



BANK OF ISRAEL

**FINANCIAL STABILITY
REPORT**

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1. MAIN DEVELOPMENTS IN THE DOMESTIC FINANCIAL SYSTEM¹

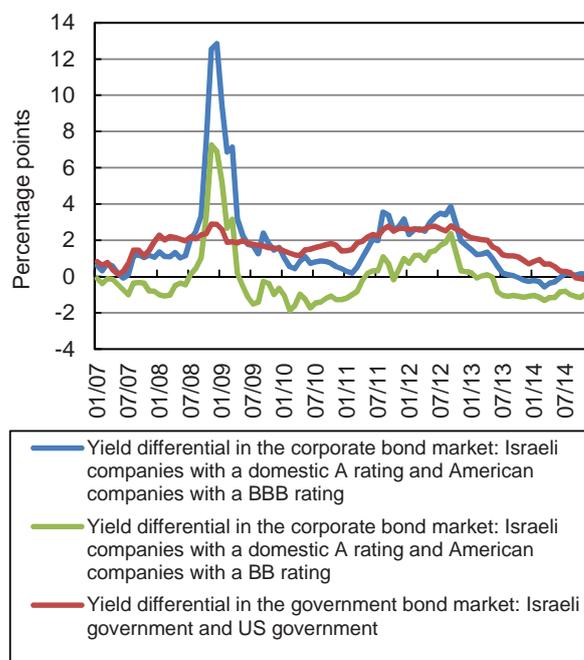
The domestic financial system continued to demonstrate stability in recent months, despite Operation Protective Edge and a decline in growth rates, and despite a challenging global environment: uncertainty in the markets increased, starting with the reaction to the beginning of the tapering of quantitative easing in the US, and then in response to the crisis in Russia and the decline in oil prices. **Our assessment remains that the main risk to the stability of the domestic financial system concerns the high level of banking system and household exposure to the housing market.** While there was an apparent slowing trend in the housing market during the second and third quarters, when the volume of transactions declined and rapid price increases were halted, it seems that the slowdown was the result of waiting for various government programs. Since some of those programs were frozen when the elections were brought forward, there is an apparent increase in demand. **Our assessment also remains that the financial system is exposed to underpricing of risks in the corporate bond market, in view of the low interest rates in Israel and worldwide—a factor that is impacting pricing in this market and in the asset markets in general.** The trend of decline in yields in the corporate bond market was halted back in June, and they increased in December—in view of the sharp decline in oil prices and the crisis in Russia—alongside a moderate increase in the yield differential vis-à-vis abroad (Figure 1). However, the level of the spreads is still low. There was also a parallel increase in net raising of debt by Israeli companies. These risks to stability are discussed in greater detail in Section 2.

The Bank of Israel Monetary Committee decided to lower the interest rate in two consecutive months: lowering the rate for August and for September by 0.25 percentage points each, to a level of 0.25 percent.

¹ The data in this report are up-to-date in accordance with the availability of data for each section. The analysis relates to events that took place until mid-December 2014.

The downward trend in yields in the corporate and government bond markets was halted, and there was a moderate increase in the yield differential vis-à-vis abroad.

Figure 1
The yield differential between Israel and the US in government and corporate bond markets, 2007–14



SOURCE: Based on data from the Federal Reserve Bank of St. Louis.

These decisions were made in response to near-zero inflation rates and to a decline in the GDP growth rate. In recent months, the shekel has depreciated sharply against the dollar—by about 13 percent from the beginning of July to the end of November—which may support an increase in inflation even though the transmission from the exchange rate to prices is low.

Due to the low level of the domestic monetary interest rate, the gap between it and the interest rate in the US was closed, and a negative gap was created between it and the average interest rate in

developed economies.² Long-term real and nominal yields declined in Israel over most of the reviewed period, in parallel with a decline in the differential between long-term domestic yields and those in the US and Europe. However, this differential expanded in recent weeks, following the decision to dissolve the government and bring forward elections. Since the State budget for 2015 was not approved due to the dissolution of the government, the monthly expenditure ceiling will be 1/12 of the 2014 budget until the new budget is approved.

The banks continued to maintain stability during the first half of 2014. The Tier 1 capital ratio in the banking system remained unchanged even though the transition to new directives—in accordance with Basel III—acted to reduce the capital ratio, and the improvement in the credit portfolio quality indices and the decline in borrower concentration continued. **Even so the risk inherent in housing credit and in credit to the construction and real estate industry**—which together constitute 44 percent of the credit portfolio—**remains significant.** In recent years there has been a marked increase in the volume of credit to households, and in its share of total bank credit, at the expense of credit to the business sector. Within this credit, there has been a marked increase in the volume of housing credit, and its share of the total balance-sheet credit of the five major banking groups increased gradually, from 19.6 percent at the end of 2007 to 30.5 percent in September 2014. Against the background of these developments, the Banking Supervision Department increased the Tier 1 capital target by 1 percent of the balance of housing credit.

While the two recent interest rate reductions made by the Bank of Israel led to a further moderate decline in the weighted real interest rate on mortgages, they did not significantly affect demand in the housing market due to the waiting for new legislative measures. However, **once some of the legislative measures**

were delayed, there was an increase in home prices in September, and a certain increase was observed later in the volume of home transactions and the taking out of new mortgages. Even beforehand, new mortgages were taken out at a high pace—the average in recent months was about NIS 4.4 billion per month.

There was an improvement in the insurance companies' capital ratios, due among other things to the fact that financial asset prices continued to rise. Total aggregate profit of the companies in the first half of 2014 was positive, despite the losses created as a result of the low interest rate, and reached about 2.2 percent of recognized capital. Most of the assets in the insurance companies' nostro investment portfolio are characterized by low risk, but in recent years, the share of assets with medium to high risk has increased markedly.

There was a sharp increase in corporate bond spreads in December, due to the crisis in Russia and the exposure of Israeli companies to investment there and in eastern Europe in general. Prior to that—and since July—spreads had remained stable, following a prolonged period of decline. However, **against the background of the low interest rate and high liquidity both in the domestic market and abroad, domestic spreads are lower than in the past and lower than corporate bond spreads in the US, even though the negative gap between them and spreads abroad narrowed slightly in recent months.** The risk indices do not point to an increase in the risk of default in the corporate bond market. The pace of fundraising in the corporate bond market in the second half of 2014 was similar to the pace in the first half, but was reflected by an increase in net raising of funds. **In particular, there was a high volume of offerings in the financial industry and a continuation of the high volume of offerings in the construction and real estate industry.** In parallel, there was significant withdrawal of money in recent months from mutual funds specializing in corporate bonds and entry to general bond funds that invest a lower rate of their assets in corporate bonds.

² The average relates to the following markets: The US, Europe, the UK, Japan, Canada, Switzerland, Sweden, Denmark, Norway, New Zealand and Australia.

Global background conditions continue to contribute to the relatively high level of uncertainty: Most countries continue to pursue a very accommodative monetary policy, while actual inflation rates in most of them are lower than inflation targets despite expectations of a recovery. **For now, central banks around the world estimate that there is no high risk of prolonged deflation,** and long-term inflation expectations remained stable. The pace of the recovery is not uniform around the world: While there is apparent worsening in European countries—particularly in the large economies of Germany and France—the situation in the US is gradually improving. As a result of the improvement in the US, the Fed halted its asset purchasing program in October, following advance notice. **The process of tapering monetary accommodation continues to be a main risk to the stability of the global economy: Central banks may find themselves tapering too soon, thereby endangering the fragile recovery process. Alternatively, they may find themselves tapering too late, thereby increasing the risk of an increase in asset prices due to the underpricing of risk.**

Stock markets around the world declined since July and showed a high level of volatility against the background of an increase in market risk and liquidity alongside an increase in risk appetite. In contrast, credit risk abroad continued to decline as a result of continued measures taken by the global banking system, mainly in Europe. The improvement in the situation of the banks, and the tightening of banking supervision also generated a less welcome result: Shadow banking, a sector that is less subject to supervision, increased its share of credit provision, which in turn increases the risk of the development of a crisis. The risk in emerging markets remained unchanged (after increasing in the previous period), since the worsening of the geopolitical situation in some areas offset the positive impact caused by the supportive external financing environment.

In July and August the domestic financial markets were affected by Operation Protective Edge. This effect was, in the final analysis, moderate and short-

term, and was accompanied by only a temporary increase in Israel's CDS spread. It seems that the Bank of Israel's interest rate reductions and the decline in yields around the world during that period offset the effects of the operation, and yields on Israel government bonds even declined during the operation. A comparison of Protective Edge to other military operations shows that pricing in the financial markets reflected a relatively low risk that the campaign would negatively impact fiscal stability or real activity. During the period following the operation, prices on the financial markets continued to increase while embodying a low level of risk in general and of geopolitical risks in particular. (More details appear in Section 3.)

The radar chart³ in Figure 2 shows the risks to the financial system⁴ as captured by the market and reflected in prices, corporate balance sheets, macroeconomic data and more. Similar to other indicators, the domestic macro vertex—a vertex that includes the effects of Protective Edge in the third quarter but does not include the recovery in the fourth quarter—reflects a slowdown in real economic activity in Israel.⁵ After a significant worsening in the domestic macroeconomic index in the first half of the year due to the decline in growth rates, the situation improved in November, although it still reflects a relatively moderate level of activity. The domestic credit vertex continues to indicate a perception of low risk, which is reflected in low spreads in the bond market and a low differential between yields on government bonds in Israel and the US. It is possible that these indices reflect

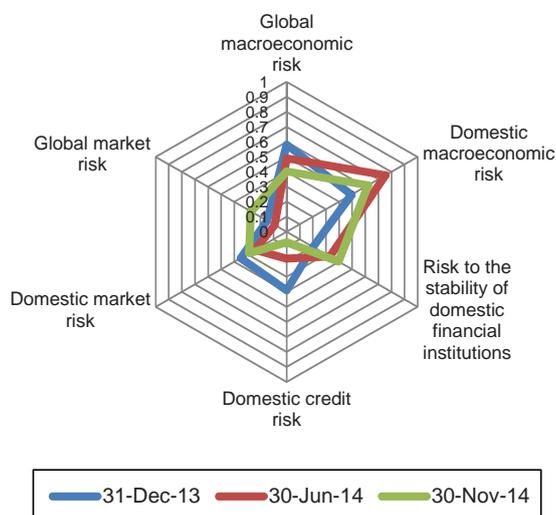
³ H. Zalkinder (2012), "Measuring stress and risks to the financial system in Israel on a radar chart", Bank of Israel: Discussion Paper No. 2012.15.

⁴ The data on domestic and global market risk, domestic macroeconomic risk, and domestic credit risk are updated to the end of November 2014. The data on global macroeconomic risk and risk to the stability of financial institutions are updated to September.

⁵ The global macroeconomic index is around its median, while the domestic macroeconomic index is slightly above 0.6. This indicates that the domestic macroeconomic situation is apparently less good than the global macroeconomic situation. Since all of the indices reflect the current situation relative to the long-term average, the gap between the domestic index and the index abroad is the result of the fact that the gap between the average growth rate to the actual rate is larger in Israel than it is abroad.

The domestic and global financial systems reflect a low level of captured risk.

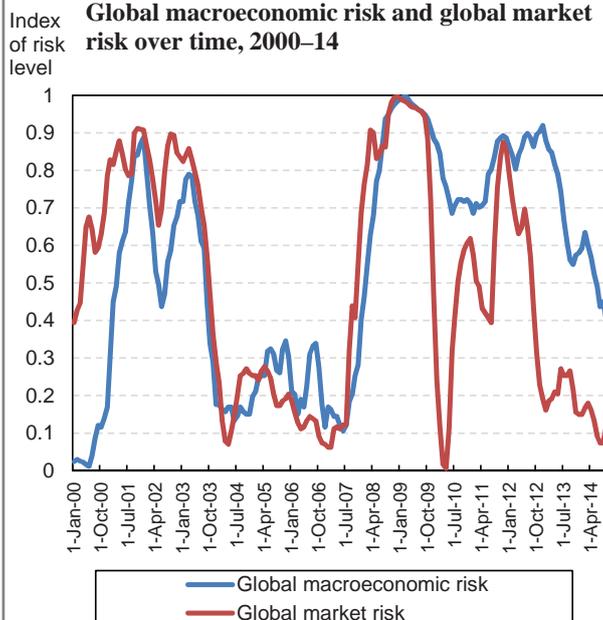
Figure 2
Radar chart of domestic and global risks



SOURCE: Bank of Israel.

The gap between global macroeconomic risk and global market risk narrowed slightly but is still significant.

Figure 3
Global macroeconomic risk and global market risk over time, 2000–14



SOURCE: Bank of Israel.

an increase in the tendency to take greater risks due to the low interest rate environment. Furthermore, the chart shows that the global macroeconomic situation improved slightly during 2014. The gap between the global macroeconomic situation and the situation of the global financial market narrowed, but remains large. Some of that gap is the result of expectations on the financial markets that the economy will continue to recover, and some is the result of large liquidity surpluses in the global financial markets. The behavior of these two indices is shown in Figure 3.

2. THE MAIN RISKS TO THE STABILITY OF THE FINANCIAL SYSTEM

a. The domestic environment

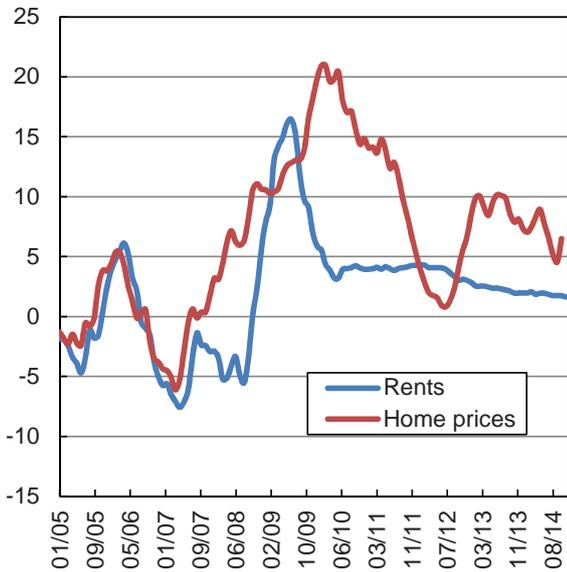
1. The risk from the housing market

Since the banks are, to a large extent, exposed to mortgages and to the construction and real estate industry, and since housing is a main part of households' asset portfolio, the main risk to the financial system concerns the possibility that prices in the housing market will decline sharply, whether as a result of a shock (domestic or external) that will lead to a sharp and rapid increase in interest rates, or as a result of recession that would negatively impact borrowers' income. Such a scenario may make it difficult for borrowers—households and contractors—to meet their obligations, and may therefore negatively impact the capital ratios and profitability of the banks.

The level of activity in the housing market moderated in the second and third quarters of 2014, due to waiting for the implementation of government programs. This was reflected in a decline in home purchases, both new and second hand, a decline in the pace of price increases, and an increase in the stock of homes available for sale. However, the delays in approving the “Zero VAT on new homes” plan led to an awakening of the market. As early as September—even before the decision to bring the elections forward—there was a significant increase in prices (Figure 4), followed by the observation of some increase in the volume of

Home price increases resumed after a waiting period.

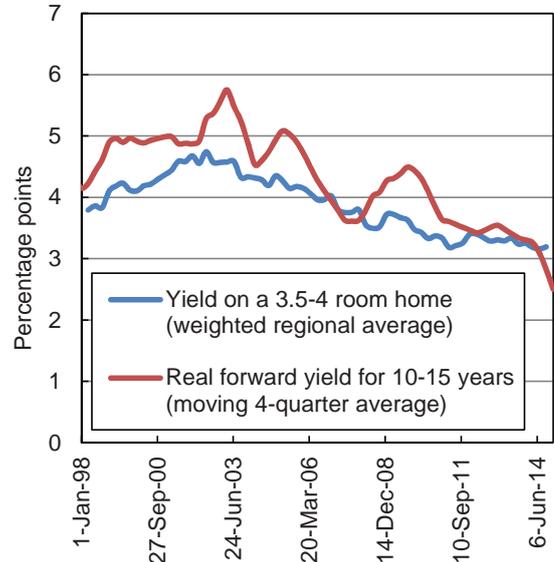
Figure 4
Home prices and rents: rate of change in the past 12 months, 2005–14



SOURCE: Based on Central Bureau of Statistics.

Comparing market yield to the yield on homes shows that they move in tandem over time.

Figure 5
The yield on renting out a home compared to the real forward yield on long-term government bonds, 1998–2014 (quarterly data)



SOURCE: Bank of Israel.

home transactions and in taking out new mortgages. In the past 12 months, the index of home prices increased by 6.4 percent in real terms (adjusted for the Consumer Price Index, as of September), while the real change in 2013 was 5.5 percent.

A comparison of the ratio of home prices to rents with alternative yields in the market (the real forward yield of long-term government bonds) shows that the yield in the housing market does not deviate for long periods of time from yields on other assets (Figure 5). In the recent period, there was some separation between these two yields, with yields in the housing market maintaining stability in recent months, while alternative yields in the market continued to decline.

