Chapter 4

Financing of Economic Activity: Sources and Uses

- The value of the public's financial assets portfolio continued to increase in 2014, beyond the growth resulting from net new investment, due among other things to an increase in the value of the tradable portfolio abroad. Developments in the assets portfolio were affected by the depreciation of the shekel and by the decline in the inflation environment.
- In 2014, the net capital outflow in the financial account of the balance of payments continued. Institutional investors' large share of the financial account remained a basic factor in the capital outflow. During the second half of the year, institutional investors reduced the scope of currency hedging of their investments abroad, in parallel with the depreciation trend of the shekel.
- Credit to households continued to grow in 2014, in parallel with a decline in credit to the business sector. There was a sharp increase during the year in households' consumer credit, while the rate of growth of housing credit slowed relative to previous years. The household debt to GDP ratio remained low by international comparison.
- Total credit to the nonfinancial business sector declined slightly in 2014. The only one of its components to increase was direct loans from institutional investors. The ratio between credit to the business sector and business sector product has been in a downward trend since 2008.
- Credit to the nonfinancial business sector increased slowly in recent years due to the moderation of activity and with changes in its distribution among activity sectors and industries: Bank credit to large businesses is declining, while credit to small and medium enterprises (SMEs) is increasing, though at a slower rate. A shift in nonbank credit can be seen, from bond issues in the financial services sector to bond issues in the manufacturing and construction and real estate industries.
- The high level of transmission from the Bank of Israel interest rate to the interest on bank credit to business sectors lowers their debt servicing burden, due to the reduction of interest on outstanding debt, and makes it possible to free up sources of financing to the business sector.
- The ratio between annual cash flow from current operations and total assets continues to show the sharp upward trend that began at the end of 2011. This increase makes it possible for companies to finance their operations and make investments with relatively low dependence on raising external debt or equity.
- The various industries are characterized by different mixes of sources of financing. An analysis of the combined data on methods of financing operations and the evaluations of companies regarding difficulties in obtaining credit shows that most of the industries are not having difficulties in raising credit. The only industry in which there may be such difficulty is the construction and real estate industry, and it seems that even this difficulty declined during the year.
- Fundraising by startups grew sharply in 2014—to about $3.4 billion—mostly from foreign venture capital funds. Israel has over the years been among the world leaders in terms of venture capital funds' investments in the high technology industry as a share of GDP.

1. THE SOURCES OF FINANCING FOR ECONOMIC ACTIVITY

a. National saving and the public's financial portfolio

The economy's total gross national savings in 2014 totaled 22 percent of GDP—about NIS 238 billion in current prices. This amount, after deducting the net capital outflow in the financial account—the component reflecting domestic sources diverted to abroad—constitutes the domestic basis for financing the expansion of economic activity. Savings as a share of GDP has been in a moderate upward trend since declining to about 20.8 percent of GDP in 2008, and averaging 23.5 percent of GDP between 2005 and 2007. The gross savings rate in Israel is in the center of the distribution of savings rates in OECD countries, and is in an upward trend.

The value of the public's financial assets portfolio increased in 2014, mainly due to an increase in the value of bond and stock holdings abroad and due to an increase in cash holdings and deposits in Israel.

The public's financial assets portfolio (Table 4.1) includes the public's financial investments and the holdings of controlling shareholders in publicly traded companies. The quantitative change in the portfolio reflects a sizable portion of the public's savings.[1] The value of the portfolio continued to increase in 2014, totaling about NIS 3.17 trillion at the end of the year, an increase of about NIS 200 billion (a real increase of about 6.9 percent), mainly due to the increase in the value of the tradable portfolio abroad. The trends in the financial assets portfolio were influenced by the macroeconomic environment: the depreciation of the shekel was reflected in an increase in the proportion of foreign-currency denominated assets (including shares traded abroad) and of assets indexed to foreign currency, which increased from 18 percent at the beginning of the year to 20.7 percent at the end. Most of the increase took place from August onwards, a period in which the shekel depreciated by about 13 percent vis-à-vis the dollar. The decline in the inflation environment was reflected by some decline in the proportion of CPI-indexed assets. The share of current account and cash components increased because of the near-zero interest rate environment. The share of earmarked bonds also increased. Despite the decline in the Bank of Israel interest rate to unprecedentedly low levels during the year, it seems that the share of high-risk assets[2] in the public's financial assets portfolio remained quite stable during the year, averaging 42.4 percent. However, it has been in a moderately upward trend since 2012, after declining sharply in 2011.

The upward trend in the value of shares abroad in the public's assets portfolio remained prominent in 2014, increasing by 20 percent, while the value of Israeli shares traded on the Tel Aviv Stock Exchange (TASE) declined by about 1 percent.

The institutional investors are increasing their share of the public's financial assets portfolio mainly due to the constant increase in the proportion of long-term savings, chiefly pension savings.

In terms of the composition of asset holders, in 2014, the upward trend in the proportion of financial assets held indirectly by the public, through institutional investors and mutual funds, continued at the expense of the proportion of assets held directly by the public, including bank deposits. At the same time, the volume of sources in the hands of institutional investors—pension funds, insurance companies, provident funds and advanced training funds—increased, to about NIS 1.5 trillion.

1 The remaining portion is comprised of real assets, mainly real estate.
2 All assets other than government bonds, *makam*, cash, and deposits in Israel and abroad.

Table 4.1
Distribution of the public's financial asset portfolio[a], by type of asset, 2004–14

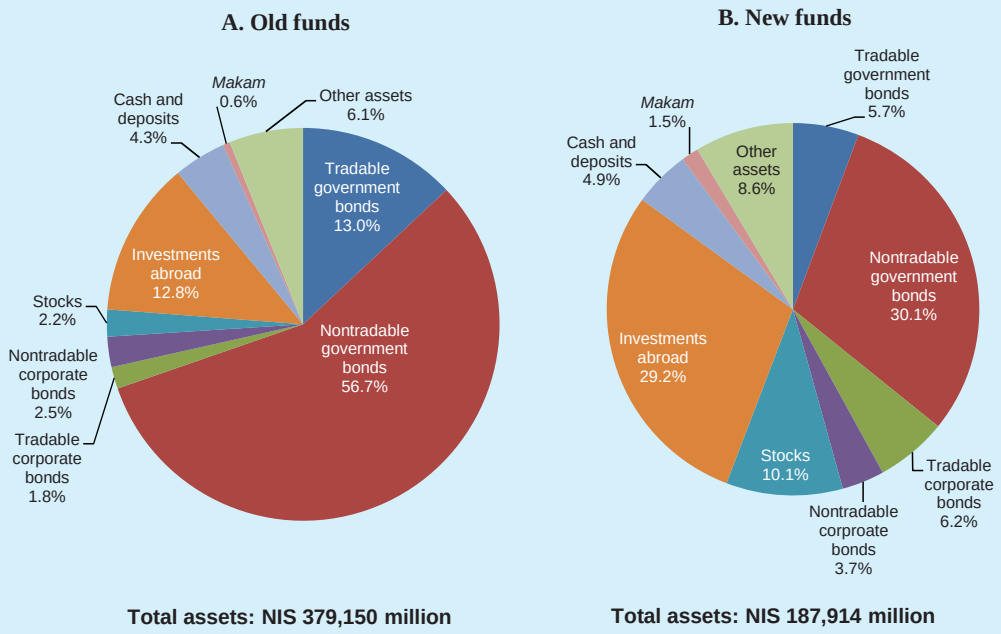
Period	Total portfolio	Portfolio as a share of GDP	Cash and deposits	Government bonds		Corporate bonds[b]		*Makam*	Stocks[d] in Israel	Israeli residents' investments abroad[e]			
				Tradable	Nontradable	Tradable	Nontradable[c]			Deposits	Bonds	Stocks	Other
	NIS billion						(Percent)						
2004	1,423	236.9	37.8	14.2	10.2	2.4	2.7	4.5	16.7	3.7	3.6	2.8	1.4
2005	1,652	260.6	34.5	12.7	8.7	4.0	3.6	4.1	18.8	3.9	4.2	3.6	1.9
2006	1,836	270.6	32.4	11.0	7.4	5.0	3.9	4.6	21.4	3.9	4.1	4.0	2.2
2007	2,051	282.6	30.9	10.2	6.6	7.3	3.9	3.3	23.9	4.1	3.6	4.0	2.4
2008	1,959	245.3	35.6	13.3	10.8	6.6	2.8	3.4	11.2	3.8	3.0	3.1	6.5
2009	2,305	283.9	31.7	12.6	9.3	8.7	2.6	2.7	18.8	3.2	3.1	4.8	2.5
2010	2,561	294.1	30.1	12.0	8.7	9.3	2.2	2.7	21.4	2.2	3.2	5.7	2.5
2011	2,530	273.6	34.0	12.1	9.6	9.4	2.2	3.0	15.5	1.8	4.2	5.7	2.7
2012	2,728	275.0	33.6	13.1	9.4	9.4	1.9	2.6	14.9	1.1	4.4	6.4	3.0
2013	2,969	283.0	32.0	13.0	9.4	9.0	1.6	2.6	16.8	0.9	4.2	7.4	3.1
2014	3,168	291.2	32.2	12.6	9.7	8.2	1.5	3.0	15.6	0.6	5.2	8.4	3.1

[a] The public does not include the government, the Bank of Israel, investments by nonresidents, commercial banks and mortgage banks.
[b] Including convertible bonds.
[c] Holdings by institutional investors only.
[d] Including warrants.
[e] Including investments in Israeli securities traded abroad, and excluding investment in TASE-traded ETFs tracking foreign indices.
SOURCE: Bank of Israel.

Institutional investors are increasing their share of the public's financial assets portfolio mainly due to the constant increase in the proportion of long-term savings, chiefly pension savings. The institutional investors with rapidly growing portions of the portfolio are the new pension funds, as a result of the compulsory pension arrangement that came into effect at the start of 2008.[3] The implementation of the arrangement was gradual, and reached completion only in 2014, after total pension deductions increased from 2.5 percent of the determining wage[4] in the first year of implementation to 17.5 percent starting in January 2014.[5] The negative impact of tax incentives on medium-term savings (provident funds) also encouraged long-term savings.

Figure 4.1 indicates that the old pension funds rely to a great extent on investment in nontradable government bonds (earmarked bonds), and to a lesser extent on investments in risk assets such as corporate bonds and stocks. In contrast, the new funds have a more varied asset portfolio with a higher risk level. The differences

Figure 4.1
The Asset Portfolio of the Pension Funds: Composition, December 2014



SOURCE: Bank of Israel.

3 It should further be noted that since 1995, the old funds cannot take on new members.
4 The deduction requirement applies to the employee's salary up to the average wage in the economy.
5 According to the original arrangement, the full deduction rate (of the employee and employer combined) was to be 15 percent from January 2013. At the end of 2010, the Histadrut (General Federation of Labor) and employers agreed to increase the deduction rate to 17.5 percent starting in January 2014.

between the composition of assets in the old funds and the new funds derive from regulatory changes and from differences in the age composition of those saving in the funds. In 1995, the old pension funds were closed to new members. Most of their members are therefore older, with some having retired. In contrast, all of the younger workers saving for retirement are members of the new funds. The pension funds hold earmarked bonds that generate higher yields than those that can currently be obtained in the capital market. (As of today, these bonds provide a subsidized annual real interest rate of 4.86 percent). As part of the pension reform implemented in 2003, earmarked bonds are limited to 30 percent of the total assets of an individual fund. This obviated the need to issue them[6], resulting in a gradual decline in the holdings of earmarked bonds among all funds. The issues of earmarked bonds was resumed at a greater pace in 2012–13, after many of the new funds reached holdings rates of lower than 30 percent.

b. The financial account of the balance of payments

In 2014, the net capital outflow in the financial account of the balance of payments continued, reflecting the diversion of sources of financing from investment in Israel to investment abroad, with improved diversification of Israelis' assets.

