Recent Economic Developments

133

January - April 2012

Bank of Israel
Research
Department

Jerusalem, June 2012

Catalogue # 601642
http://www.bankisrael.gov.il
Printed in Israel by Ayalon Press, Jerusalem

Part 1: Review of Recent Economic Developments, January - April 2012

Main developments

From January to April 2012, business activity in Israel continued to grow at the moderate rate to which the economy had converged during the second half of 2011. During the first quarter of 2012, GDP grew by 3.0 percent, slightly below that in the last two quarters of 2011 when growth was already lower than its long-term average. Growth in business sector output during the first quarter slowed markedly relative to the second half of 2011 and stood at 2.8 percent. As in the previous reviewed period, the moderation of growth in business activity during the current period was to a large extent the result of the crisis in the eurozone and the slowdown in global growth. In addition, activity in manufacturing slowed, as a result of the decline in the export of goods at all levels of technology intensity. Nonetheless, the level of exports remained high in historical terms.

The stability in the number of employees, employee posts and job vacancies, and the decrease in the real wage of Israelis during the period reflect the moderate growth in economic activity. The slow rate of growth was also reflected in the rate of tax collection, for both direct and indirect taxes, which remained relatively constant since the beginning of the year.

Since the beginning of the year, there has been an increasing amount of data indicating a recovery in the US economy; however the fiscal crisis in some European countries has deepened, which was reflected in the deterioration of real and financial activity in those countries and in the eurozone as a whole. Growth in Europe was stagnant and employment figures reached historic lows. During the period reviewed, ratings agency S&P lowered the credit rating of nine European countries, including France's AAA rating. In addition, fears increased that the austerity programs will not manage to lift the countries in crisis onto a path of growth, and global growth forecasts for 2012 and 2013 were revised downward.

During the period, the CPI increased by 1.3 percent and the seasonally adjusted CPI increased by 1.2 percent. During the last 12 months, the rate of inflation was 2.1 percent, near the center of the target range. One year inflation expectations calculated from the capital market rose during the period being reviewed relative to the previous period, and were located, on average, in the upper part of the inflation target range. In January, the Monetary Committee reduced the interest rate by 0.25 percentage points, to 2.5 percent, for the month of February. The interest rate remained at that level for the rest of the period. The reduction of the interest rate in January was influenced primarily by the entrenchment of indicators pointing to slower growth in the economy, the weakness of global economies—primarily in Europe—and uncertainty regarding its future growth, as well as by the stabilization of inflation and inflation expectations around the center of the target range. Over the course of the remainder of the period reviewed the Monetary Committee decided not to change the interest rate primarily due to an increase in breakeven inflation expectations (deriving mainly from rising energy prices) and stability in the economy's growth.

Aggregate real activity[1]

In March, the Research Department of the Bank of Israel revised its macroeconomic forecast for 2012 and 2013. According to the new forecast, GDP is expected to grow by 3.1 percent in 2012 and by 3.5 percent in 2013. The revision upward for 2012 relative to the previous forecast (2.8 percent), which was published in December, was primarily the result of the positive developments in indicators of economic activity in Israel[2].

According to National Accounts figures, the rate of growth of GDP was 3.0 percent (1.1 percent in per capita terms) during the first quarter of 2012, somewhat lower than during the third and fourth quarters of 2011 (3.3 and 3.2 percent, respectively). The rate of growth of business sector output slowed to a greater extent, to 2.8 percent, as compared to 4.5 percent and 3.5 percent in the third and fourth quarters of 2011, respectively (Table 1.1). The economy's growth rate during the first quarter was lower than its potential, according to the accepted methods for calculating the output gap[3]. Evidence that the rate of growth of GDP has slowed and that it is below its long-term average could also be found in the Composite State-of-the-Economy Index published by the Bank of Israel (Figure 1.1). It rose during the period reviewed by 0.6 percent compared to the previous period

[1] All data in this section are seasonally adjusted, and are presented at fixed prices and in annual terms.

[2] See Bank of Israel (2012), Research Department 2012 and 2013 Staff Forecast, March.

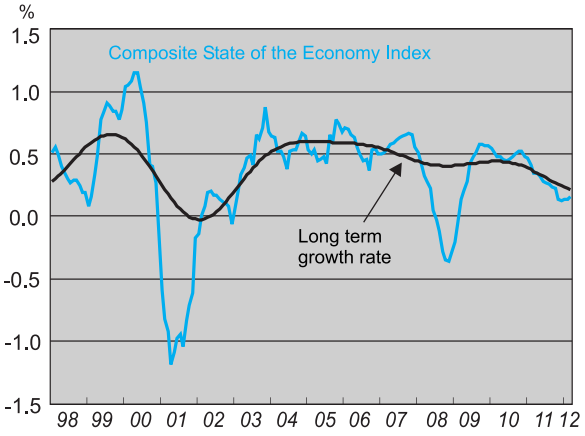
[3] See Bank of Israel (2012), Bank of Israel Annual Report 2011, Box 2.2 and Bank of Israel (2010), Bank of Israel Annual Report 2009 (pages 52–53).

and by 3.1 percent relative to the corresponding period of last year.

The moderation of growth in GDP continued during the course of the quarter, despite the significant increase in most uses, in particular services exports, private consumption and gross domestic investment. The growth in demand was met by accelerated growth in the import of goods and services (Table 1.1). In contrast, goods exports grew only moderately, durables consumption continued to shrink (for the fourth consecutive quarter) and investments in industries grew only negligibly.

Figure 1.1

Rate of change in Composite State of the Economy Index and long-term growth rate



Private consumption grew by 4.2 percent during the first quarter, which represents a recovery relative to the last two quarters of 2011, during which it grew by 0.9 percent and 0.2 percent, respectively. The recovery in private consumption was concentrated in current consumption, which increased by 5.1 percent, while the consumption of durables continued to shrink, for the fourth consecutive quarter, to 4.8 percent. Private consumption increased despite increased consumer pessimism. This is reflected in the Index of Consumer Confidence published by the Central Bureau of Statistics which worsened relative to both the previous reviewed period and the corresponding period last year. Nonetheless, the Consumer Confidence Index published by Globes showed a decline in consumer pessimism during the period being reviewed.

Fixed capital formation (excluding ships and aircraft) grew at the relatively high rate of 6.2 percent (similar to the previous quarter). Investment in industries of the economy grew by 4.0 percent, primarily due to the significant increase of investment in intangible assets, alongside the decline in investment in transport vehicles and in machinery and equipment. Investment in housing grew by 11.2 percent, which is somewhat lower than the 14.9 percent during the previous quarter.

Output prices fell during the first quarter of 2012 by about 0.3 percent, following the moderate growth in the majority of their components during most of the previous year. The largest increases were in consumption prices (1.1 percent) and import prices (2.6 percent), as compared to a more moderate increase in export prices (0.9 percent), such that the terms of trade worsened.

Real activity by industry

The index of manufacturing production showed some drop in activity during the first quarter of the year and a lack of change relative to the corresponding period of last year, although the level of manufacturing production is higher than the level which preceded the collapse during the economic crisis in late 2008 and early 2009 (Figure 1.2 and Table 1.2). In contrast, the number of hours worked and the number of salaried employees in manufacturing remained almost unchanged relative to the previous reviewed period and they are in the neighborhood of their pre-crisis levels. Real wages per employee post (filled by Israelis) in manufacturing somewhat declined. The data for manufacturing industry revenue also reflect some slowdown during the first quarter relative to the final quarter of 2011, although they are higher than the pre-crisis levels. A survey of expectations in manufacturing carried out by the Manufacturers Association points to a continuing slowdown of activity in the industry during the first quarter of 2012, which includes reduced output, a reduction in number of employees and a drop in domestic sales, in exports and investment in fixed assets. The estimate of current activity in manufacturing, according to the Climate Indices (Table 1.2), also indicates a decline in the rate of growth relative to the corresponding period in 2011, though it is somewhat higher than in the previous reviewed period.

The contraction in manufacturing activity during the first quarter of the year relative to the last quarter of 2011 is a direct result of the drop in output, primarily among the high-tech producers, and the relative lack of change in the level of activity among the low-tech and medium-high tech producers. This is in contrast to the increase in production among mixed-low tech industries (Figure 1.3). The decline in manufacturing production was a result of the drop in exports at all levels of technological intensity during the period being reviewed relative to the previous period, apart from the low-tech producers whose exports remained stable (Table 1.5).

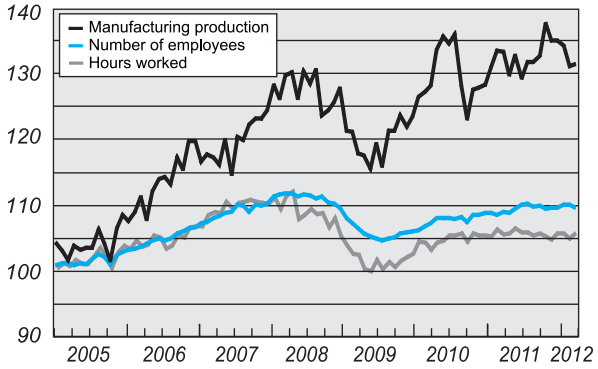
Some of the data for the last month of the reviewed period are positive to a certain extent; however, this does not constitute evidence of a turnaround. The Purchasing Managers Index published by Bank Hapoalim and the Purchasing Managers Association crossed the 50-point mark in April—following four months in which it indicated contraction—which constitutes an indicator of expansion in manufacturing activity starting from that month. The expected recovery in manufacturing activity this year is also reflected in the findings of the Business Tendency Survey for April, which indicates that expectations for the volume of output and orders for manufacturing exports have improved. The expectations of a recovery in the manufacturing industry during the second quarter of the year can also be seen in the survey of expectations carried out by the Manufacturers Association, which indicates that during the second quarter manufacturing output will grow, the decline in domestic sales and in exports will start to level off and investment in fixed assets will again begin to grow.

Activity in the construction industry slowed somewhat during the period being reviewed. During the first quarter of the year, the number of building starts was low relative to the last quarter of 2011 and relative to its level in the corresponding period in 2011. The number of building starts during the first quarter was similar to that in late 2010, and thus was lower than in 2011 but higher than during most of the last decade (Figure 1.4). During the first quarter, this trend characterized both private and public housing. Housing completions reflect the level of housing starts about two years previously, due to the construction time. Housing completions have been stable for several quarters, though they can be expected to rise during the course of the year, in view of the accelerated housing starts from 2010. Evidence of this can be seen in the amount of housing under construction during the first quarter of 2012 which was at its highest level since the first half of 1999.

The supply of homes for sale during the period being reviewed was high relative to previous years. This is a reflection of, the accelerated activity in the industry in recent years while at the same time a slower pace of sales. This finding is also consistent with the relative freeze in the volume of new mortgages. This is an additional sign of the slower pace of sales in the construction industry, despite the increase in the supply of homes. During the first quarter of

Figure 1.2

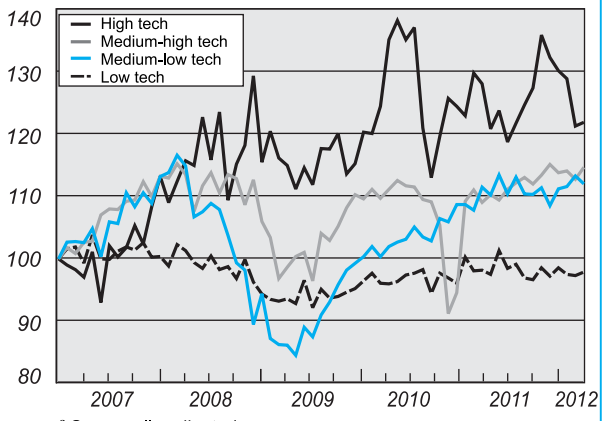
Manufacturing production[a]
(index, 2004 average=100)



[a] Seasonally adjusted.

Figure 1.3

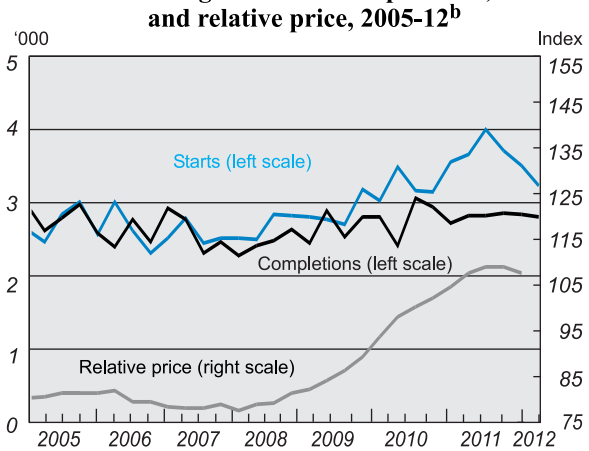
Manufacturing production by technological intensity of industry[a]
(index, January 2007=100)



[a] Seasonally adjusted.

Figure 1.4

Housing starts and completions[a], and relative price, 2005-12[b]



[a] Quarterly average of housing units per month, seasonally adjusted.
[b] Prices of owner-occupied dwellings relative to CPI (index, January 1998=100).

