rapidly in recent years and has reached a total of NIS 16 billion.

The increase in the rate of saving in recent years, the interest rate environment that has been low for several years, and the growing share of financial institutions in credit to households, which may indicate an increase in competition, is evidence

[24] For further details, see the Bank of Israel Annual Report for 2014, Chapter 4, Box 4.2.

Figure 4.6
Household Credit Balances, by Source, 2006–16



* Provident funds, pension funds, and insurance companies.
SOURCE: Bank of Israel.

of the improved supply of credit. On the demand side, the ongoing increase in home prices is contributing to the increased demand for credit, since households need more credit in order to smooth out their consumption.[25]

The experience of the financial crisis shows that in countries adversely impacted by the crisis an increase in housing credit was correlated with an increase in home prices. In Israel, the ratio of household debt to GDP increased slightly.

In other countries, as in Israel, the main debt of households is housing debt. The experience of the financial crisis has shown that the increase in housing credit in countries that were affected by the crisis was correlated with the increase in home prices. The relationship between growth in housing debt and home prices works in both directions: an increase in home prices necessitates and facilitates taking on greater debt (due to the increase in the value of the asset serving as collateral) and the improvement in the supply of credit allows households to offer higher prices in the housing market. In Israel, home prices have been rising for almost a decade, but this has not been reflected in a rapid increase in credit relative to GDP as in other economies. Indeed, the ratio of household debt to GDP has increased by only a small amount. Only in the last three years has the rate of increase accelerated to some extent: from 39.7 percent to 41.7 percent. But this still leaves Israel among the advanced economies with the lowest ratios, even among those whose growth since the crisis has fallen only moderately relative to before the crisis (presented in Figure 4.7).

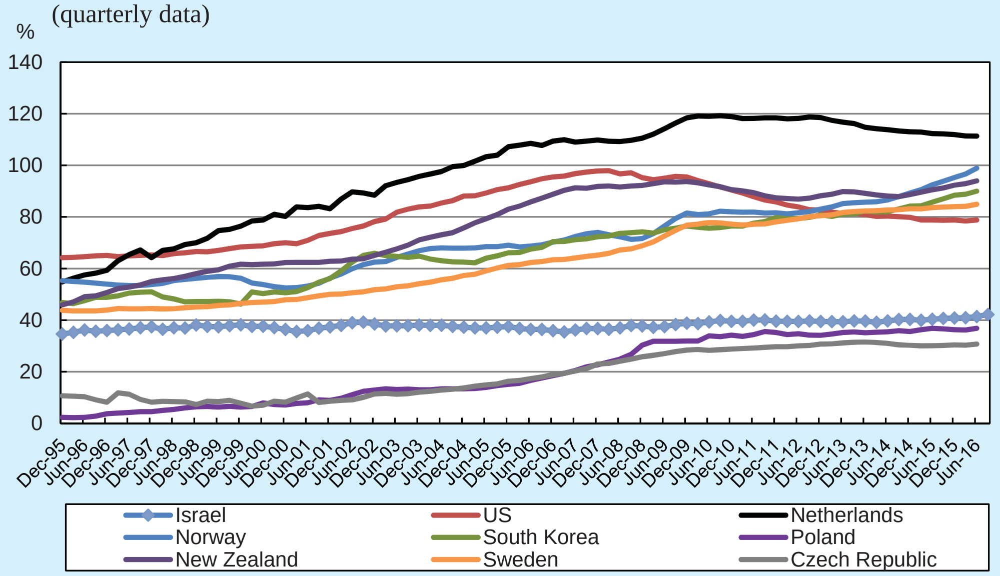
[25] This explanation is based on the life-cycle model, in which credit is used to shift consumption between periods in which an individual's income is high to periods in which it is low. For further details see Box 4.1 in the Bank of Israel Annual Report for 2015.

From a long-term perspective, it can be seen that this ratio has remained stable for a long period, in contrast to the trend in most countries. The rate of leverage among households (which is measured as the ratio of total liabilities to total assets, both financial and real) even fell between 2008 and 2015.

The ratio of housing credit to GDP is low compared internationally, in contrast to consumer credit.

The level of household debt is low in Israel, even though the rate of home ownership, the proportion of households that are paying off a mortgage and the payment to income ratio for household mortgages are high relative to the average of the eurozone. Household debt has been influenced by macroprudential steps taken by the Bank of Israel, which restricted the leverage of households:[26] the restriction—since 2012—on the rate of leverage permitted on a mortgage; the restriction—since 2013—on the payment to income ratio (up to 50 percent); the increased capital requirements—since 2013—for mortgages with high loan to value ratios; and the requirement—since 2013—to raise capital allowances in respect of mortgages. Some of these restrictions have led to an increase from 2013 in the spread between mortgage rates and the yields on government bonds, which is evidence of a slow expansion of the supply of credit relative to the expansion of demand for credit. Although total credit to households in Israel is low by international standards, this is due to the low level of housing credit,

Figure 4.7
Household Debt to GDP Ratio in Israel and Selected Countries, 1996-2016
(quarterly data)



SOURCE: Based on BIS.

[26] The comparison to the OECD countries in this section is based on:
"Household Debt in OECD Countries: Stylized Facts and Policy Issues" (2006).
The comparison to the eurozone countries is based on:
"The Eurosystem Household Finance and Consumption Survey Results from the First Wave" (2013).

in contrast to nonhousing credit to households (consumer credit), which is not low.[27] In fact, nonhousing credit may be more of a risk to economic stability since it is given for shorter periods and therefore is exposed to refinancing risk from the borrower's side, in general at a higher interest rate, particularly if it is not backed by collateral such as a home.

About 6 percent of total consumer credit was identified as credit for purchasing a vehicle.

Among the various uses of consumer credit, the purchase of vehicles this year drew a great deal of attention, in view of the high rate of increase in imports and in the sales of new vehicles. It is difficult to estimate the total amount of credit used to purchase vehicles since it originates from a number of sources. Some of the credit is provided by banks to private customers and as of mid-2016 the banks had provided about NIS 9.2 billion of credit secured by the vehicle (data that the Bank Supervision Department is gathering for the first time and therefore it is not known if this represents an increase from previous years). To this can be added about NIS 1.8 billion in credit provided by the credit card companies (not under the responsibility of the bank) where the vehicle served as collateral and which were provided independently. Together this accounts for about 6 percent of total consumer credit. This is an underestimate of the credit provided to households from the banks to finance the purchase of vehicles, since the purchasers also have the possibility of "credit for any purpose" which can be used for the purchase of a vehicle and they can receive credit to purchase a vehicle without collateral. Another channel, which is apparently becoming increasingly popular, is financing a vehicle purchase via a leasing company or the importer. In this case, the importer or the leasing company is the one that obtains credit from the banks or nonbank credit, which will be included in the category of credit to the business sector. It should be noted that starting from 2008, the share of new vehicle purchases by private customers grew at the expense of the share of purchases by corporations and leasing companies, which has shifted the financing of this activity from business credit to household credit. The share of corporations among purchasers of new vehicles is about 44 percent, with the share of leasing companies at about 37 percentage points out of that.[28] It should be noted that the continuing decline in the prices of second-hand vehicles is eroding the value of the collateral of the loans, whether from the importer, a lease company or a bank.