The balance of payments is comprised of the current account and the financial account. In 2014, the net capital outflow in the financial account continued (Table 4.2; more information on the current account appears in Chapter 2). The net capital outflow (excluding reserve assets) increased to $7.8 billion in 2014—compared to $5.6 billion in 2013—reflecting the diversion of sources of financing from investment in Israel to investment abroad, with improved diversification of Israelis' assets. The outflow of residents' investments, not including reserve assets, moderated slightly in 2014, but remains stable at the high level it reached in 2013. In parallel, the flow of investments in Israel by nonresidents moderated, reflected mainly in the fact that nonresidents increased the pace of redeeming their deposits in Israel.

The moderation in investments abroad by Israeli residents in 2014 derived mainly from the fact that they reduced the stock of their deposits abroad (a sub-item within "Other investments abroad") beginning in the second quarter. In addition, the increase in commercial credit to customers abroad declined significantly as a result of the decline in exports in the second quarter (see Chapter 2) due to the fact that there is a correlation of about 71 percent between credit to customers abroad and the change in goods and services exports. (A similar phenomenon took place in the third quarter of 2013 when, in parallel with the decline in exports, there was a decline in deposits abroad and in commercial credit.)

The large proportion of institutional investors in investments abroad by Israelis has been contributing at a basic level to the outflow of capital in the financial account since 2006.

In 2014, institutional investors invested about $4 billion abroad, compared with $5.4 billion in 2013. The large proportion of institutional investors in investments abroad by Israelis has been contributing at a basic level to the outflow of capital in the financial account since 2006, and is due to the reforms implemented in the pension savings market, the rapid growth of institutional investors' assets, and the asset diversification policy they follow: investing a growing proportion of their assets

[6] The proportion of earmarked bonds in the assets portfolio prior to the reform was 91 percent in the old funds and 67 percent in the new funds.

Table 4.2
Nonresidents' investments in Israel and Israeli residents' investments abroad, by investment type, 2011–14

(net transactions, $ million)

	Year				2014			
	2011	2012	2013	2014	Q1	Q2	Q3	Q4
1. Nonresidents' investments in Israel	**5,384**	**1,121**	**12,412**	**9,499**	**4,502**	**1,291**	**2,755**	**951**
Direct investments in Israel	9,095	8,055	11,804	6,432	2,879	1,625	1,686	242
Financial investments in tradable securities	-5,392	-3,330	1,754	9,752	3,032	1,648	1,909	3,163
Other investments in Israel	1,681	-3,604	-1,146	-6,685	-1,409	-1,982	-840	-2,454
2. Israelis' investments abroad excluding reserve assets	**13,252**	**8,583**	**18,025**	**17,259**	**4,812**	**2,833**	**3,745**	**5,869**
Direct investments abroad	9,165	3,257	4,670	3,975	1,087	2,180	354	354
Financial investments in tradable securities	3,402	8,024	9,416	10,097	3,528	2,684	2,120	1,765
Other investments abroad	671	-2,396	4,401	3,611	453	-1,918	1,332	3,744
Derivative instruments	14	-302	-462	-424	-256	-113	-61	6
3. Net financial account excluding reserve assets (1-2)	**-7,868**	**-7,462**	**-5,613**	**-7,760**	**-310**	**-1,542**	**-990**	**-4,918**
4. Reserve assets	**-4,534**	**180**	**-4,357**	**-7,396**	**-3,608**	**-1,125**	**-1,901**	**-762**
5. Net financial account (3+4)	**-12,402**	**-7,282**	**-9,970**	**-15,156**	**-3,918**	**-2,667**	**-2,891**	**-5,680**

SOURCE: Bank of Israel and Central Bureau of Statistics.

abroad, reaching about 20 percent at the end of 2014. Most institutional investments abroad are directed to financial investments, while direct investments and other investments (deposits and loans) are small-to-negligible. The component of shares traded abroad is a significantly greater proportion of financial investments abroad than the component of shares traded in Israel is as a proportion of financial investments in the domestic market. However, since mid-2013, there is an apparent sharp decline in the rate of institutional investors' investments in shares abroad. Even though the institutional investors hold a high proportion of their assets abroad, their exposure to foreign exchange is lower—about 12–13 percent—due to the use of currency hedging. However, in parallel with the sharp depreciation trend in the shekel exchange rate in the second half of 2014, institutional investors lowered the volume of currency hedging of their investments abroad.

The moderation of the flow of nonresidents' investments in 2014 derives from a decline in direct investments in share capital and in owners' loans, a decline in loans and the increased pace of nonresidents cashing in their deposits in Israel.

The pace of nonresidents' investments in Israel began to moderate in mid-2013, moderating the decline of surplus exports (excluding reserve assets) in the financial account. The moderation of the flow of nonresidents' investments in 2014 derives from a decline in direct investments in share capital and in owners' loans, although the flow of direct investment is still relatively high. In addition, other investments declined, mainly as a result of the decline in loans and as a result of the fact that nonresidents increased the pace of cashing in their deposits in Israel. This increase

has been significant since mid-2011 (although the trend began back in 2008), and has taken place due to the fact that the Bank of Israel began lowering its interest rate during this period, and due to the fact that in 2010, the US Congress enacted the Foreign Account Tax Compliance Act (FATCA).[7] The declines in these flows offset the increase in nonresidents' financial investments, which are characterized by greater volatility.

2. FINANCING ECONOMIC ACTIVITY

The sources of financing outlined above serve in financing activity by the government, households and the business sector (Table 4.3). In 2014, the financing of activity of these three sectors increased by about NIS 70 billion, and outstanding debt increased to about NIS 2 trillion. The sources side and the uses side are connected by financial intermediaries, which reduce risk and increase liquidity for the public. The increase in outstanding household and business sector debt totaled about NIS 45 billion in 2014. Household and business sector uses of the sources of financing are detailed below.

a. Households

The growth in outstanding housing credit moderated in 2014 compared to previous years, apparently as a result of the slowdown in home purchases between April and November.

Outstanding household debt at the end of 2014 stood at NIS 438 billion, an increase of 6.9 percent compared to the end of 2013. The household debt to GDP ratio increased during the year from 39 percent to 40.3 percent. However, the level and rate of the increase are lower than in other advanced economies. Outstanding housing debt accounted for about 69 percent of total outstanding household debt at the end of 2014. The proportion of housing debt declined by about one percentage point compared to the end of the previous year, as a result of the rapid expansion of nonhousing debt.

Total housing credit increased by 5.2 percent from the beginning of the year, totaling NIS 302.8 billion at the end of 2014—a lower growth rate than the 7.4 percent average recorded in the last three years. The average monthly volume of new mortgages reached a record high in 2013–14. It slowed in August, apparently as a result of the slowdown in both new and second-hand home purchases that began in April 2014 as a result of the declaration of the Zero VAT plan intended to implement 0 percent VAT (value-added tax) for eligible new-home buyers. The slowdown in purchases deepened in July and August during Operation Protective Edge.

The weighted real interest rate on new mortgages showed a downward trend during the year, after increasing to some extent toward the end of 2013. This was due to the fact that the Bank of Israel continued lowering the interest rate, and due to the decline in long-term yields.

[7] This law was passed with the objective of preventing US residents from avoiding tax payments. The law sets out that financial bodies outside the US—among which are banks, including Israeli banks—must report to US tax authorities regarding accounts administered by customers who are required to report in the US, even if they are Israeli residents. At the beginning of August 2012, the Israeli Ministry of Finance decided to establish a team to assess the implementation of FATCA.

Table 4.3
Distribution of debt balances in the economy among lending and borrowing sectors, (excluding the financial sector), December 2014, NIS billion

Lending sectors	Households (Borrowing sectors)	Business sector (Borrowing sectors)	Government (Borrowing sectors)	Total debt in the economy
Total debt to banks	**399**	**385**	**78**	**862**
Nonhousing credit to the public	116	382	16	514
Housing credit to the public	283	-	-	283
Tradable bonds	-	3	62	65
Total debt to institutional investors	**9**	**150**	**397**	**555**
Loans	9	49	7	65
Tradable bonds	-	70	217	287
Nontradable bonds	-	30	173	203
Total debt to credit card companies	**12**	**2**	**-**	**13**
Loans	12	2	-	13
Total debt to nonresidents	**-**	**182**	**109**	**292**
Loans	-	154	4	157
Tradable bonds	-	29	84	113
Nontradable bonds	-	0	22	22
Debt from government sources	**19**	**7**	**-**	**26**
Targeted credit	19	7	-	26
Debt to households and others	**-**	**90**	**153**	**242**
Tradable bonds	-	90	153	242
Total debt	**438**	**816**	**737**	**1,990**

SOURCE: Bank of Israel.

Notwithstanding the limitations on mortgages granted for the purchase of investment homes (starting in November 2012, equity of at least 50 percent of the value of the home is required), the number of such purchases remains in an upward trend, as does the proportion of mortgages for investment homes out of total mortgages. The latter reached an average of 17 percent in 2014, after reaching 15.2 percent in 2013 and 14.4 percent in 2012.[8] Even though the ratio between rents and home prices declined, the purchase of investment homes continues to generate a relatively high return. While the continued rise in home prices alongside the stabilization of rents acts to lower the return on investment homes, the sharp decline in the real long-term interest rate led to

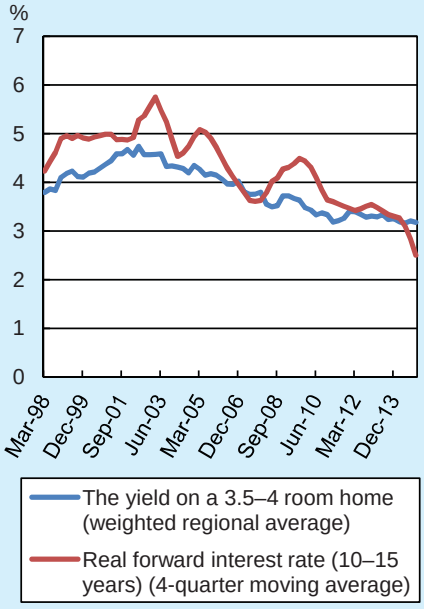
[8] The proportion of mortgages for investment homes increased more rapidly between June and September than the trend of the previous few years, apparently as a result of the fact that the Zero VAT plan impacted the decisions of young couples. However, the proportion converged back to the trend line later in the year.

the creation of a significant gap in favor of the current return on homes, in contrast to the past (Figure 4.2).[9]

The growth of consumer credit accelerated in 2014, leading the Supervisor of Banks to issue a directive to increase the minimum allowance for credit losses in respect of consumer credit.