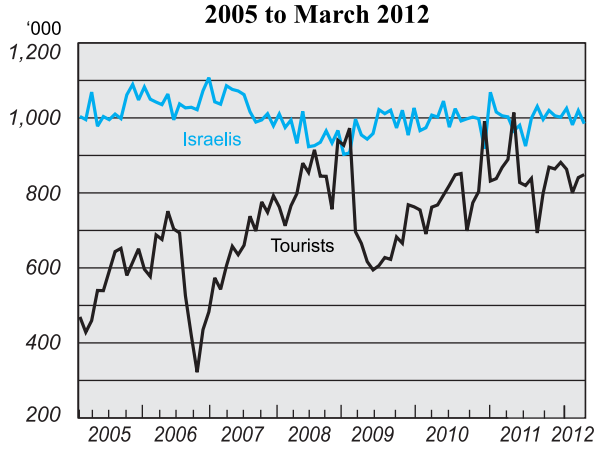
the year, the volume of new home sales grew relative to the previous reviewed period as well. However, this increase reflects developments on two different levels: the sales of homes built by the private sector grew at a moderate rate while sales of homes built on public initiative grew at a much faster pace, apparently due to the efforts of the Ministry of Construction and Housing to increase the supply of accessible housing and market it, primarily as part of the *Mehir Lemishtaken* tenders—in which bids are based on the price to the actual occupant. (With that, the total number of houses built on public initiative accounts for only about one-fifth of total homes sold.) The growing supply of homes was reflected in a lower rate of increase in homes prices during the first two months of the year, a trend that began more than a year ago.

During the period being reviewed, the government adopted a number of measures to encourage the purchase of homes. In January, the Ministry of Construction and Housing reduced the rate of interest on mortgages for eligible families from 4 percent to 3 percent (for mortgages of 25–27 years at a fixed interest rate). This step is expected to increase the demand for mortgage assistance and the demand for home purchases. During March, the government decided to increase rent assistance to families waiting for public housing and, in addition, as part of the effort to maintain the stock of public housing that is intended for rental to populations that lack the means to purchase a home, the government decided not to initiate sales campaigns for public housing, which in recent years have reduced the stock of this type of home. In January, the Israel Land Administration Council revised the eligibility criteria for affordable housing through *Mehir Lemishtaken* tenders. The new criteria give preference to the handicapped, army veterans and graduates of National/Civilian Service and for number of years married. In addition, the criteria were revised such that the preference according to number of children was made uniform for all families with three or more children (essentially, the preference for larger families was eliminated). However, the new criteria do not take into account utilization of earning capacity, as was recommended by the Trajtenberg Committee.

The level of activity in the tourism industry was similar to that during the previous reviewed period (Figure 1.5). The real wages of Israelis in hospitality and catering services rose during January and February by about 2 percent relative to the previous reviewed period. Although the number of vacant posts in the industry rose during the period being reviewed, it remained unchanged relative to the same period in 2011, such that the increase can be attributed entirely to seasonal effects. The revenues in hospitality and catering services also do not provide evidence of a significant change in the industry's level of activity during the period being reviewed. Thus, during the first quarter of the year, revenues were somewhat lower than the high level reached in late 2011.

Figure 1.5

The hotel industry: monthly bed nights of tourists and Israelis[a], 2005 to March 2012

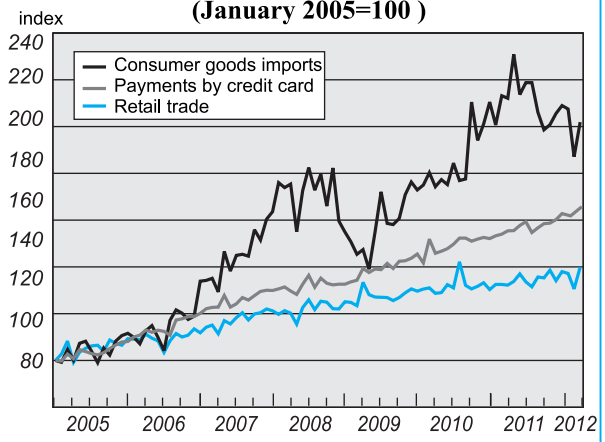


[a] Seasonally adjusted.

Activity in the trade industry remained unchanged. The revenues of the chain stores, including food chain stores, remained close to levels in the previous period and salaried posts and wages remained basically unchanged. The revenues of the trade industry rose somewhat and the revenues of trade and services dropped slightly from their relatively high level (Table 1.2). Credit card purchases increased during the period being reviewed relative to the previous period; however, activity in retailing and the import of consumption goods corrected from their decrease in the previous period, such that overall their level remained unchanged (Figure 1.6). According to the Business Tendency Survey, the level of activity in the trade industry was stable during the period being reviewed; thus, it was slightly higher than in the previous period but lower than in the same period in 2011. The expectations of managers regarding activity in the industry during the next three months point to a significant improvement relative to the previous period. Activity in services expanded during the period being reviewed. Services exports grew, as did the number of employee posts and the level of wages. The expectations of managers regarding activity in trade during the next three month also improved during the period being reviewed.

Figure 1.6

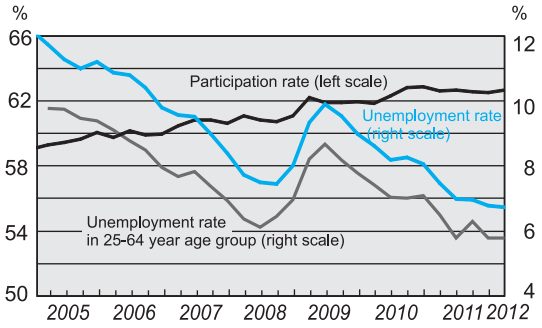
Consumer goods imports, retail trade, and credit card payment indices[a] (January 2005=100)



[a] Seasonally adjusted.

Figure 1.7

Labor force participation and unemployment rates[a], 2005 to March 2012



[a] Seasonally adjusted.

The labor market

The Central Bureau of Statistics began conducting and publishing the results of the Labour Force Survey on a monthly basis during the period being reviewed, instead of the quarterly format that was used until the end of 2011. The box below describes the changes in the Labour Force Survey and their implications. The analysis below is based on data from both the old and the new survey and the two series are concatenated.

The participation rate during the first quarter of 2012 remained unchanged in comparison to the same period in 2011; however, the rate of employment improved somewhat and therefore the unemployment rate declined (Figure 1.7 and Table 1.3). Compared with the last quarter of 2011, the rates of participation and employment remained almost unchanged (they improved by 0.1 percentage point) and the unemployment rate fell marginally (by 0.1 percentage point), with unemployment falling among men and rising among women. In addition, the proportion of part-time employees rose and within this group the proportion of those employed part-time involuntarily also rose.

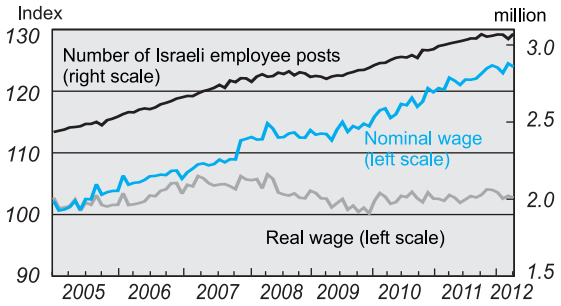
The nominal wages of Israelis per employee post rose marginally during the first three months of the year relative to the previous reviewed period and real wages fell slightly. Overall, the real wage of Israeli workers per employee post has remained constant since the beginning of 2010 at somewhat below its pre-crisis level (Figure 1.8). The stagnation in real wages since the beginning of the year is also evident in the business sector and public services (which also include foreign and Palestinian workers) (Figure 1.9 and Table 1.3).

The rate of increase in health tax receipts (which serve as an indication of total wage payments in the economy) declined somewhat during March and April relative to the same months in 2011 and relative to January and February of this year, which also constitutes an indication of the slower growth in wages. The number of employee posts (held by Israelis) fell slightly relative to the previous reviewed period; however, it rose during January and February relative to those same months in 2011 (Figure 1.8). In comparison to the previous quarter, the rate of growth in the number of job vacancies in the economy slowed during the first quarter of 2012 (in seasonally adjusted terms). Data from the Survey of Employers carried out by the Ministry of Industry, Trade and Labor also indicate a decrease in the balance of employment during the first quarter of the year relative to the last quarter of 2011 (Table 1.3). The situation in the labor market, i.e., the lack of change in number of employees, employee posts and job vacancies together with the lack of growth in wages, particularly recently, is a reflection of the subdued activity in the economy. On the other hand, according to a survey of expectations among businesses, it is expected that the number of posts, the number of employees and perhaps even wages will increase during the course of the year, thanks to the increase in hiring expected by the survey as a result of an improvement in business activity.

The Histadrut (General Federation of Labor) held a general strike in February that lasted two and a half days, following talks that started already at the end of 2011 regarding the conditions of employment for subcontracted workers. As a result of the strike, two agreements were signed: one between the Histadrut and the Ministry of Finance and the other between the Histadrut and the Federation of Economic Organizations in Israel. The latter agreement relates to workers employed for a continuous period of nine months and includes the following: the absorption of subcontracted

Figure 1.8

Indices of the nominal and real wage of Israelis[a,b], and the number of Israeli employee posts[b] 2005 to March 2012

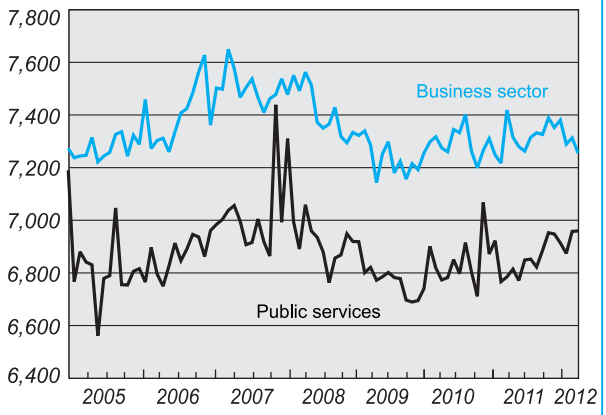


[a] January 2005=100.
[b] Seasonally adjusted.

workers whose activity is the core activity of the employer as regular employees; identical conditions of employment for subcontracted workers who are not absorbed as regular employees to those of regular employees; and direct employment of some cleaners (those who work a large number of hours). The agreement applies to employers who are members of the Federation of Economic Organizations in Israel and will go into effect with the issue of an expansion order to the private sector. The agreement with the Ministry of Finance includes the following conditions: direct employment of subcontracted workers doing the same type of work as government workers ("shoulder to shoulder") after nine months of employment and according to the decision of a joint committee of Histadrut and government representatives; the updating of wages and social benefits of workers in the government who are employed as guards and cleaners (starting from May 2012); and an increase in the number of labor inspectors in the Ministry of Industry, Trade and Labor and establishment of a helpline to provide information on rights and receive complaints from workers employed as part of the government's purchase of services. It was also agreed that negotiations between the sides would continue on unresolved issues.

Figure 1.9

Real wage per employee post[a], 2005 to March 2012, (NIS, 2004 prices)



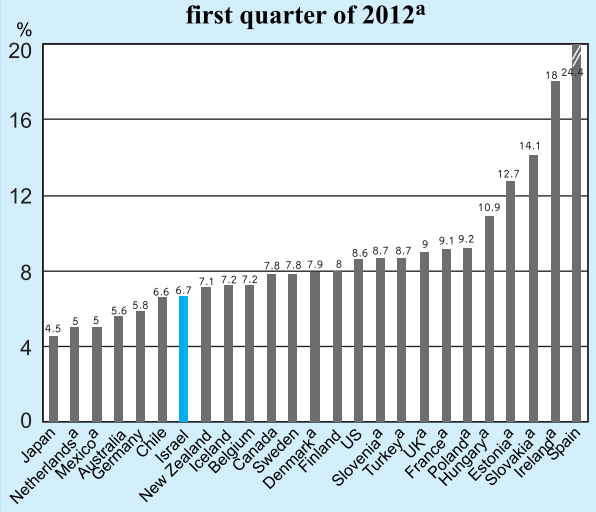
[a] Seasonally adjusted. Includes Israeli, Palestinian and foreign workers.

The transition to a monthly Labour Force Survey

At the beginning of 2012, the Central Bureau of Statistics began publishing the results of its Labour Force Survey on a monthly basis, in contrast to the quarterly format used up until then. As a result, the full survey sample is covered every month, instead of every quarter. The main goals of the change were to improve the quality of the data for the Israeli economy, to increase their frequency and to adopt international standards.

The switch to a monthly format involved changes of two main types: 1) The monthly survey characterizes the entire labor force, in contrast to the quarterly survey which only included the civilian labor force (excluding individuals serving in the military, whether as draftees or as career soldiers). In this way, the definition of the labor force used in Israel would be compatible to that used in the OECD countries and with the standards of the International Labor Organization. 2) The size of the sample and the number of cities included were expanded; the number of times each household was surveyed (i.e. the number of panels) was increased from four to eight; the ratio between the number of face-to-face visits and telephone interviews was changed; and the format of sampling was modified, which led to the use of additional information (geographic) in the sampling of households participating in the survey. In addition, changes were made in the method of estimation and the calculation of weighting coefficient factors. The changes led to significant differences between the results of the surveys. The transition to a monthly Labour Force Survey created a "break" in the data series that are calculated from it, as a result of the differences in the survey methods and in the characteristics of the labor force. Thus, during the transition period, the levels of participation, employment and unemployment increased. This does

The rate of unemployment during the first quarter of 2012[a]



[a] The data relates to the 4th quarter of 2011.

not constitute evidence of a turnaround in the economy and is mainly the result of the changes described in Section 2 above, since the changes in the labor force definition would be expected to affect the results of the survey (and primarily the rate of unemployment) in the opposite direction.