(a) Developments in mortgages

This year mortgage interest rates rose, investors' share declined, average term to maturity lengthened, and the size of the average mortgage grew.

Total mortgages provided in 2016 were NIS 60 billion, which is lower than in the previous year when new mortgages totaled NIS 65 billion. Starting in the summer of 2015, there has been a noticeable drop in new mortgages, after a record was reached then ahead of an increase in the tax rate on investment homes. The trends that have characterized new mortgages this year were a continuation of those that began in the second half of 2015—an increase in mortgage interest rates; a drop in the share of

[27] For further details, see the Bank of Israel Annual Report for 2015, Chapter 4.
[28] From Survey of the Auto Industry for 2015, the Israel Tax Authority.

investors in new mortgages from 17 percent to only 14 percent; the lengthening of the average repayment period; and an increase in the average size of a mortgage.

The weighted real interest rate on mortgages rose from an average of 0.7 percent in mid-2015 to approximately 1.9 percent at the end of 2016. In the current housing-market cycle (since 2008), the interest rate trended upward from the beginning of 2009 to mid-2011; subsequently it fell until mid-2015; and since then it has resumed an upward trend. However, the spread between mortgage interest rates and government bond yields began an upward trend already in mid-2013, which ended in 2015 in parallel to the decline in the Bank of Israel interest rate. The increase in mortgage interest rates during this year and the second half of last year encompassed all of the mortgage tracks and was accompanied by some lengthening of the repayment period. Since the beginning of the current cycle in housing prices, the Banking Supervision Department has published several directives intended to limit banks' exposure to the housing market, to encourage the banks to internalize the growing risk in this market and to reduce the risk to the credit portfolio when interest rates rise. Two directives related to the capital ratios required of the banks and which were published prior to this period had an influence on the price of mortgages: the increase in the allocation of capital against the housing credit portfolio by the beginning of 2017 and the implementation of the Basel III directives regarding the core capital ratio since 2012, according to which the two largest banks must achieve a core capital ratio of 10 percent by the beginning of 2017 and the other banks must achieve a ratio of 9 percent by the beginning of 2015. These directives had a major impact on the two largest banks but less of an impact on the other banks. This differential effect can be seen in the change in the breakdown between the banks of new mortgages extended: the two largest banks reduced their share of mortgages from an aggregate level of 48 percent in 2015 to 37 percent this year.[29] Although this led to a more equal distribution of new mortgages between the banks, the reduced share of the two largest banks led to a reduction in the supply of housing credit, which was manifested in an increase in its price.[30] The increased risk implicit in housing credit, the higher cost of the banks' sources and the directives of the Banking Supervision Department issued as a result of these developments apparently resulted in the increased mortgage interest rates.[31]

Increased risks in housing credit, the increased expense of banks' sources and directives by the Banking Supervision Department issued due to those developments apparently led to the increase in mortgage interest rates.

b. The nonfinancial business sector

The business sector relies on three main sources of financing: internal sources (retained earnings), credit (raised from the capital market, from financial institutions and from the banks) and the issues of shares.[32]

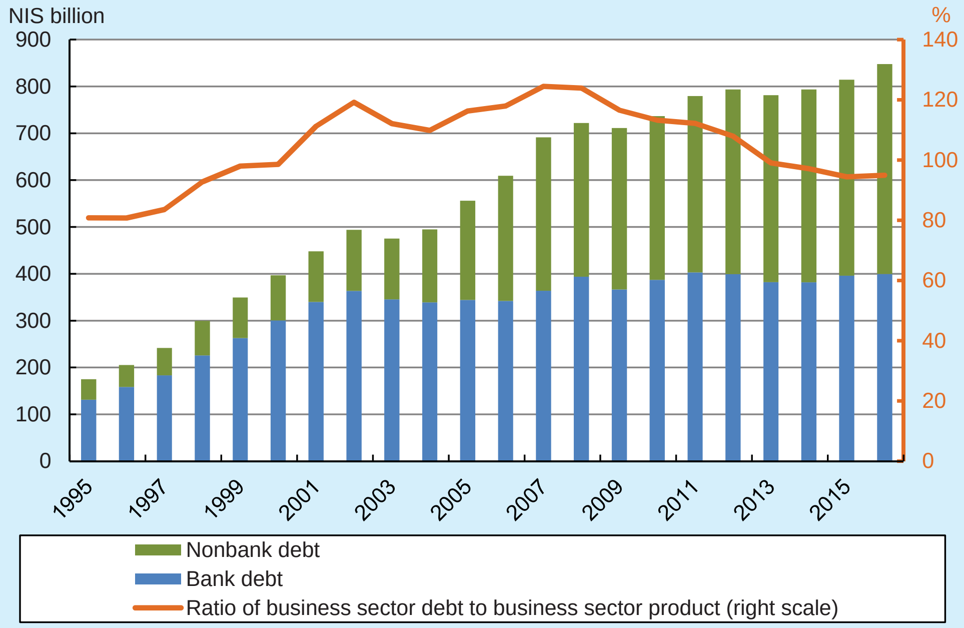
29 See the Banking Supervision Department's 2016 report , which discussed this issue in detail.
30 For further details, see the Financial Stability Report for the second half of 2016 – Household Sector.
31 For further details, see the box on page 7 of the Banking Supervision Department's semiannual survey, September 2016 (in Hebrew).
32 For further details, see the Bank of Israel Report for 2015, Box 4.2.

According to responses to the Companies Survey, there was no change in the financing difficulties of firms in 2016 and the situation was similar to that in 2015. In this context, it appears that while large firms are recently reporting somewhat of an increase in financing difficulties, small and medium-sized firms are in fact reporting less difficulty. This trend is consistent with the changes in the focus of bank activity in recent years, which is reflected in a reduction in the share of credit to large firms and an expansion of credit to small and medium-sized firms.

In the past decade, there was a notable standstill in banking credit to the business sector, while total credit to the business sector continued to grow.

The debt of the nonfinancial business sector grew during the course of the year by 4.1 percent, reaching NIS 848 billion. This is higher than the rate in the previous year (2.6 percent) and markedly higher than the average for the period 2012–15, when its debt hardly grew at all. The growth in business sector debt this year was consistent with the growth in business sector product and for the first time since the financial crisis in 2008 the decline in the ratio of business sector debt to business sector product came to a halt (Figure 4.8). While the growth in credit to the business sector in 2015 was primarily based on the increase in credit from the banks and loans from financial institutions, this year more than half of the increase was the result of an increase in bond balances. From a longer term perspective, over the past decade the lack of growth in bank credit to the business sector is notable, while total credit to the business sector continued to grow. The lack of growth in bank credit to the business sector alongside the growth of nonbank credit to the business sector also reduced the share of bank credit within total credit to the business sector, and by the end of 2016 total debt held

Figure 4.8
Business Sector Debt, by Source and as a Percent of Business Sector Product, 1995–2016



SOURCE: Bank of Israel.

by the banks accounted for less than half of the business sector's total debt, compared with 55 percent in 2008 and 74 percent in 2002.