Looking forward, the shortage of homes is continuing to decline because the volume of building starts remains high. However, in contrast, demand also remains high due to the further decline in short- and long-term real

interest rates in the past few months. Policy measures adopted by the government in the housing market are also affecting demand.

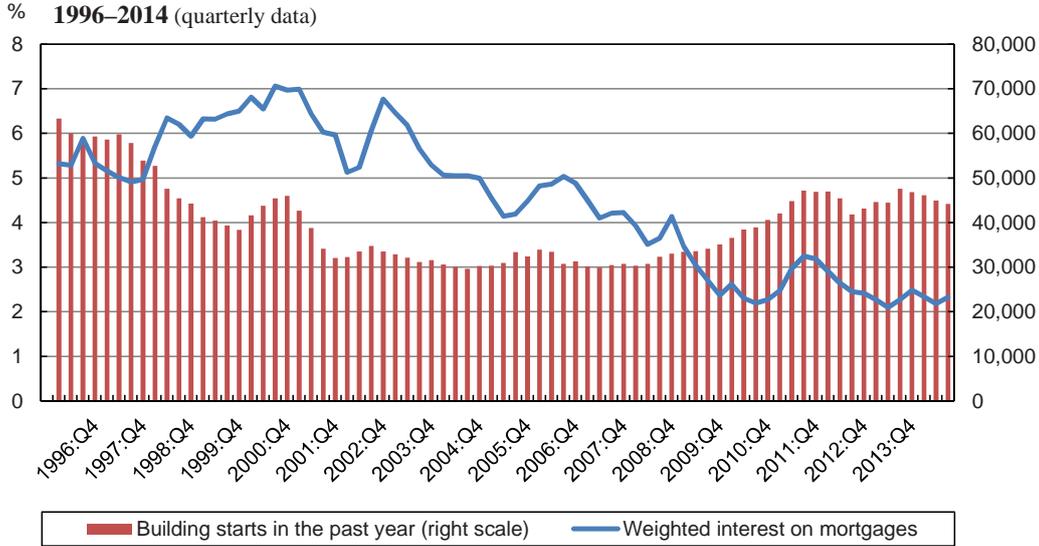
Updated view of the housing market

a. The volume of building starts remains high, exceeding 40,000 housing units per year (Figure 6). According to various analyses, the current pace of construction has reduced the shortage of homes that developed around the middle of the previous decade.

b. Over the course of 2014, those relocating and investors slightly increased their share of total purchasers at the expense of those buying a first home—the target population for the “Zero VAT on new homes” program. At the end of 2013, the latter constituted 40 percent of total purchasers, while in August, their share had declined to 34 percent. However, now that the “Zero VAT on new homes” program has been frozen due to

The number of building starts declined somewhat but remained high.

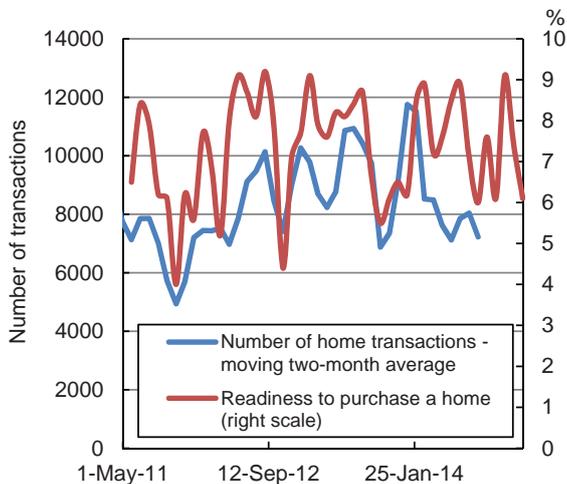
Figure 6
Weighted interest on CPI-indexed mortgages and number of building starts, 1996–2014 (quarterly data)



SOURCE: Bank of Israel.

The average level of willingness to purchase a home remained high.

Figure 7
Number of home transactions and willingness to purchase a home^a, 2011–15 (monthly data)

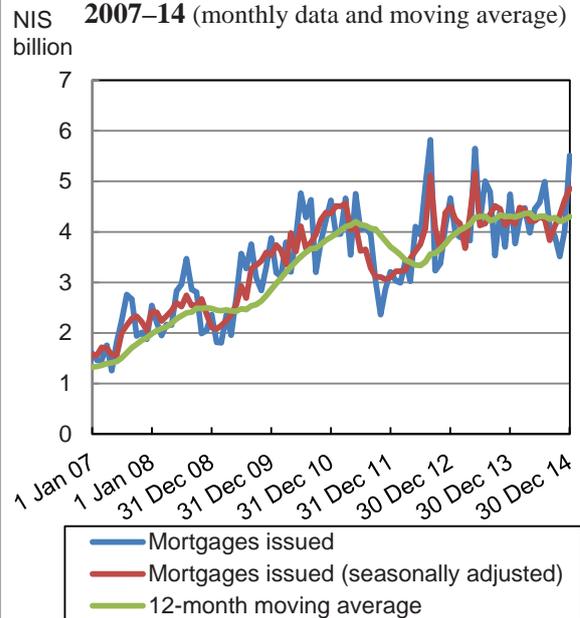


^a According to the Central Bureau of Statistics Consumer Confidence Survey. This is the rate of respondents who said that it is likely or very likely that they would purchase a home in the next 12 months, slanted two months forward. There is a correlation of 0.6 between the slanted series and the series of the number of transactions.

SOURCE: Based on Central Bureau of Statistics.

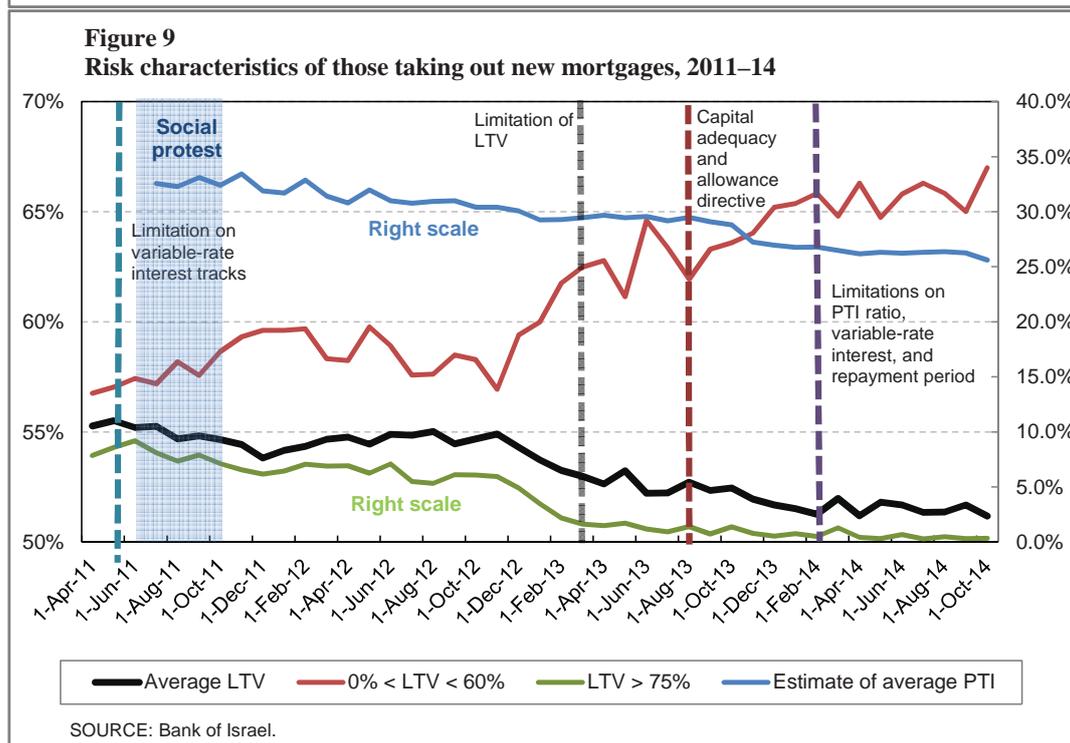
The volume of new mortgages taken out remained high on average in recent months.

Figure 8
The volume of new mortgages granted, 2007–14 (monthly data and moving average)



SOURCE: Bank of Israel.

The downward trend in risk characteristics of those taking out new mortgages continued.



the bringing forward of elections, demand is expected to be renewed. This assessment is supported by the fact that the public's willingness to purchase a home remains high (Figure 7).

c. The balance of outstanding housing credit continued to expand in the second and third quarters of 2014 (until September), and the volume of new mortgages taken out remains high—an average of about NIS 4.4 billion between July and December—despite the volatility in the monthly level of this figure (Figure 8). In parallel, the risk characteristics of those taking out new mortgages continued to decline (Figure 9).

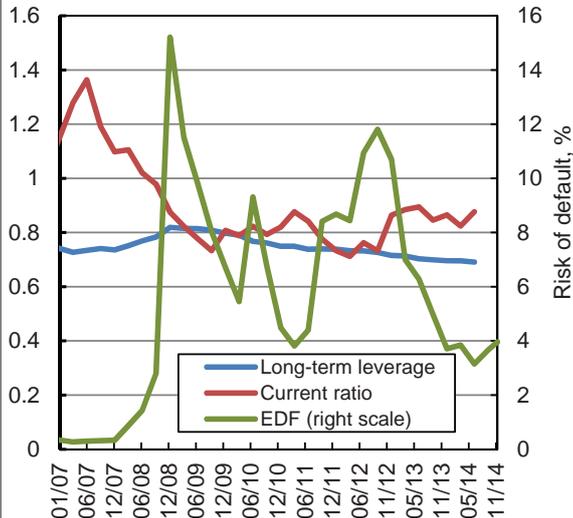
d. The continued increase in the volume of the housing credit portfolio and in its share of the total banking credit portfolio led to an increase in the risks inherent in this portfolio, due among other things to the correlation that exists between the risks in this portfolio and the risks in the portfolio of credit to the construction and real estate industry and in the consumer credit portfolio. Against

this background, the Supervisor of Banks published a directive in September 2014 that is intended to increase the capital buffers allocated against the risks inherent in the portfolio, which requires the banking corporations to increase the Tier 1 capital target by a rate that constitutes 1 percent of outstanding housing credit. The measure is expected to increase capital requirements from the banking system by about NIS 2.7 billion—an increase of 0.3 percentage points—thereby contributing to the ability to absorb possible shocks.

During the first half of 2014, there was an improvement in the financial ratios of companies in the real estate and construction industry. Long-term leverage (the ratio between the company's total debt and its total assets) is in a downward trend, and is lower than in the past. The current ratio (the ratio between the company's current assets and its current liabilities) increased in the second quarter of 2014, meaning that short-term leverage

The risk ratios do not indicate an increase in the default risk of companies in the real estate industry.

Figure 10
The risk ratios and EDF of public companies in the construction and real estate industry, 2007–14 (quarterly data)



SOURCE: Based on Moody's.

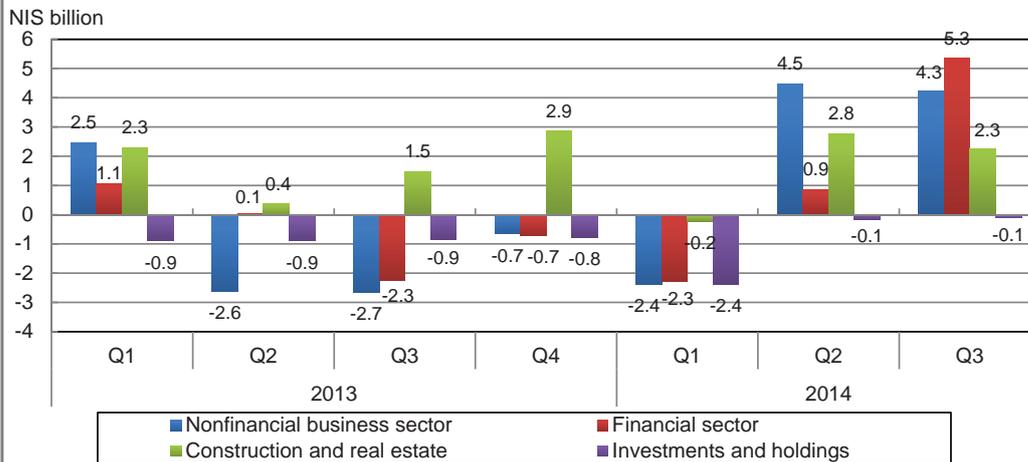
declined. The EDF⁶—the risk of default according to the Moody's-KMV model—also declined in the recent period (Figure 10).

2. The risk in the corporate bond market

The corporate bond market continued to be characterized by a high level of activity. Net offerings (minus expected repayments) were positive in the second and third quarters of 2014, while they were negative in the first quarter (Figure 11). The average pace of offerings between July and November was similar to the pace in the first half of the year. Main issuers included companies in the financial industry and in the real estate industry, a field whose share of the bond market is in a trend of increase (Figure 12). Credit terms in the bond market are relatively easy, as attested to by the decline that took place during 2014 in the quality of collateral accompanying the issues. This was made possible due, among other things, to the high

The net volume of offerings increased in the second and third quarters of 2014.

Figure 11
Estimate of net raising of debt: Bond offerings compared to expected repayments, 2013–14 (quarterly data)

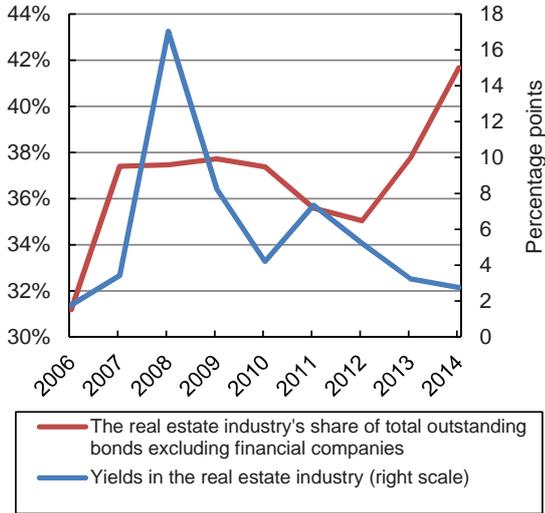


^a Excluding structured and convertible bonds and excluding foreign companies.
SOURCE: Bank of Israel.

⁶ Expected Default Frequency. Moody's KMV uses a structural bond-pricing model to derive the likelihood of default. The main components in the model are the company's medium-term leverage, its past profits, and investors' security in its future profits (according to the share's volatility).

The real estate industry's share of outstanding bonds increased in recent years.

Figure 12
The real estate industry's share of outstanding corporate bonds, and spreads in the real estate industry, 2008–14 (yearly data)

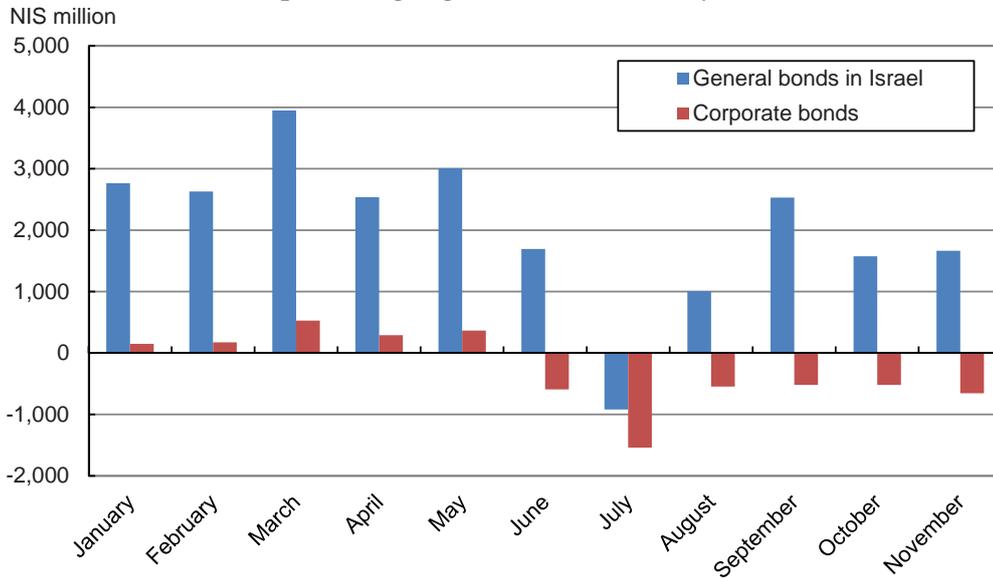


SOURCE: Bank of Israel.

involvement of mutual funds in the primary market for corporate bond issues, and to the fact that the Hodak Committee⁷ rules do not apply to them. The easy terms of credit are also attested to by the expansion in the volume of offerings by foreign real estate companies in the domestic market (see box). In contrast, demand by the public for corporate bonds moderated. Since July there has been a departure from mutual funds specializing in investment in corporate bonds and greater investment in mutual funds specializing in general bonds, meaning funds that combine investment in government bonds and in corporate bonds and that hold a lower percentage of their assets in corporate bonds (Figure 13).

Public demand for corporate bonds has moderated.