The following figure shows the ranking of the rate of unemployment in Israel according to the new survey. As a result of the change, Israel's unemployment situation relative to other countries worsened, with the rate of unemployment increasing from 5.4 percent in the last quarter of 2011 to 6.7 percent in the first quarter of 2012; nonetheless, the rate of unemployment in Israel remained low in international terms. In contrast, the rates of participation and employment improved relative to other countries. The CBS has concluded from the results so far that the trends in the data for the two surveys are identical and that the main difference between them is in level. During the last quarter of 2011, both surveys—the quarterly and the monthly—were carried out simultaneously and therefore the CBS published "concatenation coefficients" that make it possible to express the data of the quarterly survey for the last quarter of 2011 in terms of the data of the monthly survey and thus to view the data of the new survey as a continuation of the trend in the previous survey. The table below illustrates the differences in the data between the old and new surveys for the main data series.

Table: Differences between the data of the quarterly and monthly Labour Force Survey for the main data series (percent)

		Data for the fourth quarter of 2011		Data for the first quarter of 2012
		In terms of the quarterly survey (previous format, seasonally adjusted)	In terms of the monthly survey (after concatenation, seasonally adjusted)	(seasonally adjusted)
Participation rate among 15+ age group (percentage of population)	Total population	57.4	62.5	62.6
	Men	62.2	68.4	68.7
	Women	52.7	56.9	56.8
Employment rate among 15+ age group (percentage of population)	Total population	54.3	58.3	58.4
	Men	59.0	63.9	64.4
	Women	49.7	53.0	52.7
Unemployment rate among 15+ age group (percentage of civilian/general population)	Total population	5.4	6.8	6.7
	Men	5.2	6.7	6.2
	Women	5.7	6.8	7.3

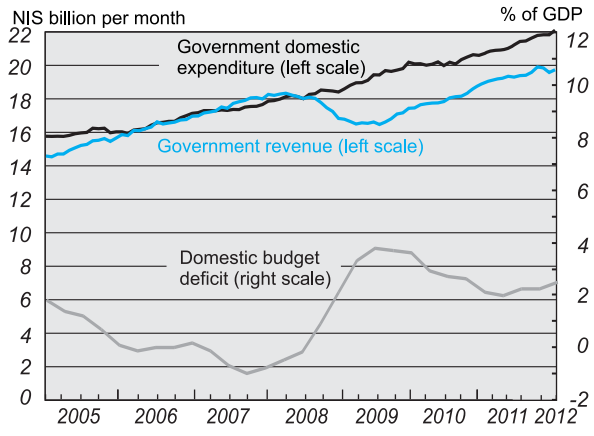
The government

The government's domestic deficit totaled about NIS 2.1 billion during the period being reviewed, about NIS 1.7 billion more than the seasonal path consistent with the deficit ceiling calculated according to the estimates based on the revised forecast (Figure 1.10 and Table 1.4). The gap reflects a shortfall of NIS 1.9 billion in revenues. This was partly offset by expenditures which were NIS 0.2 billion lower than the seasonal path. The low revenues are the result of low collection of taxes, which was lower than the revised seasonal path by about NIS 0.3 billion. In addition, other non-tax revenues were also NIS 1.4 billion lower then expected. Excluding one-time revenues (some of which are revenues that were meant to be received later in the year), tax revenues were NIS 2.4 billion below the seasonal path.

With that, based on trend figures and excluding one-time revenues and changes in legislation, tax revenues—from both direct and indirect taxes—have stabilized since the beginning of the year and relative to the previous reviewed period (Figure 1.11).

Figure 1.10

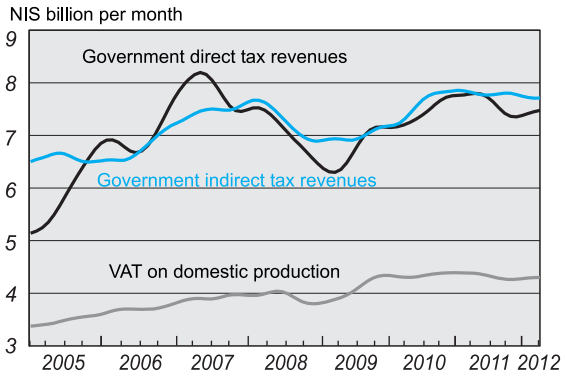
Current government revenue and expenditure and the deficit, 2005 to April 2012[a] (12-month moving monthly average)



[a] Seasonally adjusted.

Figure 1.11

Government tax revenues[a] after deducting one-time revenues and the effect of changes in legislation



[a] Constant prices. Seasonally adjusted.

Foreign trade

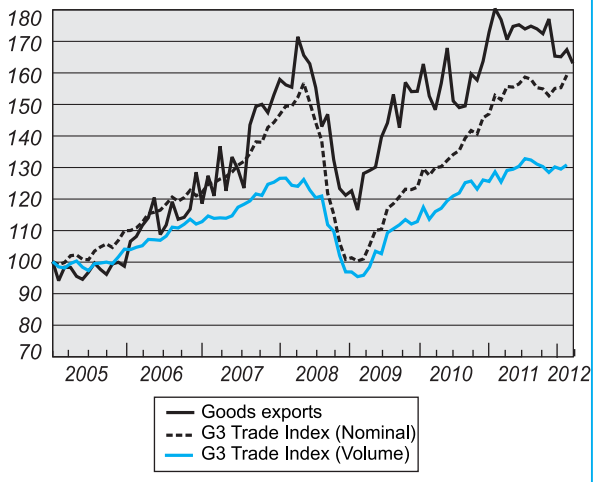
Foreign trade data indicate that goods exports declined during the period being reviewed (in dollar terms). The decline occurred in all of the months during the period except for March, and goods exports during the period were 5.4 percent lower than during the previous period (Table 1.5). In contrast, services exports during the first quarter of the year rose by a relatively high rate in comparison with the last quarter of 2011, which was primarily the result of exports of start-up companies, although other services exports also rose.

The decline in Israel's goods exports during the period being reviewed encompassed industries at all levels of technological intensity, apart from the low tech industries whose exports remained stable, despite the lack of change in the G3 Trade Index (the US, Germany and Japan, Figure 1.12) and the Global Trade Index. In comparison with the corresponding period in 2011, there was a noticeable decline in goods exports to the US, compared to an increase in exports to Asia and Europe. The decrease in Israeli exports to the US during the period was due to a large degree to the drop in exports of pharmaceuticals from Israel, a significant proportion of which is destined for the US market. Pharmaceuticals exports fell sharply during the first two months of the year, and the recovery in pharmaceuticals exports since March has led to an improvement in the overall figures for Israel's manufacturing exports to the US. The Tech Pulse Index in the US remained almost unchanged during the period being reviewed, simultaneous with some decline in Israel's index of electronics exports. In contrast, services exports rose steeply during the first two months of

the year, and on average were higher by 13 percent, in dollar terms, than the average monthly value during the previous reviewed period.

Figure 1.12

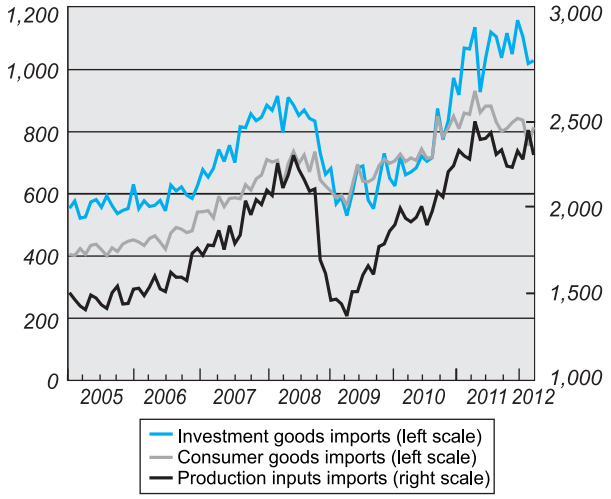
Foreign trade[a,c] and the G3 Trade Index[b,c], 2005 to April 2012, (January 2005=100)



[a] Excluding ships, aircraft, diamonds, and fuel.
[b] The G3 Trade Index is a weighted index of trade data of Germany, Japan and the US.
[c] Seasonally adjusted.

Figure 1.13

Import factors: Consumer goods, investment goods[a] and production inputs[b], 2005 to April 2012 ($ million)



[a] Excluding ships and airplanes; seasonally adjusted.
[b] Excluding diamonds and fuel; seasonally adjusted.

Total goods imports (in dollar terms, excluding ships and aircraft, diamonds and energy) rose sharply in January; however, since then goods imports have declined, so that the overall level during the period being reviewed was moderately higher (by 1.3 percent) than during the previous period. The growth in imports reflected primarily an increase in the import of raw materials, which was partly offset by the decline in the import of consumption goods (which has been characterized by a downward trend since May of last year) and stability in the import of investment assets, which remained unchanged during the period being reviewed (Figure 1.13). The average monthly trade deficit (excluding ships and aircraft, diamonds and energy) stood at $409 million during the period being reviewed, compared to about $147 million during the previous period. If account is taken of energy products, the monthly average trade deficit grew between the two periods from $1.3 billion to $1.9 billion.

Inflation and monetary policy

The CPI increased by 1.3 percent during January–April and the seasonally adjusted CPI increased by 1.2 percent relative to the previous period (Table 1.6). In April, inflation over the previous 12 months reached 2.1 percent, near the center of the inflation target range of 1–3 percent (for both the unadjusted and seasonally adjusted data). During the first two months of the year, the CPI remained unchanged, and in March and April it increased by 0.4 and 0.9 percent, respectively. The rates of change in the CPI did not significantly deviate from the average of earlier forecasts. The increase in the CPI during the period being reviewed was led by the rise in the price of dwellings maintenance and transportation and communication, while there were declines in the prices of clothing and footwear and furniture and home appliances. During the last 12 months, the CPI has been affected in particular by the increase in the price of dwellings maintenance (by 6.5 percent during the last 12 months and by 3.3 percent during the period being reviewed), which was the result of the increase in electricity and fuel prices. In addition, it was influenced by the increase in the housing component (by 3.5 percent during the last 12 months and by 1.5 percent during the period being reviewed) and the health component (by 2.3 percent during the last 12 months and by only 0.6 percent during the period being reviewed).

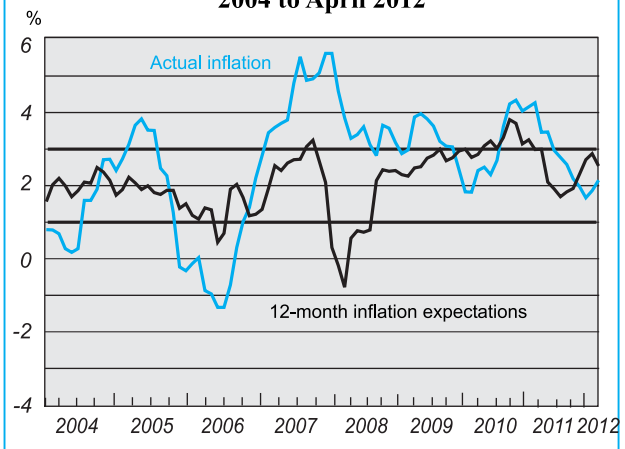
Inflation over the preceding 12 months was lower during the period under review than during the previous period and was even slightly below the center of the target range during the first quarter of the year (Figure 1.14). However, following the decline since July of last year, inflation once again began to rise and by the end of the period being reviewed reached the vicinity of the center of the target range. Expectations

of inflation over the coming 12 months calculated from the capital market (breakeven inflation) were higher during the period being reviewed than during the previous period. On average, expectations were located above the center of the target range; however, they were significantly lower than during the same period in 2011. Toward the end of the period being reviewed, inflation expectations declined somewhat but remained close to the upper bound of the target range.

At the end of April, the national gas company of Egypt notified natural gas supplier EMG that the agreement to supply natural gas to Israel was being unilaterally cancelled. The flow of gas from Egypt which began in 2008 and constituted about 45 percent of Israel's supply reduced the Israel Electric Company's expenditure on fuel and therefore also reduced the price of electricity to consumers in Israel. However, the supply of natural gas from Egypt had already been interrupted for about a year and therefore the announcement of the termination of supply had no effect on the price of electricity in Israel. In March, prior to the announcement, the Public Utilities Authority—Electricity announced a hike in the consumer price of electricity in 2012 (8.9 percent) which came into effect in April and additional increases that can be expected in 2013 and 2014 (4.4 and 3.7 percent, respectively), due to the interruption in the flow of natural gas.

Figure 1.14

Inflation in previous 12 months, inflation expectations[a] and the inflation target range, 2004 to April 2012



[a] 12-month inflation expectations as calculated by the Bank of Israel Research Department.
= Inflation target range.

Home prices, which are not included in the CPI but which are measured by the CBS's Survey of Home Prices, rose by a moderate rate of 0.4 percent in January and February compared with their level in December of 2011 (Table 1.6).