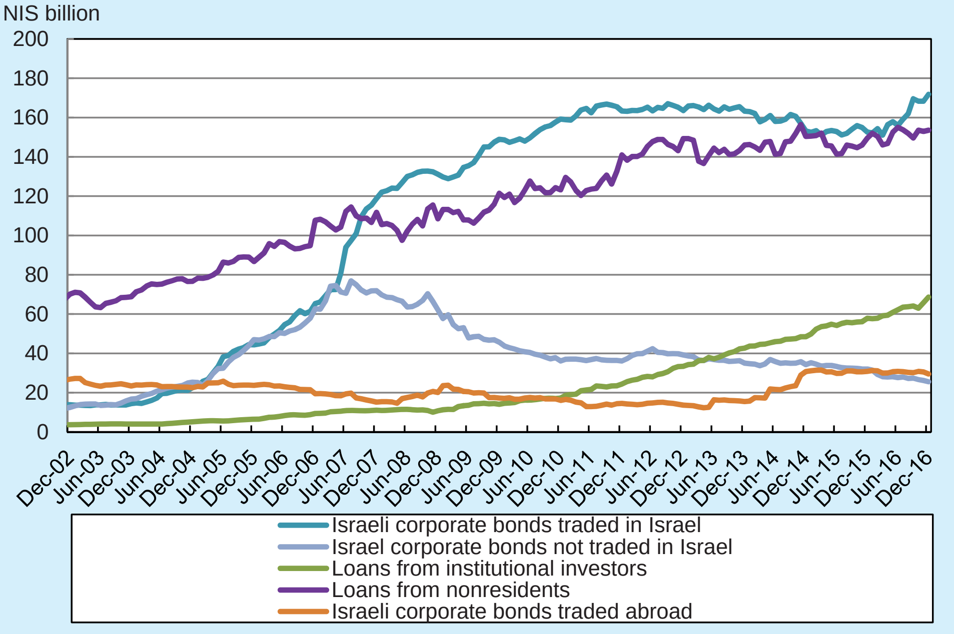
The trend in banking credit to the business sector, of a shift from large companies to small ones, has continued since 2009.

The business sector debt to the banks (including by means of holding bonds) grew in 2016 by the low rate of 1 percent, compared with 3.6 percent in 2015. Between 2012 and 2015, the business sector debt to the banks contracted by an average of 2 percent. During 2016, the total credit of the banks to small and micro businesses increased, alongside stability in credit to medium sized businesses and a decrease in credit to large businesses. In the third quarter of 2016, total bank credit to small and micro businesses (NIS 176 billion) surpassed the total for large businesses (NIS 158 billion). This shift of business credit from large companies to small companies has continued since 2009. The Banking Supervision Department reported in its review of the first six months of 2016 that the decrease in credit to large businesses was primarily at the two largest banks, while most of the medium-sized banks in fact increased this type of credit. The downward trend in credit to large businesses in contrast to the growth in credit to small businesses has several explanations, some of which are related to the supply side and others to the demand side. On the supply side, credit to small businesses is weighted in the risk assets of the banks by a smaller weight than credit to large businesses. Apart from that, there is a limit imposed on the banks' exposure to a single borrower or group of borrowers, although it appears that at this point in time the exposure to single borrowers is not constraining the credit to existing borrowers. At the beginning of 2016, the limits on exposure were tightened, such that the total permitted exposure to a group of borrowers was lowered from 25 percent to 15 percent and the capital base on which the calculation of exposure is made was reduced from total capital to Common Equity Tier I capital. On the demand side, the weakness in exports alongside the strength of domestic demand supports the expansion of economic activity in domestic industries, such as trade and services, at the expense of export-oriented industries, such as manufacturing, a situation that is reflected in increased demand for credit by small businesses in contrast to weaker demand among large ones. Indeed, the share of credit to the trade industry within the banks' portfolio of commercial credit grew in recent years while credit to the manufacturing industry shrank. In the area of balance-sheet credit to the business sector, the construction and real estate industry is the largest borrower and its share of balance-sheet credit to the business sector is about 28 percent, and about 11 percent of the total portfolio; however, total credit to this industry did not increase this year. For the two largest banks, the share of credit to this industry within total credit is the largest and is close to 20 percent, the limit beyond which the Bank Supervision directive requires an additional capital allowance. The three medium sized banks are well under the industry limit. It should be noted that at this point in time the real estate companies are able to issue bonds on a large scale in the nonbank credit market with low spreads.

Regulatory limitations contributed to the growth of bank credit to small businesses and the contraction of credit from the two large banks to large companies.

The nonbank debt (Figure 4.9) of the nonfinancial business sector was NIS 448 billion at the end of 2016, an increase of 5.5 percent relative to 2015. This is higher than the annual rate of growth during the previous three years, which was 2 percent on average. Loans from nonresidents in foreign currency have been characterized by an upward trend for more than a decade, with some leveling off during the last five years. It is therefore a reasonable assumption that during this period the exposure of the business sector to currency risk has increased. Direct loans from institutional investors continued to grow at a high rate again this year and the total debt in this channel was NIS 69 billion, which is about 8 percent of the total debt of the business sector, an increase of 19 percent from the previous year. At the same time, the drop in total nontradable bonds as a source of financing continued, a trend that began in 2008; the total is currently NIS 26 billion, compared with NIS 72 billion at the end of 2007. It should be noted that institutional investors are also subject to the regulatory limits on exposure to a single corporation and since about one third of total credit to the business sector originates with institutional investors, the limits imposed on them may limit the growth of the supply of nonbank credit.

Figure 4.9
Balance of Nonbank Credit to the Nonfinancial Business Sector, by Instrument, 2002–16 (monthly data in current prices)



SOURCE: Bank of Israel.

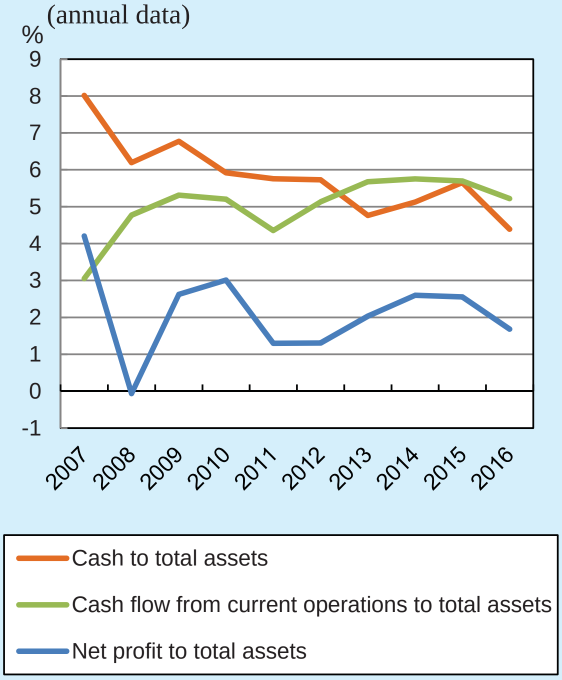
(a) Public companies[33] and the Stock Exchange

The public companies in Israel are partially representative of the business sector, with nonfinancial public companies accounting for about 38 percent[34] of the overall nonfinancial business sector (as of 2015). It can be seen in Figure 4.10 that in 2016 the net profit of public companies declined, which was reflected in smaller cash balances relative to total assets and as a result lower availability of internal sources. The drop in net profit relative to total assets characterized all of the industries, except for real estate. The reduced profitability of public companies this year is surprising in view of the strong domestic demand and the solid growth of private consumption, but is consistent with the negative inflation. In some industries, the drop in profitability may be the result of increased competition (for further details, see Chapter 1 and 3).