Figure 13
Net new investment in mutual funds specializing in corporate bonds and in funds specializing in general bonds, January–November 2014

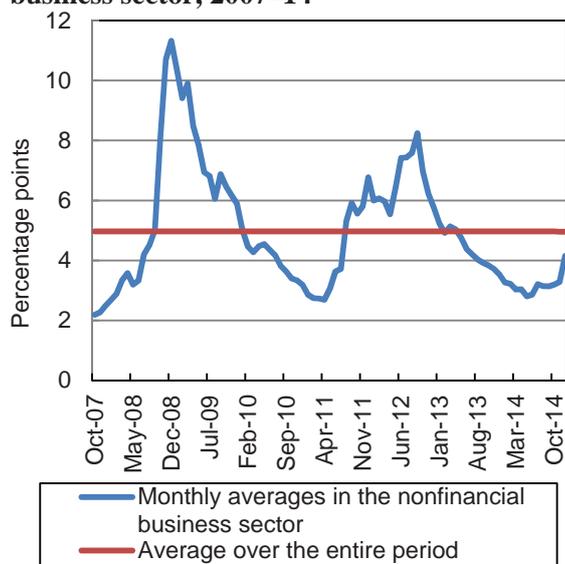


SOURCE: Bank of Israel.

⁷ The Committee for Establishing Parameters for Institutional Bodies' Investments in Non-Governmental Bonds.

The downward trend in spreads was halted in June, and there was a marked increase in December.

Figure 14
Weighted average of spreads between CPI-indexed corporate bonds (excluding structured and convertible) and yields on parallel government bonds, non-financial business sector, 2007–14



SOURCE: Bank of Israel.

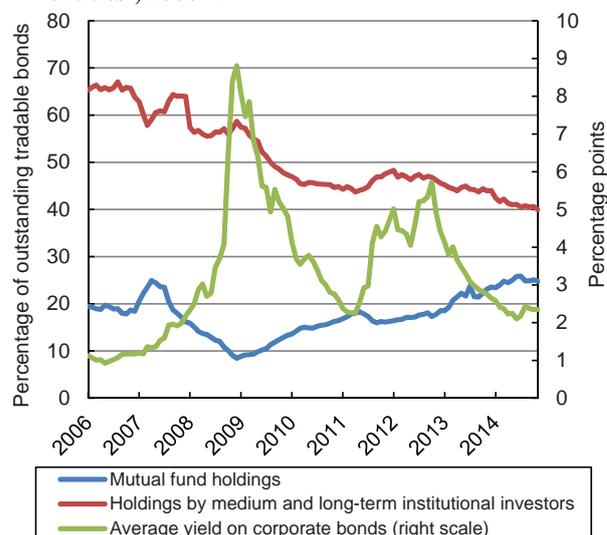
In terms of the risk of underpricing credit risks in this market, the trend of decline in yields was halted back in June, and since July they have remained stable. In December they increased markedly due to the decline in oil prices and the crisis in Russia (Figure 14). Even so, the corporate spread is low, and lower than in the US, although the gap between the two also increased in recent months. The probability of default according to the Moody's-KMV model⁸ shows that the level of risk of all companies remains stable.

The mix of holding entities in the corporate bond market has changed over the years. Mutual funds currently hold a larger portion of outstanding bonds, at the expense of the portion held by long-term savings plans (Figure 15). This phenomenon increases the risk

⁸ See note 6 above.

Mutual funds currently hold a larger portion of outstanding bonds at the expense of long-term savings entities.

Figure 15
The average spread in the corporate bond market, and tradable corporate bond holdings by mutual funds and medium and long-term savings entities^a, 2006–14



^a Provident funds, advanced training funds, pension funds, and insurance companies.
SOURCE: Bank of Israel.

of a rapid sale of assets in a future crisis in this market, which in turn will make the crisis more severe. This risk comes into sharper focus in view of the low yield spreads in the corporate bond market.

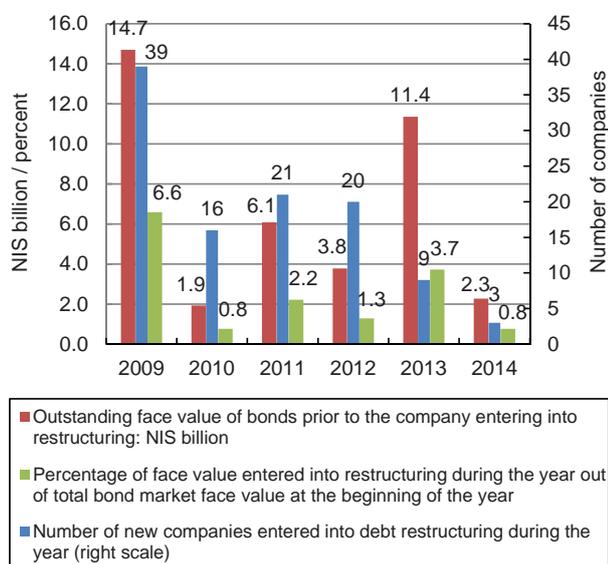
Updated view of debt restructuring

a. The volume of new debt restructuring proceedings in the economy declined in 2014. Three new companies entered debt restructuring proceedings prior to December. The value of their debt prior to the arrangement was NIS 2.3 billion par value—about 0.8 percent of outstanding debt in the bond market. By way of comparison, there were nine companies that entered debt restructuring in 2013, with a pre-arrangement debt value of NIS 11.4 billion par value—3.7 percent of outstanding debt in the bond market (Figure 16).

b. The decline in the volume of new debt restructuring proceedings was also reflected in a decline in the estimated loss that would be absorbed by bondholders

The volume of new debt restructuring proceedings declined in 2014.

Figure 16
The number of companies and outstanding face value entered into debt restructuring, 2009–14^a



^a 2014 data are as of the end of November.

SOURCE: Bank of Israel.

as a result of debt restructuring. In 2014 (until October), the estimated loss was 0.32–0.43 percent of outstanding bond debt in the market, while the average estimate in 2012 and 2013 was 0.92–1.23 percent of outstanding bond debt.⁹ By way of comparison, the ratio between the loan loss provision and total balance sheet credit to the business sector in the banking system was lower in 2012–2013, averaging 0.43 percent.

c. Since 2008, 120 companies have entered debt restructuring, some of them more than once. Twenty-six of them were liquidated, 27 are still in proceedings¹⁰ (13 of which are in repeat proceedings), and 67 completed the process and are not currently in the midst of additional proceedings. The total balance of outstanding debt entered into proceedings since 2008 is NIS 42.2 billion par value, and the average debt per

⁹ The estimated loss is calculated on the assumption that the “haircuts” to investors will reach 30–40 percent of total par value of the bonds entered into restructuring.

¹⁰ As of November 2014.

company prior to the proceedings is about NIS 351 million par value. About half of the companies and of the outstanding bonds entered into debt restructuring proceedings belong to the real estate industry, *inter alia* because Israeli real estate companies were very active in eastern Europe at the time of the real estate crisis that began there in 2008 (Figure 17). Companies from the investments and holdings industry are also a significant part of debt restructuring—about 20 percent of the number of companies and about 35 percent of outstanding debt in the proceedings. As to the 27 companies that are still in proceedings, the total value of their debt prior to the proceedings was NIS 7.6 billion, and about 70 percent of it belongs to just four companies. Fourteen of these companies belong to the real estate industry.

d. In recent years, the duration that elapses until debt restructuring is completed has been shortened. Proceedings that began in 2008–2010 continued an average of 16.5 months, while proceedings that began in 2011–2013 continued for an average of 11 months.

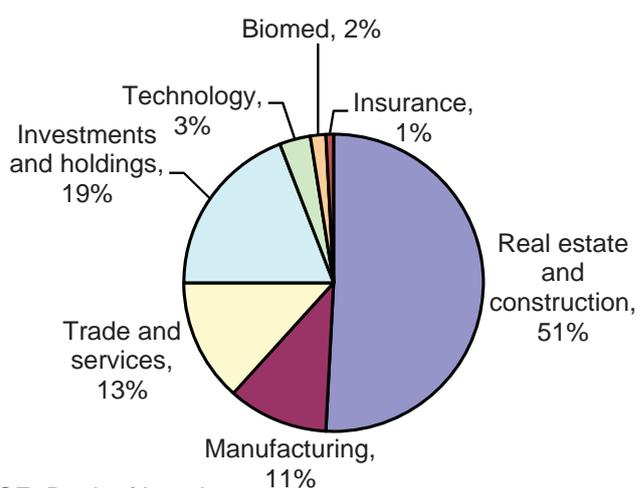
e. A large portion of the companies that completed debt restructuring require additional restructuring after a relatively short time in order to continue existing. It can therefore be concluded that in some cases, the debt restructuring does not rehabilitate the company or improve its financial situation, but only delays dealing with the problem to a later date.

During 2014, 8 companies entered additional debt restructuring because they could not meet the terms of the previous restructuring. Since 2008, about 33 percent of the companies that had completed debt restructuring with bondholders had to enter repeat proceedings. The elapsed time between the approval of the first arrangement and the beginning of the additional proceedings averaged 19 months.

f. Since there have been many debt restructuring arrangements in the bond market in recent years, a number of legislative and regulatory measures have been taken with the object of contributing to increased certainty in the process, as well as

More than half the companies that entered into debt restructuring since 2008 were from the real estate industry.

Figure 17
Distribution by industry of the number of companies that entered into debt restructuring since 2008



SOURCE: Bank of Israel.

streamlining it and shortening it. In November 2014, the recommendations of the Committee for Examining the Procedure for Debt Settlement Implementation in Israel (Andorn Committee) were published. The Committee recommended formulating a two-stage outline for regulating the handling of a company that is having difficulty repaying its debts. The first-stage measures will be taken when a company is having financial difficulties but is still meeting its liabilities to bondholders, and will be at its decision or if the “conditions of a company in difficulty” that are set in advance in the issue prospectus are met. At this stage, a special representative will be appointed by bondholders to set as an observer on the Board of Directors, and will make sure that the company’s decisions do not run contrary to the interests of the bondholders. This is in view of the concern that due to the financial difficulties, the shareholders have an interest in withdrawing money from the company and taking on greater risks. The bondholders’ representative will

also act to formulate a debt arrangement in agreement with the company. If the company does not manage to meet the payment of financial debt and 45 days have elapsed from the date on which it was supposed to pay, the second-stage measures will be taken: The company will be defined as insolvent, and a manager will be appointed on behalf of the court. This provision is intended to create certainty among the company and the creditors regarding the results of non-payment, and to increase the chances of early dialogue between the company and its creditors.

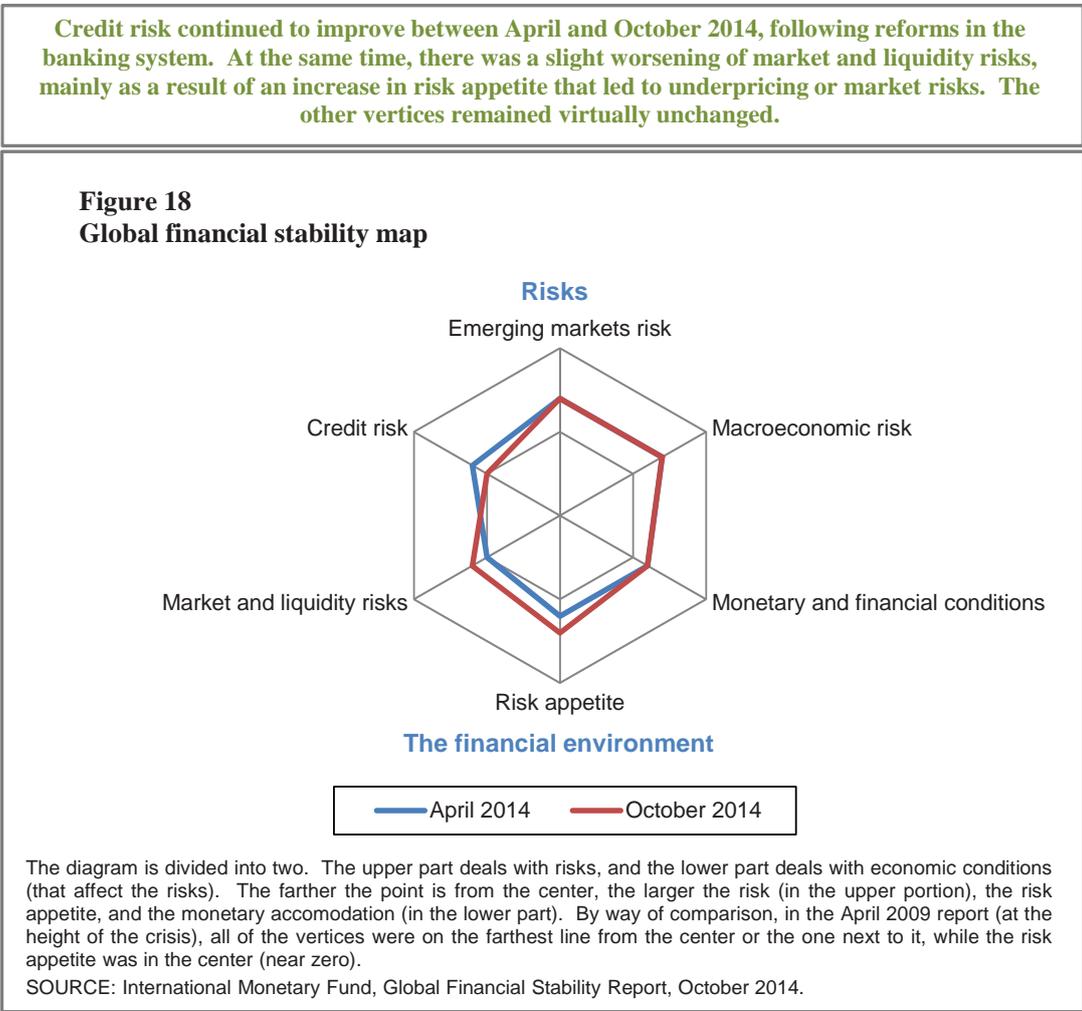
The Committee’s recommendations come in addition to a number of measures taken over the years to streamline the debt restructuring process. For instance, in 2009 the Anti-Trust Commissioner approved meetings between the various financial institutions to discuss debt restructuring, and Amendments 18 and 19 to the Companies Law were enacted, contributing to improved corporate governance at companies that

issue bonds. Alongside these, measures are being implemented with the aim of improving the process of institutional investors investing in corporate bonds. These were formulated in accordance with the recommendations of the Committee for Establishing Parameters for Institutional Bodies' Investments in Non-Governmental Bonds (the Hodak Committee) and the committee assessing how institutional entities invest in direct loans (the Goldschmidt Committee).

b. The global environment

In its most recent financial stability report, the International Monetary Fund emphasizes that even though it has been six years since the global financial

crisis broke out, the recovery is still dependent to a marked extent on the very accommodative monetary conditions that are prevailing (mainly) in the advanced economies, which raises a concern of difficulties that may arise in the process of exiting from such a policy.¹¹ The report calls to improve the balance between economic and financial risks and to increase alertness to the imbalance. Among the main factors of the imbalance, the IMF includes the fact that private companies are avoiding making investments (and prefer to hold large amounts of cash, to buy back their shares or to distribute dividends), despite the substantial growth in their profits and even though the very favorable terms of financing have led to an



¹¹ Global Financial Stability Report, October 2014, IMF.

increase in their leverage. The IMF argues that the companies' "hesitancy" derives mainly from the fact that their medium-range growth forecasts, as well as economic security, are low. However, it also derives from the fact that many companies have still not completed the required correction to their balance sheets, and from the fact that various components of the business sector are not benefiting from the low interest rates to the same extent. It is not too much to state that consumers are also finding it difficult to support sustainable growth. While there has been an improvement in the wealth of households in the advanced economies since the recovery from the crisis began, it is mostly the result of an increase in the value of financial assets, so that only part of the public is benefiting from it. Most households base their finances mainly on income from wages, and their situation has barely improved at all. This fact erodes their ability to increase their consumption in a way that will support stable growth.

The main risks mentioned in the report:

1. The development of overpricing of assets. This will increase the risk to financial stability, and therefore may delay the return to stable growth. The IMF notes that while it is as yet not possible to discern excessive pricing in even one of the important asset groups, pricing is high in almost all of them and volatility is very low even though economic data are generally disappointing. This situation is fertile ground for the development and intensification of a crisis.
2. The geopolitical situation, mainly the crisis between Russia and Ukraine and the developments in the Middle East (particularly in Syria and Iraq).
3. Over-leverage of companies in China.
4. A decline in the liquidity level of companies around the world. This may also intensify the market's response if a crisis develops.¹²

¹² The level of liquidity declined because non-liquid assets constitute a larger part of the companies' asset portfolio. During a crisis, low liquidity may lead to the rapid sale of liquid assets, since those can be sold.

The report was published in October. After it was published, there was some increase in sales, with a decline in the prices of risk assets and an increase in their volatility, which slightly narrowed the gap between the financial and real markets, thereby also slightly reducing the risk to financial and economic stability.