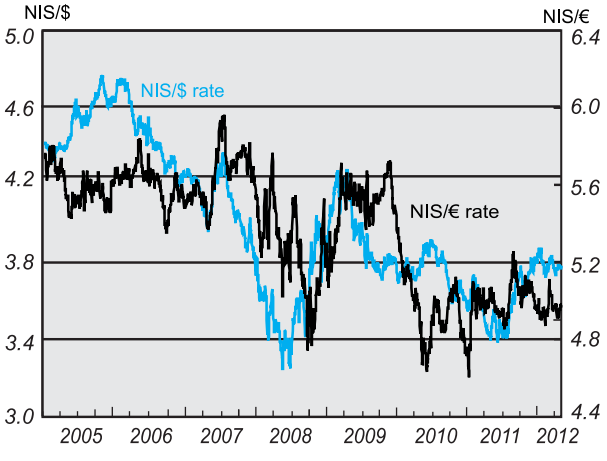
The rapid decline in the rate of increase of home prices over the previous 12 months continued during the first two months of 2012 and reached 2.2 percent in February (0.5 percent in real terms). In contrast, the housing component of the CPI (which reflects the level of rents) rose during the same period by 4.1 percent. Although since the beginning of the year there has been somewhat of a decline in the index of home prices in terms of monthly salaries it is still close to its historic highs, which have characterized it since late 2010.

In January 2012, the Monetary Committee of the Bank of Israel lowered the interest rate for February by 0.25 percentage points to 2.5 percent and left it there for the remainder of the period being reviewed. The decision to cut the rate of interest in January was based primarily on the indicators of a slowdown in the growth of GDP, the weakness of the global economy—primarily in Europe—and the uncertainty regarding future developments, as well as the stabilization of inflation and the expectations of inflation in the vicinity of the center of the target range. Over the course of the remainder of the period being reviewed, the Committee decided to leave the rate of interest unchanged, primarily as a result of the increased 12-month expectations of inflation (due mainly to the increase in energy prices) and stability of the economy's growth.

The variation in the exchange rate of the shekel against the dollar and against the euro was within the normal range from the beginning of the year until April (Figure 1.15). During the period being reviewed, the shekel appreciated by 1.9 percent against the dollar and depreciated by 0.4 percent against the euro.

Figure 1.15

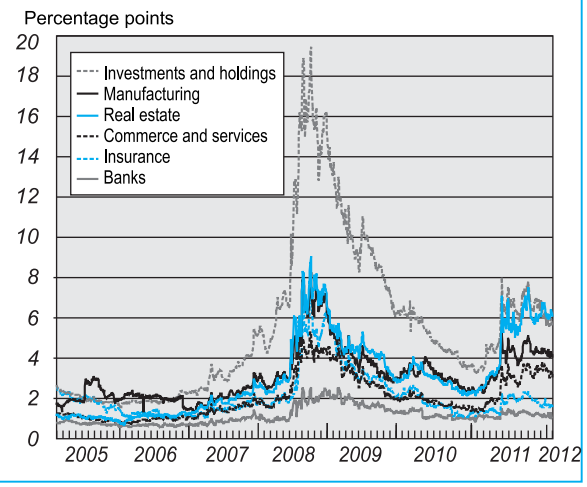
The nominal NIS/$ and NIS/€ exchange rates, 2005 to April 2012



Yield gaps between corporate and government bonds declined moderately in the period reviewed, compared with the previous period. However, despite the decline, they remained high, and similar to their levels of the third quarter of 2008, so that the new issues market was accessible primarily to first tier companies (Figure 1.16).

Figure 1.16

The gap between the weighted average yield of CPI-indexed corporate bonds and *Galil* government bonds, by industry, 2005 to April 2012

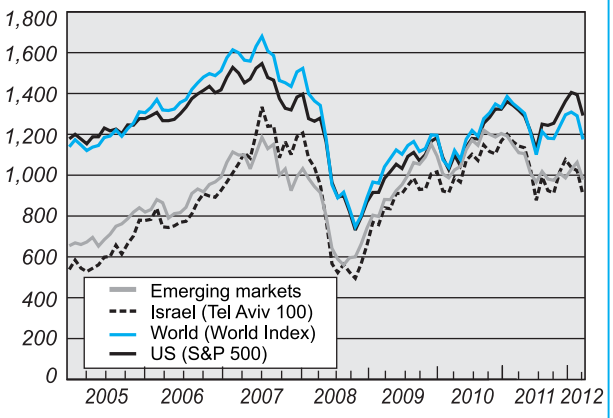


The General Share Index in Israel rose during the period by 8.2 percent, which was somewhat less than the S&P 500 Index (11 percent) and the Emerging Markets Index (12 percent). However, the developments in the global financial markets were marked by contrasting trends during the period. The developments in the first quarter of the year were quite positive, while stock indices rose – continuing the positive trend since November 2011. But since the beginning of April, through May, as a reaction to the growing concern in the financial markets over Spain's debt crisis, there was a negative turnaround in the upward trend and stock indices fell. The reaction of the Israeli market was similar, though a bit delayed. The recovery in stock market indices began only in March and the fall in local financial markets, as a reaction to the global events began only in May. The decline in May erased the entire increase in the local stock indices since the beginning of the year (Figure 1.17).

The TA–Com Index of communication and media shares declined during the period reviewed. These declines derived to a large extent from declines in share prices of cellular operators, as a response to Ministry of Communications measures to increase competition in the industry.

Figure 1.17

Selected share indices, Israel and around the world[a], 2005 to May 2012



[a] Indices denominated in dollars, except for Tel Aviv 100.

The global economy

The slowdown in Europe continued to deepen during the period being reviewed, which also affected real and financial global activity. Since the beginning of the year, the credit ratings of a number of countries in Europe were lowered and there were increasing fears that the austerity programs that the EU had tried to impose on a number of countries would not lift them out of the crisis nor return them to a trajectory of growth. The real data for the European countries continued to disappoint. In contrast, the data for the US economy pointed to a recovery and the emerging markets continued to show resilience in the face of the global economic crisis, despite some slowing of their exports to the developed countries. In reaction to the fears that the European debt crisis would spread, measures to support the countries in crisis were intensified during the period under review. Thus, the ministers of finance of the eurozone decided to establish an expanded assistance fund by mid-2013; the G20 ministers of finance decided to make available an additional $430 billion for the rescue of member countries from crises; and the European Central Bank continued the liquidity auctions that are meant to make financing easier for the banks and prevent credit shortages.

The National Accounts figures for the eurozone for the first quarter of 2012 indicate stagnation in economic activity (a growth rate of zero). Growth in the eurozone was led by Finland, which grew by 1.3 percent, while the lowest rate of growth was that of Hungary whose GDP contracted by 1.3 percent. The Euro Coin Index, which is measured by the central bank of Italy and the CEPR, and which serves

as a leading indicator of the National Accounts figures for Europe, indicates that the decline in growth continued in April. The employment figures for the eurozone were also disappointing during the period being reviewed, with the rate of unemployment reaching 10.9 percent in March (an increase from 10.8 percent during the first two months of the year), which is high in historic terms. Manufacturing output shrank during March, after rising somewhat during the first two months of the year. It has been declining since the second half of 2011 and is very low relative to its level prior to the beginning of 2008. The output of the construction industry in the eurozone also contracted during the first two months of the year, which was a continuation of the contraction in the last quarter of 2011. Although the retail trade figures for Europe were positive in March, they have also been declining for several months and they are at a low level relative to the beginning of 2008. The UK economy is also slowing signs of a slowdown, with growth at negative levels for two quarters already and a high rate of unemployment (8.3 percent in January). Newly released figures led to a downward revision of the forecasts of global growth for 2012 and 2013. The IMF revised its forecast of growth to 3.5 percent for 2012 and to 4.1 percent for 2013. Similarly, it revised its forecast for growth in world trade to 4.0 percent for 2012 and 5.6 percent for 2013.

The fears that the debt crisis in Europe will spread are based on the dire financial situation in Spain and Greece. In Spain, which suffers from a severe fiscal crisis and problems in the banking system, the rate of unemployment is the highest in the eurozone and in March reached a record 24.1 percent. Spain's rate of growth during the first quarter of 2012 was -0.3 percent for the second consecutive quarter. In view of Spain's economic situation, the government announced an austerity program that includes budget cuts, tax increases and a freeze on public sector wages, with the goal of reducing the deficit and thus being able to meet the government's commitments to the EU. However, these targets appear to be overly ambitious and there are those who claim that the program is insufficient in order to achieve those goals.

As part of an additional rescue package of €130 billion put together by the EU and IMF, Greece's government in March swapped bonds which reduced its public debt and required all holders of Greece's bonds to take a loss. Under the deal, existing Greek bonds were swapped for new 30-year Greek bonds bearing a coupon rate which increases over time, and whose face value is 31.5 percent of the face value of the bonds for which they were swapped. In addition, investors received two-year EFSF bonds at a par value of 15 percent of the bonds which were swapped, and a financial asset indexed to Greece's GDP which will pay interest beginning in 2015, if and when Greek growth rises above a specified threshold. The "haircut" for investors in the deal is 53.5 percent, and the loss to bond holders, in terms of current value, is 75 percent. In the transaction, bonds held by the ECB were not swapped. In addition to the bond swap plan, the bailout package includes additional measures, the aim of which is to bring the Greek economy into a framework of reducing expenses and increasing revenue. This includes reforms in salaries, pensions, government operations, and the tax regime.

Other European countries are also making efforts to rehabilitate their economies. In the first four months of the year, those countries have instituted fiscal measures and reforms intended to reduce expenditure, increase public sector revenues, and make the labor market more flexible. For example, the Italian government authorized labor law reforms in order to increase employment flexibility, the UK government submitted a budget which includes steps to rein in expenses and increase revenues, and Belgium's government, in line with EU demands, amended its budget several times and included tax reforms in it.

An increasing number of indicators point to a recovery in the US economy. US National Accounts data for the first quarter indicate GDP growth of 2.2 percent; although this is a decline from the 3 percent growth rate in the last quarter of 2011, it is nonetheless an improvement over the first quarter of 2011, when the growth rate was 0.4 percent. Figures published indicate a notable increase in personal consumption expenditure and inventory investment in the first quarter, and a decline in unemployment during every month of the review period, though there was also a decline in the participation rate.

Emerging market countries are on a moderate growth path. Although China's growth figure for the first quarter of 2011 (8.1 percent) was slightly lower than expectations, the Chinese government is taking steps to boost growth (increasing loans and money supply). In India, the central bank lowered the interest rate as part of its efforts to increase liquidity and support growth.

Table 1.1. National Accounts, 2011-2012

(percentage change in annual terms, at constant prices, seasonally adjusted)

		Change from previous quarter					2012/I	
		2011				2012		
	2011	I	II	III	IV	I	Year-on-year change[a]	Last month for which data available
GDP	4.8	5.1	3.7	3.3	3.2	3.0	3.3	March
Business-sector product	5.3	6.0	3.0	4.5	3.5	2.8	3.6	March
Private consumption expenditure	3.7	5.7	-0.1	0.9	0.2	4.2	1.9	March
Gross domestic investment	21.1	51.0	6.5	22.0	-3.5	23.9	13.9	March
Fixed investment	16.6	19.4	13.9	14.6	6.7	6.2	11.4	March
Goods and services exports excl. diamonds	4.3	6.7	5.7	-0.5	-3.9	17.7	5.0	March
Goods exports[c]	4.9	12.6	12.8	-7.3	-6.7	3.3	0.6	March
Services exports[c]	7.5	-3.1	9.7	-3.5	7.2	45.0	13.8	March
Goods and services imports excl. diamonds[d]	8.9	17.5	5.7	4.1	-7.5	24.4	7.2	March
Goods imports[e]	12.2	33.1	6.6	-8.3	-0.9	33.1	8.0	March
Services imports[e]	6.3	11.6	27.8	-2.2	-23.2	27.1	5.1	March
Public sector consumption	3.6	1.0	3.9	2.5	8.0	0.8	2.8	March
Public consumption excluding defense imports	3.4	0.8	4.4	2.9	5.8	1.6	3.1	March
Domestic use of resources	6.6	10.9	3.4	5.2	0.5	6.1	4.5	March

[a] Unadjusted data.

[b] Compared with previous year.

[c] New calculation - excluding subsidies.

[d] Excluding defense imports, ships and aircraft.

[e] New calculation - excluding taxes.

SOURCE: Based on Central Bureau of Statistics data.

Table 1.2. Indicators of Business Activity, 2011-2012

(percentage change, in annual terms, seasonally adjusted)

	Change from previous month						January-April 2012		
	2011		2012				Change from previous period	Year-on-year change[a]	Last month for which data available*
	Nov	Dec	Jan	Feb	Mar	Apr			
Composite State-of-the-Economy Index	0.2	0.1	0.1	0.1	0.1	0.2	0.6	3.1	April
Large-scale retail trade	2.4	-3.3	2.9	-0.6	-4.8	7.2	0.4	5.1	April
Industrial production (excl. diamonds)	-1.8	0.0	-0.6	-2.4	0.2		-2.7	-0.1	March
Index of trade revenue	0.2	0.2	0.0	0.5	-0.9		0.3	1.7	March
Index of trade and services revenue	0.6	1.4	-2.2	0.1	-0.2		-1.1	1.2	March
Index of services exports	19.8	-3.2	3.7	-2.2	-6.6	4.4	2.1	5.6	April
Tourist arrivals	5.0	-2.0	-2.0	2.1	-0.1	4.7	1.7	6.5	April
Residential construction									
Starts	-10.2	32.6	-13.1	-10.5	-4.1		-7.8	-11.3	March
Completions	-27.1	22.8	-4.9	8.7	-11.7		-1.1	-1.0	March
ILA land permits (units)[a,b]	1,884	1,242	976	1,000	3,910	943			April
Climate indices based on Business Tendency Survey[c]									
Assessment of present activity: total business sector	0.23	0.18	0.22	0.22	0.25	0.22			April
Assessment of present activity: manufacturing industry	0.26	0.17	0.20	0.22	0.24	0.24			April
Assessment of present activity: services industry	0.22	0.18	0.23	0.21	0.26	0.19			April
Assessment of future activity: total business sector[d]	0.16	0.14	0.20	0.27	0.30	0.28			April
Business Climate Index (total business sector)	0.19	0.17	0.21	0.24	0.26	0.25			April

* For monthly indicators, when the last month for which data is available is April, the previous comparison period is September–December; when the last month with data available is March, the comparison period is September–November. When the last month with data available is February, the comparison period is September–October. For indicators produced quarterly, the comparison is to the last complete quarter in the previous period reviewed.