Net funds raised via issues this year are estimated to have been NIS 18.9 billion, markedly higher than in recent years, when the scope of issuances was nearly identical to the scope of redemptions.

Total issues of corporate bonds were particularly high in 2016, reflecting the significant increase of investment in public companies. Total debt (both tradable and nontradable) issued by the nonfinancial business sector was NIS 42.5 billion, the highest level since 2007 and almost double that in 2015. About NIS 17.5 billion was issued by companies in the real estate industry. The estimated net capital raised in corporate bond issues this year was NIS 18.9 billion, significantly higher than in recent years, when total issues were almost identical to total redemptions. About half of this amount (NIS 9.1 billion) was issued by the real estate industry and NIS 2.4 billion by the investment and holding company industry. The positive level of net issues in the real estate industry stood out relative to other industries in previous years as well, although those issues were lower. To illustrate, in 2015 the real estate industry issued a net amount of about NIS 4 billion. Net of the real estate industry and the investment and holding industry, estimated net issues

Figure 4.10
Indicators of Internal Sources of Public Companies, 2007–2016:Q3
(annual data)



SOURCE: Bank of Israel.

[33] The analysis relates to data that end in the third quarter of 2015.
[34] According to the share of public companies in the total revenue of the nonfinancial business sector.

exhibited a significant increase. One of the possible reasons for the increase in bond issues is the desire of companies to raise capital while interest rates are low. Despite the increase in net bond issues, an examination of the level of leverage among the public companies reveals almost no change in their rates of leverage[35] and therefore their total assets have grown in parallel. On average, there was a significant drop in cash flow from investment activity[36] or in other words a significant increase in investment activity among public companies, apart from the real estate and construction industry. In general, the investment of the business sector in fixed assets rose this year (see Chapter 2).

Spreads on bond yields declined in all industries other than in the financial industry.

The cost of raising debt as reflected in the spreads on tradable bonds declined this year in all industries (Figure 4.11), particularly in the investment and holding industry, in which there was a decrease of 2.6 percentage points on average, and in the construction and real estate industry, in which there was a decrease of 1.2 percentage points. The most significant decrease was recorded in the lowest rated group and the smallest companies while for the large companies and highest-rated companies the decrease in spreads was more moderate. The explanation for this is that spreads hardly decreased in the financial industry (insurance and banks), which was due to, among other things, the influence of negative expectations of profitability in this industry, in view of the regulatory and legislative steps taken in order to increase competition (such as a default pension in insurance and the Enhancing Competition in the Banking System Law). Overall, the decrease in spreads occurred against the background of relatively favorable financial ratios, such as low Expected Default Frequency, low multipliers, etc., and the continuing improvement in economic activity. It is important to note that the improvement in the financial situation of companies and in economic activity supports the decrease in spreads, but apparently spreads were also influenced by the low level of interest rates and yields in Israel and abroad, which have prevailed already for an extended period. This is because risk is liable to be underpriced, due to, among other things, the search for higher yields and because corporate bonds are still characterized by excess yields despite the narrowing of spreads.

Corporate bond spreads in the US also narrowed in 2016 and to an even greater extent than in Israel. The gap between Israel and the US in bond spreads was smaller at the end of the year than at the beginning. At the same time, the gap between Israel and the US in yields on 10-year government notes narrowed and even became negative towards the end of the year. This year, there were no issues of bonds by Israeli companies abroad.

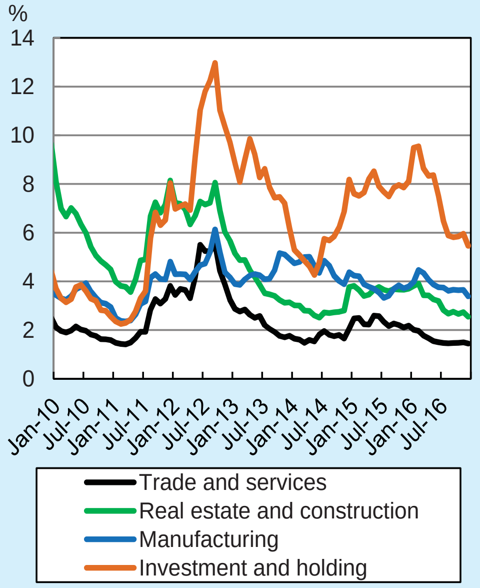
This year, Israeli companies issued share capital in the amount of NIS 5.5 billion on the Tel Aviv Stock Exchange, compared with NIS 4.9 billion in the previous year. About NIS 1.9 billion was issued by companies in the real estate industry, NIS 1.3 billion

[35] For further discussion of the rates of leverage among public companies and their trends, see the Financial Stability Report for the second half of 2016 – The Business Sector.

[36] Cash flow from investment activity reflects the net change as a result of the purchase and sale of fixed assets and investment in subsidiary companies. The larger the investment in these assets, the more negative will be the cash flow from investment activity.

by companies in the investment and holding industry and another NIS 1.2 billion by banks. An additional NIS 766 billion, approximately, was issued by Israeli companies abroad (not including Teva), all of which are in the biomed and technology industries. The issue of shares by foreign companies on the Tel Aviv Stock Exchange was negligible. This year, only three companies issued shares for the first time on the Tel Aviv Stock Exchange, two of them Israeli and one foreign.

Figure 4.11
Weighted Average of Yield Spreads between CPI-Indexed Corporate Bonds and Parallel Government Bonds, by Industry, 2010–16
(monthly average)



*Excluding structures and convertibles.
SOURCE: Bank of Israel.

The trading volume in shares on the Tel Aviv Stock Exchange fell in 2016 (in fixed prices), with daily trading volume in shares declining by about 13 percent relative to 2015 and by about 6 percent if excluding ETFs. As in previous years, most trading was concentrated in the shares of the largest companies. However, in this Israel is not an exception and the phenomenon can be found in both developed and emerging markets. The value of the share market relative to GDP stood at about 67 percent in 2016, which placed it between the US market and the average for the eurozone. The number of traded companies (tradable share capital) on the Tel Aviv Stock Exchange fell again this year, from 461 at the end of 2015 to 452 at the end of 2016. This phenomenon has been observed in recent years not only in Israel but also in the US and Europe as well. In total, there has been a reduction of about 37 percent in the number of public companies in Israel since 2011. Nonetheless and despite the consistent decrease in the number of public companies, the ratio of their number to the population in Israel is still among the highest in the world. A study carried out by the Bank of Israel[37] found that companies which are characterized by relatively poor corporate governance have a higher chance of being delisted. The delisted companies were also characterized by low leverage, limited possibilities for growth and a low proportion of holdings by financial bodies. These are therefore companies whose access to raising capital in the capital market (the supply side) is limited and also their need for capital (the demand side) is relatively small.

A decrease in the number of public companies in recent years has occurred not only in Israel but in the US and Europe as well.

[37] For further details, see “Characteristics of Companies that Delisted their Shares from the Tel Aviv Stock Exchange”, Fiscal Survey and Selected Research Analyses, 2016.