An assessment of the radar chart that the IMF provided in the report shows that the market's assessment is that credit risk continued to decline during the reviewed period, apparently due to the measures that global banks, mainly in Europe, are continuing to take. In contrast, the assessment of market and liquidity risks increased, alongside an increase in the risk appetite, a result of the decline in the liquidity levels of fund assets among other things. The tightening of banking supervision following the crisis, and the improvement in the banks' situation, also generated less desirable results: Shadow banking—a sector that is less subject to supervision—increased its share of credit provision, which in turn increases the risk of the development of crises.

The risk of the emerging markets remained unchanged (after increasing in the previous period), since the deterioration of the geopolitical situation in some areas offset the support of the external financing environment.¹³ Macroeconomic risk and the monetary and financial conditions also remained virtually unchanged.

The main risks to the Israeli economy from developments in the global environment¹⁴:

1. The main risk to the global economy in general, and to a small and open economy such as Israel's in particular, continues to derive from the great dependence of the global economy and markets on monetary accommodation, and from the difficulties that may arise as accommodative policies come to an

¹³ Until the crisis in Russia worsened, there was capital flow from the advanced economies to the emerging economies.

¹⁴ The risks are arranged by their level of seriousness, in our estimation, and the first two items deal with the main risks.

end. For a long time, there was an impression that the financial markets are ripe for tighter monetary policy, and they are therefore responding with moderation to the tapering process being conducted in the US and to advancing the date on which the US and the UK are expected to begin raising interest rates. However, market volatility has recently increased with the sale of risk assets, which illustrates the extent to which the markets and economy are still dependent on monetary accommodation. Further illustration of this dependence is provided by the calmness that was prevalent in the markets following the delay of the date on which the interest rates are expected to start rising (alongside calming declarations from central banks, led by the Fed, and expectations of further accommodative steps in Europe). We again emphasize the risk to both the financial markets and the real economy from the manner in which the tapering of monetary accommodation will be conducted.

The title chosen by the International Monetary Fund for the first chapter of its current report—“Improving the balance between economic and financial risks”—emphasizes the fact that the normal growth engines are operating slowly, and the central banks must therefore continue to operate with great caution. The process of exiting from monetary accommodation, even if conducted cautiously, is fraught with risks to the Israeli economy, both through its impact on the capital markets, and through a possible negative impact on exports due to a decline in global growth and in global demand.

2. Developments in Europe once again constitute a significant risk to global growth, and perhaps even to financial stability. The data published in Europe during the reviewed period were for the most part disappointing, and indicated that the slowdown on the continent is growing more serious. The main concern that is emerging is due to a worsening in France and Germany, which has led the S&P credit rating agency to define the current situation as “a new and stubborn stage” in the European crisis, a stage that is characterized mainly by very low growth (and inflation). Moreover,

yield differentials between the bonds of peripheral countries and the bonds of Germany recently increased again, and the CDS spreads also increased with sharp volatility. The political crisis in Greece may bring to power a government that is opposed to austerity measures, a possibility that is also increasing concerns.

It should be noted that even though the estimation in financial markets regarding the seriousness of the debt crisis recently moderated, the debt levels of European countries continue to increase. Several figures attest to the fact that the crisis in Europe is far from over, and may even worsen: Corporate leverage levels in Europe are still too high, and companies are in need of further corrections to their balance sheets, the results of stress tests on the European banking system indicate the need to raise additional capital, and corporate credit continues to contract (although at a slower pace). The worsening of the crisis is expected to lower demand for Israeli exports to Europe, and it is possible that it may affect the financial markets.¹⁵

3. As stated, the International Monetary Fund continues to indicate significant risk in the geopolitical situation in the current report as well. The main risks derive from the ongoing conflict between Russia and western countries concerning Ukraine, and from the increasing instability in the Arab world, mainly in Iraq and Syria.¹⁶ While the decline in oil prices is good news for the global economy due to expected reductions in the costs of production, the expected increase in consumers’ disposable income, and the expected decline in the power of oil producing countries—some of which undermine the stability of the global economy—the decline in oil prices was sharp and rapid, and led to a serious crisis in Russia. This crisis may increase the geopolitical and economic risks on the part of Russia

¹⁵ An examination conducted by the Bank of Israel shows that the Israeli banks and financial institutions are directly exposed to Europe only to a small extent. The main risk to these bodies involves the existing correlation between the financial markets, since because of it, domestic crises may spread rapidly through the capital markets.

¹⁶ In recent months, the Ebola epidemic has also been considered a risk factor to the global economy’s growth rate and stability. However, in our estimation, this is not currently a significant risk.

and other oil producing countries, and may negative impact global capital markets.¹⁷ The immediate geopolitical risk from Israel's neighbors remains at relatively low levels. This is reflected in Israel's CDS spreads, the differentials between the yields on its bonds and those of other countries, and in the fact that Israel's credit rating remains unchanged. This is the case even though the security risk was realized during Operation Protective Edge (more information appears in Section 3), and even though Israel is dealing with the ramifications of the operation and with a worsening of its relations with the Palestinian Authority.

4. The risk to global financial stability posed by China declined in the reviewed period. Figures published by China during the reviewed period—mainly the fact that the composition of GDP in the last quarter indicated a decline in the real estate investments component and an increase in private consumption—strengthen the assessment that the Chinese government is continuing the structural change intended to increase the private consumption component of GDP at the expense of capital investments and exports, as well as the assessment that the government is succeeding in this for now. This change is expected to positively impact the global economy in the long term, but it is expected to lead to a further decline in the pace of China's growth, and this pace is very important to global growth.

The credit market in China—particularly the fact that unsupervised shadow banking is responsible for a large part of the rapid growth in credit in recent years—is a source of increasing concern. This rapid growth has led to the fact that total credit to Chinese companies is very high compared to other emerging economies. A possible future decline in the volume of credit in China can be expected to make it difficult for Chinese companies to recycle their debt.

¹⁷ The concern has also recently arisen of a negative impact to the high yield corporate bond markets, due to the concern that energy companies will have difficulty repaying their debts due to the low oil prices.

An additional risk is apparent from the real estate market, since it is cooling rapidly following many years of increased activity and sharp price increases. While the government is interested in reducing the level of activity in the real estate market and in reducing home prices as part of the desired structural change, the pace of this process up to now seems too rapid.

It seems that the government will continue carrying out the structural change—a change that, while expected to reduce the pace of growth, will also lead to more balanced and stable growth in the future. It also seems that the government will succeed in dealing with the problems of credit and real estate. However, the size of the Chinese economy, the high level of corporate leverage, and the quality and supervision of debt, make handling the problems particularly complex, and pose a risk to the Chinese economy and to the global economy as a whole.

Israel and China share only limited trade ties, but since a crisis in China would have global implications, it would also affect Israel should one break out.

3. THE FINANCIAL RAMIFICATIONS OF OPERATION PROTECTIVE EDGE

Operation Protective Edge began on July 8, 2014, and continued until the ceasefire that took effect on August 26, 2014. The operation had material ramifications on the Israeli economy. The direct military cost, according to Ministry of Finance estimations, reached NIS 6.5 billion. Additionally, according to the Staff Forecast published by the Bank of Israel Research Department in September 2014, the operation cut 0.4 percent from expected GDP growth in 2014 due to the short-term impact on private consumption and a more prolonged impact on the export of tourism services. In view of these macroeconomic effects, it is interesting to assess how the financial markets reacted to Protective Edge, and how the risk level priced into the markets changed as a result.

Table 1
Change in the main financial variables during the four major military campaigns in the past decade

Change in the main financial variables during the campaign	Yield spread on 10-year nominal government bonds compared to US (basis points)	Cost of five-year default insurance (basis points)	Nominal effective exchange rate index (percent)	Tel Aviv 100 index (percent)	S&P 500 index (percent)	Bank of Israel interest rate (percentage points) ^a
Second Lebanon War (July 12, 2006–August 14, 2006)	17.4	1.5	-0.1%	-1.7%	-0.3%	0.25%
Operation Cast Lead (December 27, 2008–January 18, 2009)	-10.4	23.7	-3.2%	10.4%	-2.6%	-0.75%
Operation Pillar of Defense (November 14, 2012–November 21, 2012)	-1.8	5.2	0.0%	0.5%	1.2%	0.00%
Operation Protective Edge (July 8, 2014–August 26, 2014)	-20.2	5.0	2.6%	0.4%	1.1%	-0.50%

^a The Change in the Bank of Israel interest rate is calculated according to the date of the announcement of a change in the interest rate.

The aggregate level

An assessment of the overall period of the operation indicates that the markets reacted to Protective Edge very moderately: The Tel Aviv 100 was at a similar level at the end of the operation to its level at the beginning, showing stability, similar to global stock markets. In contrast, the nominal effective exchange rate weakened by 2.6 percent during the operation, but it should be remembered that almost one-third of the decline happened on the final day of the operation, after the Monetary Committee decided to lower the interest rate for September by one-quarter of a percentage point, to the historically low level of 0.25 percent. While the five-year CDS spread (insurance against default) on Israeli government bonds increased by 5 basis points during the operation, at the same time as the US CDS spread declined slightly, the yield differential between 10-year Israeli government bonds and corresponding 10-year US Treasury securities actually declined by 20 basis points, after the Bank of Israel Monetary Committee lowered the interest rate twice during the operation.

Moreover, an assessment of the behavior of foreign investors shows that they also did not react to geopolitical developments by leaving the Israeli capital market, and even increased their investments in Israeli

securities on the Tel Aviv Stock Exchange during the operation. In July, nonresidents increased their investments (direct and financial) in stocks by \$137 million, and their investments in bonds and *makam*¹⁸ by \$99 million. In August, nonresidents reduced their investments in stocks by \$104 million, but at the same time, they increased their investments in bonds and *makam* by \$1,740 million. In September, following the end of the operation, nonresidents again invested a positive amount in stocks—\$171 million—, and invested a further \$415 million in bonds and *makam*. By way of comparison, during the first half of the year, nonresidents invested a monthly average of \$108 million in stocks, and \$92 million in bonds and *makam*. It therefore seems that during and after Protective Edge, nonresident investors diverted investments from the stock market to the bond and *makam* markets, while increasing their overall investment in Israeli securities by \$2.5 billion.

Comparison with other military campaigns conducted by Israel in the past decade

It is helpful to compare the economic effects of Protective Edge to the effects of the other three military campaigns Israel conducted in the past decade—

¹⁸ Nonresidents' investments in bonds in Israel are to a large extent concentrated in government bonds.

the Second Lebanon War, Operation Cast Lead, and Operation Pillar of Defense. Table 1 presents such a comparison.¹⁹

The Table shows that the financial markets reflected a relatively low risk that Protective Edge would have a negative impact on fiscal stability and a higher risk that it would have a negative impact on the currency and on companies in the economy. The increase in Israel's CDS premium during the operation took place against the background of a moderate increase in the CDS premiums of other advanced economies as well, and even though it was higher than the premiums recorded during the Second Lebanon War and Pillar of Defense, it was much lower than the increase during Cast Lead. Protective Edge is the only campaign out of the four during which the yield on Israeli government bonds declined. The differential between this yield and the yield on similar US bonds also declined relatively sharply, among other things due to the effect of the two interest rate reductions made by the Bank of Israel. Against this background, the shekel weakened during Protective Edge relative to the currencies of Israel's major trading partners, while it was stable during the Second Lebanon War and Pillar of Defense, and it strengthened during Cast Lead. The Tel Aviv 100 index maintained stability—against the background of a moderate increase in the S&P 500 index and stability on global stock indices—similar to its behavior during the Second Lebanon War and Pillar of Defense, and contrary to its behavior during Cast Lead (when it increased by about 10 percent).

The relative moderation characterized the reaction of the financial markets in Israel from the very outset of Protective Edge. On the first day of the operation, the Tel Aviv 100 declined by slightly more than 1 percent, and over the first three days, the decline totaled less

than 1 percent, after the stock market in the US also declined slightly. In contrast, at the beginning of Cast Lead—and mainly at the beginning of the Second Lebanon War—sharper declines were observed, mainly compared to global markets. The reactions in the bond and currency markets and the CDS were also more moderate than the reactions to the other military campaigns.

It can be argued that the behavior of the financial markets at the beginning of the campaign indicates that market participants underestimated its effects. However, even as Protective Edge dragged on—and its implications, for the State in general and for the economy in particular, began to grow clearer—the markets did not react strongly. The Tel Aviv 100's lowest level during the operation was recorded on the first day, and the decline relative to the previous day was, as stated, moderate. It therefore seems that the financial markets in Israel currently react to geopolitical situations in a less extreme manner than in the past.²⁰ It is possible that the markets maintained relative stability in view of the start of a significant military operation because market participants drew conclusions from previous campaigns: that the financial markets—and particularly the stock market—declined sharply at the beginning of the operations but recovered during the operation.

Differential effects on the various industries

Thus far, we have found that despite the economic ramifications of Protective Edge, it affected the financial markets to a relatively limited extent. However, our results are based on aggregate indices of the financial markets, and it is possible that these reflect averaging—a situation in which various

¹⁹ The comparison below and in Table 1 is based on the changes observed in various market indicators. However, it is possible that differences in the economic and geopolitical background conditions contributed to the difference in reactions by the financial markets to the various operations. The identification and quantification of these differences requires further study, which is beyond the scope of this report.

²⁰ It was found that the financial markets in Israel reacted negatively to security incidents in the years prior to the Second Lebanon War as well. Eldor and Melnick (2004) focus on the years 1990–2003, and find that the stock and foreign exchange markets react negatively to terrorist attacks. Zussman, Zussman and Nielson (2008) examine the period from 1998–2005, and find that geopolitical events have a negative effect on the stock market in Israel. They also find a negative effect on the foreign exchange market in Israel in the period from 2000–2005, and on the Palestinian stock market between 1997 and 2005.

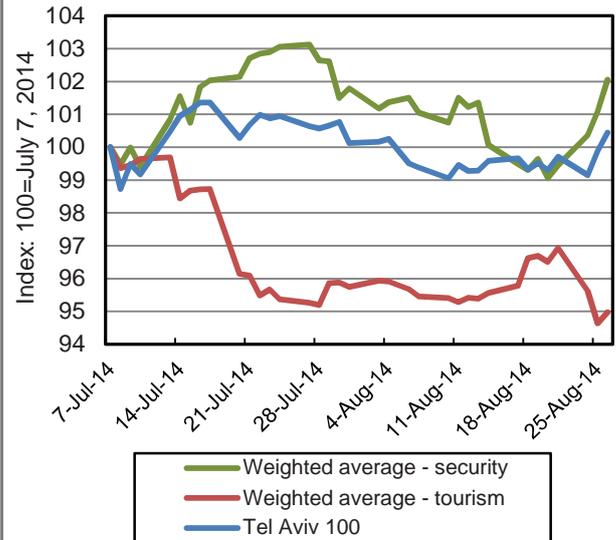
financial assets ranged in opposite directions. In particular, it is possible that market participants heterogeneously priced in the effect of the campaign on companies in various industries, and it therefore may be that the stocks of companies from different industries reacted to the operation in different ways. There are two industries that are particularly prominent in this context—tourism, and the security industries. Tourism tends to suffer serious negative impacts, and for relatively long periods, from geopolitical events (see, for instance, Sharabany and Menashe, 2011), and it was significantly impacted by Protective Edge. The number of tourist entries to Israel declined in July by about 19 percent and in August by about 32 percent, relative to the same months in 2013. In the following three months (September–November 2014), the number declined by an average of 16 percent relative to the same period in 2013.²¹ In contrast to tourism, the security industries could benefit from a military confrontation, since a confrontation tends to lead to an increase in the security budget and also constitutes a field display of their abilities. Berrebi and Klor (2008) examined the stocks of Israeli companies traded in the US and found that a terrorist attack has a positive effect on the stocks of companies in the security fields, and a negative effect on the stocks of companies in other fields. In order to examine this issue, we identified all of the public companies with core business in tourism and all of the public companies with a significant portion of sales directed toward military purposes (based on the Central Bureau of Statistics industry classification and according to the description of the companies' business in their annual reports).

Figure 19 shows how the Tel Aviv 100 index and the weighted averages of the stocks of companies in the tourism and security industries developed during Protective Edge. The stocks of the tourism companies declined during the operation. The weighted average is 5 percent lower than the figure prior to the campaign.

²¹ According to an examination conducted by the Bank of Israel, a campaign of the size of Protective Edge negatively impacts tourism for about four quarters.

During Operation Protective Edge, the shares of security companies increased relative to the main stock index, while the shares of tourism companies declined.

Figure 19
The changes in the Tel Aviv 100 index and in the weighted averages of the shares of companies in the tourism and security industries during Operation Protective Edge, July 7, 2014 to August 26, 2014



SOURCE: Based on Central Bureau of Statistics and Tel Aviv Stock Exchange.

In contrast, the weighted average of the security companies increased during the campaign, by about 2 percent. These differences and the differences between the two industries and the performance of the Tel Aviv 100 index, hint that investors reacted selectively to military incidents.