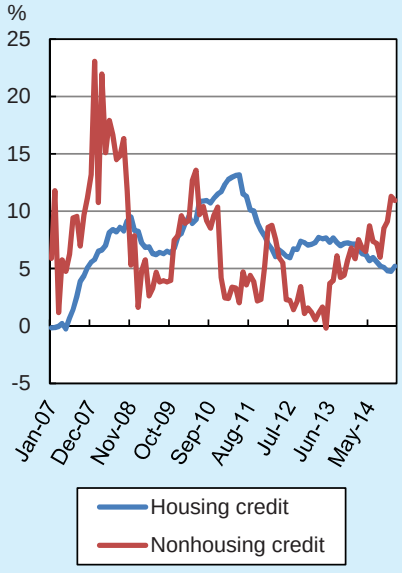
Consumer credit (nonhousing credit) grew rapidly—by 11 percent—from the beginning of the year. The annual growth rate of outstanding nonhousing debt showed a downward trend from the beginning of 2012, reaching near-zero in the middle of 2013, but then began a turnaround, increasing at a more rapid pace (Figure 4.3) The increase in consumer credit apparently reflects the increase in consumption of durable goods. The latter increased by more than 12 percent[10] in 2014, with the increase taking place particularly in the second half of the year (33.6 percent in annual terms). It is possible that the increase in consumer credit is also the result of the need to obtain more housing credit after directives from the Supervisor of Banks restricted the latter. The rapid increase in the volume of consumer credit, together with the decline in the allowance buffer—the ratio between the allowance for credit losses and outstanding

Figure 4.2
The Yield on Homes vs. the Real Long-term Forward Interest Rate, 1998–2014 (quarterly data)



SOURCE: Bank of Israel.

Figure 4.3
Housing and Nonhousing Credit to Households, January 2007 to November 2014 (rate of change in the past 12 months, monthly data)



SOURCE: Bank of Israel.

[9] While the real interest rate constitutes a gross return, and a 25 percent capital gains tax applies, rental income is usually not subject to tax (up to NIS 5,080 per month in 2014). In any case, the tax rate on renting a residential home does not exceed 10 percent. In contrast, renting a home generally involves expenses for regular property maintenance and causes wear and tear. Another factor that raises the effective return on investment in dwellings is expectations of future capital gains as a result of the increase in value of the property. However, Figure 4.2 does not capture that since it only shows the current return.

[10] Most of the increase in the consumption of durable goods derived from an increase of about 24 percent in the private vehicle purchases.

credit to individuals—led the Supervisor of banks to require the banking corporations to increase the minimum allowance for credit losses in respect of consumer credit at the end of 2014.[11]

b. The business sector

In addition to internal sources, the business sector raises investment financing from bank credit—similar to households—but also through credit from institutional investors and through bond and stock issues. In 2014, investment in the principal industries totaled about NIS 136.2 billion, slightly lower than the level of investment in 2012 and 2013—NIS 138 billion.[12] (More on investment in the economy appears in Chapter 2 of this report.)

1) Internal sources

A relatively high cash flow from current operations makes it possible for companies to finance their activity and make investments with less dependency on issuing debt or outside equity.

In the past four quarters[13] the weighted return on assets in nonfinancial public companies remained stable, and the weighted ratio between cash flow and total assets continued to increase.[14] This increase makes it possible for companies to finance their operations and make investments with relatively low dependency on issuing debt or outside equity. The weighted ratio between yearly profit and total assets is an average of 1.5 percent in the past four quarters—slightly lower than the long-term average. This is the lowest level in the past decade, excluding short periods following the outbreak of the crisis in 2008 and following the outbreak of the debt crisis in Europe and the US in mid-2011. This ratio has remained stable since mid-2013, following a significant increase in 2012 from the levels that were prevalent in 2011, following stability in both aggregate net profit and total assets of the companies.

In contrast to the ratio between profit and total assets, the ratio between yearly cash flow from current operations and total assets continued its sharp upward trend that began in mid-2012. In the third quarter of 2014, this ratio was about 5.6 percent—about 0.5 percentage points higher than the long-term average, and about 2.6 percentage points higher than the rate at the beginning of 2012.

[11] The directive was published in January 2015, and it requires the banking corporations to ascertain that, as of their reports for 2014, the rate of quality adjustments for group allowance for credit losses in respect of non-problematic credit to individuals is no less than 0.75 percent.

[12] In current prices, according to National Accounts data. In addition to investment, the purposes of business sector financing include current operations, which are not reflected in the investment data included in the National Accounts.

[13] The following account data relate to the period ending in the third quarter of 2014.

[14] In order to avoid various deviations, we used a sample of companies that reported consistently, every quarter, since 2001. A similar sample from 2010 generates similar results, other than concerning real estate and construction companies, regarding which it indicates a decline in their current cash flows.

2) Credit

Outstanding credit to the nonfinancial business sector increased by about 2 percent in 2014, after declining by about 2 percent in 2013 (Table 4.4). The increase is explained by the revaluation to shekels of outstanding foreign currency denominated debt, in accordance with the depreciation of the shekel during the second half of the year. Net of these effects, total credit declined by about NIS 11.5 billion (about 1.4 percent) in 2014. This is low compared to the developments observed prior to the 2008 crisis, since nonfinancial business credit net of price effects (indexation and depreciation of the shekel) prior to the crisis increased at an average of 8 percent per year. As a result of the moderation of the growth rate of business credit, the ratio between business sector debt and business sector product declined from an average of close to 130 percent in 2007 to an average of about 100 percent in 2014 (Figure 4.4). It is possible that this sharp decline derived from the fact that leverage levels were too high before the financial crisis, similar to the situation in other advanced economies.[15]

Table 4.4
Business sector debt (excluding banks and insurance companies) by fundraising channels, (NIS billion, current prices), 2009–14

	2009	2010	2011	2012	2013	2014
Total debt to banks[a]	390	412	408	404	389	385
of which: tradable bonds	3	3	3	4	2	3
Total debt to institutional investors	140	135	149	153	152	151
of which: loans[b]	15	18	26	35	45	51
Total debt to the financial sector	**530**	**546**	**557**	**557**	**540**	**537**
Total debt to nonresidents	140	144	164	169	164	182
of which: loans	112	119	142	150	145	154
Directed credit from the government	4	5	4	5	4	7
Tradable bonds held by households and others[c]	71	82	77	83	90	90
Total debt to all lenders	**745**	**777**	**802**	**813**	**799**	**816**
Loans	518	550	576	590	581	594
Tradable bonds	177	185	185	185	186	192
Nontradable bonds	49	41	40	38	32	30
CPI-indexed	265	264	259	263	259	246
Foreign currency indexed	219	219	241	239	222	239
Unindexed	262	294	301	312	317	331

a Israeli residents only. Solo figures include foreign branches but do not include foreign subsidiaries.

b Including loans from credit card companies that are not the responsibility of, nor are guaranteed by, the banks.

c "Others" are business and financial companies.

SOURCE: Bank of Israel.

[15] In 2007, the ratio reached record levels. However, its development in Israel is similar to its development in many countries. The ratio between nonfinancial business sector debt and product increased constantly from 1999 to a peak in 2007. Starting in 2008, it declined in almost all countries. (Basically, in countries for which there are data, an upward trend in the ratio can be seen throughout all of the past decades.)

The decline in credit to the business sector includes bank credit, bond issues and credit from abroad—even after adjusting for price effects. The exception is loans from institutional investors which—similar to previous years—increased in 2014 as well, though the pace of growth moderated slightly.

Credit to the business sector grew slowly compared to the rest of the world as well. This phenomenon has continued since the end of 2008[16], and relative to other countries, it has been particularly prominent in the past two years (see Figure 1.5). It is also prominent compared to the GDP growth rate. Figure 4.5 shows the comparison between Israel and selected countries[17] in the rates of change of GDP and credit to the nonfinancial business sector, in current prices.

Figure 4.4
Business Sector Debt to Business Sector Product Ratio, 2005–14

SOURCE: Bank of Israel and Central Bureau of Statistics.

Among the various credit channels in the nonfinancial business sector, the only one to increase this year was loans from institutional investors.

The figure illustrates that the low growth rate of credit in recent years is not consistent with the development of economic growth. In 2001–08, GDP and credit grew at relatively high rates, and Israel is at the center of the distribution. In contrast, in 2009–2013, the rate of increase of credit in Israel declined, while the GDP growth rate remained high, and Israel is very high in relation to most countries.[18]

Essentially, between 2001 and 2008, credit to the nonfinancial business sector grew by about 82 percent, investment in the principal industries grew by about 33 percent, and business sector product grew by about 44 percent (all in current prices). In contrast, between 2009 and 2014, credit grew by about 8 percent, investment in the principal industries grew by about 25 percent, and business sector product grew by about 39 percent (all in current prices). While aggregate growth of business sector product moderated, thereby also moderating demand for investments and demand for

[16] A similar picture emerges when the comparison begins at the end of 2009 or at the end of 2010.

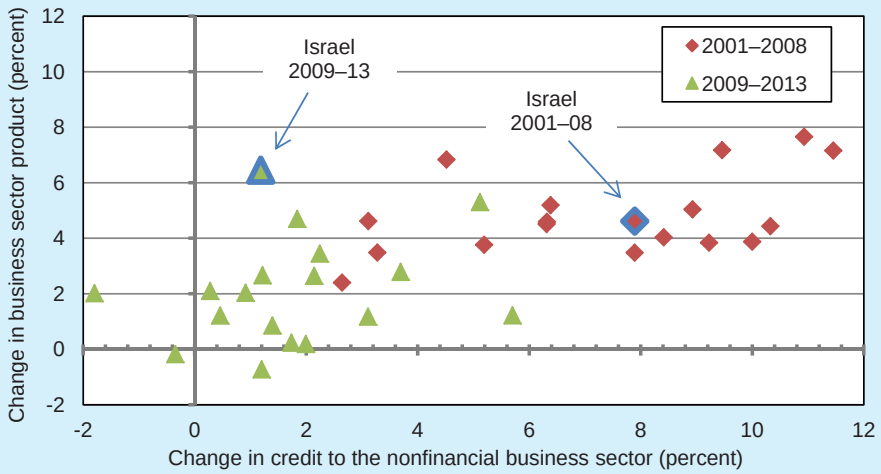
[17] The selected countries in the international comparison are: the Czech Republic, Switzerland, Canada, Belgium, Australia, the UK, France, Finland, Denmark, Germany, Portugal, Norway, the Netherlands, South Korea, Italy, the eurozone, the US and Sweden. The countries were selected because both their GDP data and their credit data are available.

[18] We used a periodic average in order to simplify the presentation of the data. An examination of the data on an annual level shows that in most years between 2001 and 2008, Israel is at the center of the distribution of countries, and in most years between 2009 and 2013, Israel is higher than most of them.

credit, the sharp decline of credit growth that took place between the two periods shows that there are also other factors in the credit freeze.

This development apparently shows that the credit market almost does not support growth business sector growth during these years. However, as seen below, the slow

Figure 4.5
The Connection Between Changes in Business Sector Product and Credit to the Nonfinancial Business Sector[a], Selected Countries[b] (average rates of change in the period, current prices, 2001–08 compared to 2009–13)



[a] In Israel, debt figures for private nonprofits are included in the business sector while in other countries they are included in household debt.

[b] The countries are: the Czech Republic, Switzerland, Canada, Belgium, Australia, UK, France, Finland, Denmark, Germany, Portugal, Norway, Netherlands, South Korea, Italy, Israel, eurozone, US and Sweden. These countries were selected because both debt data and credit data were available.