The major share indices of the Tel Aviv Stock Exchange completed the year with negative returns: -4.8 percent for the Tel Aviv 25 Index and -3.3 percent for the Tel Aviv 100 Index. In comparison to other countries, the Tel Aviv Stock Exchange underperformed relative to the US market (the S&P 500 rose by about 11 percent) and performed similarly to indices in the European market (the EuroStoxx 50 fell by 5 percent). However, the low performance of the leading indices is a result of the sharp declines in the market value of the largest companies—particularly in the pharmaceuticals industry—and this is in complete contrast to the significant increases among the rest of the companies in the market. To illustrate, the Tel Aviv 75 recorded an increase of 16.3 percent while the Yeter 50 rose by 25.4 percent during the year.

Box 4.1

Legislation for enhancing competition for credit in the economy

One feature of the domestic banking system is high concentration, which may indicate low competition in extending credit. This situation particularly characterizes the household sector and the small and medium sized business sector, which are nearly wholly dependent on the banking system for financing their credit needs. Therefore, in June 2015, the “Committee for Enhancing Competition in Common Banking and Financial Services in Israel” was established. It was headed by Adv. Dror Strum (the “Strum Committee”), and included representatives from the Ministry of Finance, Bank of Israel, Ministry of Justice, the Israel Antitrust Authority, and representatives from among the public. The Committee published its final recommendations in the middle of 2016, and in January 2017 most of them were passed in second and third readings in the Knesset.

The main recommendation that was legislated is removing control over credit card companies from banking corporations whose assets are valued at more than 20 percent of total assets of the banking system. This essentially means that Bank Hapoalim will be obligated to sell its full holding in Isracard and Bank Leumi will be obligated to sell its full holding in Leumi Card. Those two credit card companies control approximately 75 percent of the merchant acquiring and the card operations markets, and approximately 60 percent of the nonbank issuance market.[1] The main goal of the reform is thus the entry of new participants into the credit market, alongside enhancing the competition in the market through reducing concentration. Likewise, the reform in the future will strengthen the relative power of medium sized banks, thus enhancing competition.

The increase in the number of participants in the area of credit by separating out the credit card companies is not sufficient to ensure increased competitiveness and a decline in the price of credit to customers. This is mainly in view of the question of these companies’ cost of raising sources, after they are separated from the banks. Thus it is important that the credit card companies succeed in raising sources at a cost similar to that of the banks in order to provide retail credit, or formulate a more efficient business model, in order to entrench their true competitive power vis-à-vis the banks.

[1] For a more extensive discussion of the Credit Card industry in Israel and a comparison with other countries, see the Bank of Israel Annual Report for 2015, Chapter 4.

The desire to strengthen the competitiveness of the separated companies vis-à-vis the banking system led to the legislation of several infant company protections for their benefit. The goal of the protection is to ensure that the companies take hold, so that even though in the short term consumers are likely to pay more for the credit than they do today, the increase in the number of participants in the credit market is expected to bring, in the long term, a reduction in the cost of credit relative to today. During the course of the process of separation, Bank Hapoalim and Bank Leumi will gradually reduce the total credit facilities they extend to customers via credit cards by 50 percent. It won't be possible to lower existing credit facilities to less than NIS 5,000, to prevent adversely impacting the banks' weakest customers. It was established that a bank will only be able to contact a customer about renewing a credit card at least 45 days prior to the card's expiration data, unless there has been a material change in the customer's economic situation. The contraction of credit is liable to lead to the credit becoming more expensive in the short term, but the goal of these limitations is to encourage borrowers to actively search for effective credit channels in addition to banks, including credit card companies.[2] In the card operations sector[3], banks that controlled or held means of control in credit card companies will be required to reach an agreement with at least two companies, so that the scope of operation of issuing payment cards through a single credit card company will not exceed 52 percent; a bank with a wide scope of activity as defined in law (currently this refers to Bank Leumi and Bank Hapoalim) is expressly prohibited from dealing in merchant acquiring services and card operations (directly or though subsidiaries) in order to prevent a situation in which banks continue to provide these services as alternatives to those provided by credit card companies controlled today by banks.

Alongside the separation of the credit card companies from the banks, the law promoted several additional steps aimed at encouraging the entry of new participants into the credit and the banking markets. Thus, for example, with the objective of easing the costs of entry for new banks, it was decided that within nine months from the law's commencement date, the Ministry of Finance may publish a tender to establish an automated system, at the government's funding, for use by new banks and credit unions. The lack of such infrastructure is currently a major barrier to entry, as significant initial capital is required to set up such a system. In fact, if after a year and a half from the law's commencement date the Minister of Finance sees that competition has not yet developed in the area of the technological infrastructure for providing and operating automation services for financial entities, and that there aren't sufficient technological alternatives to provide those services, the Minister may, following consultation with the Governor of the Bank of Israel and the Israel Antitrust Authority Director General, obligate the banks whose scope of activity is not narrow, to sell and operate computer services or to rent out to financial entities access to their proprietary computer systems. In addition, it was established that financial entities will be able, with the approval of the customer, to view via a computerized system information related to the customer and that is held at other financial entities, particularly at banking corporations. The information that will be transferred and concentrated will refer to fees and interest on credit balances, to

[2] In this regard, it is important to note that in order to prevent a potential material conflict of interest in the board of directors of credit card companies that are set to be separated from the banks and in order to already establish the competitiveness of the separated credit card companies, the Banking Supervision Department provided guidelines to the two largest banks, even before the law went into effect, regarding the composition of those companies' boards.

[3] All services accompanying the issuing of a payment card, such as customer service and fraud detection.

interest on overdrafts, and to customers' transactions in their account. (The scope and type of information will be established in directives issued by the Minister of Finance and the Minister of Justice.) This system will enable these entities to offer bank customers a value proposition for their various banking products.

In this regard, the Banking Supervision Department issued various guidelines intended to provide incentives for the entry of new players into the banking sector, including leniencies in capital requirements and licensing processes for new banks and new merchant acquirers. In particular, marked easings were proposed for changing the separated credit card companies into banking corporations, since already today those companies have the features required of a new bank, which ensure high potential for their entrenchment as major players in the market. However, opening the banking market to the entry of new participants is contingent on establishing a system for handling an insolvent bank and a system of deposit insurance.

Other than the competitive aspect, the law advanced measures whose goal is to directly provide easing for the household and small business sectors. Thus, for example, to aid in enhancing the accessibility of credit, the law stipulates that the asset used as collateral for the bank loan is to be available to be placed under a lien, with an inferior ranking, to another creditor. The law also promoted leniencies whose goal is to reduce merchant acquiring fees and costs for small and medium sized businesses via easing the provision of merchant acquiring services by an aggregator. It was also established that new players in the acquiring market will be able to be based on the computer system of existing acquirers ("hosting acquirer"). This change, alongside the range of changes noted above, is able to lead to enhanced competition and to reduce costs for small and medium sized businesses. In this regard, it is important to note that before the law went into effect, the Banking Supervision Department published a revised policy, which eases the granting of an acquirer license and reduces the stringency of the criteria for those requesting to hold means of control in an acquirer. This was with the goal of encouraging the entry of new players into the acquiring market and to increase competition in it.