Expectations following the campaign

An assessment of the financial markets following the end of Protective Edge shows that they reflect optimistic expectations regarding the future. The Tel Aviv 100 index continued to climb in the days following the campaign, opening a gap relative to global indices, and the yield on long-term government bonds stabilized at a low level. While Israel's CDS spread is far from the low levels that characterized the period before the 2008

crisis, it is lower than its historical average and just slightly higher than its minimum over the past 6 years. The shekel weakened slightly during the campaign—as stated, after the Bank of Israel Monetary Committee lowered the interest rate twice, by an aggregate of half a percentage point, to a historic low of 0.25 percent—but there is no evidence that this depreciation reflects a lack of confidence in the Israeli economy. We have no direct index of geopolitical risk, and as such, we do not have the ability to separate it from the other risks inherent in the financial markets. However, in view of the high level of most of the financial assets linked to the Israeli economy, it is hard to assume that market participants are pricing in high geopolitical risk.

The assessment that Protective Edge will have only a moderate impact on the Israeli economy in general and on fiscal stability in particular, was partially reinforced by the international credit rating agencies. At the end of September and beginning of October 2014, the S&P and Moody's international ratings agencies confirmed the State of Israel's credit rating, with S&P leaving it at A+ and Moody's at A1, with a stable outlook. In contrast, while the Fitch international ratings agency confirmed Israel's credit rating at the end of November, leaving it at A, it lowered the ratings outlook from "positive" to "stable", inter alia because Protective Edge increased security expenditure, thereby affecting the deficit, the expenditure rule, and the debt to GDP ratio. As such, the three ratings agencies decided to leave Israel's rating unchanged despite Protective Edge, but all three noted that the geopolitical risk constitutes a limitation that negatively impacts Israel's credit rating.

Summation

Despite the economic ramifications of Protective Edge, the financial markets reacted to it in a relatively moderate manner, possibly the result of the fact that, among other things, market participants drew conclusions from previous campaigns. They learned that declines at the beginning of a campaign are offset later on, and even turn into increases. A comparison of Protective Edge to other campaigns shows that pricing in the financial markets reflected a relatively low risk

that the campaign would negatively impact fiscal stability and a higher risk that it would impact at least some of the companies in the economy. The stocks of companies from different industries reacted during the campaign in different ways, reflecting selectivity on the part of investors. In the period following the campaign, the financial markets continued to strengthen, pricing in a low level of risk in general and of geopolitical risk in particular.

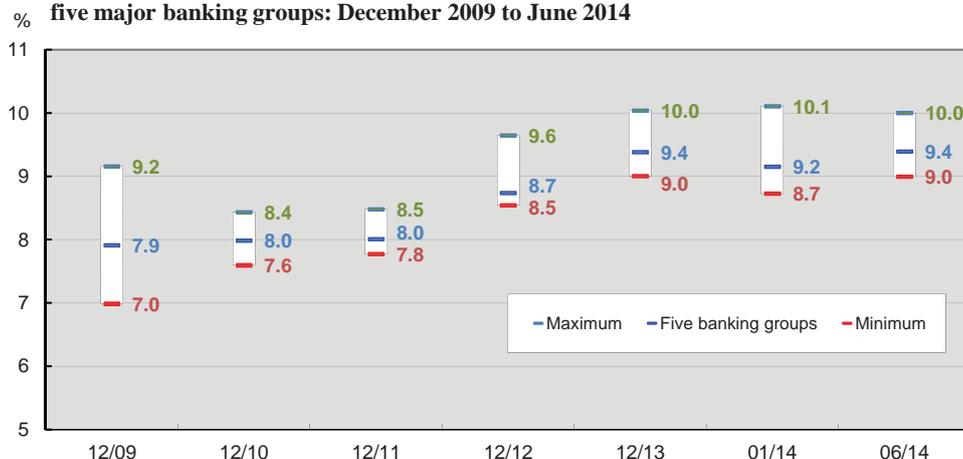
The performance of the Israeli economy in the past decade justifies the trust placed in it by investors, and its rapid recovery from the other significant campaigns that Israel conducted in that decade explains the moderate reaction of investors to Protective Edge. Yet, the various geopolitical risks to which Israel is exposed are already having an effect on its credit rating. If a material geopolitical risk materializes and negatively impacts the economy to a greater extent than was observed during Protective Edge, it is reasonable to expect that it will more significantly impact the markets and the financial system as well.

4. THE BANKING SYSTEM

During the first half of 2014 the banking system continued to maintain its strength and stability, even though the economy moderated, the interest rate environment remained low, and the global economy continued to recover slowly. The system maintained stable profitability compared to the same period last year, and the common equity Tier 1 capital ratio remained at 9.4 percent. The improvement in the quality of the credit portfolio continued during the reviewed period, however housing credit and credit to the construction and real estate industry remained a significant risk factor, and the low interest rate environment is increasing the concern of taking on risks that may materialize once the interest rates increase. The concentration of large borrowers continues to decline, although its level remains high. Liquidity in the system remained stable during the reviewed period, and its level remains high.

The Tier 1 capital ratio remained unchanged in the first half of the year, despite the transition to Basel III.

Figure 20
Common Equity Tier 1 capital ratio^a: Minimum and maximum values and total for the five major banking groups: December 2009 to June 2014



^a The data until December 2013 are in Basel II terms (core capital ratio), and the data from January 2014 onwards are in Basel III terms, in accordance with the transition directives (Tier 1 capital ratio).

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

Capital adequacy

The common equity Tier 1 capital ratio remained unchanged in the first half of the year relative to December 2013, at 9.4 percent (Figure 20).²² While the ratio declined by 0.2 percentage points after the banking corporations moved to implementation of directives that adopt the Basel II framework on January 1, 2014, it increased by 0.2 percentage points as a result of accumulated profits that were partially offset by the distribution of dividends, and as a result of the continued reduction of credit to the business sector, which led to moderation in the growth rate of credit risk assets. In terms of the profitability of the banking system, the return on equity of the five major banking groups remained stable at a level of 8.7 percent during the reviewed period.

Credit risk

In the first half of 2014, the improvement in indices of the quality of the credit portfolio and the decline

in the concentration of borrowers continued. With that, the risk inherent in housing credit and in credit to the construction and real estate industry—together constituting 44 percent of the credit portfolio—remain significant. Additionally, the low interest rate environment increases concern over taking on risks that may materialize with an increase in the interest rates.

The balance sheet credit of the five major banking groups expanded by 1.7 percent (in annual terms) to NIS 835 billion. This development took place as a result of the continued expansion of credit to the household sector and continued reduction of credit to the business sector and of credit to borrowers whose activity is concentrated abroad.²³

Credit to households has increased in recent years both in scope and as a share of total bank credit. Housing credit constitutes about two-thirds of such credit, and it grew during the first half of the year by an annual rate of 6 percent—lower than its pace of growth in the same period last year, but still high. The volume of new

²² Data for September 2014 indicate that the common equity Tier 1 capital ratio of the five major banking groups remained at 9.4 percent.

²³ Data for September 2014 show that there was an increase in business credit and in credit to borrowers whose activity is concentrated abroad.

housing loans taken out remains high, at an average of NIS 4.3 billion per month. The risk characteristics of new mortgages continued to decline during the period. For instance, the decline in the average rate of financing and in the average payment to income ratio both continued to decline. With that, the continued increase in the volume of the housing credit portfolio and in its share of the total banking credit portfolio led to an increase in the risks inherent in this portfolio, among other things in view of the existing correlation between the risks in the housing credit portfolio and the risks in the credit portfolio to the construction and housing industry, and the existing correlation between the risks in the housing credit portfolio and the risks in the consumer credit portfolio. Against this background, in September 2014, the Supervisor of Banks published a directive regarding capital allocation in respect of the housing credit portfolio with the aim of increasing the capital buffers allocated against the risks inherent in the portfolio.

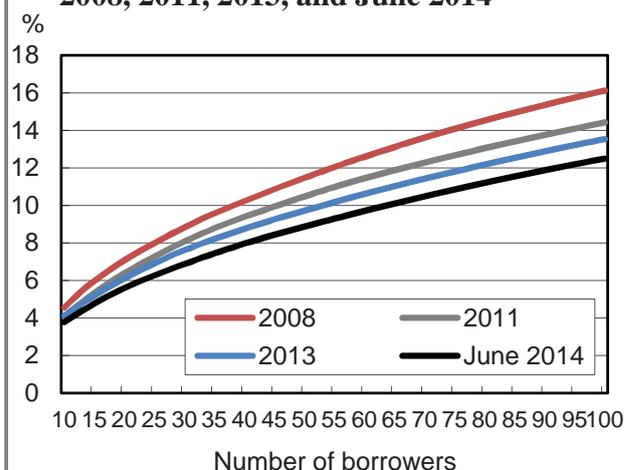
In recent years, there has been a marked trend of expansion in consumer credit as a share of total bank credit. In the first half of the year, consumer credit increased at an annual rate of 8 percent, to NIS 127 billion. Despite the prolonged growth, there has been a marked decline in the allowance buffers allocated in respect of this credit. Against this background, in January 2015, the Supervisor of Banks published a directive stating that the banking corporations must ascertain that the rate of qualitative adjustments to the group allowance in respect of non-problem loans to private individuals is no less than 0.75 percent of outstanding non-problem loans to private individuals at that time, as of the reports to the public for 2014.

The concentration of borrowers in the bank credit portfolio is high due, among other things, to the concentrated structure of ownership and control in the economy. In recent years, there has been a marked improvement in concentration of the bank credit portfolio as a result of the fact that the Banking Supervision Department and the banking system are

acting to reduce the concentration risk in the portfolio (Figure 21).

The decline in credit concentration to large borrowers over the past few years.

Figure 21
Outstanding credit risk of the 100 largest borrowers^a out of total outstanding credit risk, five major banking groups, 2008, 2011, 2013, and June 2014



^a Excluding banking corporations.

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

Liquidity and market risk

During the reviewed period, liquidity in the banking system remained relatively high. Concentration of deposits in the system continued to increase, continuing the trend of recent years. With that, the share of institutional deposits out of total public deposits in the five major banking groups remained without significant change, at 12.25 percent.

As part of the Banking Supervision Department's preparations for the implementation of the Basel Committee's liquidity framework (Basel III), in October 2014, the Supervisor of Banks published a new Proper Conduct of Banking Business Directive

Table 2
Main banking system indices, December 2001 to June 2014

	Ratio of market value to book value ^a (MV/BV)	Average yield spread between bank bonds and government bonds ^b	Ratio of Credit to GDP ^c (percent)	Change in balance-sheet credit to the public ^d (percent)	Loan loss provisions to total credit to the public ^d (percent)	Ratio of liquid assets ^e to liquid liabilities ^f	Ratio of credit ^g to deposits	Capital adequacy ratio (percent)	Core Tier 1 capital ratio (percent)	ROE (percent)
2001	0.91	0.7	111.9	17.9	0.85		0.81	9.4		5.8
2002	0.56	0.8	107.5	-1.1	1.32	0.42	0.83	9.9		2.8
2003	0.85	0.7	105.5	-1.7	1.12	0.41	0.82	10.3		8.4
2004	1.06	0.7	101.1	0.1	0.90	0.41	0.80	10.7		13.2
2005	1.45	0.7	101.7	6.7	0.69	0.42	0.82	10.7		14.5
2006	1.33	0.6	96.5	2.0	0.52	0.38	0.80	10.8		17.3
2007	1.21	0.9	96.8	7.7	0.28	0.29	0.85	11.0		15.6
2008	0.56	2.0	100.3	10.4	0.72	0.27	0.90	11.2		0.3
2009	1.11	1.6	93.7	-1.4	0.75	0.38	0.86	13.7 ^h		8.8
2010	1.06	1.0	93.4	7.2	0.41	0.32	0.91	14.0	7.9	9.8
2011	0.69	1.3	90.8	3.7	0.39	0.37	0.89	14.0	8.0	10.2
2012	0.78	1.0	86.3	2.1	0.41	0.39	0.87	14.9	8.7	7.9
2013	0.84	0.9	82.3	1.1	0.25	0.38	0.87	14.8	9.4	8.7
June 2014	0.79	1.1	78.2	1.9 ^k	-0.01	0.38	0.88	14.5	9.4	8.7

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

^b. Average for December of that year.

^c. Measured using gross credit.

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

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

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

^g. Calculated in relation to net credit.

^h. Calculated in accordance with Basel I principles.

ⁱ. Calculated in accordance with Basel II principles.

^j. The Tier 1 Capital ratio is calculated in accordance with Basel III principles, as per the transition directives.

^k. In annual terms.

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

(Directive 221) on Liquidity Coverage Ratio²⁴, as well as a draft of accompanying reporting directives. In accordance with the timetables set out in Basel III, the banking system in Israel is expected to gradually implement the liquidity coverage ratio beginning in January 2015, and complete full implementation by January 2017.

The banking system is exposed to the risk of an increase in the interest rate and to indexation base risk. Most of the banking groups are exposed to an increase in the interest rate in all indexation tracks. The potential loss as a result of a maximal increase in the interest rates²⁵ is NIS 1.3 billion, constituting about 2.0 percent of the fair value of capital. This is a low level of exposure relative to credit exposures, and it has even declined slightly compared to 2013. Exposure to indexation base risk increased slightly compared to 2013, but the potential loss as a result of the maximal change in inflation and in the exchange rate²⁶ is just NIS 540 million. Most of the banks were exposed to a depreciation of the shekel and to an unexpected decline in the Consumer Price Index.

²⁴ The Basel Committee developed the liquidity coverage ratio with the objective of promoting the short-term durability of the banking corporations' liquidity profile. The ratio shows the quantity of high quality liquid assets that the banking corporations must hold in order to withstand a significant stress scenario that lasts 30 calendar days, and is composed of two components. The numerator is the stock of high quality liquid assets (HQLA). This stock is comprised of two levels of assets: Level 1 includes high quality assets with an unlimited volume of holdings, and level 2 includes assets with holdings limited to 40 percent of the HQLA stock. (Level 2 is then sub-divided into two sub-levels: 2a and 2b. The volume of holdings of assets in the latter is limited to 15 percent.) The denominator is the net outward cash flow over a period of 30 days, meaning the outward cash flow expected in the scenario. The total outward cash flow is calculated by multiplying the balances of various categories or types of balance sheet and off-balance-sheet liabilities by their expected withdrawal rates (drawn down or run off). The total expected inward cash flow is calculated by multiplying the balances of contractual receivables by the rates that they are expected to receive for them in the scenario, to a cumulative benchmark of 75 percent of the total projected outward cash flow.

²⁵ The maximal change in the interest rates is determined by the monthly changes over the past 7 years, assuming that the distribution is normal and significant to 99 percent.

²⁶ The maximal change in inflation and in the exchange rate is determined by the monthly changes in inflation expectations and in the nominal exchange rate of the shekel against the dollar, respectively, over the past seven years, assuming that distribution is normal and significant to 99 percent.

5. THE INSURANCE COMPANIES

Total aggregate profit of the insurance companies was about NIS 1.8 billion in the first half of 2014²⁷, and it increased slightly relative to the same period in the previous year. This profit is derived from moderate growth in income from premiums and in profits from investments, and from a sharp increase—of about 21 percent—in management fees, relative to the same period in the previous year.²⁸ With that, total aggregate profit in the second quarter of 2014 declined sharply relative to the figure for the first quarter, mainly due to losses absorbed by the companies as a result of the low interest rate environment—as detailed below—and because profits from investments were lower than the high levels recorded at the end of 2013 and in the first quarter of 2014 (Figure 22).

The aggregate recognized equity²⁹ of the insurance companies increased to NIS 31.5 billion at the end of June 2014, from NIS 30.1 billion at the end of 2013. This increase led to the fact that on the aggregate level, the ratio between recognized capital and required

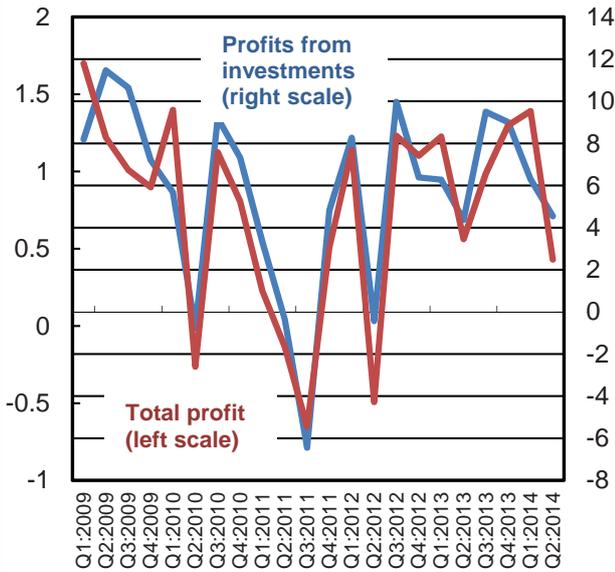
²⁷ Just prior to the closing of this report, preliminary data on total aggregate profit in the third quarter of 2014 were obtained, and they show that this profit is also positive.

²⁸ Within their various areas of operation, the insurance companies deal with the management of assets for clients, for which they collect management fees. In respect of managing assets in guaranteed yield policies sold since 2004, a company is entitled to fixed management fees of up to 0.05 percent of accumulated assets per month. In respect of managing assets in guaranteed yield policies sold between 1991 and 2003, a company is entitled to fixed management fees as stated and to variable management fees of up to 15 percent of the real yield after the fixed management fees are deducted. In a case of loss, the company is not entitled to the variable management fees until the accumulated loss is covered. Some of the insurance companies did not collect variable management fees in the first quarter of 2013 due to accumulated investment losses that were not yet covered at that time. These losses were covered later in 2013, resulting in a significant increase in income from management fees collected in the first half of 2014.