[a] Unadjusted data.

[b] Land transactions authorized by the Israel Land Administration in the relevant period.

[c] Figures are in terms of monthly growth of business product and refer to the month in which the survey was conducted.

[d] Expectations are attributed to the middle of the three month period following the survey.

SOURCE: Based on Central Bureau of Statistics and Ministry of Construction and Housing data.

Table 1.3. Indicators of Labor Market Developments, 2011-2012

(percentage change, seasonally adjusted)

		Percent change from previous quarter					January-April 2012		
	I/2012	2011				2012	Change from previous period	Year-on-year change[a]	Last month for which data available *
	('ooo)	I	II	III	IV	I			
Civilian labor force	3,530.6	0.0	0.4	0.4	0.4	0.4	0.4	2.5	March
Israeli employees	3,293.4	0.5	0.9	0.4	0.5	0.4	0.4	3.1	March
of which : in public services		2.9	0.2	-1.2	0.3				December
in business sector		-1.0	1.9	0.5	0.5				December
Foreign workers and Palestinians (unadjusted)		3.0	2.3	1.7	0.5				December
Average hours worked weekly per Israeli employee	36.2	0.3	-0.5	0.0	-1.1	0.9	0.9	-0.1	March
Weekly labor input in business sector (incl. foreign workers and Palestinians)		0.6	0.6	1.5	1.1				December
of which: Israelis		0.2	0.4	1.5	1.1				December
Weekly labor input in public services (Israelis)		1.5	1.4	-3.5	-0.7				December
Unemployed	237.3	-7.1	-6.4	0.2	-2.3	-1.4	-1.4	-5.9	March
Job seekers		-2.5	0.6	-0.7					August
Claims for unemployment benefit	72.9	-5.2	-1.8	4.3	-1.1	0.5	-0.1	3.3	April
Balance of Employment[b]		2.1	1.4	1.5	0.7	0.3			March
Job vacancies[a]	68.5	8.5	-9.2	7.8	2.3	0.9	0.9	3.5	April
	(NIS)								
Real wage per employee post[c]		-0.8	0.4	0.7	0.4	0.1	0.1	0.4	March
In public services		-0.9	-0.2	0.6	1.3	-0.1	-0.1	1.5	March
In business sector		0.5	-0.1	0.5	0.7	-1.2	-1.2	0.0	March
Nominal wage per employee post[c]	8,740.4	0.6	0.8	0.8	0.9	0.9	0.9	2.2	March
In public services	8,352.3	0.6	0.7	0.7	1.5	0.4	0.4	3.4	March
In business sector	8,797.4	1.0	0.8	0.6	1.2	-0.7	-0.7	1.8	March
Unit labor cost		-0.8	0.0	-1.9	-0.8				December
		Percent, seasonally adjusted							
Participation rate		62.7	62.7	62.6	62.6	62.6			March
Employment rate		58.1	58.3	58.3	58.3	58.4			March
Unemployment rate		7.6	7.0	7.0	6.8	6.7			March
Depth of unemployment[d]		20.1	19.4	20.8	21.8	25.4			March

* For monthly indicators, when the last month for which data is available is April, the previous comparison period is September–December; when the last month with data available is March, the comparison period is September–November. When the last month with data available is February, the comparison period is September–October. For indicators produced quarterly, the comparison is to the last complete quarter in the previous period reviewed.

[a] Unadjusted data.

[b] Posts filled minus terminations of employment, as a percentage of the total number of employees in businesses in the Employers Survey Sample. The calculation is made by the Bank of Israel.

[c] Including foreign workers and Palestinians. Seasonally adjusted data.

[d] Percent of unemployed seeking work for more than six months (unadjusted).

SOURCE: Central Bureau of Statistics Labor Force Survey, except for data on Israelis, non-Israelis, and labor input in the business sector, and total Israelis employed, which are the Central Bureau of Statistics (CBS) National Accounts estimates; job seekers, which are derived from the Israeli Employment Service; claims for unemployment benefit, which are derived from the National Insurance Institute; job vacancies, which are derived from the CBS Survey of Job Vacancies, and the Balance of Employment, which is derived from the Ministry of Industry, Trade and Labor's Employers Survey.

Table 1.4. Government Budget Performance, 2011-2012

		Change from previous quarter						January-April 2012		
		2011				2012		Change from previous period	Year-on-year change	Last month for which data available*
	2011[a]	I	II	III	IV	I	II			
Domestic deficit, as percent of GDP	-2.1	1.8	-1.9	-1.6	-6.7	0.4				March
Total deficit excluding credit, as percent of GDP	-3.3	0.5	-3.0	-2.2	-8.4	-0.5				March
Deviation from domestic budget path, excl. credit extended:[b]					(NIS billion)					
Revenue	-5.6	0.5	-1.5	-4.6	-0.1	-2.9		0.2	-2.2	April
Expenditure	-3.1	-0.2	-2.1	-2.9	2.0	-1.4		-0.2	0.6	April
Deficit	-2.5	0.7	0.6	-1.7	-2.0	-1.5		0.4	-3.3	April
Total deficit excluding credit	-28.7	1.1	-6.4	-4.9	-18.5	-1.0		16.6	-3.3	April
		Real change year-on-year (percent)								
		2011		2012						
		Nov	Dec	Jan	Feb	Mar	Apr			
Government domestic revenues excluding credit		0.8	12.0	17.0	-4.9	-14.5	9.0		0.9	April
Government tax revenue		1.1	8.8	12.7	-3.2	-5.3			1.8	March
of which : income tax, net		-4.3	23.1	31.8	-6.8	-0.5	-0.6		6.9	April
VAT, gross		8.5	-3.3	10.1	5.6	-3.3	2.6		3.7	April
Government expenditure excluding credit		1.4	5.4	9.3	-0.9	-1.2	14.8		5.0	April
National Insurance allowances		6.4	5.7	5.1	3.0	5.6	6.3		5.0	April
of which : Unemployment benefit		0.3	4.6	3.8	8.3	10.6	5.1		6.9	April
Income support[c]		-3.0	-0.4	-3.4	-3.9	-1.3	-1.7		-2.6	April
Payments to the National Insurance Institute by the public		3.8	2.9	5.2	1.4	1.3			2.6	March

* For monthly indicators, when the last month for which data is available is April, the previous comparison period is September–December; when the last month with data available is March, the comparison period is September–November. When the last month with data available is February, the comparison period is September–October. For indicators produced quarterly, the comparison is to the last complete quarter in the previous period reviewed.

[a] Compared with previous year.

[b] The path is determined in accordance with the deficit ceiling. The figures compared with the previous period and with the corresponding period are differences.

[c] Not including income support in old-age and survivors' pensions.

SOURCE: Based on Ministry of Finance and National Insurance Institute data.

Table 1.5. Foreign Trade, Balance of Payments, and the Reserves, 2011-2012

(Seasonally adjusted)

		Change from previous quarter						January-April 2012		
		2011				2012		Change from previous period	Year-on-year change[b]	Last month for which data available*
	2011[a,b]	I	II	III	IV	I	II			
		(rate of change, percent)[c]								
Trade in goods[d]										
Goods imports	22.2	9.2	4.8	0.4	-4.1	2.5	-2.6	1.3	4.9	April
of which: Consumer goods	15.5	3.1	5.2	-2.0	-6.0	-0.2	0.4	-0.7	-2.4	April
Capital goods	44.4	19.2	5.7	4.2	-1.7	2.5	-6.1	0.0	9.7	April
Intermediates	16.4	7.8	4.2	-0.4	-4.5	3.5	-2.0	2.6	5.7	April
Goods exports	12.3	10.8	1.0	0.4	-0.1	-4.9	-1.8	-5.4	-4.1	April
of which: Manufacturing	12.5	10.7	1.2	0.5	-0.3	-5.0	-1.8	-5.5	-4.1	April
of which: High-tech	6.9	8.5	-2.8	-5.5	8.5	-9.2	5.2	-6.0	-4.9	April
Balance of payments				$ million						
Goods and services exports	89,278	22,066	22,663	22,859	21,689					December
Goods and services imports	91,821	22,537	23,370	23,325	22,589					December
Balance of trade in goods and services account	-2,544	-471	-707	-466	-899					December
Balance of trade in current account	-255	390	-150	245	-740					December
Surplus/deficit in financial account (excl. foreign exchange reserves)[b]	749	992	4,247	-2,258	-2,232					December
of which: Nonresidents' direct investments[b]	11,397	2,039	2,046	2,602	4,711					December
Nonresidents' portfolio investment[b]	-5,441	1,863	421	-2,436	-5,289					December
Residents' direct and portfolio investment abroad[b]	8,427	3,300	1,029	1,669	2,429					December
Bank of Israel foreign currency reserves, end-period[b]	74,875	74,526	77,413	76,329	74,875	77,041	76,650	2.4	-1.0	April
Net external debt (percent of GDP)[b,e]	-24.9	-23.8	-23.3	-24.3	-24.5					December

* For monthly indicators, when the last month for which data is available is April, the previous comparison period is September–December; when the last month with data available is March, the comparison period is September–November. When the last month with data available is February, the comparison period is September–October. For indicators produced quarterly, the comparison is to the last complete quarter in the previous period reviewed.

[a] Compared with previous year.

[b] Unadjusted data.

[c] The change relates to the dollar values of imports and exports.

[d] Not including ships, aircraft, diamonds, and fuel.

[e] GDP is calculated at the end-of-period NIS/$ exchange rate.

SOURCE: Based on Central Bureau of Statistics data.

Table 1.6. Selected Price Indices, the Effective Exchange Rate, Nondirected Bank Credit, Interest Rates, Yields, and the Share Price Index, 2011-2012

(rates of change, percent)

	Change from previous month						January-April 2012		
	2011		2012				Change from previous period	Year-on-year change	Last month for which data available*
	Nov	Dec	Jan	Feb	Mar	Apr			
Consumer Price Index (CPI)	-0.1	0.0	0.0	0.0	0.4	0.9	1.3	2.1	April
CPI (seasonally adjusted)	0.1	0.1	0.4	0.2	0.4	0.3	1.2	2.1	April
Price index of owner-occupied homes[a]	0.3	-0.2	0.1	0.3			0.4	2.2	February
General share-price index[b]	-3.2	0.1	4.7	-2.3	2.4	3.3	8.2	-4.8	April
Real effective exchange rate[c]	1.2	-0.1	0.6	0.2	0.5	-0.8	1.1	4.1	April
Nominal effective exchange rate	1.1	-0.2	0.5	-0.1	0.2	-0.5	0.5	2.9	April
Nondirected bank credit	0.2	0.5	0.6	0.0	0.0	-1.3	1.0	6.2	April
Effective interest rate in daily deposit auction[b]	3.0	2.8	2.8	2.5	2.5	2.5	2.6	2.5	April
Yield to maturity on 5-year notes[b]					1.2	1.1		1.0	April
Risk premium[b,d]	21.1	8.9	2.6	-15.3	3.6	1.3	5.8	49.1	April
	Change during previous 12 months[e]								
CPI	2.6	2.2	2.0	1.7	1.9	2.1		1.9	April

* For monthly indicators, when the last month for which data is available is April, the previous comparison period is September–December; when the last month with data available is March, the comparison period is September–November. When the last month with data available is February, the comparison period is September–October. For indicators produced quarterly, the comparison is to the last complete quarter in the previous period reviewed.

[a] Not part of the CPI.

[b] Daily average over the month.

[c] The real effective exchange rate is the weighted geometric mean of the exchange rate of the shekel against 28 currencies, representing 38 of Israel's main trading partners (weighted by the extent of Israel's trade with those countries), adjusted for the difference between the rate of inflation in Israel and the rates of inflation in those countries.

[d] As measured by 5-year credit-default-swaps (CDS). Calculated as the difference in basis points.

[e] Year-on-year period change.

SOURCE: Based on Central Bureau of Statistics data.

Table 1.7. Indicators of Economic Development in Advanced and Developing Economies [a]

(annual change, percent) [b]

			2010	2011	2012 Projection	2013 Projection
World GDP			5.3	3.9	3.5	4.1
	Advanced economies		3.2	1.6	1.4	2.0
	Emerging and developing economies		7.5	6.2	5.7	6.0
World trade			12.9	5.8	4.0	5.6
	Advanced economies	Imports	11.5	4.3	1.8	4.1
		Exports	12.2	5.3	2.3	4.7
	Emerging and developing economies	Imports	15.3	8.8	8.4	8.1
		Exports	14.7	6.7	6.6	7.2
Commodity prices ($)	Oil [c]		27.9	31.6	10.3	-4.1
	Nonfuel		26.3	17.8	-10.3	-2.1
Inflation (CPI)	Advanced economies		1.5	2.7	1.9	1.7
Short-term interest rate (%) [d]	Dollar deposits		0.5	0.5	0.7	0.8
	Euro deposits		0.8	1.4	0.8	0.8
Unemployment rate	Advanced economies		8.3	7.9	7.9	7.8

[a] According to the World Economic Outlook, Israel is classified as an advanced economy. The advanced economies include the industrialized countries and some emerging markets.