The lack of certainty, inherent in such a reform, regarding the success of the law in enhancing competition in credit, led to a decision to establish a "Committee to Examine Competition in the Credit Market", which will work over the course of a period of 6 years from the law's commencement date. Its main task will be to monitor the development of competition in the credit market in view of the reforms noted above, and to recommend to the relevant authorities correcting steps defined within the framework of the committee's authorities under the law. In particular, the Committee will examine the contribution to the continued promotion of competition of separating Cal (Cartisey Ashrai L'Yisrael)—Israel Credit Cards from Discount Bank and First International Bank of Israel. Likewise, the Committee was charged with setting criteria for examining competition in the credit market and submitting a semiannual report on these issues to the Knesset.

It should noted that over the course of this period, the Bank of Israel continued to lead the completion of setting up the Central Credit Register, whose operation was established within the framework of the Credit Data Law, which passed its second and third readings in March 2016. In the future, this Register will concentrate the available credit data on the status of the customer's loans for the various financial entities. Making the unique data on a credit-requesting customer, data held by the lender, available to all potential lenders in the credit market various will assist in enhancing competition in the retail credit market.

In parallel with the “Strum Committee”, the “Team for Implementing the Recommendations regarding Regulation of Currency Service Providers” promoted several reforms for regulating and supervising the noninstitutional financial system. This team, headed by Adv. Yoel Briss (the “Briss Team”) was set up in March 2015 to implement the Licht Committee’s recommendations, and was made up of representatives from the Ministry of Finance, the Bank of Israel, the Ministry of Justice, the Israel Tax Authority, the National Economic Council, the Israel Money Laundering and Terror Financing Prohibition Authority, and the Israel Antitrust Authority. The team dealt primarily with the regulation of service providers related to financial assets, and credit service providers in Israel’s financial system. The team worked first and foremost to improve consumer-protection regulation—transparency and fairness in consumer supervision and a requirement of fair and trustworthy conduct in the financial services provision industry[4], particularly in issues regarding current market exposure to money launderers’ activity.

The Team’s work was divided into three segments. The discussion in the first segment focused on establishing regulation over currency service and credit service providers. The discussion and legislation processes in this segment ended. In parallel, the “Capital Market, Insurance, and Savings Authority” was separated from the Ministry of Finance and officially established as a public authority in November 2016. Aside from the continued activity that the it was responsible for when it was a Division at the Ministry of Finance, it is now charged as well with arranging supervision and regulation of entities and organizations that until now had not been supervised (such as nonbank credit providers[5]).

At the center of the discussion in the second segment is the arranging of “microbanking”, primarily credit and deposit unions (“credit unions”).[6] The discussions in this issue ended, and the arranging of the terms for the entry of credit unions to the market was legislated within the framework of the Economic Arrangements Law of 2017–2018. The law grants marked capital leniencies that make it possible, for the first time, for credit unions to enter the market. The law also establishes that those unions will be limited to providing credit to members only and to a maximum scope of accepting deposits and providing credit of NIS 1.5 billion, and that they will be included under the supervision of the new regulator. The discussion in the third segment is currently at a peak, and it was established that automated platforms for credit intermediation (P2P) will also be under the supervision of the regulator. Their arrangement is included in the framework of the discussions on the third segment, and a bill on the issue passed in March 2017 in the Ministerial Committee on Legislation.

[4] Including those dealing with check discounting, nonbank loans, factoring, currency changing, and foreign currency.

[5] Within the framework of the Economic Arrangements Law of 2015–2016, these entities were permitted to issue tradable bonds, subject to the limitation that the total par value of bonds issued by each entity does not exceed NIS 2.5 billion.

[6] Credit unions are entities that are based on cooperative ideas of mutual assistance and relationships between those with a joint socioeconomic interest. Accordingly, the credit unions are only permitted to provide deposit and credit services to their members, and are characterized by relative dispersion of means of control and ownership.

Box 4.2

The low interest rate challenge in managing the public's pension savings

The public's long-term managed portfolio[1] reached a volume of about NIS 1.26 trillion in 2016. The challenge facing pension savings entities to achieve high yields to retirement age has increased in recent years due to the low interest rate environment, which led to a decline in yields to maturity on instruments such as corporate bonds and government bonds along the entire yield curve. For instance, the yield on an unindexed (indexed) 20-year government bond declined from about 6 percent (4 percent) per year at the end of 2008 to about 3 percent (1 percent) per year on average in 2016. This means that investment in standard instruments such as corporate bonds and government bonds with long terms to maturity, at the current prices if they remain in place, will not provide younger savers, who entered the labor market in recent years, with a significant yield to retirement.

There are differences between the asset portfolios held by the various management entities (Figure 1). The portfolios vary, first and foremost, by the volume of earmarked bonds—nontradable government bonds that pay a fixed yield, currently 4.86 percent, in real terms, per year. The old pension funds hold the largest volume of earmarked bonds in the portfolio—58 percent. The new comprehensive pension funds hold 26 percent earmarked bonds, followed by the insurance companies, which hold 14 percent of their assets in earmarked bonds.[2] The provident funds have almost no holdings in this instrument.

The yield on earmarked bonds is currently significantly higher than the yield on tradable government bonds, and for the entities permitted to hold them, it is a very attractive asset in terms of yield at a low risk. Since most of the portfolio of the old pension funds is comprised of earmarked bonds, the exposure of those funds to the other assets is significantly lower than that of the other entities, except for a sizeable holding of foreign shares—8 percent. Compared with the conservative asset portfolio of the old pension funds, the profit-sharing insurance policies have a high exposure to assets with a higher risk profile, particularly to direct loans and "other" assets (investment funds of various kinds), foreign assets (stocks and bonds) and Israeli stocks. In between are the new pension funds and the provident funds, which are similar to each other in the composition of their portfolios—except for exposure to Israeli corporate bonds, which is still higher in the provident funds.