²⁹ Recognized capital serves as a security buffer for the insurance companies against unexpected losses. This capital is comprised of various tiers, which are differentiated by the quality of the collateral they provide to the companies. Initial capital is the highest quality tier of recognized capital, and is comprised of the amount of share capital, share premiums, capital funds, permanent capital certificates, and the retained earnings item in the balance sheet. The lower tiers include components such as deferred debts—basically bonds issued by the insurance companies which it pays off only after fulfilling its liabilities toward insured clients.

In the second quarter of 2014, there was a decline in the overall profit of the insurance companies and in their profit from investments.

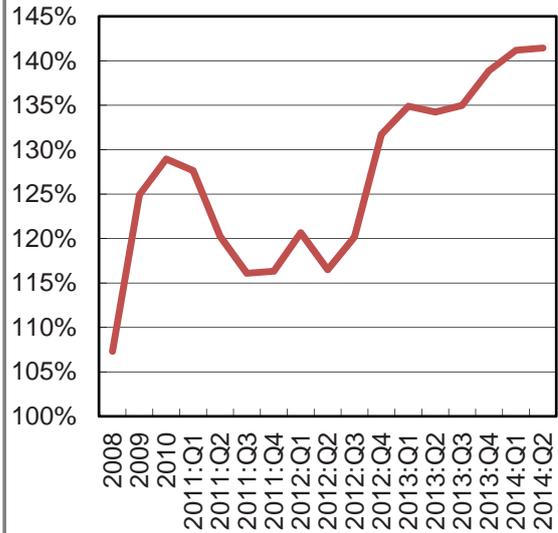
Figure 22
Total profit and profit from investments, 2009 to 2014 Q2 (quarterly data, NIS billion)



SOURCE: Based on financial reports of the insurance companies.

The ratio between recognized capital and required capital of all insurance companies increased in the first half of 2014, and is higher than in the past.

Figure 23
The ratio between recognized capital and required capital, 2008 to 2014:Q2



SOURCE: Based on financial reports of the insurance companies.

capital increased from 138.9 percent at the end of 2013 to 141.4 percent in the first half of 2014—a higher level than in the past (Figure 23). The increase also contributed to the fact that the ratio between initial capital and total assets in the nostro investment portfolio³⁰ increased from 12.3 percent at the end of 2013 to 12.7 percent in the first half of 2014.

One of the main risks inherent in the insurance companies' operations is **market risk**.³¹ An assessment

³⁰ As a rule, an insurance company's nostro investment portfolio includes its total investments, except for those made against guaranteed yield policies.

³¹ The discussion in this chapter focuses mainly on the risks to insurance companies on the assets side. A broad discussion of the insurance risks on the liabilities side appears in the chapter on insurance companies in the Financial Stability Report of June 2014.

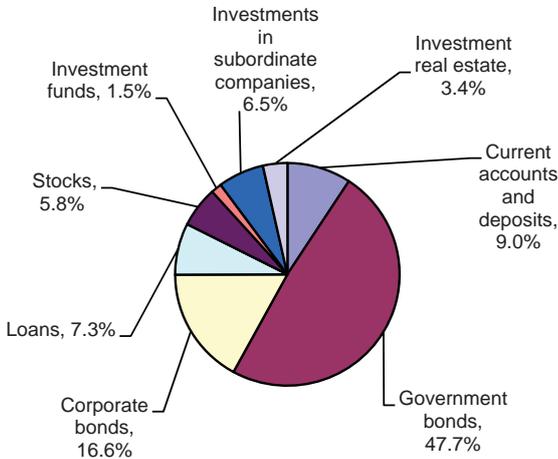
of the composition of assets in the aggregate nostro investment portfolio of the insurance companies shows that most of their investments—about 57 percent—are concentrated in government bonds and bank deposits—assets with relatively low risk (Figure 24).

However, due to the low interest rate environment, there has been marked trend of increase in the weight of more risky assets³² in the nostro investment portfolio in recent years (Figure 25), despite the continued decline in the weight of corporate bonds. The trend of increase continued in recent months as well: The weight of assets with medium-to-high risk increased from 42.6 percent at the end of 2013 to 43.3 percent at the end of June 2014. The increase during that time

³² This group includes all of the assets that are not bank deposits (including current accounts) or government bonds.

Insurance companies investments are mainly in low-risk assets.

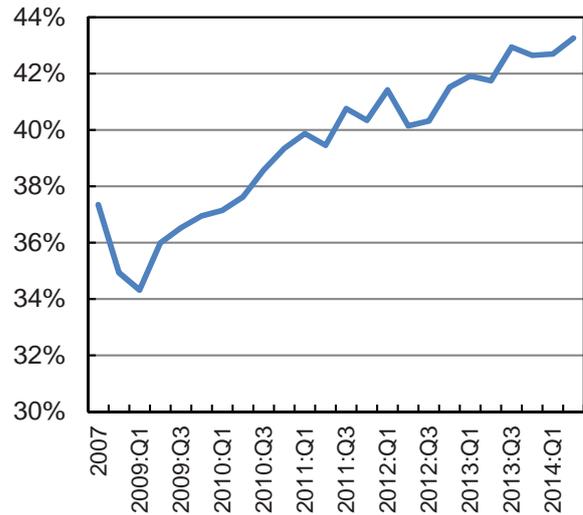
Figure 24
Distribution of insurance companies' nostro assets, 2014:Q2



SOURCE: Based on financial reports of the insurance companies.

There has been an upward trend over the years in medium to high-risk assets as a share of the insurance companies' nostro portfolio.

Figure 25
Medium to high-risk investments as a share of the insurance companies' nostro portfolio, 2007 to 2014:Q2



SOURCE: Based on financial reports of the insurance companies.

derived from moderate growth in the weight of stocks, loans and direct investment in real estate.

Additionally, the insurance companies were also exposed to market risk from their investments of assets held against guaranteed yield policies. This risk is realized when the investments general negative real yields. In such a situation, policy holders absorb most of the losses, but there is also a negative effect on the insurance companies since they are not permitted to collect variable management fees from the profits in the portfolio until the accumulated loss is fully covered. Since the investments generated positive returns in the first half of 2014, the insurance companies were able to collect variable management fees. It is worth adding that there is a marked trend of increase in the weight given to more risky assets in this portfolio as well, and as of the second half of 2014, they constitute 73.6 percent of it, compared to 72.0 percent at the end of 2013.

The insurance companies' investment portfolio is mostly concentrated in Israel. However, in the past year, the percentage of foreign assets has increased significantly: from 6.2 percent in June 2013 to 8.3 percent in June 2014 in the nostro investment portfolio, and from 26.5 percent in June 2013 to 29.9 percent in June 2014 in the portfolio of investments held against guaranteed yield policies. This increase is derived from the companies' attempt to obtain higher yields than are available in the domestic market, and is combined with the fact that there is a marked trend of increase among all institutional investors in the percentage of investments abroad: from 14.7 percent in June 2013 to 16.7 percent in June 2014. This process by the insurance companies of increasing the exposure of the investment portfolio to investments abroad reduces the dependency on the domestic market, but also exposes them, mainly through the nostro investment portfolio,

to the risks typical of managing investments abroad.

The exchange rate risk is prominent in this context, but companies are hedging some of their exposure to it.

The low interest rate environment had a negative impact on the operating results of the insurance companies in the first half of 2013³³, and particularly on the results in the guaranteed yield policies area.³⁴ The yields generated by some of the financial assets held against these policies declined, while the volume of the insurance companies' liabilities to policy holders remained fixed.³⁵ As a result, most insurance companies recognized pre-tax expenses totaling NIS 837 million in their financial reports for the first half of 2014, mainly in the second quarter. Of that total, NIS 729 million derived from the life insurance area, and the rest from health and general insurance areas.³⁶ It is noted that the expenses recorded constitute an average of just 2.2 percent of the insurance companies' recognized capital. It is further noted that despite these expenses, the overall profit of most of the large

³³ Just prior to the closing of this report, preliminary data were obtained showing that the insurance companies continued to recognize expenses derived from the low interest rate environment in the third quarter of 2014. However, as noted in Note 27 above, despite these expenses, the companies recorded a positive total aggregate profit in that quarter as well.

³⁴ The insurance companies sold guaranteed yield policies until 1990. The guaranteed yield to policy holders was based on designated bonds issued by the government of Israel. These bonds pay fixed interest, and their holders are not exposed to any risk in respect of a change in the interest rates in the economy. In the past, the insurance companies redeemed some of the designated bonds they held, and invested the proceeds in assets generating higher yields. This action led to an increase in the insurance companies' level of exposure to interest rate risk. We note that the guaranteed yield policies area is not directly affected by a reduction in the interest rate, since the policy holders are the ones absorbing the loss caused by an increase in the current value of the liabilities. However, the low interest rate environment may negatively affect the real yields from the investments of assets held against these policies, and in such a case, would reduce the volume of the insurance companies' income from management fees.

³⁵ The insurance companies' interest rate risk has to do with the fact that the lifespan of their liabilities is longer than the lifespan of the assets. In other words, the insurance companies must recycle assets held against liabilities before the liabilities have expired. A low interest rate environment, such as the one that has prevailed in recent years, negatively affects the yields generated by some of the assets following recycling.

³⁶ The level of expenses at a given insurance company is generally derived from the difference between the value of future policy cash flows, capitalized by risk-free interest, and the volume of reserves calculated by that company.

companies remained positive in the first half of 2014, and some of them even recorded an increase relative to the same period the previous year.

The low interest rate negatively impacted the insurance companies following a period in which interest rate reductions actually contributed significantly to their profitability, since they led to an increase in the fair value of some of the financial assets included in the companies' nostro investment portfolio that had not yet been recycled. This increase contributed to an increase in the companies' profits because it created both revaluation profits for held assets and capital profits for assets that were sold.

The liquidity risk at the insurance companies is smaller than the risk at banks, both because the lifespan of their liabilities is longer than the lifespan of assets, and because insured clients cannot demand the insurance companies' nostro funds unless there is an insurance incident or they reach retirement age. Moreover, the insurance companies are not exposed to liquidity risk in respect of yield-dependent contracts, since if the value of the assets held against these contracts declines due to the creation of a need to rapidly sell them even at a loss, there is an identical decline in the volume of insurance liabilities. In other words, the insured clients absorb the loss in full.

While the share of loans in the insurance companies' nostro investment portfolio increased rapidly in recent years, their level in relation to the companies' nostro assets portfolio—about 7 percent—is still not high. This means that the insurance companies also are not highly exposed to **credit risk** in respect of these loans.

6. ASSET AND CREDIT PRICES

a. The stock market

Between June and November 2014, the stock indices in Israel declined in dollar terms, similar to prices in most markets in the world, and contrary to the positive trend

recorded in the first five months of the year (Figure 26). During the reviewed months, the stock indices in Israel and abroad were highly volatile—a result of the slowdown in activity in the eurozone and the worsening of the fighting between Russia and Ukraine. There was an additional source for the volatility on the Tel Aviv Stock Exchange: the realization of the security risk as a result of Operation Protective Edge.³⁷ It is worth noting that the stock indices in Israel declined in dollar terms mainly due to the depreciation of the shekel during this period. In shekel terms, the Tel Aviv 25 index rose by 4.9 percent during the six months reviewed, and the general shares index rose by 6.1 percent.

Looking at the past 12 months, the pace of growth in stock prices (the general shares index) remained quite stable in shekel terms, and does not attest to atypical development of prices relative to the average since January 1995 (12 percent, Figure 27). Moreover, the increase in share prices between June and November 2014 was supported mainly by the fact that the long-term, nominal and real interest rates in Israel and globally were very low during this period, and even continued to decline.

Between July and November 2014, share prices in Israel declined in dollar terms, similar to prices on most stock markets around the world. In contrast, prices increased in shekel terms.

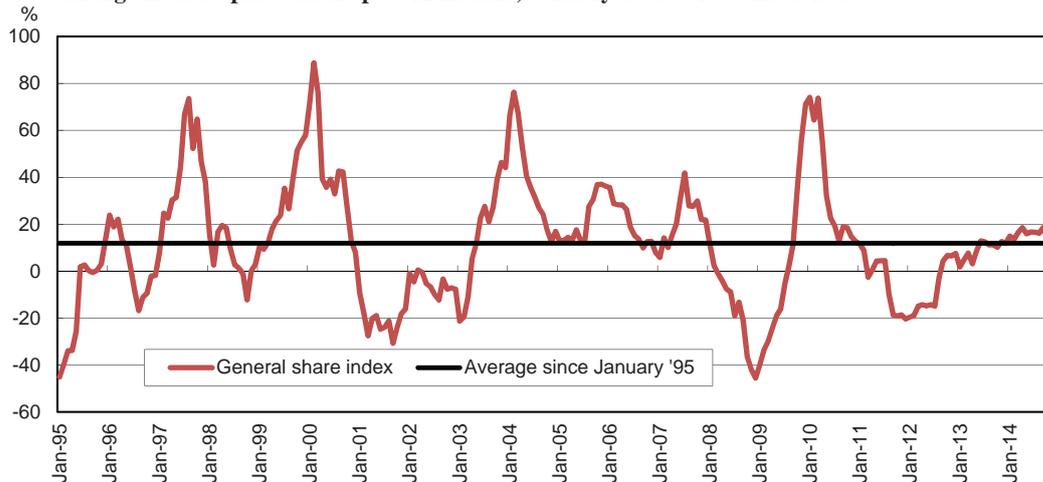
Figure 26
Stock indices in Israel and globally, in dollars, January 2013 to November 2014



SOURCE: Based on Bloomberg.

The pace of growth of share prices remained stable, and does not reflect atypical development relative to the average since January 1995.

Figure 27
Change in share prices in the past 12 months, January 1995 to November 2014



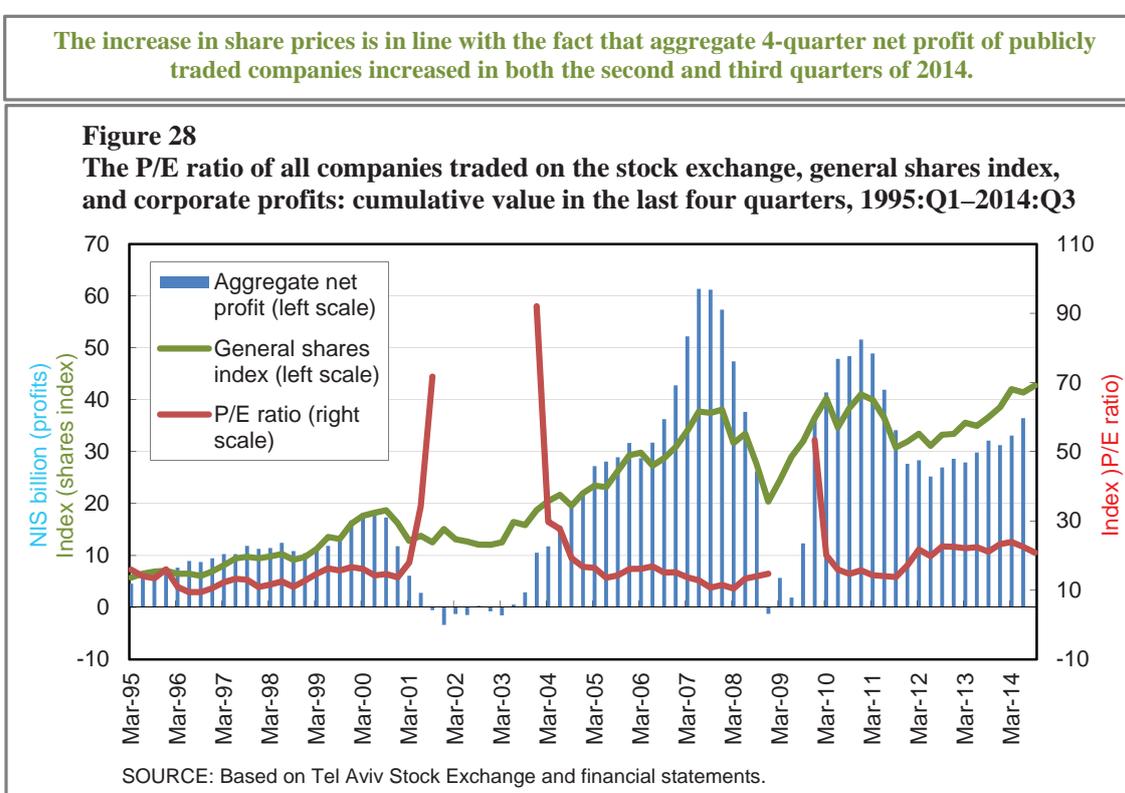
SOURCE: Based on Tel Aviv Stock Exchange.

³⁷ More discussion appears in Part 3 above.