[b] Except for unemployment and interest rates (percent).

[c] The average price of a barrel of UK Brent, Dubai and West Texas Intermediate crude oil in 2011 was $104.01, excluding freight costs. Estimated price for 2012 is $114.71 and for 2013, $110.00.

[d] Six-month Libor rate for US dollar deposits, and three-month Libor rate on euro deposits.

SOURCE: World Economic Outlook (IMF), April 2012.

Part 2: Broader Review of Selected Issues

Calculation of "Climate Indices" from the Business Tendency Survey

- The Bank of Israel Research Department has recently started to calculate "Climate Indices" each month for various industries and for the business sector as a whole on the basis of the results of the Central Bureau of Statistics' Business Tendency Survey. An analysis conducted in recent months indicates that the "Climate Indices" are correlated with changes in the Composite State of the Economy Index, and that they provide a real-time indicator of the rate of growth of the business sector.
- Both the Composite State of the Economy Index and the "Climate Indices" indicate that the business sector recorded a relatively high monthly rate of growth at the beginning of 2011 of about 0.35 percent. Starting from the second quarter of that year, the rate of growth gradually moderated, reaching a level of about 0.15 percent in January 2012.
- The "Climate Indices" indicate that there was an improvement in the rate of growth during February and March. However, the component of the "Climate Indices" which is based on firms' expectations indicates that in April the upward trend leveled off and the monthly rate of growth stabilized at around 0.25 percent, which is expected to prevail until June. Based on data published to date, these indicators are consistent with the Bank of Israel's most recent forecast of 3.1 percent growth in 2012.
- On an industry level, the expectations component of the "Climate Indices" indicates that the leveling off of the upward trend in the growth of the business sector which began in April is primarily seen in services, manufacturing and trade, while firms in the construction and hotels industries expect further acceleration of growth.

Introduction

We present below the method of calculation for "Climate Indices" which are derived from the results of the Business Tendency Survey carried out by the Central Bureau of Statistics (CBS). The indices are a real-time indicator of the rate of growth in the business sector, as embodied in the responses to the Survey with respect to a number of variables (orders, sales, etc.) and for a number of horizons (past, present and expected). This type of index constitutes an important contribution to policy management, because during the decision making process official statistics, in particular National Accounts figures, are not known in real time. Below, we describe the method of calculating the indices and analyze the results for recent months, and describe some directions for future development. We first briefly present some background on the Business Tendency Survey.

At the beginning of 2011, the CBS began carrying out a monthly survey of about 1,000 companies[1] in five industries: manufacturing, construction, retail trade, services and hotels.[2] The companies that participate in the survey respond to questions regarding their business performance, both actual and expected. These questions focus on the overall situation of the company, the volume of orders (by destination), production and sales, number of employees, etc. The questions relate to three time periods:

1. The present – the current situation of the company.
2. The past – the situation of the company during the three months prior to the survey.
3. The future – the expected situation of the company during the coming three months.

The responses to the questions can be "better than usual/higher than expected for the season", "no change/as expected for the season" or "worse than usual/lower than expected for the season", which are of course qualitative answers rather than quantitative. Once the Survey is completed, the CBS publishes the net balance for each question (the difference between the number of companies that reported that their situation was good and the number that reported that their situation was bad). Due to the large number of questions and the division into time periods, the results of the Survey consist of about 50 series of net balances. Based on the results, the Research Department calculates the "Climate Indices" using the method described below.

[1] The Business Tendency Survey carried out by the CBS will replace the quarterly Survey of Companies which is conducted by the Bank of Israel.

[2] The division of companies by industry in the Business Tendency Survey is not consistent with the generally accepted economic divisions used in other statistical series, such as the National Accounts, the Labour Force Survey and Employee Posts. This makes it difficult to compare the result of the industry-specific climate indices with corresponding series from official sources that publish data on a monthly basis.

The calculation of the Climate Indices makes two important contributions to the analysis of the Survey's results. One is dimension reduction, which reduces the wide scope of the data to produce a general picture of the responses. It is made possible by the high level of correlation between the questions. The second contribution is the quantification of qualitative answers or, in other words, expressing the responses (which are summarized in the net balances) in terms of the rate of growth of the business sector, in which the Composite State-of-the-Economy Index is expressed. This quantification provides policy makers with a picture of the economy expressed in familiar terms and also allows them to compares the results of the Survey to data and findings obtained from other sources (such as the National Accounts and the Composite Index).

Calculation of the "Climate Indices" and their components

The method of calculating the Climate Indices involves three stages: reducing the dimensions of the Survey on the industry level, expressing the reduced indices for each industry in terms of monthly growth of the Composite State of the Economy Index (hereafter: "the Climate Indices") and the aggregation of the results in order to obtain the "Climate Index" for the business sector as a whole. It is important to note that the method described here is not final since so far we only have 15 observations of the Business Tendency Survey. Below we will mention a number of possibilities for developing the indices, once the data series from the Survey is sufficiently long.

First stage: dimension reduction

The calculation of the Climate Indices makes use of the fact that, despite the wide range of questions in the Business Tendency Survey, with respect to both the company's past and future performance, the responses to the questions have a high level of correlation between them. As a result, the Survey data can be compressed into a climate index, without loss of much information. The compression is accomplished using a statistical procedure known as "principal components analysis". In this procedure, the first principal component is the linear combination of the group of series that explains the largest proportion of the covariance in the group (see Figure 1). The industry-specific Climate Index (which at this stage is not yet expressed in terms of the rate of growth) is calculated as the first principal component for most of the Survey questions[3], for all time horizons (i.e. past, present and future) together.[4] The derived series is attributed to the month following the month in which the Survey was carried out.[5] Also calculated are three estimates of the climate components for each industry:

1. An assessment of past activity which is calculated from the responses of the companies with respect to the three months previous to the survey. The derived series is attributed to two months prior to the execution of the survey.

2. An assessment of present activity which is derived from the survey question regarding the overall situation of the company at the time of the survey. The derived series is attributed to the month in which the survey was carried out.

3. An assessment of future activity which is calculated from the responses regarding expectations for the coming three months. The derived series is attributed to two months following the survey.

Each first principal component derived from the survey responses in the various industries is normalized to an average of zero and unitary variance.

Evidence that only a small amount of information is lost in the dimension reduction is the high level of covariance among all the responses explained by the first principal component, i.e., between 72 and 90 percent depending on the industry (Table 1).

Table 1: Percentage of covariance of net balance series explained by the first principal component in the climate indices

Industry	Percentage of covariance explained
Manufacturing	82.8
Construction	77.3
Hotels	86.6
Retail trade	72.2
Services	89.8

For purposes of illustration, Figure 1 presents the series of net balances for manufacturing, which are included in the backward estimate and in the forward expectations estimate, alongside the first principal component derived from them (i.e., the climate component, which at this stage,

[3] We do not include questions on inventories in manufacturing, credit and prices since they are not unambiguous indicators of economic activity. Similarly, questions regarding number of employees were not included since we are developing specific indices for employment.

[4] This part of the calculation method is based on the following publication of the European Commission: http://ec.europa.eu/economy_finance/publications/publication16480_en.pdf

[5] The results of the Survey are published seven working days after the month in which the Survey is carried out.

as mentioned, is still not expressed in terms of the rate of growth).

One can see from the two examples in the graph that the series of net balances of the various questions are highly correlated with one another and that their first principal component indeed expresses their common motion.

Second stage: expressing the climate indices in terms of growth

In order to improve the interpretation of the Climate Indices and their components, we express them in terms of the monthly growth of business output, in which the Bank of Israel's Composite Index is also stated. To this end, univariate regressions are estimated in which the dependent variable is the rate of change in the Composite Index and the explanatory variable is the first principal components that were calculated in the previous stage. A total of four equations are calculated for each industry. For each regression, the bias and slope are derived. We assume that each company that responds to the Survey draws its qualitative answers for the past, present and future from the same distribution of quantitative changes and therefore there should not be any systematic differences between the slopes of the responses for the past, present and future but rather a tendency, on average, to a common slope. In order to estimate the parameters of the climate components subject to this constraint, we estimate the regressions under the constraint that the slopes are identical for all the components. We would emphasize that we allowed the regression of the overall Climate Indices (as opposed to the regressions of the three components) to have a different slope, without any constraint. The coefficients of the regression were found to be positive and significant, apart from the case of the construction industry.

Figure 2.1

Net balance series and their first principal component, manufacturing industry
(Based on the Business Tendency Survey conducted in April and published in May 2012.
Horizontal time axis indicates the reference period of the data, not the month of the survey.)

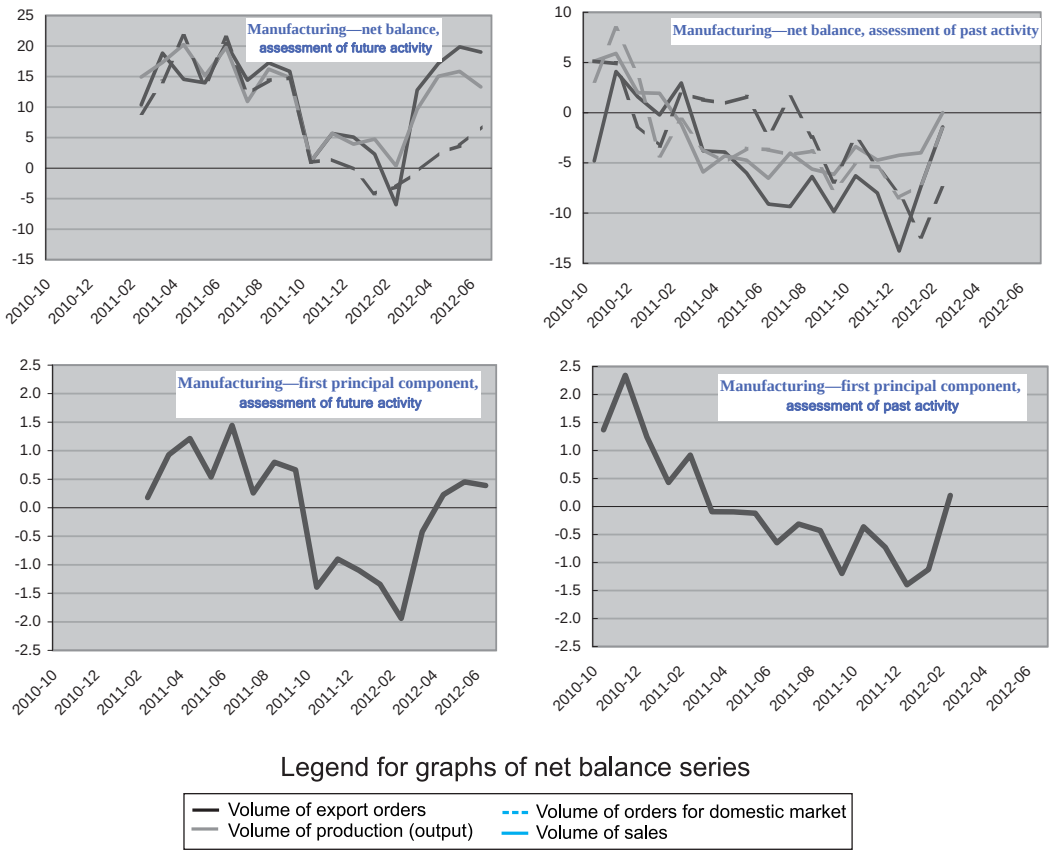
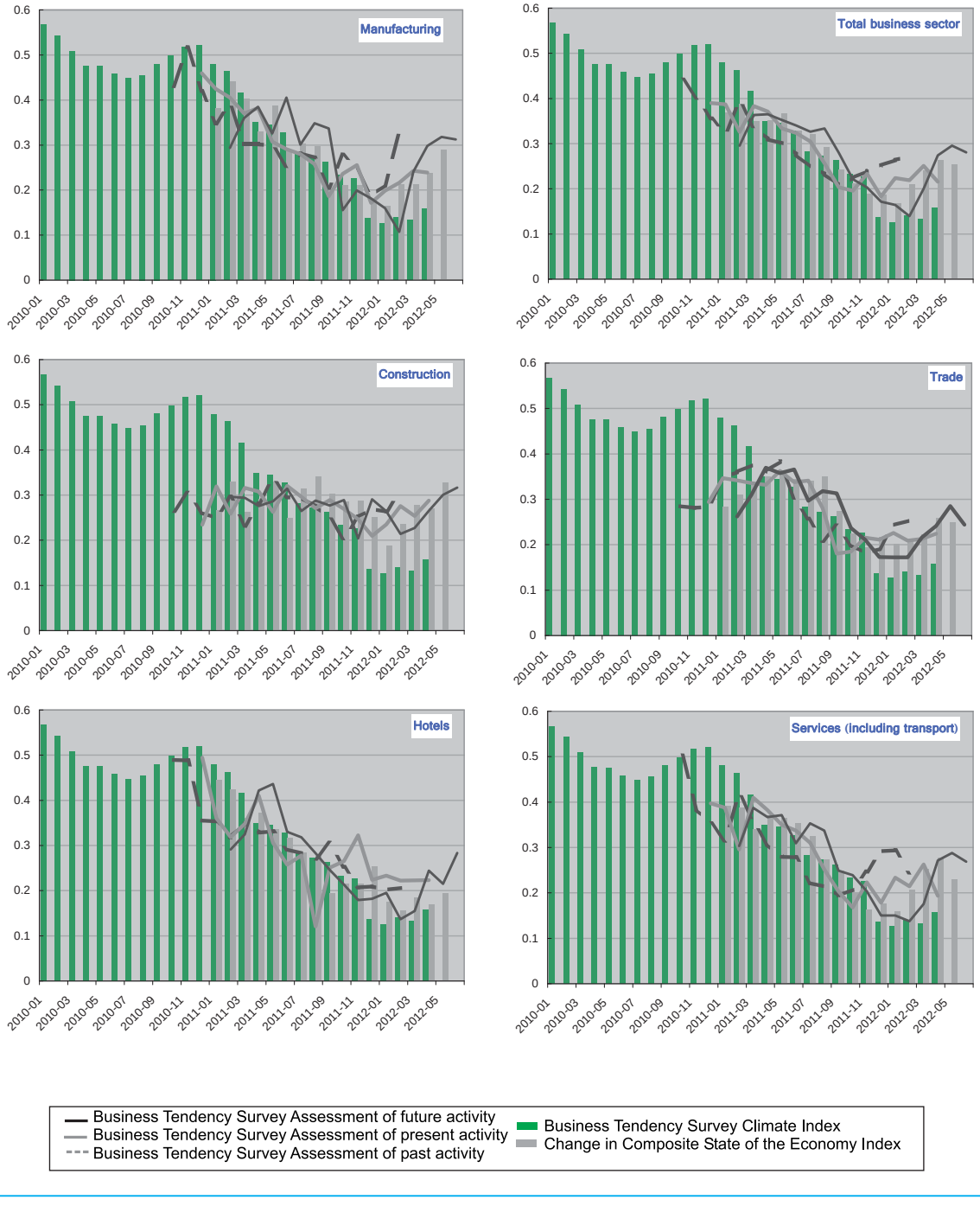