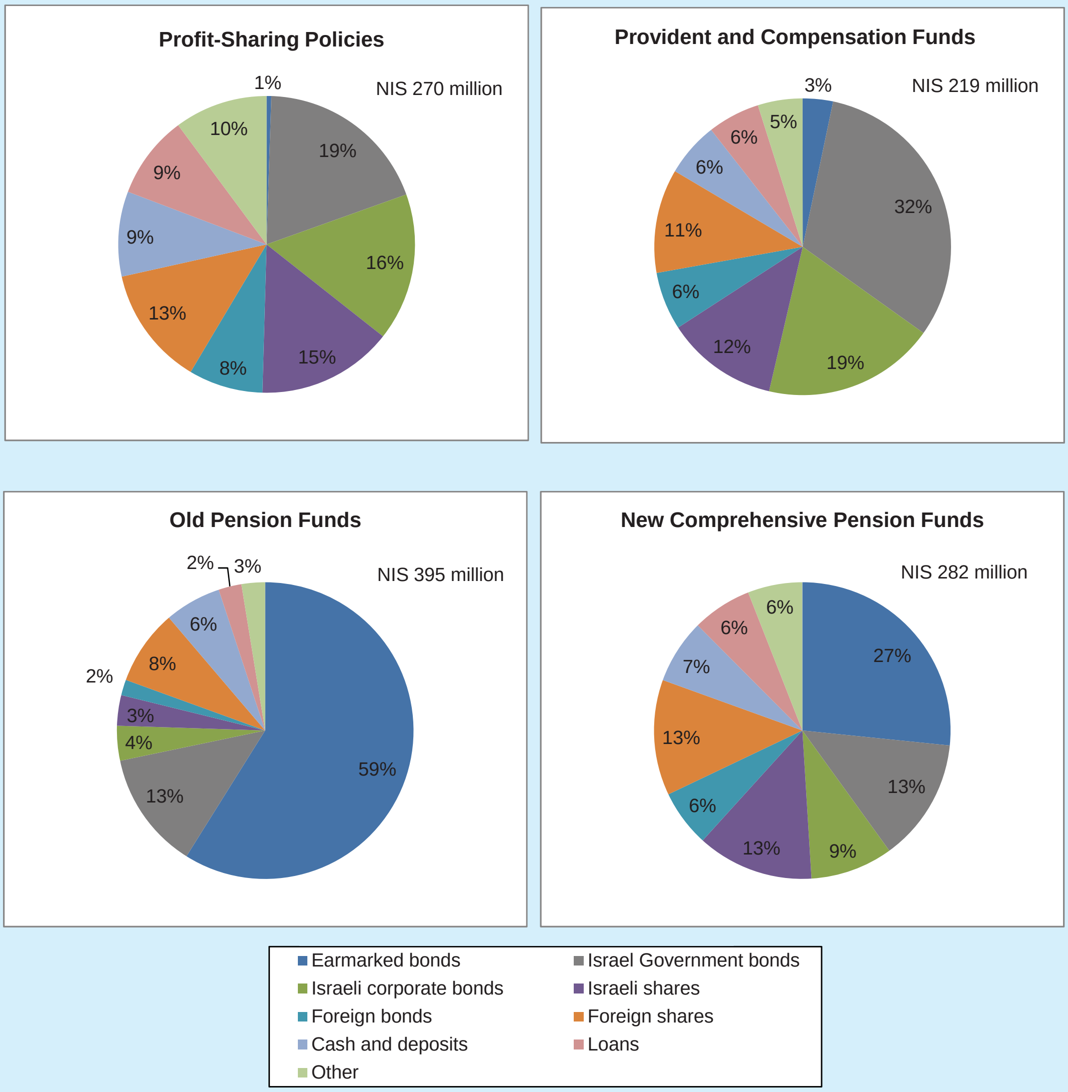
Compared to the pension funds abroad[3], the pension funds in Israel manage assets with a similar total to the simple average among the OECD countries (about 54 percent of GDP). Together with the assets managed by provident funds and the insurance companies, the overall long-term managed portfolio in Israel totals 100 percent of GDP. Among long-term savings managers in Israel, the low level of holdings of shares is prominent (for a comparison with abroad, see Figure 2). Exposure to domestic and foreign shares ranges between 12 percent in the pension funds and 21 percent in the profit-sharing insurance policies.

[1] The long-term savings managers are the provident and compensation funds, the old pension funds, the new comprehensive pension funds, and the insurance companies (guaranteed-yield policies and profit-sharing insurance policies).

[2] The guaranteed yield policies hold 57 percent, while the profit-sharing policies have almost no holdings of earmarked bonds. The sale of guaranteed yield policies was halted in 1990.

[3] The comparison to abroad is based on OECD, Pension Markets in Focus, 2015 and 2016.

Figure 1
Composition of the Asset Portfolios Held by Various Management Entities



SOURCE: Based on reports from the institutional investors.

Israeli pension funds' exposure to abroad compared with the funds abroad is also low (Figure 3), while it is close to average in the other entities, despite the significant increase in recent years. The average exposure to foreign assets in the pension funds in the sample of countries with independent currencies in the OECD, as of 2014, is 40 percent, while it is 30 percent in countries that are not OECD members. There is a link between the fact that long-term savings managers are less exposed to shares and their

Figure 2
Composition of the Asset Portfolio of Pension Funds in Selected Countries, 2015

SOURCE: Bank of Israel.

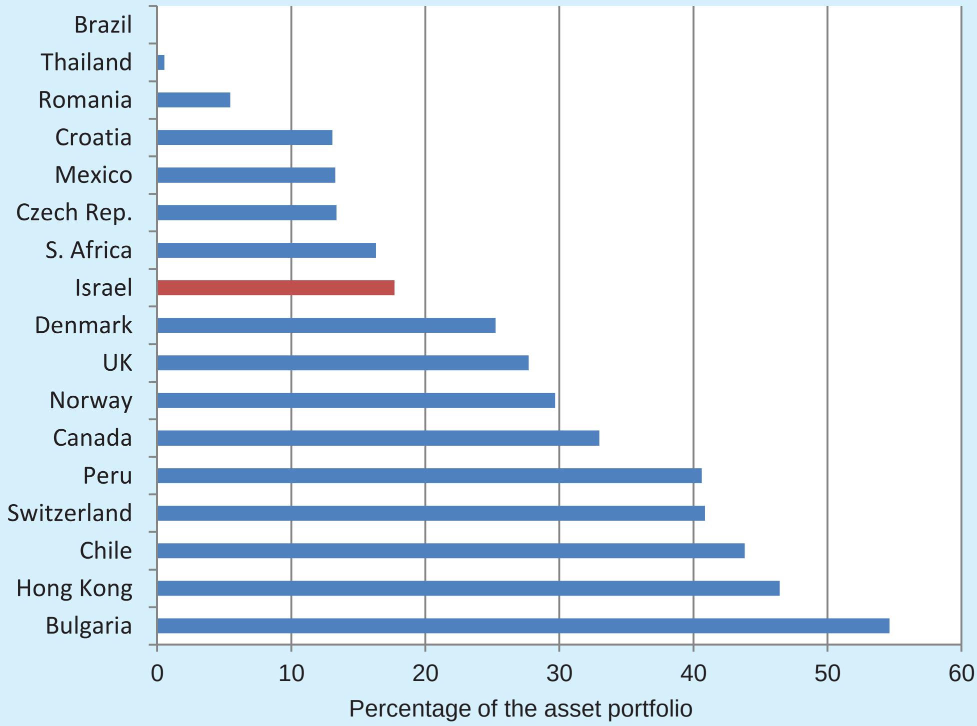
lower exposure to abroad. The stock market in Israel is small, and the main way for savings managers to increase their exposure to shares is therefore by increasing exposure to abroad.

The changes made by the institutional investors in their assets in recent years indicate a similar trend (Figure 4): a marked reduction of exposure to Israeli corporate bonds, alongside an increase of exposure to direct loans, foreign assets (stocks and bonds) and investment funds, other than in the profit-sharing insurance policies. The way pension funds around the world dealt with the low interest rate environment in recent years was not uniform. Some of them increased their exposure to shares (mainly in small economies) at the expense of bonds, and some increased their exposure to "alternative assets", meaning assets that are not stocks or bonds—loans, real estate, hedge funds, structured instruments, and so forth (mainly in the large economies).