SOURCE: GDP data–International Monetary Fund; Debt data–Bank for International Settlements (BIS); Data on Israel–Bank of Israel and Central Bureau of Statistics.

growth of credit to the business sector derives from changes in how the credit is divided between the sectors of activity and the industries in the economy. An examination of the sectors shows that the outstanding bank debt of large companies has declined since 2008, while the outstanding bank debt of small and medium businesses (SMEs) has increased.[19] An examination of the industries shows that credit is moving from the manufacturing and financial services industries to the trade and business services industries. Small businesses and the trade and services industries are labor intensive, and their contribution to economic growth therefore requires a low volume of investment—and therefore low volumes of credit—relative to large and capital

[19] The correlation between outstanding credit to large corporations and outstanding credit to SMEs (quarterly data) was 52 percent between 2008 and 2011, while it reversed to -94 percent in 2012–14.

intensive businesses. There is also an operative reason for the slow growth of credit. Providing credit to small businesses consumes more human and physical resources than providing a similar volume of credit to large businesses.[20] The diversion of credit among the sectors of activity therefore takes place gradually and over a long period.

There are a number of factors explaining the change in the internal distribution of credit: (1) As a result of the 2008 crisis and the debt crisis of 2011, the differences between the risks inherent in large businesses and business groups and the risks inherent in small businesses became clearer. While the risk in large business is lower than the risk in SMEs during normal times, the realization of risks in the large businesses was reflected during these two crises by defaults on bond repayments and sharp increases in doubtful debt provisions, while more moderate increases, if any, in doubtful debt provisions were seen regarding SMEs. As such, lenders and/or regulators[21] are interested in lowering exposure to the risk from large borrowers (restriction on the supply side), and large businesses are interested in lowering their leverage levels (decline on the demand side). The possibility that the decline in credit to large businesses also derives from the demand side is also supported by the fact that outstanding nonbank credit increased only moderately compared to outstanding bank credit, despite the low margins in the corporate bond market (Figure 4.10) and the continued expansion of institutional investors' sources. (2) Reforms and other measures, some adopted as a result of the social protest in the summer of 2011, increase competition in the economy and limit monopolies and large companies in some industries—such as food and communications—and restrict the pyramid structure of business groups. These measures may have a negative impact on the profits of large companies and may help small businesses, and may also change the distribution of credit in the economy. (3) The economy's current stage in the business cycle is characterized by a change in the composition of demand: demand has moved from export-oriented industries such as manufacturing to industries that are dependent on local demand, mainly trade and services—industries that are characterized by labor intensivity and by small businesses. This change took place against the background of the appreciation of the shekel and the decline in global trade in recent years. (More on this appears in Chapter 2.)

a. Bank credit

The nonfinancial business sector's bank debt declined by about 1 percent in 2014, to about NIS 385 billion, constituting about 47 percent of total business sector debt. The ratio of the business sector's bank debt to business sector product has remained stable—around 50 percent—since mid-2013, after showing a downward trend from about 94 percent since 2002. This prolonged decline derived first from the response to

[20] The final report of the Interministerial Team to Examine How to Increase Competitiveness in the Banking System, March 2013.

[21] In 2011, as a result of the ramifications of the 2008 crisis, the Supervisor of Banks reinforced the restrictions on banks' exposure to large borrowers and to large business groups.

the recession at the beginning of the 2000s and from structural reforms that diverted the use of sources of financing from bank credit to nonbank credit. Later contributions to the renewal of the downward trend were made by the Supervisor of Banks' requirement to raise the banks' core capital ratio, and the banks' decision to fulfill that requirement by lowering their exposure to large corporations and to increase exposure to housing credit, and then also to consumer credit[22] and to credit to SMEs.

Analysis by activity sector

Since 2008, bank credit has moved from large businesses to SMEs.

The standstill in total bank credit to the business sector camouflages the differences in the development of credit within activity sectors.[23] Large corporations' share of total bank debt of the business sector declined by about 7 percentage points since the beginning of 2011, to about 57 percent at the end of the third quarter of 2014. In the past four quarters (until September 2014), credit to large corporations declined by about 5.3 percent, continuing the downward trend that resumed in 2012. In contrast, credit to medium businesses increased in the past four quarters (until September) by 4.3 percent and credit to small businesses increased by 9.3 percent, along with an increase in their share of total bank credit to the business sector.

Despite the decline in credit to large corporations, most of them have access to nonbank credit, with this credit constituting about 50 percent of total credit to the nonfinancial business sector. For SMEs, however, the banks serve as the almost exclusive source of outside financing, and the increase in bank credit given to them provides important support for their activity. The exceptions to this rule are start-up companies in the high technology and biotechnology fields, since they rely to a lesser extent on bank credit, and raise nonbank financing, mainly from venture capital funds. (More information appears in Box 4.1.)

In April 2012, the government established a new fund, totaling NIS 4.25 billion[24], to provide state guarantees for bank loans to SMEs.[25] The fund provided SMEs with bank credit guaranteed by the state (the guarantee is provided to cover up to 85 percent of the loan) totaling about NIS 2 billion in 2013, and about NIS 1.4 billion in 2014 (up to September). These amounts explain about 15 percent of the increase in bank credit to these two activity sectors in 2013 and about 12 percent of the increase in 2014. The decline in the share of bank credit issued through the fund in 2014 is apparently explained by an increase in competition for these sectors, inter alia as a result of the fund's activity, and because the fund's requirements from the businesses are different than the banks' requirements.

[22] See Chapter 4 of the Bank of Israel Annual Report for 2013.

[23] Total business credit at banks is broken down into the business sector (large corporations), the commercial sector (medium companies), and the small businesses sector. The definition of sectors differs from bank to bank, and also differs within the banks over the years.

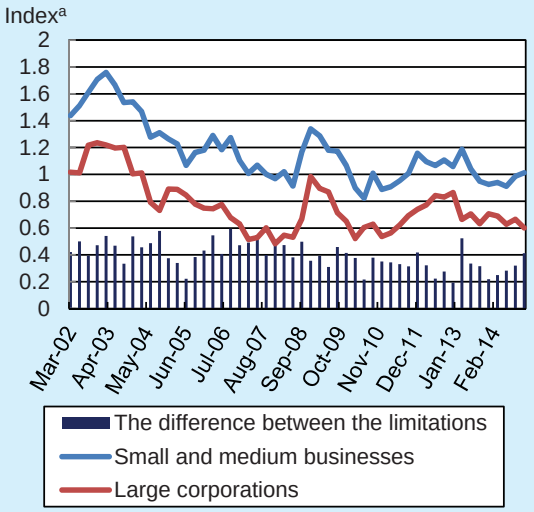
[24] In the past year, the fund reached full utilization, and its total was doubled to about NIS 8.5 billion.

[25] The fund and the bank credit are classified by size in various ways: In the fund, the criteria for a company's size is set by financial turnover, while for bank credit, it is determined by the company's credit volume. However, we can assume that there is a high level of overlap between the groups.

Companies have experienced fewer financing difficulties in recent years, and the difference between the financing difficulties of large corporations and those of SMEs narrowed.

Data from the Companies Survey show that the average of SMEs' financing difficulties[26] declined slightly in 2014 relative to the average in 2013 (Figure 4.6). The decline is particularly prominent among medium companies, even though the increase in bank credit was more significant in the small business sector.[27] The Survey also shows that the state of the SMEs—which report greater financing difficulties than the large corporations—improved in recent years compared with the years preceding the financial crisis: There is a marked downward trend in the difference between estimates of financing difficulties among SMEs and the estimate among large corporations (Figure 4.6). These reports support the assessment that the SMEs are not suffering from a lack of credit supply. The Survey's data for large corporations—companies that are also able to rely on nonbank credit—indicate relative stability relative to 2013—following a significant improvement in 2013 compared with 2012—against the background of the very low cost of raising capital, and because the profit margin level in the corporate bond market is very low (Figure 4.10).

Figure 4.6
Financing Difficulties in the Business Sector by Company Size, and the Difference Between Financing Limitations of Large Corporations and Limitations of Small and Medium Businesses, 2002–14 (quarterly data)



[a] The index reflects the severity of the limitation on a scale from 0 (no limitation) to 2 (very severe limitation).
SOURCE: Based on Companies Survey.

The transmission from monetary policy to the cost of credit

Accommodative monetary policy is intended to encourage economic activity, *inter alia* by lowering the cost of credit. This policy operates through two channels: Lowering the debt servicing burden by lowering the interest on outstanding debt, and lowering the cost of new credit. This sections shows that the business sector has been able to enjoy the lower interest rates set by the Bank of Israel, due to the high transmission

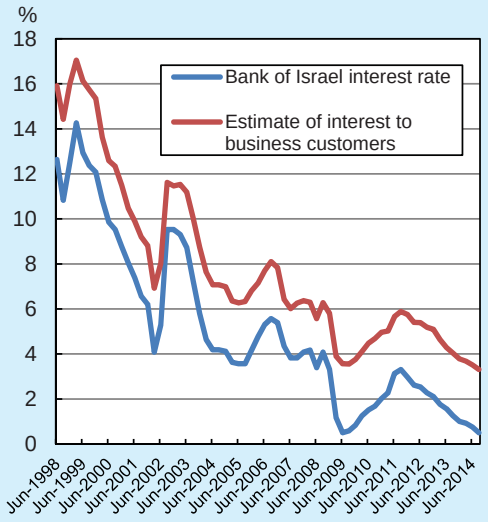
[26] The Companies Survey and bank credit are classified by size in various ways: In the Companies Survey, the criteria for a company's size is set by the number of employees, while for bank credit, it is determined by the company's credit volume. However, we can assume that there is a high level of overlap between the groups.

[27] The Survey relates to financing difficulties in general, and does not distinguish between bank credit and nonbank credit. Since SMEs mainly take out bank credit, we can assume that in their case, the Survey describes financing difficulties vis-à-vis the banks.

from it to the interest on credit to the business sector.

Figure 4.7 shows the Bank of Israel interest rate and an estimate of the banking interest rate for all business customers on outstanding unindexed credit.[28] This credit constitutes about 70 percent of total bank credit to business customers. The Figure shows that the levels of the two interest rates move in tandem, such that a reduction of the Bank of Israel interest rate lowers the burden of servicing bank debt on the business sector. Estimates of the connection between them, taking into account the credit risk[29], show that the transmission from the Bank of Israel interest rate to the business sector is about 87 percent. This transmission is significantly smaller than full transmission, but it is an expected result since the Bank of Israel interest rate is valid for one business day (overnight), while the lifespan of bank credit is longer, and because the estimate of bank interest is equal to the average of the interest on outstanding credit, and not on the flow.[30] Estimates of the interest for business customers for 2013–14 outside the sample show values that match the actual interest rate. It therefore seems that the transmission did not change even though the Bank of Israel interest rate approached zero.[31]

Figure 4.7
The Bank of Israel Interest Rate and Estimate of Interest to Business Customers[a], June 1998–September 2014



[a] The estimate is equal to total bank revenue from interest and fees paid by the business sector on unindexed shekel credit, divided by the balance of outstanding unindexed shekel credit to the business sector.

SOURCE: Bank of Israel.

There is a high level of transmission from the Bank of Israel interest rate to the interest on bank credit to business customers.

[28] In order to calculate this estimate, we take the banks' total revenue from interest and fees paid by the business sector for unindexed shekel credit, and divide it by outstanding unindexed shekel credit to the business sector.