Figure 2.2

The Climate Index and its components, by industry, and the Composite State of the Economy Index

(Based on the CBS Business Tendency Survey conducted in April, and published in May 2012)



The fitted values for each of the regressions constitute the Climate Indices or one of their components (for the past, the present or the future). The industry specific climate indices and their components are presented in Figure 2. Note that each climate component is located on the reference month and not on the month in which the Survey was carried out (and therefore, for example, the expectations line continues until June while the backward estimation line ends in January).

Third stage: Aggregation of the Indices and their components to obtain the index for the business sector as a whole

The Business Climate Index (or its components) is an average of the industry specific climate indices, weighted according to each industry's proportion of business output. The weight of each industry is determined according to the proportion of its output in total business output in terms of factor prices. The weights are normalized in order for the weights to sum to 100 (Table 3). It should be mentioned that the "effective" industry weights are indirectly also dependent on the fit between the industry's first principal component and the total Composite Index. Thus, if there is a low degree of fit the slope coefficient in the industry regression will be low, such that changes in the first principal component of the industry will not be manifested in changes in the final Business Climate Index. The results of the Climate Index and its components with respect to the business sector as a whole are presented in the right upper hand section of Figure 2.

Table 2: Weight of industries in total business sector, and industry code

Industry	Weight (%)	Industry code
Manufacturing	25.1	D
Construction	7.7	B
Hotels	1.0	55
Retail trade	11.3	52, 504
Services	54.9	F(56), G(excl. 64), H, I, L, M(90,94), K(8088)

Discussion of the results

Figure 2 presents, for each industry and for the business sector as a whole, the Climate Index (the grey columns) alongside the monthly change in the Composite State of the Economy Index (the green columns). The components of each Climate Index are represented as lines and are located on the time axis according to the reference period. Thus, the solid black line, which relates to the questions regarding expectations of the business situation, can be viewed as a leading indicator, which looks forward for a period of up to one month from the publication of the Survey.

The graph for the business sector as a whole shows a downward trend, which is shared by both the change in the Composite Index and the Climate Index, to a level of monthly growth below 0.15 percent at the beginning of 2012. In contrast with the Composite Index, the climate index indicates an improvement in the rate of growth in February–March. However, in a short term view, the expectations component of the Climate Index shows that the upward trend leveled off in April and the monthly rate of growth in the business sector stabilized at 0.25 percent, and that rate is expected to prevail until the last available data point–June. According to an analysis by industry, the end of the upward trend in the Climate Indices' expectations component can be attributed to the services, manufacturing and trade industries, while the rates of growth in the construction and hotels industries are expected to show an acceleration.

The breakdown into components indicates that in all industries, apart from construction, expectations at the beginning of the year were lower than the performance actually reported (i.e. the solid black line is below the other lines). This means that businesses reported pessimistic expectations in the past, apparently on the basis of the worsening crisis in Europe, which were only partially realized.

Future development

The method presented here is, as mentioned, not final, since we only possess 15 observations for the Business Tendency Survey. In what follows, we will describe three directions being considered for development in the future, once there is a longer sample of surveys available:

1. Modification of the industry specific regressions, such that the dependent variables will be an index of each industry's activity, such as the industry's output, instead of the Composite Index. Since the indices of industrial activity are quarterly and are published with a lag, there are currently insufficient observations according to industry in order to enable a reasonable statistical analysis.

2. The estimation of moving regressions with a set time window, instead of a regression for the whole period.[6] A moving regression is necessary since the business is asked about its situation relative to its "usual" situation. In theory,

[6] In other words, the regression from which the bias and slope estimates are derived for each month will include a fixed number of observations, such as 24 months, instead of the whole sample available at that time.

one might think that the "usual" situation reflects the long-run rate of growth, but it appears that essentially it reflects only the rate of growth that prevailed in recent years (which implies that the "usual" rate of growth changes over time). Clearly, in order to carry out a moving regression, the data series has to be longer than the time window. Since we assert that the appropriate time window is about two years, such estimations will only be feasible in about one year from now. In the longer run, it will be possible to estimate the optimal time window that provides the maximal out-of-sample forecasting ability.

3. The consideration used in choosing the weights of each industry in the current method was the actual weight and only indirectly the forecasting ability of the industry with respect to business output. Once a longer sample exists, it will be possible to choose the weights of the indices of industry specific climate indices also in order to maximize the correlation of the overall climate index with total business output.

Derivation of Estimated Housing Needs Based on Demographic Developments in the Jewish Sector

- The following is an estimate of the multi-year trend of additional homes that the Jewish sector needs which takes into account the growth in the sector's size and changes in its age composition.
- According to the estimate, the additional amount has decreased steadily, although not continuously, over the past decade, and was around 40,000 dwellings in 2010.
- The outlook for housing needs through 2019, based on the estimate described, indicates that the annual addition required will decrease to 35,000–36,000 homes per year.

Below we present an estimate of the multi-year trend in the annual increase in the population's housing needs derived from demographic fundamentals, and use the outcome to assess the number of building starts required to meet these needs. Both estimates are of great importance in planning and policy, and interest in them has grown in recent years, against the background of the steep increase in home prices and the possibility that a shortage of dwellings relative to the population's needs—along with other factors, including low interest rates—contributed to this increase.[7] To allow a meaningful comparison of the estimates of needs with the number of building starts, the following estimates relate to the Jewish sector only[8] due to severe data limitations in regard to building in the Arab sector.[9]

Estimating housing needs is not simple due to a conceptual difficulty in defining these needs as well as to a practical difficulty in quantifying them. It is also impossible to project immediately from the needs onto the requisite extent of building starts because starts are not the only way in which supply and demand of homes are reconciled.

A population's housing needs may be defined as the number of dwellings needed given the size of the adult population and the proportion of individuals who occupy a dwelling on their own as against those who share a dwelling with additional adults (spouses or others).[10] This rate is affected by factors such as the age composition of the population, social conventions related to co-residence, the marriage rate and age upon marriage, and gender differences in life expectancy. We define the housing needs derived from these variables as the demographic need for homes.

Apart from the demographic variables, the decision about whether to live alone or with others depends on economic factors, particularly home prices and rents. An increase in these costs, for example, may induce young people to leave their parents' home later than otherwise, prompt them to rent a dwelling with a roommate or roommates instead of living alone, or encourage elderly parents to move in with their children. Thus, the number of dwellings actually lived in is an equilibrium outcome that reflects not only demographic needs but also the response of demand to price. The shorter the reference period is, the more significant this bias becomes because economic volatility may overshadow demographic factors that change more slowly. This illustrates one of the problems in the conventional view of the number of households as an indicator of need for homes. Since a

7 Here we do not quantify the relative contribution of each factor to the increase in house prices in recent years. For such an analysis, see Polina Dovman, Sigal Ribon, and Yossi Yachin (2011), "The Housing Market in Israel 2008–2010: Are Housing Prices a "Bubble"?" Bank of Israel Discussion Paper 2011.06, July, and Weitzman Nagar and Guy Segal (2011), "What Explains the Developments in Home Prices and Rents in Israel in 1999–2010?", Bank of Israel Review 85, pp. 7–59 (Hebrew).

8 The Jewish and other populations as defined by the Central Bureau of Statistics (CBS).

9 The data on building starts include only a partial estimate of illegal building and do not include unrecognized Bedouin localities in the south. This creates a downward bias in the data on building starts in the Arab sector, and if we were to disregard the bias we would obtain an upward bias in the estimated shortage of dwellings. The data on the number of dwellings in the Jewish sector are also constrained in several ways.

10 This definition of housing needs relates only to the number of dwellings and not to their size. The number of children in a household affects only the size, not the number, of dwellings required. Accordingly, every reference below is to the adult population only (age 20+). A mismatch of supply and demand may come about not only in the total number of dwellings but also in their distribution by size or their geographic dispersion. The current discussion deals with neither of those.

household is defined (although not unequivocally) on the basis of the occupancy of a home, the number of households is itself an outcome of the aforementioned equilibrium, which reflects not only the need for a home but also the decision about whether to live alone or with others—a decision that is also influenced by price. Thus, an increase in price reduces the number of households created, meaning that the existing data will not reflect the entire shortage of dwellings.

Another generally accepted indicator in estimating the need or shortage of homes is the ratio of population to inventory of homes. An increase in this ratio may attest to an increased shortage of dwellings, i.e., the widening of the gap between need, measured by population size, and supply, measured in terms of inventory of homes. The advantage of this method is that the numerator—population size—is a "clean" indicator of need and not an equilibrium outcome, unlike the number of households. The denominator—inventory of homes—is also not too tightly connected to the equilibrium outcome because it includes dwellings that are vacant or used for non-residential purposes. If so, the ratio of population size to housing inventory is an indicator of "pressure" in the housing market. If it increases, it may indicate that the gap between demand and supply has widened but does not necessarily attest to a shortage and immediate upward pressure on prices. In 1998–2007, home prices declined (relative to the Consumer Price Index) even though the ratio of population to housing inventory rose consistently. Furthermore, this indicator has several inherent deficiencies. For example, demographic or behavioral changes may reduce the number of homes needed for a population of a given size without this being reflected in the index. Moreover, since the "right" level of the ratio is unknown, the shortage is estimated on the basis of the difference between the ratios at different points of time; accordingly, it is crucially dependent on the point of departure chosen for the comparison.

Below we present an alternative estimate of the demographic need for homes, based on the size of the age groups in the population and on behavioral assumptions. This estimate has several advantages over the two estimates described above: (a) it is closer to a "clean" estimate of the demographic needs and is affected less by the other factors that affect the equilibrium, because it profiles the housing needs of each population group and calculates the number of dwellings derived from these needs.[11] (b) It is constructed in a way that allows us to analyze the effects of demographic processes, such as changes in the population's age composition, on housing needs. This is especially important for constructing forecasts of housing needs in years to come. The slower the population grows and the faster it ages, the more important the change in age composition is expected to be in determining the number of dwellings needed. The proposed estimate, however, has several weaknesses. Above all, it is sensitive to assumptions about each age group's housing needs. It also does not take into account the possibility of long-term changes in behavioral characteristics which affect the proportion of those in each age group who live on their own. It is important to keep in mind that this is an estimate of needs, not of demand which is affected by price, too. Additionally, the estimate reflects multi-year trends and should not be considered a point estimate of demand for homes in any given year. This is because it does not relate to variables which may lead to short-term volatility in demand for homes, such as changes in economic variables, which directly affect such demand, or indirectly through their effect on the pace of household formation or dissolution.

The estimate distinguishes between demographic processes that create a need for homes (young people joining the adult population, and immigration) and those that cause dwellings to be vacated (mortality and emigration). The difference between the two is the net annual (demographic) need for more homes.

The gross annual increase in needs may be described as deriving from developments in two age groups:

1. An increase in the population aged 20–28. At this age, many young people still live with their parents or with roommates, which reduces this age group's need for dwellings. In contrast, the high proportion of unmarried persons in this age bracket has an upward effect on the number of dwellings needed.

2. A gross increase in the population aged 29+, which has a larger share of families than the previous group. The gross increase of this group is measured by taking the absolute size of the population aged 29 in a given year and adding the number of immigrants aged 35+ that year.[12]

Even though the first age group is typified by a large proportion of renters and the second group includes a large share of homeowners, this is immaterial in terms of the number of homes needed beyond the number reflected in the housing density assumptions (those relating to the number of adults per dwelling).

The number of dwellings vacated each year should be subtracted from the gross annual increase in needs. Dwellings are vacated on account of two factors:

[11] The estimate does not fully exclude equilibrium effects because the assumptions about the number of adults per dwelling are based to the extent possible on actual data, which are inherently the products of forces at work in the market at the time.

[12] Age 35 was chosen due to data limitations.