While the net P/E ratio³⁸ declined in the second and third quarters, it remained above its long-term average (since January 1995, Figure 28³⁹). An international comparison shows that the P/E ratio of the Tel Aviv 100 index declined in parallel with the P/E ratio of the MSCI Emerging Markets index and an increase in the ratios of the main stock indices in the advanced economies, and that it is in the center of the ratio range of the indices in the advanced economies. It is worth adding that the increase in share prices is also in line with the fact that the aggregate net profit (4 quarters) of the companies traded on the stock exchange increased

both in the second quarter and in the third quarter of the year (Figure 28).

As stated, despite the prolonged decline in the level of the interest rate in Israel, the yield on share holdings⁴⁰ increased in the second and third quarters of 2014. As a result, the gap between the yield on shares and the real yield on 10-year government bonds increased, and the surplus yield on share holdings increased⁴¹—see Figure 29. The Figure also shows that the surplus yield on shares is higher than its long-term average (since January 1995) in both the second and third quarters of 2014.



³⁸ In order to calculate the net P/E ratio of a company, its market capitalization is divided by the net profit in the past four quarters. In order to calculate the aggregate P/E ratio, the market capitalization for the companies traded on the stock exchange is summed and divided by their aggregate net profit in the past four quarters. The market capitalization of the companies traded on the stock exchange and their profits are normalized to the value of public holdings. The ratio reflects the quantity of shekels that investors are prepared to pay for each shekel of profit created by the company in a year.

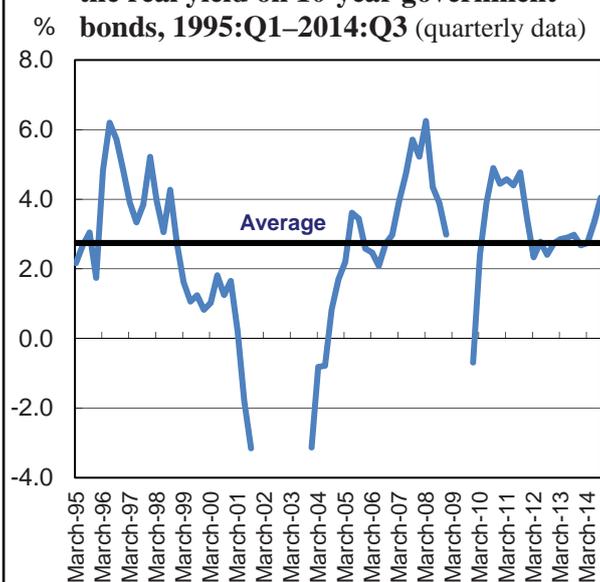
³⁹ When the P/E ratio reaches levels higher than 100 or lower than 0 (these values are obtained when net profit reaches near-zero and even negative levels), the series obtains missing values.

⁴⁰ The yield on share holdings is equal to the ratio between net profit and market capitalization. The reverse value of the net P/E ratio provides an indication regarding the yield required on a share, since in a stable situation—a situation in which the company’s profits are fixed—this ratio provides the real long-term yield on the share holding.

⁴¹ The surplus yield is equal to the gap between the real yield on a share holding and the real yield on 10-year government bonds. The difference between the yield on shares and the yield on a risk-free asset shows the risk premium required on holding a share. In periods when share prices are not disconnected from economic factors in the economy, it has been observed that the surplus yield in this market is positive and reflects the risk inherent in investing in it.

The surplus yield on stock holdings increased in the second and third quarters of 2014, and is higher than the long-term average (since the first quarter of 1995).

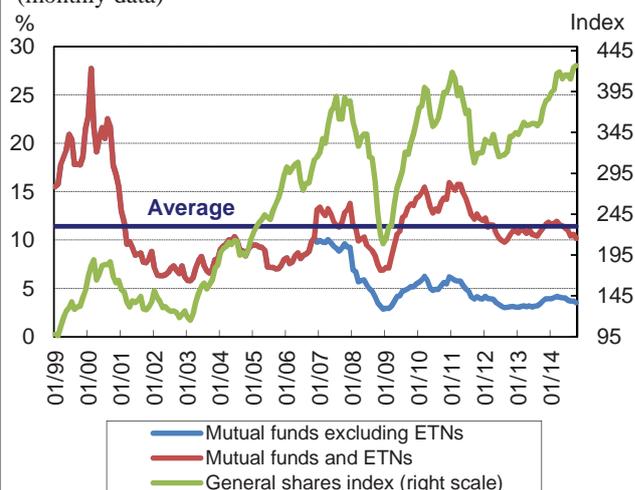
Figure 29
The surplus yield on stocks compared to the real yield on 10-year government bonds, 1995:Q1–2014:Q3 (quarterly data)



SOURCE: Based on Tel Aviv Stock Exchange and financial statements.

Since March 2014 there has been a decline in the ratio between the stock of assets in mutual funds and ETNs specializing in shares and the total stock of assets in these instruments.

Figure 30
Assets in the mutual funds and ETNs specializing in shares as a share of total assets in the mutual fund and ETN market^a, January 1999 to October 2014 (monthly data)



^a From December 2006 the figures also include public ETN holdings.

SOURCE: Bank of Israel.

The ratio between the stock of assets in mutual funds and ETNs that specialize in shares and the total stock of assets in these instruments indicates the public's tendency to invest in stocks. This ratio declined between March and October 2014⁴², but its level is not deviating significantly from the long-term average (since January 1999, Figure 30). It is worth noting that we get the same result if we look only at the mutual funds (excluding the ETNs) specializing in shares.

The ratio between the volume of offerings in the stock market and total offerings (stocks and debt) has been in a downward trend since the beginning of 2014, and its level is lower than the long-term average (since the first quarter of 2003, Figure 31). Offerings in the primary market provide an indication of how parties

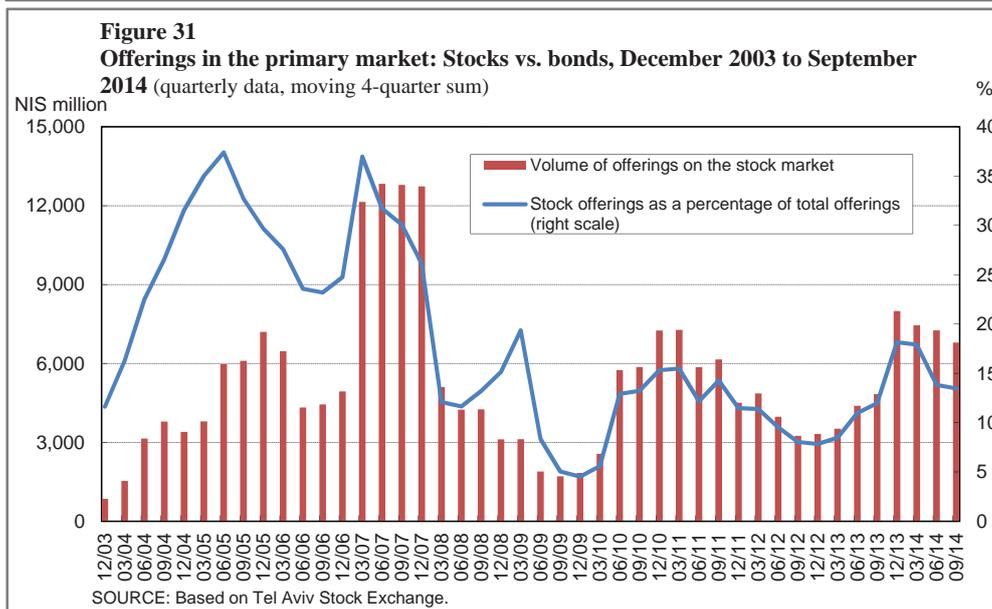
at interest evaluate pricing in the stock and bond markets. Assuming that the stock market and the bond market use alternative markets to raise capital, these two channels should expand to a similar extent. An atypical deviation of the quantity of offerings in the stock market from the quantity in the bond market may serve as somewhat of an indication of overpricing of assets in the stock market. Since the beginning of 2014, there is an apparent decline in stock offerings as a share of total offerings. This trend has been apparent around the world in the past decade, apparently against the background of low interest rates, and perhaps also against the background of tax advantages, demand on the part of investors, and more.

b. Credit

Outstanding credit to the private (nonfinancial) sector increased in the second and third quarters of 2014, as a result of an increase in both credit to households

⁴² The mutual funds and ETNs hold about 8 percent of total shares held by the public, and about 9.5 percent of total public assets.

The ratio between the volume of offerings on the stock market and the total volume of offerings in the primary market has been in a downward trend since the beginning of 2014, and is lower than the long-term average (since the end of 2003).



and credit to the business sector. The growth in credit to the business sector was the result of growth in all components: bank credit, domestic nonbank credit (bonds and loans directly from institutional investors), and credit from abroad.

Starting in the second quarter of 2007, the ratio of private (nonfinancial) credit to GDP has been in a downward trend, declining by about 22 percentage points during the period as a result of the fact that the business sector debt to GDP ratio declined by 26 percentage points and the household debt to GDP ratio increased by 0.4 percentage points (Figure 32).⁴³ In the third quarter of 2014, there was a turnaround, and the ratio increased as a result of an increase in both sectors. A long-term view (since the fourth quarter of 1999) shows that as of the third quarter of 2014, the private credit to GDP ratio (1.13) and the business sector debt to GDP ratio (0.74) are significantly lower than their

average over the sample period (private debt to GDP—1.25; business sector debt to GDP—0.87). It is worth adding that these ratios are also low by international comparison. The private debt to GDP ratio is currently among the lowest, since the household debt to GDP ratio maintained its low position between 2006 and 2013 and the business sector to GDP ratio declined significantly after being among the highest in 2006.⁴⁴

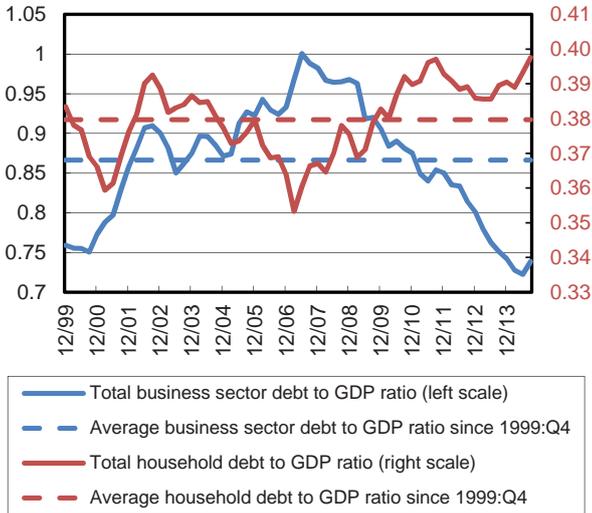
As stated, credit to households continued to grow during the second and third quarters of 2014, particularly against the background of the continued increase in home prices and the continued growth in mortgages. The household credit to GDP ratio has been in an upward trend since the first quarter of 2007, which continued during the most recent quarters. The increase was seen both in the ratio of housing credit to GDP, and in nonhousing credit to GDP. The latter grew at a high rate of about 9 percent in the 12 months

⁴³ It is worth noting that credit to the business sector as a share of total private (nonfinancial) credit has been in a downward trend since July 2007, declining from 74 percent to 65 percent over that period.

⁴⁴ See Bank of Israel, Financial Stability Report, June 2014.

Since 2007 the business sector debt to GDP ratio declined and the household debt to GDP ratio increased. In the third quarter of 2014, the ratio increased in both sectors.

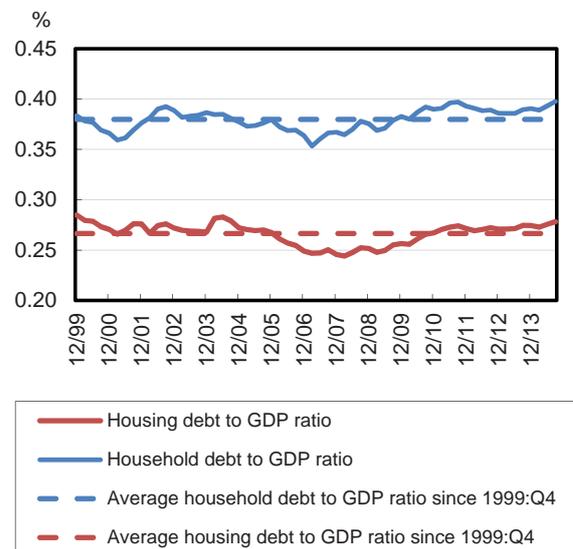
Figure 32
Debt to GDP ratio, 1999:Q4 to 2014:Q3 (quarterly data)



SOURCE: Bank of Israel.

Household debt continued to increase in the second and third quarters of 2014, particularly in view of the continued increase in home prices and the continued increase in the volume of mortgages.

Figure 33
Household debt to GDP ratio—including housing debt, 1999:Q4 to 2014:Q3 (quarterly data)



SOURCE: Bank of Israel.

ending in October 2014 (Figure 33). As stated, even though credit to households has expanded in recent years, Israel has one of the lowest household credit to GDP ratios among advanced economies. In addition, if we look over the entire sample period—from the fourth quarter of 1999 to the third quarter of 2014—we can discern that the household credit to GDP ratio remained quite stable at around 38 percent. With that, in order to track financial stability, it is important to also examine how household credit develops in the various income deciles, as was done in the Financial Stability Report of June 2014 (Box 1).

BOX: BOND OFFERINGS BY FOREIGN COMPANIES IN ISRAEL

Since the beginning of 2013, the volume of bond offerings by foreign companies on the Tel Aviv Stock Exchange has grown. By November 2014, it had reached about NIS 4 billion, while it was NIS 1.3 billion in 2011–12 (Figure 1). In parallel, the share of these offerings out of total bond offerings grew from 1.3 percent in 2012 to 6 percent in 2014, and the share of these offerings out of real estate company offerings grew from 5 percent in 2012 to 19.5 percent in 2014. In addition to the offerings already made, there are a number of offerings in various stages of prospectus approval.

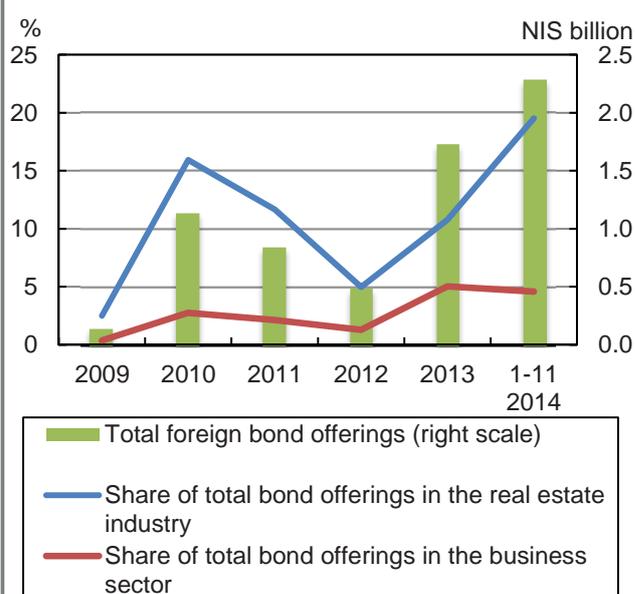
An analysis of the activity profile of the issuing companies finds that all of them belong to the real estate industry and deal with investment in income-generating properties (50 percent of the value of issued bonds), construction development abroad (37 percent), or both areas in parallel (13 percent). They are mainly active abroad, and if they have activity in Israel, it is marginal relative to their volume of global activity. The center of operations of most such companies is in the United States, although their country of incorporation is outside the US, generally in tax shelters. As will be explained below, this may have an effect on the recovery rate of the issuing company in case of default.

Despite the fact that the issuing countries are incorporated abroad and the offering is intended to finance activity abroad, all of the offerings are denominated in shekels. (About 48 percent of them are indexed to the Consumer Price Index and 52 percent are unindexed.) Most of the companies did not immediately execute protective transactions to hedge their currency exposure, but undertook in their prospectuses to assess the possibility of hedging should the risk of a change in the exchange rate increase.

Bonds issued by the foreign companies have a slightly lower rating quality than that of bonds issued by domestic companies since 2012. There are slightly fewer offerings rated AA or higher and slightly more offerings rated BBB or lower. With that, the rate of offerings that include bonds with securities that have a high priority level¹ is much higher in offerings by foreign companies than it is in offerings by domestic companies (Table 1).

Since 2013, the volume of bonds offered by foreign companies in Israel has grown.

Figure 1
Total bond offerings by foreign companies in Israel, and their share of total bond offerings in the real estate industry and in the entire business sector, 2009 to November 2014^a



^a Tradable and nontradable bonds.
SOURCE: Bank of Israel.

¹ Bonds with a first fixed lien on the company's assets.

Table 1
Distribution of the volume of bonds offered by domestic and foreign
real estate companies, by rating and by type of lien,
2012 to November 2014

		Domestic companies	Foreign companies
		(percent)	
Offering rating	AA and above	21.4	16.2
	A	67.7	67.4
	BBB and below	6.2	15.5
	Unrated	4.7	0.9
	Total	100.0	100.0
Type of pledge	First fixed pledge	36.5	66.9
	Second fixed pledge	1.8	0.0
	Other pledge	0.3	0.0
	No pledge	61.5	33.1
	Total	100.0	100.0
Negative pledge	Negative pledge	40.8	38.2
	No negative pledge	59.2	61.8
	Total	100.0	100.0

^a Negative pledge: The issuer's obligation not to place a lien on the company's assets to the benefit of other lenders without the agreement of the original lender.