[29] The estimate of credit risk is based on the banks' doubtful debt provisions in respect of total credit to the business sector.

[30] The estimated transmission is also significantly smaller than the full transmission because the estimate uses revenue from fees.

[31] The estimate of interest to business customers is based on the stock of outstanding credit. It is therefore impossible to draw conclusions from it regarding the transmission from monetary policy to interest on the new flow of credit issued.

Box 4.1: Financing of Startup Companies

Startup companies are high technology companies established to develop an innovative product or service. The development requires financing[1], but at this stage, the company is not generating revenue. Once the product/service development stage is successfully completed, shareholders can decide whether to make an "exit" by selling the company to another company, turn the company into a regular public company by holding an offering on the stock exchange, or leave it under private ownership. However, not all companies are successful in reaching the stage where the idea is realized, and many of them go bankrupt without becoming profitable. The startup companies are financed mainly through venture capital funds, technological incubators that occasionally receive government funding, and private investors ("angels"), since the character of their operations prevents them from obtaining financing from banks.

Raising financing from banks is generally based on a standard contract that properly defines the lender's rights. In case of failure, when an entrepreneur is unable to repay the debt at the end of a given period, the lender may take hold of the collateral assets and foreclose them in order to repay the debt, or initiate bankruptcy proceedings. A bank cannot sign such a standard contract with a startup company. First, startup companies generally have intangible assets (knowledge) that cannot be mortgaged. Second, a bank is not interested in handling the failure of a startup company, since it lacks expertise in the company's field of operations.

The banks also have difficulty financing startup companies because there is no information symmetry between borrower and lender. This problem always exists, but it is more prevalent with small businesses because their reports are not transparent to the public. Handling them therefore requires the lender to invest resources in supervisory efforts, which makes credit more expensive. The problem of asymmetry of information is greater regarding startup companies, since they develop innovative products and services where the chances of successfully marketing them are generally difficult to evaluate. Westhead and Storey (1997) sum up the reasons why investment in startup companies is considered very risky: (1) The lack of management skills among the entrepreneurs; (2) The lack of an evaluation regarding demand for the new product or service; (3) The lifespan of the product is shorter than the lifespan of products in low technology industries; (4) The requirement for financing at the research and development stage of the product or service, where there is no certainty regarding its future success. In addition to the problem of asymmetry of information, there is an increased moral hazard—the risk that an entrepreneur will take risks because he doesn't bear the price of failure. For instance, an entrepreneur may choose a project that would provide a high personal yield, such as recognition in the scientific community, but which generates a low yield for investors.

The venture capital companies developed under these conditions, and serve as an essential financial intermediary. It provides financing to promising companies that would otherwise have difficulty raising capital. The financing contracts between the venture capital funds and the startup companies are different than regular loan contracts, and make it possible for the funds to efficiently supervise the companies. For instance, the funds avoid large one-time investments, but make them in stages. This supervisory

[1] Of various amounts. For instance, the financing necessary for research and development at a biotechnology company is higher than what is necessary to develop an application for smart phones at a software company.

mechanism makes it possible to stop the financing in case of failure and to reduce the fund's potential losses. Startup companies at seed stage receive financing in smaller portions.

In addition to financing in stages, the funds also share the investment in the company with other funds. In this way, they can invest in a number of different companies and diversify their risk, and also obtain additional opinions from the other funds regarding the investment's evaluation.

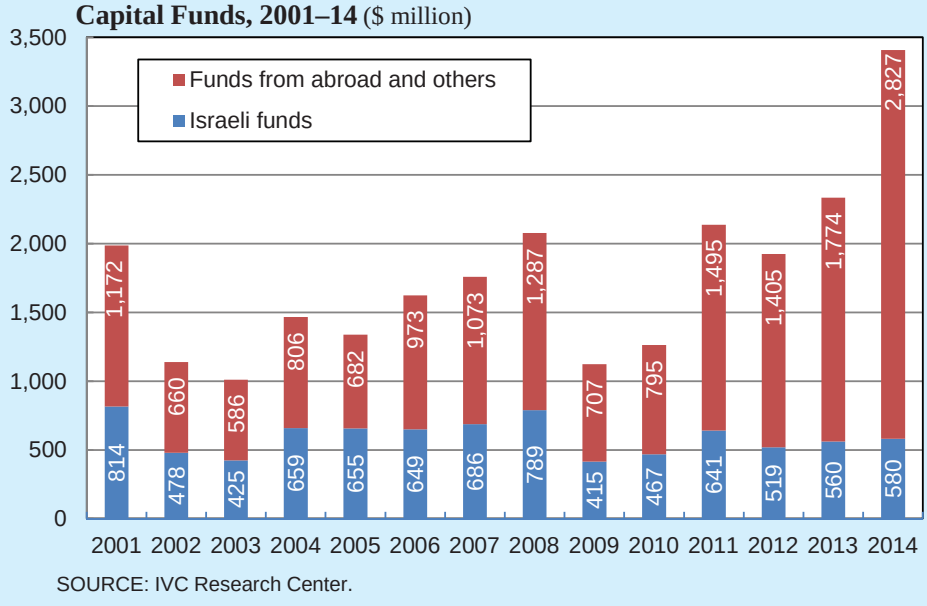
Following the initial investment, the funds introduce the entrepreneurs to experts and consultants on their behalf in order to improve the company's performance. The fund's involvement in the company's operations is also reflected in the fund's representatives serving on the company's board of directors.

In addition, there is another mechanism through which the interests of the entrepreneurs can be brought closer to the interests of the investors, thereby reducing the moral hazard: making the entrepreneurs' income dependent on the company's performance, by defining a significant portion of their income as options on future offerings.

The argument is raised in the professional literature that the organizational characteristics of the venture capital funds and of their contracts are particularly appropriate for solving the problems of asymmetry of information and moral hazard in high technology companies. (More discussion appears in Kaplan and Strömberg, 2003.)

It is common to think that venture capital funds have expertise in the area of high technology, which enables them to identify projects with high growth potential. However, there is another philosophy, according to which venture capital funds occasionally gamble on a company that they choose to finance. Based on data on Israeli high technology companies, Bar and Yafeh (2007) argue that high technology companies that received support from venture capital funds had higher chances of survival than companies that received financing from other sources, but it seems that venture capital funds do not know how to identify "winning" companies. A post-IPO comparison of the performance of companies that received support from venture capital funds and the performance of companies that received support from other sources finds that there are no differences between the two groups.

Figure 1
Capital Raised by High Technology Companies from Venture Capital Funds, 2001–14 ($ million)



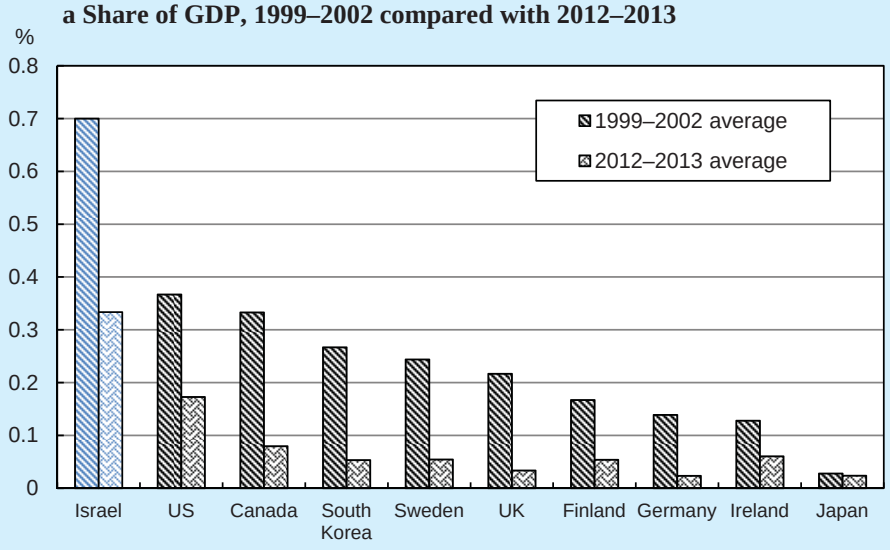
SOURCE: IVC Research Center.

The venture capital industry in Israel was created in 1991 at the initiative of the government and with its direct involvement, and it developed throughout the 1990s from a small government-funded sector to a flourishing private industry. In 2014, Israeli funds raised $914 million, with average fundraising during the past decade of $777 million per year (although yearly data are quite volatile). In addition to financing from local funds, startup companies raise a great amount of financing from funds abroad (Figure 1). As the figure shows, while raising capital from venture capital funds was negatively impacted as a result of the financial crisis, it recovered rapidly between 2011 and 2013. 2014 was the most successful year, with capital raised totaling $3.4 billion, of which more than $2.8 billion from foreign funds, and it seems that there was no lack of supply generated for financing for startup companies.

These figures provide a detail in a broader picture: Israel have over the years been highly ranked in terms of venture capital funds' investment in the high technology industry as a share of GDP (Figure 2).

Since Israeli venture capital funds account for a relatively small share of the financing of startup companies, The Committee for Promotion of Investments in Publicly Traded Research and Development Companies recommended two non-exchange-traded financing solutions that are appropriate for such companies. The first, crowdfunding, is a model for raising capital from the public via web-based platforms, which makes it possible to raise small amounts from a large number of investors. The second solution is sophisticated investor clubs for individuals (those that are not institutional investors). The Israel Securities Authority will set up a pool of sophisticated investors and perform "eligibility assessments".[2]

Figure 2
International Comparison: Venture Capital Funds' Investments as a Share of GDP, 1999–2002 compared with 2012–2013



SOURCE: 1999–2002, OECD Venture Capital Database (2003); 2012–2013, from OECD (2013, 2014).

[2] The advantage of creating a defined pool of sophisticated investors has to do with the fact that the startup companies will not be required to examine their eligibility. Instead, they will be able to rely on the comprehensive initial assessment conducted when the sophisticated investor entered the pool and on periodic eligibility assessments.

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b. Nonbank credit

Outstanding nonbank credit totaled about NIS 430 billion at the end of 2014. Nonbank credit constitutes about 53 percent of total credit to the business sector, and is comprised of a number of types of credit: Tradable and nontradable bonds[32], loans from institutional investors and loans and bonds from nonresidents. Domestic (excluding from nonresidents) nonbank credit as a share of total credit increased greatly between 2003 and 2008—mainly through bond issues—as a result of reforms in the capital market, taxation and pensions. Since 2008, total nonbank credit increased at a more moderate pace, mainly through institutional loans and credit from abroad. In 2014, nonbank credit increased by about NIS 20 billion.

Corporate bond issues

The net volume of corporate bond issues in the nonfinancial sector reached about NIS 13 billion in 2014, higher than in previous years. The increase is mainly the result of a high gross volume of issues, mostly derived from 5 nontradable issues made by four companies (Delek Tamar, the Israel Electric Corporation, B Communications, and Israel Chemicals). The aggregate volume of these issues was NIS 18.5 billion (about 13.1 billion of which were to foreign investors), and the average volume per issue was about NIS 3.7 billion. The fact that the market absorbed these issues indicates

[32] Excluding corporate bonds held by banks.

that there is a large supply of credit for corporate bonds in the primary market. While the supply of credit comes mainly from foreign sources, successful issues of relatively large volume that the banks made at low margins—plus bond issues totaling about NIS 3.2 billion made by foreign companies in the local market during the year—show that the domestic market is able to provide supply for quality debt.