The direct loans provided by the institutional investors in recent years served, at least partially, as an alternative to the nontradable corporate bonds that the institutional investors used to purchase before the financial crisis. However, the balance of nontradable bonds began to decline even before the crisis, while the increase of loans accelerated after the crisis, particularly around the time of the implementation of the "Hodak Committee" recommendations by the Capital Market, Insurance and Savings Division.[4] The measures taken following the recommendations were intended to strengthen the institutional investors and correct an apparent market failure that prevented the institutional investors from demanding covenants and pledges to ensure debt and may have even had a negative impact on pricing. However, in recent years the institutional investors have preferred reducing their exposure to this instrument and to increase exposure to loans, where the investment restrictions are more lenient[5] and the price is not transparent.

An examination conducted in 2014[6] showed that the loans are issued to large corporations with a longer duration than the bond market average. This means that they don't necessarily have the potential for diversifying risk among various assets, but they do have yield potential due to the long investment

Figure 3
Investment Abroad by Pension Funds in Selected Countries, 2014



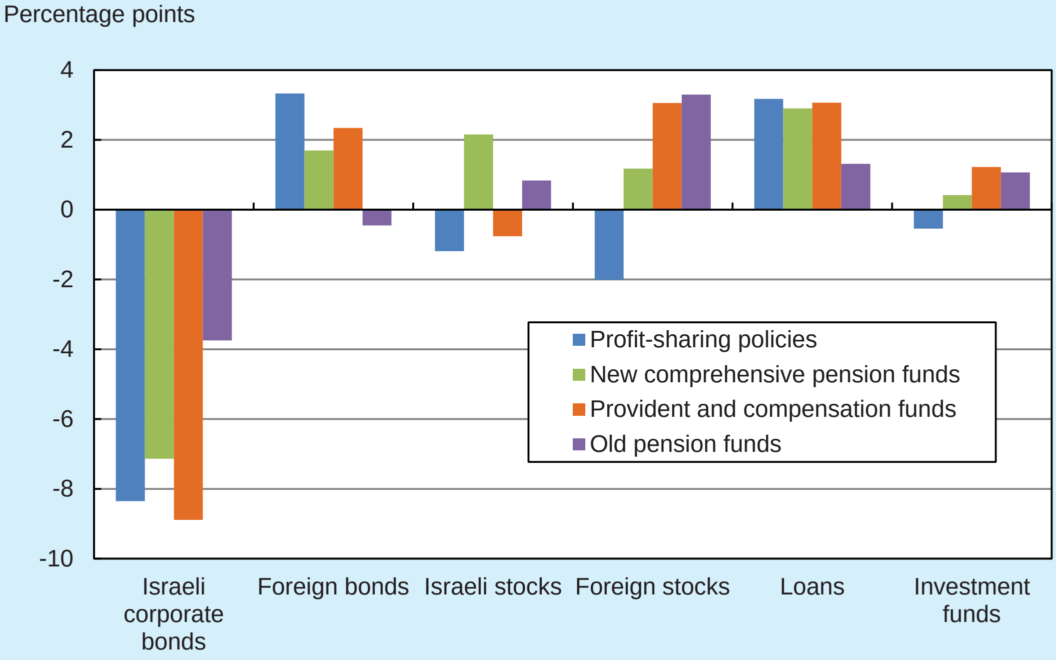
SOURCE: Pension Markets in Focus, OECD, 2015.

[4] The increase in the institutional exposure to loans is discussed at length in the Bank of Israel Annual Report for 2013, Chapter 4.

[5] The Committee for Examining Investments by Institutional Bodies in Adjusted Loans (the Goldschmidt Committee) published its recommendations in 2014. The committee recommended imposing certain restrictions on institutional investors' ability to grant loans, but those restrictions are lenient compared to the restrictions on investment in corporate bonds.

[6] For more information, see the Financial Stability Report for the first half of 2014.

Figure 4
Change in Exposure to Assets in the Asset Portfolio, by Managing Entity, 2011–16



SOURCE: Bank of Israel.

horizon. The loans also have the potential for excess yield due to their nontradability. The high level of competition between the institutional investors may also motivate them to prefer investment in this channel, because the public tends to compare performance of these entities in the short term of 1 year.

The institutional investors have difficulty in managing investments with a long horizon in tradable products, where a change in price increases volatility in the portfolio value, and forego the diversification of assets in favor of similar investment portfolios, out of concern of falling behind the yields of their competitors some of the time.[7]

A recently-published study[8] indicates a connection between the extent of competition and how managers are paid and the performance of the various savings plans in Israel. The study shows that the old insurance plans, where management fees are derived from investment performance, achieve higher yields than plans in which fixed management fees are paid, and that this preference does not involve taking higher risks. The study also shows that the high level of competition between the

[7] See Box 4.2 of the Bank of Israel Annual Report for 2012.

[8] Hamdani, Kandel, Mugerman, and Yafeh (2016), "Incentive Fees and Competition in Pension Funds: Evidence from a Regulatory Experiment", NBER Working Paper 22634.

provident funds does not contribute to better performance, but rather the opposite. Institutional investors' desire to minimize the public's negative exposure in cases of failure in tradable bonds may be another reason for their tendency to prefer nontradable and less transparent investments such as loans.

About 3 percent of the institutional investors' portfolio is directed toward investment in investment funds, mostly abroad (venture capital, hedging, real estate, and so forth), while the volume of investment in these instruments in Israel is lower. The development of some of these instruments in Israel is delayed due to regulatory restrictions, and of the rest due to the structure and small size of the market. However, the urgency of developing them is only increasing. According to Research Department estimates of the size of supply of the assets, with relatively conservative assumptions, the volume of assets managed by the long-term savings entities is expected to increase to more than NIS 2 trillion in the next decade, from about NIS 1.26 trillion currently. The amendment made this year to the "REIT Law"[9] aiming to lower entry barriers restricting the establishment of additional REITs in Israel, is a step in this direction. Investment in alternative assets requires a higher level of management input and expertise.

In summation, despite the low interest rate environment, the volume of the institutional investors' exposure to shares and foreign assets is low by international comparison, which is mainly the case among the pension funds with a large volume of earmarked bonds in their portfolios. However, in recent years, the institutional investors' exposure to direct loans and to investment in other assets (hedge funds, real estate, structured instruments, and so forth), which apparently have a higher potential yield, has increased markedly, but these investments also require greater management input and greater expertise.

The fund managers operating under competitive conditions need to choose between actions that generate secure yields in the short term and the long-term investments called for in managing pension savings, which have higher long-term yields (such as shares). There is already strong competition between the institutional investors over management of the public's money.

The regulatory focus in recent years was on the attempt to further increase competition and lower management fees through measures such as "default pensions" that focused on setting a "benchmark" in the market for low management fees alongside imposing a direct restriction of up to 0.25 percent in 2015 on management fees for outside investments ("double management fees"). These measures may have a negative impact on the institutional investors' motivation and ability to develop the proper infrastructure for investment in nontradable and/or complex assets as an important investment alternative, particularly during low interest rate periods—assets regarding which there is little available information, and which have no market price upon which to rely.

[9] A REIT (Real Estate Investment Trust) is a company that purchases income-producing real estate and collects rent. The fund enjoys an exemption from corporate tax in exchange for a commitment to distribute most of its assets as a dividend to shareholders. In Israel, there are two tradable REITs focusing on commercial real estate. In 2016, a new REIT was established for investment in residential real estate, following a legislative amendment that was passed at the beginning of the year that gives a significant purchase tax discount to REITs focusing on residential rental properties.