SOURCE: Bank of Israel.

A comparison of the size of the foreign companies offering bonds in Tel Aviv and the size of real estate companies offering bonds in the US² shows that as of the end of 2013, the average total balance sheet and equity of the former—NIS 10.8 billion average balance sheet and NIS 1.2 billion average equity—are significantly smaller than those of the latter—about NIS 86 billion and about NIS 20 billion, respectively. The foreign companies that held offerings in Tel Aviv are similar to the Israeli companies from the construction and real estate industry who offered bonds in Israel between 2012 and 2014. The total average balance sheet of these companies was NIS 5.7 billion at the end of 2013, and average equity was NIS 1.1 billion. As detailed below, these facts indicate that the real estate companies that held offerings in Israel are of a more appropriate size for the Israeli market.

Investors in the bonds of foreign companies

The main investors in the bonds of foreign companies are provident and mutual funds. In March 2014, they held a combined 41 percent of the stock of bonds, after their holdings declined from 55 percent in March 2012 (Table 2).

While long-term savings plans gradually reduced their holdings of bonds of domestic and foreign real estate companies from the beginning of 2013, the mutual funds increased them—as well as their holdings of all bonds of Israeli companies—in concert with the continued increase in net new investment in mutual funds

² According to financial reports for 2013.

specializing in investment in corporate bonds (Figures 2 and 3). The rate of provident fund and mutual fund holdings of bonds of foreign companies is higher than their rate of holdings of all bonds of real estate companies (Table 2).

Table 2
Institutional investors' holdings of real estate company bonds offered in Israel:
foreign companies and all companies, as a percentage of par value of stock of
tradable bonds, March 2012 compared to March 2014

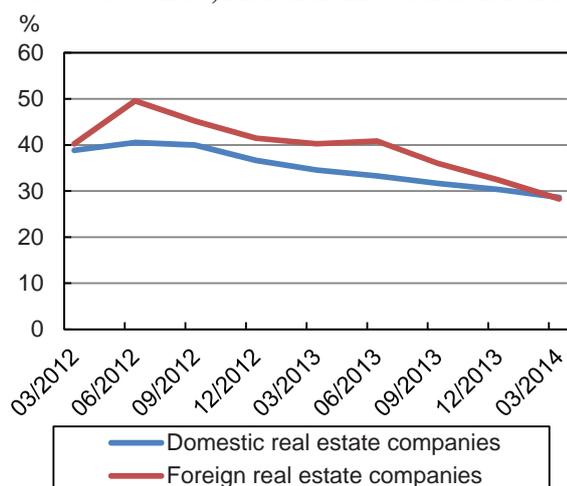
	March 2012		March 2014	
	Foreign companies	All companies	Foreign companies	All companies
Provident funds	29.1	22.1	17.0	14.9
Pension funds	5.2	8.8	4.1	6.4
Insurance companies ^a	5.9	7.9	7.2	7.2
Total: Long-term savings plans	40.2	38.8	28.3	28.6
Mutual funds	25.9	17.3	24.4	21.6
Total: Institutional investors	66.1	56.2	52.7	50.2

^a Excluding nostro holdings.

SOURCE: Based on "Predicta" institutional holdings system.

Since mid-2012, long-term savings institutions have lowered their holdings share of foreign and domestic real estate corporate bonds offered in Israel.

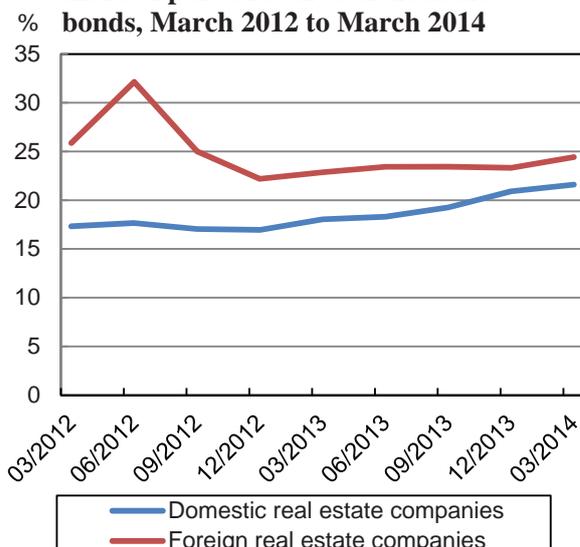
Figure 2
Long-term savings institutions' holdings of domestic and foreign real estate corporate bonds, as a share of par value of total tradable bonds, March 2012 to March 2014



SOURCE: Based on "Predicta" institutional holdings system.

Since the beginning of 2013, mutual funds have increased their share of domestic and foreign real estate corporate bond holdings.

Figure 3
Mutual fund holdings of domestic and foreign real estate corporate bonds as a share of par value of total tradable bonds, March 2012 to March 2014



SOURCE: Based on "Predicta" institutional holdings system.

The yield spread on bonds of foreign companies

A comparison of the yield spread of bonds of foreign companies to the yield spread of all bonds of companies from the construction and real estate industry (Figure 4)³ shows that until September 2014, the bonds of foreign companies were traded at yield levels lower than the average in the real estate industry—3.9 percent compared to 4.5 percent in the real estate industry as a whole. However, the gap narrowed, and in recent months even reversed itself: The bonds of foreign companies are traded at a higher spread than the average in the construction industry.⁴ This fact may show that the explanation for the lower yields in the past has nothing to do with characteristics unique to the foreign companies, but has to do with the fact that risk evaluations of these bonds suffered from underpricing, which was closed in the recent period due to an increase in the risk evaluations.

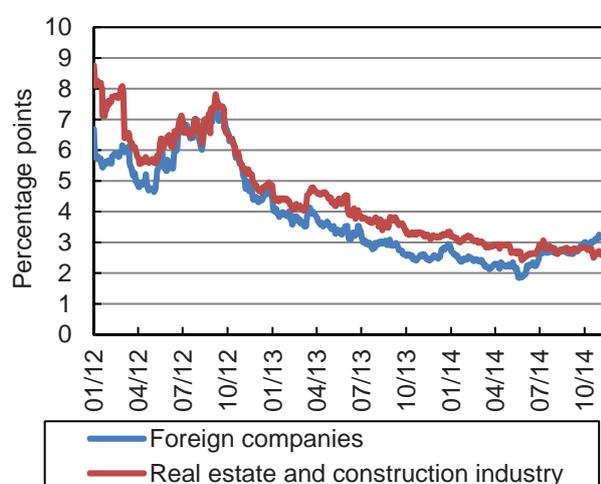
Incentives for foreign companies to hold offerings in Israel

The foreign companies hold offerings in Israel, in a small capital market that is distant from their centers of operations, and it seems that there are a number of incentives for deciding to do so:

- Yields in the corporate bond market in Israel are currently low, both relative to their historical average (Figure 14 in the section dealing with the main risks to the financial system) and relative to yield levels in the US (Figure 1 in the section dealing with the main developments in the domestic financial system). By way of illustration, between January and October of 2014, the average spread in the corporate bond market in Israel was 3.1 percent, compared to 4 percent between 2005 and 2013. During the same period, there was a negative yield differential between corporate bonds in Israel with an A rating and corporate bonds in the US with a BBB rating (-0.14 percentage points) or BB rating (-1.08 percentage points), and the differential between the government of Israel's 10-year CPI-indexed bond and similar US government securities was just 0.43 percentage points during that period. These low spreads show that foreign companies can offer

Since September 2014, foreign real estate corporate bonds traded in Israel have had a higher spread than domestic real estate bonds, following a long period with lower spreads.

Figure 4
Bond spreads of companies from the real estate and construction industry and of foreign real estate companies with offerings in Israel since 2012^a, January 2012 to November 2014



^a Tradable fixed interest corporate bonds, excluding structured and convertible. The spread is calculated against government bonds with a similar average duration.

SOURCE: Bank of Israel.

³ The yield spread vis-à-vis government bonds with similar characteristics.

⁴ A similar picture emerges when assessing the development of yields in a fixed group of foreign bonds (excluding bonds of companies that were offered after July 2014).

bonds in Israel at relatively low interest rates.

- Foreign companies can offer bonds in Israel at lower interest rates than in the US or Europe also due to the fact that the rating scale in Israel is higher than the scale in those countries. In other words, the rating that foreign companies are awarded in Israel is higher than the rating they would be given in their place of operations, which in turn affects the cost of the offering.
- The size of the companies encourages them to hold their offerings in Israel. The foreign companies holding offerings in Israel are similar in size to companies in the construction and real estate industry in Israel, and are considered small in the US. Since the American bond market supports more offerings by large companies or REIT funds, it is harder for them to hold offerings there.
- A significant portion of companies that offered bonds in Israel deal with real estate development, and it is not common practice globally to finance such activity through bond offerings on the capital market. Instead, it is common practice to finance it through bank credit issued directly to the project, in accordance with the pace of its progress.
- In the US, it is less common to issue a real estate asset holding company, while it is common in the Israeli real estate market to make such offerings. It should be noted that an offering by a real estate asset holding company makes it possible for the issuing company to combine a number of assets under one roof, thereby benefiting from lower issue costs than the costs inherent in issuing each asset separately. It also makes it possible to issue assets that are not worthy of a separate offering due to their size and/or business condition. From the investor's standpoint, investment in a holding company makes it possible to diversify the risk, in contrast with the alternative of investing in a single asset. However, it makes it more difficult to price the bond, and distances the investor from the collateral on the debt if such exists.

The law applying to foreign companies holding offerings in Israel

Foreign companies offering bonds are, as stated, incorporated outside of Israel, in most cases in various tax shelter countries, and there is a concern that this will make it difficult for bond purchasers to ensure their rights in case a dispute arises between the bondholders and the issuing company that must be settled by a court, and/or in case the issuing company defaults. In the past, for instance, a dual company incorporated in the US and registered for trading on both the Tel Aviv Stock Exchange and NASDAQ encountered difficulties. Even though the company issued bonds on the Tel Aviv Stock Exchange, the owners appealed for debt restructuring to a court in New York, and not in Israel, which made it difficult for the bondholders.

In order to prevent a repeat of such situations, and to minimize the uncertainty inherent in investing in the bonds of a foreign company as much as possible, the Israel Securities Authority set out a number of disclosure requirements and special principles for the offering prospectuses of foreign companies: (1) The companies are required to adopt the provisions of the law dealing with corporate governance at Israeli bond companies; (2) The trust certificate for the bonds, and its appendices, are subject to the provisions of Israeli law. It was also set out that the company and its controlling owners and officers shall not oppose a request by the Israeli trustee and/or bondholders to apply Israeli law regarding default settlement and restructuring, and shall not appeal on their own initiative to a court outside of Israel to obtain a stay of proceedings initiated by the trustee or bondholders; (3) The companies are required to provide details in the prospectus of the main points of the

corporate law that applies to them in their country of incorporation, such as tax structure, default proceedings, and exercise of liens; (4) In offering bonds against a lien, disclosure is required that will make it possible for an investor to evaluate the quality of the lien for the purpose of correct pricing of the bond.

Even so it seems that there is still a greater lack of clarity in a case of bankruptcy or debt restructuring of foreign companies, and that it increases due to the place of incorporation of the companies—tax shelter countries. This lack of clarity may negatively impact the companies' recovery rate. Moreover, the recovery rate may also be negatively impacted by the fact that the Israeli creditors are distant from the companies' focus of operations and from the assets that have been placed under lien to collateralize the debt, because it may create special difficulties in taking control of assets if the companies do not meet their liabilities.

Due to the increasing volume of foreign bonds offered in Israel—and due to the expectation of more offerings in coming months that are currently in the approvals process—it is worth dealing methodically with this issue. An attempt should be made to reduce bondholders' uncertainty as much as possible regarding the law that applies in cases where the issuing companies do not meet their liabilities. It should also be ascertained that the recently published recommendations of the Committee Examining the Procedure for Debt Settlement Implementation in Israel will also apply to the extent possible to foreign companies holding bond offerings in Israel.

Summation

Just as Israeli companies hold offerings on markets abroad, foreign companies hold offerings on the market in Israel. These offerings may contribute to the diversification of sources of investment, make the domestic market more sophisticated, and expand interaction between the domestic market and global markets. However, the surge of foreign companies making offerings on the Israeli market may in certain cases signal underpricing in the domestic market. Therefore, a close assessment should be made of the motives for such offerings. In addition, it should be ensured that investors in these offerings are aware of the special risks derived from investment in bonds of foreign companies, such as greater difficulties in dealing with the borrower's default or with other disputes that may arise between the issuer and the debt holder.

BANK OF ISRAEL

Table 1
Main indicators of the stability of the financial system in Israel, 2010–14
(percent)

	2010	2011	2012	2013	2014	Updated to
A. The global environment						
1 Global real GDP growth rate	5.1	3.8	3.2	3.0	-	December 31, 2013
2 Global trade growth rate	12.6	6.0	2.8	2.8	-	December 31, 2013
3 Emerging Markets Bond Index (EMBI) differential ^a (periodic average)	3.0	3.4	3.4	3.2	3.2	November 30, 2014
4 Chicago Board of Options Exchange VIX index (periodic average)	22.5	24.2	17.8	14.2	14.0	November 30, 2014
B. The domestic environment						
5 Government debt to GDP ratio (end of period)	69.6	68.3	67.2	66.4	66.2	September 30, 2014
6 Net external debt to GDP ratio (end of period)	-22.0	-26.7	-27.1	-28.6	-29.4	June 30, 2014
7 Total private credit to GDP ratio (end of period)	126.5	124.3	118.7	113.2	113.6	September 30, 2014
8 Business sector credit to business sector product ratio (end of period)	116.5	113.7	107.1	99.1	99.2	September 30, 2014
9 The debt burden on households—the ratio of credit to households to disposable private income (end of period)	57.6	57.9	57.0	57.8	-	December 31, 2013
10 Israel's sovereign risk premium (5-year CDS spread—periodic average)	1.18	1.58	1.69	1.20	0.89	November 30, 2014
11 The differential between yields on 10-year shekel-denominated government bonds and 10-year US Treasury Bills (periodic average)	1.50	2.21	2.60	1.45	0.37	November 30, 2014
12 The spread in the corporate bond market—total bonds excluding financial corporate bonds (periodic average)	4.0	4.3	6.6	4.4	3.1	December 4, 2014
C. Financial Assets						
Risk indices (periodic average)						
Implied volatility:						
13 of the exchange rate	8.5	10.3	9.7	8.8	8.3	November 30, 2014
14 of the Tel Aviv 25 index	23.9	25.7	23.9	16.8	14.6	November 30, 2014
Actual volatility:						
15 of the exchange rate	6.4	9.2	6.6	6.2	5.0	November 30, 2014
16 of the general shares index	13.8	18.7	11.7	8.9	8.8	November 30, 2014
Prices and yields						
17 Change of the shekel vis-à-vis the dollar (during the period)	-6.0	7.7	-2.3	-7.0	12.0	November 30, 2014
18 Change in the effective exchange rate (during the period)	-7.0	4.8	-0.8	-7.6	5.0	November 30, 2014
19 Change in the general shares index (during the period)	12.6	-22.1	4.6	15.3	13.7	November 30, 2014
20 Yield to maturity on unindexed 5-year government bonds (periodic average)	3.8	4.2	3.2	2.5	1.7	November 30, 2014
D. Resilience of the financial system						
The banking system^b (end of period)						
21 Total core capital to risk components ratio ^c	14.0	14.0	14.9	14.8	14.3	September 30, 2014
22 Core Tier 1 capital to risk components ratio ^c	8.5	8.4	9.1	9.8	9.4	September 30, 2014
23 Ratio of annual loan loss provision to total balance-sheet credit to the public (multiplied by 100)	0.41	0.39	0.41	0.25	0.02	September 30, 2014
Insurance companies (end of period)						
24 Initial capital portion of total assets	6.0	5.7	5.6	5.7	5.7	June 30, 2014
25 Risk assets as a share of nostro assets	39.3	40.3	41.5	42.6	43.3	June 30, 2014
Provident funds^d (end of period)						
26 Liquid accounts as a share of total liabilities	59.6	63.8	66.9	68.6	68.9	September 30, 2014
27 Ratio of liquid assets to liquid liabilities	28.3	29.0	30.6	33.8	38.3	September 30, 2014
E. Market liquidity						
28 Total trading volume in the markets ^e (periodic average, NIS billion)	5.0	4.8	4.4	4.6	4.6	November 30, 2014
29 The spread between high and low shekel-dollar quotes (periodic average)	0.31	0.46	0.35	0.32	0.33	November 30, 2014

a. The differential between the yield on government bonds in emerging markets and the yield on US Treasury notes.

b. The five major banking groups.

c. Until 2013, according to Basel II definitions; From 2014, according to Basel III definitions.

d. Including main provident funds for severance and advanced study funds.

e. Including trading volume of *makam*, government bonds, corporate bonds and shares.

SOURCE: Based on data from the International Monetary Fund, the Capital Markets, Insurance and Savings Division of the Ministry of Finance, and the Tel Aviv Stock Exchange.