The bond issues held by foreign companies in the domestic market in 2014 continued the expansionary trend that began in 2013, although the foreign companies still hold a small portion of total issues and of outstanding corporate bonds in the nonfinancial sector. In 2014, foreign companies held about 10 percent of total issues and about 6.3 percent of total outstanding corporate bonds. All foreign companies that have offered bonds thus far are active in the real estate field, mainly in the US. (More information appears in the box in the Financial Stability Report for the second half of 2014.)

Credit from institutional investors

Institutional investors' share of total credit to the nonfinancial business sector doubled within a decade, but is directed only to large corporations.

The rapid growth in the assets of institutional investors has made them a main credit provider in the economy. Their share of total credit to the nonfinancial business sector has doubled—from about 9 percent in 2004 to about 18 percent at the end of 2014—with credit being provided through tradable and nontradable bonds and through direct loans.[33] The direct loans channel increased rapidly in recent years, and among all (bank and nonbank) financing channels, it was the only one to grow in 2014 (by 13 percent). However, credit to the nonfinancial business sector constituted only about 27 percent of total domestic credit provided by the institutional investors in 2014. 71 percent of domestic credit provided by the institutional investors was provided to the government.

The long-term character of institutional investors' liabilities leads them to look for investment alternatives with a long lifespan that enables them to provide credit for long-term activities, such as building infrastructure. In addition, institutional investors are not operationally prepared to provide service to small businesses. Therefore, the institutional investors avoid providing credit to the SME sector, and only large corporations enjoy this source of credit. However, if the institutional investors would finance the operations of SMEs, it could be beneficial for both sides: Small businesses whose operations are exclusively dependent on bank financing would gain access to additional sources of financing (which may, among other things, lower the price of credit), and institutional investors would be able to invest in various industries, thereby better diversifying their risks. There is, therefore, a gap between the financing needs of small businesses and the investment needs of the institutional investors, and a possible solution to this problem requires the securitization of loans to SMEs. More on the securitization market appears in Box 4.2.

[33] Direct loans provided by institutional investors to the business sector are discussed in Box 3 of the Financial Stability Report for the first half of 2014.

Box 4.2: Development of the Securitization Market

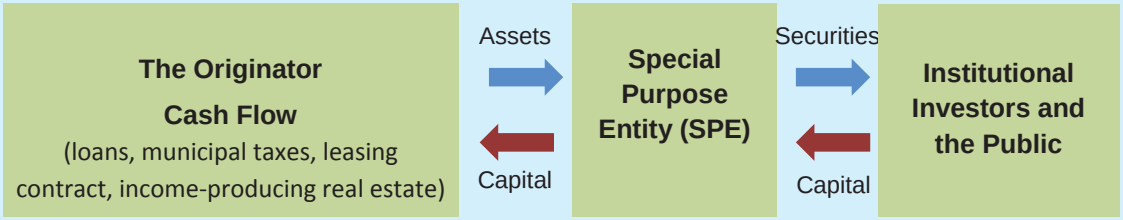
Background

Securitization is common in advanced economies because it is a tool that expands the sources of financing for the business sector, increases competition and supports the dispersion of risk among the various players in the capital market.

As shown in Figure 1, banks or other types of originators in a securitization transaction sell the rights to assets that produce a cash flow to a special purpose entity (SPE), and the SPE issues securities to the investing public and transfers the proceeds to the originator. The SPE serves therefore as a conduit through which the cash flow from the assets flows until the security matures. To illustrate, if an originator holds a real asset, such as a rental housing project, and wishes to finance a new project, the rights in the existing project can be sold to the SPE and the SPE will issue securities to investors and service them using the rental payments. Similarly, if an originator holds a financial asset, such as a bank that provides loans to small businesses and wishes to free up credit sources in order to provide new loans, it can sell its rights in the existing loans to an SPE and the SPE will issue securities and pay investors using the cash flow from the loans.

The originator has an incentive to carry out securitization since the transaction provides it with a capitalized and liquid amount of cash in the present in exchange for the sale of a future cash flow. The originator thus frees up capital to provide new credit or for real activity. The incentive for investors is that they receive an asset-backed security and are not exposed to the risk of the originator defaulting. A wide variety of underlying assets can be securitized: credit to small and medium-sized businesses, debts of credit card holders, mortgages, municipal taxes, leasing contracts, rent, etc.

Figure 1
The structure of a securitization transaction



Israel has an incentive to open up a securitization market since it can serve as a bridge between sources and uses, i.e., between funds in the hands of institutional investors (the quantity of which is growing at an increasing rate as a result of the reforms carried out in pension savings) and sectors and enterprises that are in need of credit, including small and medium-sized businesses, infrastructure development, rental

housing projects, etc. The banking system and real companies with stable cash flows can use securitization in order to raise capital to fund their activity.

Securitization in its simple form contributes to sustainable growth since it increases the supply of credit in the economy and thus lowers its cost. Research indicates that financial development supports real economic development[1] and securitization has become one of the pillars of a developed capital market. However, alongside its advantages, securitization also suffers from a disadvantage since in the absence of appropriate regulation it may have an adverse effect on the stability of the financial market. Evidence of this is the crisis that developed in 2008 in the US.

This situation is what guided the work of the Joint Team to Promote Securitization in Israel. In order to encourage securitization, while at the same time maintaining the stability of the financial system, the team formulated guidelines intended to create transparency regarding the underlying assets and prevent over-complexity in their securitization, to isolate the risk to securitized assets only, to separate between the originator and the SPE and to strengthen the alignment of interests between the originator and investors. These guidelines, along with ongoing and stringent supervision, will make it possible to develop the securitization market in a gradual and balanced manner and to maintain financial stability. The team published a report for the public's comments in August 2014.[2]

The scope of securitization worldwide increased rapidly in the early years of the previous decade; however, it declined considerably following the financial crisis. During 2009, the market began to recover, primarily because central banks supported it based on the belief that securitization is an important tool that can be used to strengthen the financial system and as a means of encouraging the real economy.

Despite the problems revealed by the crisis, there is a consensus that the securitization market will continue to be an important component of the international financing market. A report issued by the Bank of England and the European Central Bank, for example, states that "The [securitization] market is shrinking. This is a concern because securitization, if appropriately structured and regulated, can complement other long-term wholesale funding sources for the real economy, including for small and medium-sized enterprises (SMEs)."[3] This approach rests on the fact that in securitization markets with robust foundations, failures have not occurred and the market has continued to function. Thus, the cumulative default rate on European consumer-related securitization was only 0.05 percent from July 2007

[1] There is a vast literature on this topic. See, for example:
Greenwood, J. and B. Smith (1997), "Financial Markets in Development and the Development of Financial Markets", Journal of Economic Dynamics and Control 21(1), pp.145-81. Levine, R. (1997), "Financial Development and Economic Growth: Views and Agenda", Journal of Economic Literature 32(2); Levine, R. and S. Zervos (1998), "Stock Markets, Banks, and Economic Growth", American Economic Review, June, pp. 537-558.

[2] The team included representatives of the Israel Securities Authority, the Ministry of Justice, the Capital Market, Insurance and Savings Department at the Ministry of Finance, the Tax Authority, and the Bank of Israel, which coordinated the team's work. An interim report issued by the team can be found at: http//:www.boi.org.il/he/NewsAndPublications/PressReleases/Pages-12-08-2014/Securitization.aspx

[3] See: European Central Bank and Bank of England (2014), "The Impaired EU Securitisation Market: Causes, Roadblocks and How to Deal With Them".

until the third quarter of 2013.[4] Furthermore, the problem in the US securitization market is concentrated on the securitization of high-risk (subprime) mortgages.[5]

Effects of the securitization market on the financial system

a. The advantages of the securitization market

The reduction in the cost of sources of financing and their expansion: Securitization isolates the risk to investors to that of the securitized assets only. In other words, it does not expose them to the default risk of the originator, and the isolation of risk can be expected to raise the credit rating. Securitization will therefore make things easier for both investors and originators. Investors will be able to better evaluate the risk involved and the originators will be able to raise capital at lower interest rates, particularly if they do not have a high credit rating and they are securitizing high-quality assets. Medium-sized and large firms will be able to directly obtain credit by means of securitization and in this way to focus on their real activity rather than their financial activity.

Expansion of investment channels and development of a non-bank credit market: Institutional investors and the public will be exposed to a variety of assets that produce a predetermined cash flow. The securitization of assets will therefore offer a new investment channel, backed up by high-quality collateral, for the public's long-term savings. This channel became particularly relevant following the structural reforms carried out in the economy, which increased long-term savings and led to a continuous increase in the amounts of money managed by institutional investors. This alternative will compete with investment in corporate bonds, a channel that in certain periods raises the concern of overvaluation due to the small number of investment alternatives. Reduced concentration in the supply of credit will increase competition and will make it easier to obtain funding for real activity in the economy.

Freeing up of capital in the banking system: The banking system is limited in its ability to provide new credit, but it has an advantage in the underwriting of loans and in their ongoing management. Although, as noted, the amount of savings is growing, institutional investors do not have expertise in underwriting and providing credit to many types of borrowers. Securitization will enable the banking system to shift part of its liabilities and its risk to the capital market and thus free up sources of funds that can be used to provide new loans to the sectors that are in need of credit, while at the same time improving the accessibility of the sources for a variety of businesses. Since bank credit is used by small and medium-sized businesses in Israel as the almost exclusive source of external financing, securitization is critical in order to ease the financial constraints on them.

[4] The rate of default on asset-backed securities (ABS), residential mortgage-backed securities (RMBS) and collateralized loan obligations of small and medium-sized enterprises (SME CLO) stood at 0.04 percent, 0.1 percent and 0.4 percent respectively. Details appear in the discussion paper published by the Bank of England:

Bank of England (2014), "The Case for a Better Functioning Securitization Market in the European Union", A Discussion Paper.

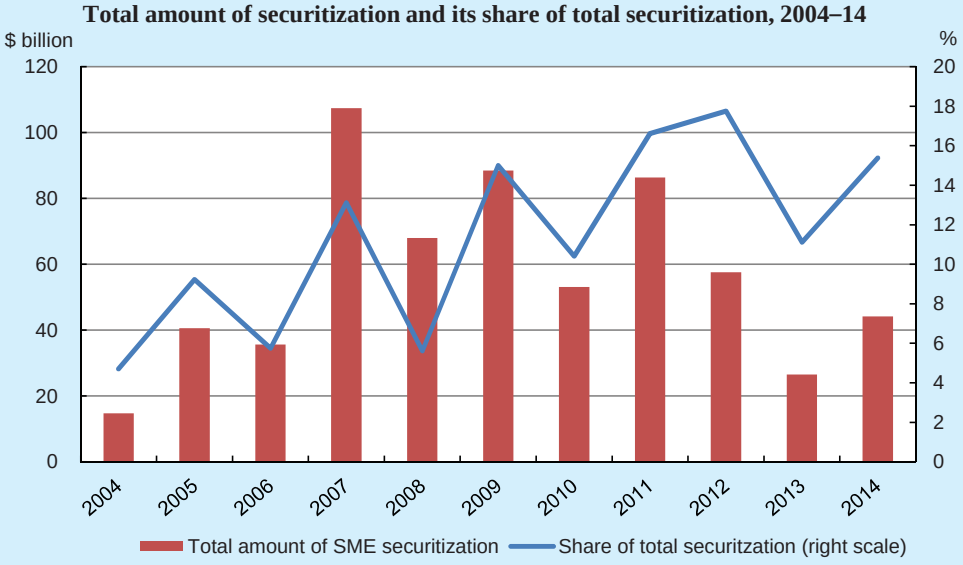
[5] The rate of default on asset-backed securitization was only 0.36 percent in 2012 and only 0.61 percent in 2010.

Standard & Poor's (2013), Global Structured Finance Default Study, 1978-2012: A Defining Moment For Credit Performance Stability.

It is the intention of the Banking Supervision Department to permit securitization of a variety of types of credit, including loans to small and medium-sized businesses (SMEs), with the goal of increasing the supply of credit to this sector. Nonetheless, it is also the intention of Banking Supervision to leave in place the regulations prohibiting complex transactions (such as CDOs and CDO^{2}s), as recommended in the report published by the team to promote securitization. This is meant to prevent the issue of complex instruments and to facilitate more accurate valuation of the risks implicit in the underlying assets.

As can be seen in Figure 2, the securitization of loans to small and medium-sized businesses (SMEs) in Europe accounts for a significant and growing share of securitization transactions. Some countries require banks to provide new credit to small businesses in exchange for government support in securitization.

Figure 2
Credit to small and medium-sized businesses in Europe:
Total amount of securitization and its share of total securitization, 2004–14



Source: SIFMA, 2015.

b. Maintaining the stability of the financial system

The securitization market can, as noted, increase competition in the capital market and the supply of credit, but there are risks implicit in securitization that need to be addressed. Every investment involves risk and like every other investment a balance must be found between the risk and reward.

Moral hazard: Moral hazard exists when the originator creates assets that will be sold in the future by means of securitization and does not bear the consequences of the risk implicit in the assets. This situation incentivizes the originator to ex ante (i.e., before the securitization is carried out) create risks

that are greater than the expected profit and to transfer them onward to other players in the capital market chain and exploit the capital received in order to create new assets to sell (a strategy known as "generate to distribute"). Thus, a flawed structure of incentives is created, since it encourages the creation of low-quality assets which are intended for sale.

An initial response to this risk involves the ongoing regulation of the institutions that manage the public's funds, as in the case of the existing regulation of investment in other assets. A second response involves strengthening the alignment of interests between the originator and the investors by means of regulation that requires the originator to retain part of the risk. In that case, if a credit failure occurs, the originator will experience a loss as well. The more risk that is left with the originator the greater the alignment of interests between the originator and the investors in the SPE. However, since the securitization process involves a fixed cost, if too high a proportion of the asset is left with the originator then the size of the securitization transaction will be reduced to the point where it will not be worthwhile. This is the reason that prior to the financial crisis and until recently there was no obligation to retain any part of the risk with the originator, even in the case of high-risk loans, and therefore alignment of interests between the originator and the investors was not achieved, even in part.[6]

A third response to the problem of moral hazard relates to repeat players and the risk to reputation. Credit failure in a large number of securitized assets will harm the reputation of the originator. This will make it difficult for that entity to raise capital in the future, and also involves a not-insignificant economic price. Regulations that ensure a true sale and prohibit the support of liquidity—regulations which were not in place around the world prior to the crisis—will make it possible to, among other things, incentivize repeating players in the securitization market to ensure the quality of the assets they securitize.

Valuation of the assets: There is a structural information gap between the originator and the investors with regard to the value of securitized assets. The originator has no incentive to reveal information that is likely to lower the valuation of the asset, a phenomenon known as adverse selection, and in the long run a non-transparent market may lead to a prolonged deterioration in the quality of assets ("market for lemons").[7]

The main solution to this problem involves demanding greater transparency with regard to the securitized assets. Transparency will reduce the information gap between the originator on one hand and the investors and credit rating agencies on the other, and will help achieve more accurate valuations. To this end, the Team to Promote Securitization proposed a supplementary measure: to prohibit complex securitization (CDOs and CDO^2s) in order to provide a solution to cases in which the securitized assets are too complex for analysis and valuation. These supplementary measures will reduce the risk of flawed

[6] The regulations in the US and Europe have adopted a rate of 5 percent of risk to be left with the originator. However, with respect to qualified mortgages in the US the rate is actually zero. In contrast, the Team for Promoting Securitization in Israel recommended a rate of 10 percent.

[7] Akerlof, G.A. (1970) "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism", The Quarterly Journal of Economics, Vol. 84, No. 3.

Much has been written about what led the US into the sub prime crisis, including the inaccurate estimation of risk. See, for example: Gorton, G.B. (2008), "The Panic of 2007", NBER WP/14358; Gorton, G.B. (2008), "The Subprime Panic", NBER WP/14398.

valuation and make securitization a more preferable instrument than corporate bonds from the point of view of valuation.

The ratings agencies have a critical role in the valuation of assets in securitization, since investors generally rely on their ratings. In view of the failure of the ratings agencies prior to the global crisis, they have revised their methodologies for evaluating the risk of structured financial instruments.[8] In addition, they are now subject to new regulations, both in Israel and worldwide. The new regulations have formalized their activity and require them to operate in a more cautious and responsible manner.[9]

The securitization market in Israel

While in a number of countries the securitization market has grown to a size similar to that of the corporate bond market, in Israel the market is almost non-existent. According to a ranking by the World Economic Forum in 2012, Israel's securitization market was 54th in size out of 59 countries. The few securitization transactions carried out in Israel have been concentrated in leasing and income-producing realty, and they are carried out based on a specific legal opinion and without a comprehensive framework. Starting in the 1990s, several government committees recommended the development of the securitization market in Israel. The obstacles preventing that development involve legislation, taxation, regulation and accounting issues. The report produced by the Team to Promote Securitization includes detailed proposals for amending legislation that are meant to remove these obstacles. The report lays the foundation for the securitization of a variety of assets, such as credit to small and medium-sized businesses, retail loans and income-producing real estate, in the belief that this instrument can inject capital into the real economy. The recommendations in the interim report produce a balance between the inherent risk in financial development and the rewards of the gradual and cautious development of this important market.

8 The Israeli branches of the international rating companies use the international methodology.

9 Law for Regulating the Activity of Credit Rating Agencies, 5774-2014, and the regulations based on it will go into effect in April 2015.

3) Equity issues

In 2014, shares totaling about NIS 4.6 billion were issued on the Tel Aviv Stock Exchange. The volume of issues was lower than in 2013 (about NIS 8 billion), and relative to the average of issues since 2008 (about NIS 6.6 billion). In 2014, 5 new companies held IPOs, totaling about NIS 1.4 billion—about one-third of total issues during the year. All of the companies that held IPOs are active in various areas of the construction and real estate industry, from the manufacture and supply of raw materials and construction products to the development and operation of assisted living facilities. One of the five new companies is a foreign real estate company.

c. The mix of sources of financing of the principal industries

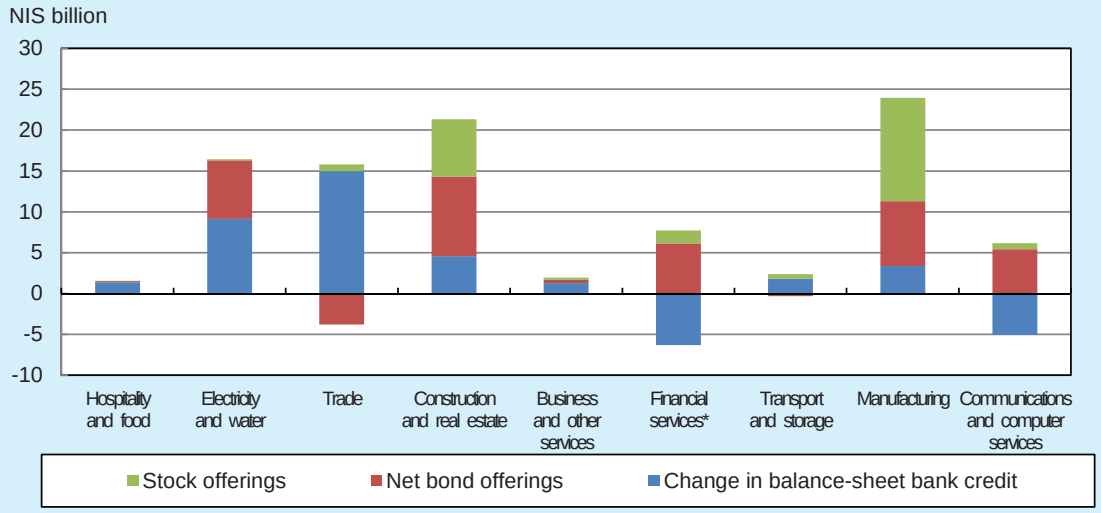
Total banking credit risk in the business sector credit portfolio (including both balance sheet credit and non-balance-sheet credit) was distributed similarly in 2014 to its distribution the previous year: More than 75 percent was distributed among a few industries—construction and real estate, manufacturing, trade, and financial services.

Over the long term, changes in the industry by industry development of bank credit can be identified following the global financial crisis. In the construction and real estate and the trade and services (excluding financial services) industries, the total banking credit risk (balance sheet and non-balance sheet) continued to grow, following a relatively short decline in 2009. In contrast, in the manufacturing and financial services industries, it remained stable even at the end of the 2008–09 recession, and even declined in the past two years.

The construction and real estate industry uses a variety of financing channels because its activity requires a large volume of financing.

These developments are an integral part of the differences in the extent to which different industries use nonbank credit and equity[34]: Industries that lowered their reliance on bank credit in the past few years raised financing for their operations in other ways. Figure 4.8 shows the changes in the main financing channels of various industries between 2011 and 2014: the change in actual bank credit (balance sheet credit only), tradable and nontradable bond issues minus repayments (net bonds) and

Figure 4.8
Changes in the Main Channels of Business Financing in Various Industries, 2011–14[a]
(cumulative data)



[a] Data on bank credit - until the third quarter of 2014.
* Including banks and insurance.
SOURCE: Bank of Israel.

[34] This analysis lacks data on loans from institutional investors because they are not divided by industry. The outstanding balance of these loans reached NIS 49 billion in 2014.

In the past four years, bank credit increased markedly only in the trade industry and in the electricity and water industry.

share issues in Israel and abroad.[35] The Figure shows that in the past four years, bank credit increased markedly only in the trade industry and in the electricity and water industry, where it constituted a main source of financing. While the manufacturing and construction and real estate industries increased their bank credit, most of the financing in those industries was raised through bond and share issues. Two other industries—financial services[36] and communications and computer services—reduced their volume of bank credit and converted it to nonbank financing, mainly through bonds. In the other industries, the volume of financing is relatively small and relies mostly on bank credit.

The three parts of Figure 4.9 show how business operations are financed in those industries[37] in each of the years between 2004 and 2011. The data show the replacement of sources of financing. It is possible to hypothesize that the preference of one or another channel of financing is influenced by the prices of debt with which the companies are faced. As a rule, the banks and insurance companies that belong to the financial services industry tend to issue bonds due to the low costs of raising debt (Figure 4.10) and out of considerations of maintaining the controlling core, considerations that prevent them from issuing shares.

Bank credit to the construction and real estate industry increased in 2011 and declined in 2012 and 2013. Its growth resumed only in 2014, and even so only to a small extent. In contrast, there was an increase in financing raised through bonds in the past two years, and it seems that this is explained by the sharp decline in yields in the industry (Figure 4.10), which lowered the cost of debt to a marked extent. The construction industry requires a high volume of financing, mainly due to the need to purchase land, and the share of this credit in non-balance-sheet bank credit—an indication of future credit—exceeds 40 percent of total non-balance-sheet credit in the economy.

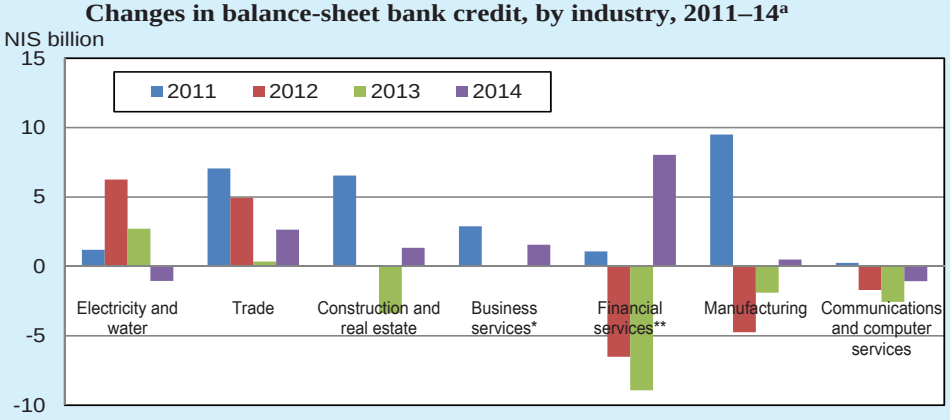
In addition to bonds, companies in the construction and real estate industry also issued a significant volume of shares, which may indicate a search for additional sources of capital. According to the Companies Survey, the construction industry is encountering greater financing difficulties than all other industries (Figure 4.11). In addition, the cash flow of construction companies was negatively impacted in 2014 by the decline in new home sales due to the uncertainty surrounding the Zero VAT law, which increased the need to look for additional sources of financing for projects that were already underway. It is interesting to see that only in 2013 and 2014 most of the equity issued by construction companies was issued through public offerings (67 percent in 2013 and 76 percent in 2014). In the two preceding years, their offerings

[35] Share issues abroad relate to dual-listed companies only.

[36] In order to create uniformity among the bank credit data and data on issues on the Stock Exchange, the financial services industry in this analysis includes banks and insurance companies. The other companies are provident funds and companies dealing with financial brokerage.

[37] Business and other services were combined with hospitality and food services and transport and storage, due to similar behavior and a low volume of credit.

Figure 4.9a
Changes in balance-sheet bank credit, by industry, 2011–14[a]



[a] Up to the third quarter of 2014.

Figure 4.9b
Net bond offerings, by industry, 2011–14

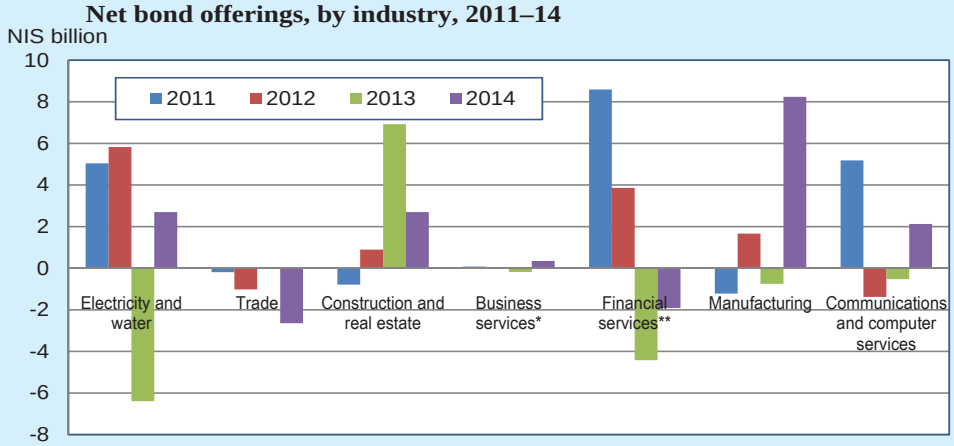
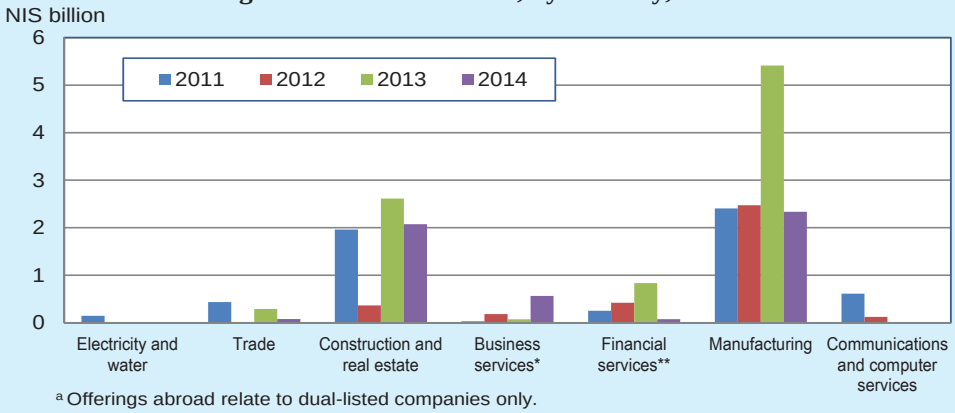


Figure 4.9c
Stock offerings in Israel and abroad[a], by industry, 2011–14



[a] Offerings abroad relate to dual-listed companies only.

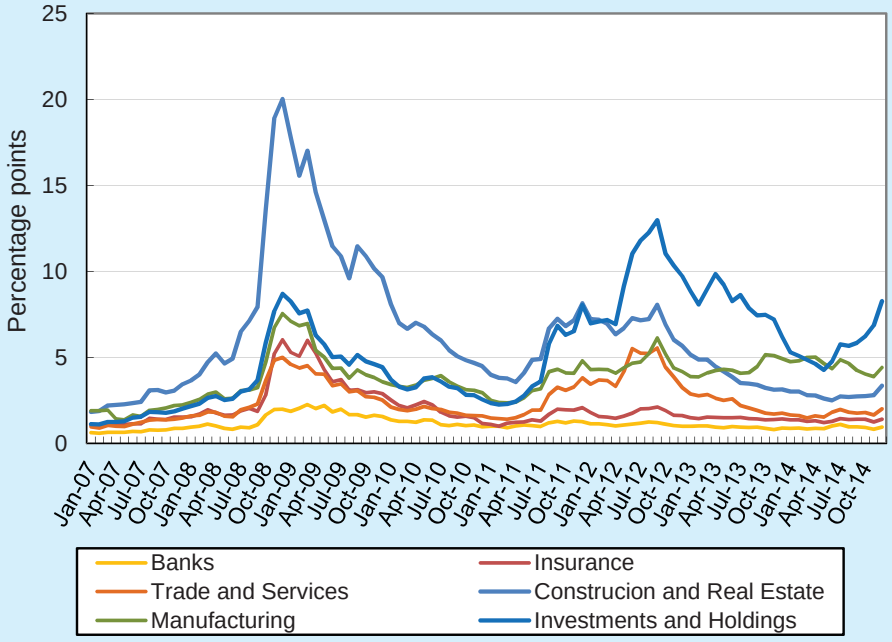
* Including hospitality and food, transport and storage.
** Including banks and insurance.

SOURCE: Bank of Israel.

were mainly private placements, a less expensive method[38], or through rights offerings, a method that prevents the dilution of control because new shares are offered only to existing shareholders. Alternatively, large scale share issues may indicate both the desire of companies to reduce their leverage , since it could lower the cost of raising debt in the future, and their desire to take advantage of high share prices, since real estate shares are being traded at all-time highs on the market.

The trade and business services industries rely mainly on bank credit, and debt repayments were higher than new offerings in the trade industry despite a sharp decline in yields (Figure 4.10).

Figure 4.10
Spreads Between the Monthly Weighted Average of Yields on CPI-Indexed Corporate Bonds (Excluding Structured and Convertible) and the Monthly Average of Yields on Parallel Government Bonds, by Industry, 2007–14 (monthly data)



SOURCE: Bank of Israel.

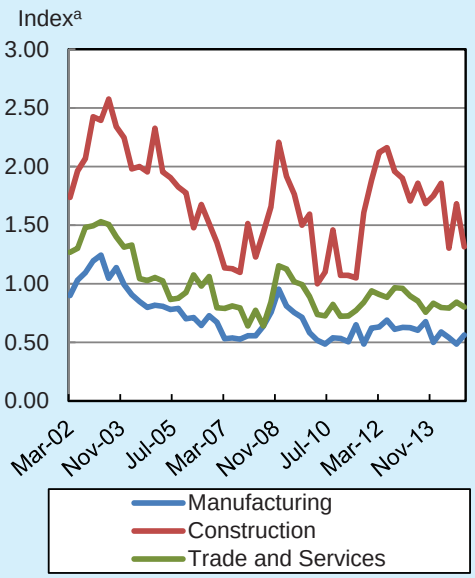
Companies in the manufacturing industry lowered their bank credit significantly between 2012 and 2014, while offering bonds that for the most part served to replace existing bond series. Only in 2014 did net bond issues reach a significantly large volume—more than NIS 4 billion. Furthermore, manufacturing companies raise

[38] Private placements are characterized by fewer regulatory requirements—there is no need to publish a prospectus or prepare detailed financial reports—which lowers the cost of the issue. In contrast, the volume of the issue is lower, because private placements are aimed at a small target audience (for instance, mutual funds do not participate in them).

capital through share issues in Israel and abroad.[39] The yearly volume of issues ranged around NIS 2.5 billion in each of the past four years, except for 2013, when it was more than twice that.

The widespread use of equity in the manufacturing industry may hint at difficulties in raising credit in this industry as well, similar to the construction industry. However, data on financing difficulties in the Companies Survey do not show that the state of companies in the manufacturing industry has grown worse in the years following the crisis (Figure 4.11). On the contrary—financing difficulties in the manufacturing industry were low both relative to the past and relative to the other industries. The Central Bureau of Statistics Business Tendency Survey also shows that credit is not a serious limitation in the manufacturing industry, even though the limitation on nonbank credit increased to a certain extent in the fourth quarter of 2014. An examination of the type of companies that issued shares in 2013–14 shows that biomedical and technology companies are responsible for about 70 percent of issues. The companies in these industries occasionally have difficulty raising debt because they don't have enough assets to mortgage against the loans. In other companies, the reduction of debt and its replacement with equity reflect the companies' desire to lower their leverage ratios.[40]

Figure 4.11
Financing Difficulties in Selected Industries, 2002–14 (quarterly data)



[a] The index reflects the severity of the limitation on a scale from 0 (no limitation) to 4 (very severe limitation).

SOURCE: Based on Companies Survey.

The manufacturing industry makes widespread use of equity, but this doesn't mean the industry is having difficulty raising credit.

[39] Bond and stock issuess by manufacturing companies are net of issues by foreign companies in Israel. Data on stock issues abroad are an underestimation because they relate to dual-listed companies only.

[40] For instance, Hadera Paper decided to realize assets and to repay debt to bondholders and banks totaling about NIS 650 million.