1. Mortality: the number of homes vacated each year due to mortality is estimated by multiplying the number of deaths in each age group by the rate of unmarried persons (singles, divorcees, and widows/widowers) in the group. The assumption is that a dwelling is vacated upon the death of an unmarried person whereas the surviving spouse of a married person who dies continues to occupy the dwelling.[13]

2. Emigration: the estimate assumes that people aged 30+ who leave the country for good vacate dwellings in accordance with the assumptions pertaining to the 29+ population at large.

Within the framework described, the main estimate of housing needs was calculated on the basis of the following assumptions:

- Average housing density among members of the 20–28 age group is 2.5 persons per dwelling. This assumption reflects the fact that about one-third of the age group lives with their parents and that some members of this age group share an apartment with two or more people.[14]
- The housing needs of those aged 29+ are such that 80 percent of them live as couples and 20 percent live on their own, implying demand for 0.6 dwelling per person. This assumption is based on data showing that about one-fourth of persons aged 30–64 are unmarried and that one household in five is composed of one person only.
- Emigrants vacate dwellings in line with the assumptions pertaining to those aged 29+.
- Dwellings vacated for reason of death are calculated by multiplying the number of deaths in each age group, starting with age 30, by the proportion of unmarried persons in the same age group.

Figure 2.3 shows the main estimate of the annual number of additional homes needed in 2000–2010 to meet demographic needs on the basis of the assumptions specified. During this time, the additional amount declined considerably although not continuously and was estimated at 40,000 dwellings in 2010. It should be emphasized that the steep increase in 2009 derives from a change in the Central Bureau of Statistics data series, among other factors.[15]

Most of the annual increase originates in the growth of the 29+ age group (less homes vacated on account of mortality); the effect of the increase in the 20–28 population is relatively small. Accordingly, two additional lines in the graph depict a sensitivity analysis that tests changes in two main assumptions that relate to the 29+ age group. In the low alternative, we assumed that the determining age for this group is 30 (instead of 29) and that only 18 percent of members of this group (instead of 20 percent) live on their own. In the high alternative, we assumed that the determining age is 28 and that 22 percent of members of this group live alone. The estimate of housing needs in 2010 according to the low alternative is some 3,000 dwellings less than the main estimate, whereas the estimate based on the high alternative exceeds the main estimate by about 1,000 homes. In our judgment, the low alternative is more reasonable than the high one. One reason for this is that we adopted a strict approach in formulating the assumptions for the main alternative, meaning that this alternative may yield an overestimate of the housing needs.

Changes in the population's age composition have a considerable effect on the number of additional homes needed. The average annual rate of increase in the Jewish population aged 20+ in 2000–2008 was 1.8 percent.[16] After adjusting the size of this population group in accordance with the assumptions behind the main estimate, its annual rate of increase in those years was 1.9 percent on average. To illustrate, the average annual increase in homes needed during that time on the basis of the calculation that takes into account changes in the age composition is some 2,000

[13] Dwellings may also be vacated due to elderly who move to nursing institutions. The estimate, however, does not relate to this.

[14] Central Bureau of Statistics (2005), "Living Arrangements of Young Adults in Israel in 2000, by Demographic and Socio-Economic Characteristics".

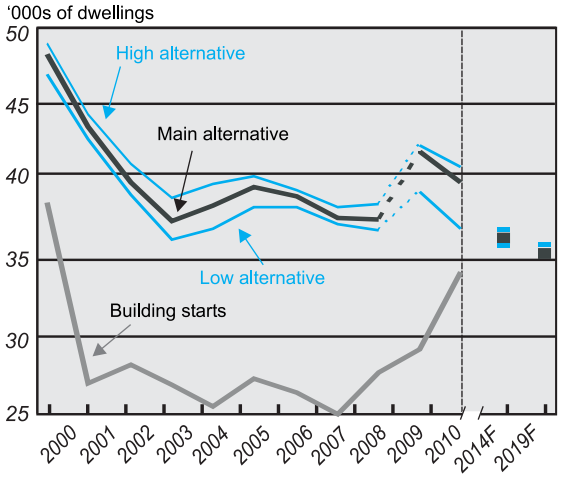
[15] The Central Bureau of Statistics has released a new series of population data beginning in 2008 on the basis of the census that was held that year but it has not published estimates for previous years that were adjusted to this series. Comparing the data from the two series for 2008 indicates that the population estimates based on the new series are higher. The estimate of housing needs for 2008, shown in the figure, is based on the old series due to data limitations. Furthermore, an unusual decrease in emigration in 2009 contributed to an upturn in the estimated need for homes. In our assessment, net of the change in the series and the unusual downturn in emigration, the mild downward trend in the number of additional dwellings needed continued in 2009. Lacking data on emigration in 2010, we assumed that the gentle decrease in this indicator continued, pursuant to the almost continuous trend since 2002, but that there were more emigrants in 2010 than in 2009. This assumption helps to explain the relatively steep decline in the estimated number of dwellings needed in 2010 relative to 2009.

[16] The calculation was performed only up to 2008 because the new population series was used in subsequent years.

homes greater than that derived from the gross increase in the age 20+ population.[17]

Figure 2.3

Estimate of Demographic Housing Needs and Actual Building Starts in the Jewish Sector, 2000-2010, and Forecast of Needs in 2014 and 2019



The estimates for 2009-2010 are based on a new series of CBS population estimates.

Comparing the estimated needs with building starts in the Jewish sector in the past decade, we find that needs according to the main estimate exceeded starts by 10,000–13,000 dwellings each year (except 2001, in which the discrepancy was 16,000, and 2010–2011, in which it was only 2,000–5,000).[18] One should not infer from this, however, that the cumulative shortage of dwellings is the sum of the annual discrepancies. The protracted decline in housing prices (relative to the CPI) in 1997–2007 indicates that there was a large stock of vacant homes, which created excess supply and compensated for the protracted gap between building starts and demographic needs. The low number of building starts in those years reflected the market response to the excess supply.

There is a wide range of estimates of the cumulative shortage of homes. To calculate this shortage, the discrepancy between needs and building starts should be tallied only from the point in time when the existing stock together with building starts did not suffice to satisfy the needs, that is—creation of a shortage which pressured prices upward. This calculation is sensitive to the assumption regarding the timing of the turning point, which in our assessment was between 2005 and 2007.[19] The cumulative shortage in 2008–2011 is estimated at 30,000 homes. Under a more demanding assumption, in which the turning point occurred in late 2006, the cumulative shortage by the end of 2011 came to 40,000 dwellings.

This estimate of the housing shortage exceeds estimates based on the two other approaches described above. Estimating the cumulative shortage on the basis of the ratio of population to housing inventory yields the number of dwellings that were missing at the end of 2011 to restore the ratio to its 2007 level. According to this approach, the cumulative shortage in the Jewish sector was only 7,500 homes.[20] The second approach adds up the cumulative discrepancy between the annual increase in households and the number of building starts; by this measure, the cumulative shortage since 2007 comes to 13,000 dwellings.[21] Table 2.1 shows the estimates of the cumulative shortage according to all three methods.

The estimates of the shortage appear to be biased upward irrespective of the method used. This is because the building starts data underestimate the true increase in supply of homes since they do not reflect, for example, the populating of vacant homes, illegal construction, and partitioning of homes.

[17] Given our estimate of the Jewish sector's inventory of homes in 2000. The inventory of homes in the Jewish sector was calculated on the basis of housing inventory in Jewish localities in 1995 plus housing completions in these localities each year. The CBS definition of Jewish localities includes mixed localities, i.e., those that also have an Arab population.

[18] Building starts in Jewish localities as defined by the CBS. Since this definition includes mixed localities, building starts for the Jewish sector only are slightly lower. Lacking data on the distribution of building starts by localities in 2011, we calculated building starts in the Jewish sector that year on the assumption that their share in total building starts was the same as in 2010. Lacking data for 2011 about the size and age composition of the population, the estimates for 2011 (not shown in the figure) assume that each age group had the same rate of population increase as in 2010.

[19] Several indications support our identification of the turning point, including the turnaround in home prices in late 2007 and in inventory of unoccupied homes in 2005–2006 according to the Labour Force Survey. Nagar and Segal (2011) found that in 2005, the ratio of population to housing inventory began making a positive, if still small, contribution to the increase in home prices.

[20] As noted, due to a lack of data on inventory of homes in Israel, it was calculated based on certain assumptions, which affect the estimated shortage.

[21] The calculation is based on CBS data on the number of Jewish households in 2007–2009 and an independent estimate of the increase in such households in 2010 and 2011.

Table 2.1 Cumulative Shortage of Dwellings in the Jewish Sector, Estimated by Different Methods ('000s of dwellings)

	Population / housing inventory ratio	Needs by age groups (main estimate)	No. of households
2007–2011	7.5	42.4	13.2
2008–2011	3.3	29.6	5.8

The approach described above allows us, as stated, to prepare a forecast of housing needs which takes into account expected demographic developments. This forecast was calculated under the assumptions noted above on the basis of the Central Bureau of Statistics population projections for 2014 and 2019, by age groups.[22] According to the main alternative of the forecast, the number of dwellings that will have to be added in these years is 35,000–36,000 per year (Figure 2.3). It should be emphasized that about half the decline shown in the figure between 2010 and 2014 originates in assumptions about the expected migration balance.[23] However, even without these assumptions and in consideration of additional limitations of the forecasts, as described in the footnote, somewhat fewer dwellings will have to be added, compared with the figure in recent years.

[22] The assumptions are as described above except for adjustments necessitated by the lower level of detail in the population forecasts—regarding age groups and deaths—than in the data relating to the existing population. These adjustments may explain part of the rather steep decrease in the number of added dwellings needed between 2010 and 2014.

[23] The assumption in the CBS projection is that the country will have a zero migration balance in coming years, as against a positive balance (more immigrants than emigrants) in 2005–2009. According to our estimate, this increased the housing needs during those years by about 1,600 dwellings a year.

Diary of Events: January to April 2012

Month	Date	Event	Details
January 2012	1	The royalty rate that Dead Sea Works will pay the state is raised to 10%.	The Ministry of Finance and Israel Chemicals, Ltd., agree that the firm will pay NIS 3 billion and the Ministry will pay NIS 760 million to revitalize the Dead Sea. The rate of royalties that Dead Sea Works pays the state will be raised to 10%.
	3	A group of hackers reveals online the details of 15,000 Israeli credit cards.	The hackers, identified as a group from Saudi Arabia, exploited security deficiencies on coupon sites and small sites to reveal credit card data online. Pursuant to the disclosure of this event, the credit card companies blocked the cards to online and telephone purchases.
	8	The Government approves the budget supplement that is needed for the adoption of the Trajtenberg Committee recommendations and additional budget adjustments.	The Government approves an NIS 9.1 billion increase in the 2012 budget and earmarks it for the defense budget, the implementation of the Trajtenberg Committee recommendations, and the funding of previous commitments on account of wage accords and the raising of the minimum wage. Concurrently, the following are approved: an NIS 760 million across-the-board budget cut, an NIS 455 million in cutbacks on specific budget lines, and the release of the NIS 1.5 billion special reserve in the two-year budget. (See Bank of Israel, 2012, Recent Economic Developments 132.)
	9	The Ministry of Finance issues its first-ever 30-year unindexed bond. The instrument, called Unindexed Government 0142, will pay 5.5% interest.	
	15	S&P downgraded the sovereign ratings of 9 eurozone countries.	France's rating was lowered for the first time in history, to AA+. The other downgrades relate to Austria, to AA+; Slovenia, to A+; Spain and Slovakia to A; Malta to A-; Italy to BBB+; Cyprus to BB+; and Portugal to BB.

January	19	The interest rate on mortgage loans issued to eligibles by the Ministry of Construction and Housing is lowered by 1 percentage point for half a year.	The Ministry of Construction and Housing lowered the interest rate on subsidized mortgage loans for eligible non-homeowners from 4% to 3%—part of an amendment to the Housing Loans Law, which the Knesset passed in December as an ad hoc provision for half a year. The measure is meant to increase the takeup of this form of relief by making subsidized interest more attractive than market rates. The budget for the amendment is NIS 150 million.
	23	The Bank of Israel lowers its interest rate for February by 0.25 percentage points, to 2.5%.	
	24	Europe declares an oil embargo on Iran.	In response to progress in the Iranian nuclear program, the European Union announces that it will impose sanctions on Iran, including an injunction against buying oil from Iran starting in July. The IMF estimates that this will raise the price of oil by 30%.
February	6	The Government approves the construction of a rail line from Tel Aviv to Eilat.	The decision, including a rail line for passengers and freight, is expected to shorten the trip to only two hours. Also, a committee is established to examine three alternative ways of financing the project—co-funding with a foreign country, co-funding with the private sector, and funding from the budget. According to the Ministry of Transport, the planning process will probably end at the end of the year and the project will take five years to carry out.
	7	The National Planning and Building Council approves the construction of a detention facility for infiltrators.	The facility, to be built at Ketziot (on the southern border) at a cost of NIS 250 million, is expected to start receiving infiltrators from Africa within half a year.
	12	Negotiations to improve the employment terms of contract workers, during which a general strike had been declared, end with an agreement between the Histadrut and the Ministry of Finance.	Government ministries, banks, the Stock Exchange, and Israel Railways, among others, were shut down for four days by the strike. The sea ports and airports returned to work during the strike by court order. The main provisions of the accord are an increase in the minimum wage for cleaning personnel and guards to NIS 4,650 per month and equalization of pension and social terms with those of persons directly employed by these entities. Also, the Ministry of Industry, Trade, and Labor will increase the number of inspectors who are tasked with enforcing labor laws.
	19	The Government decides to establish a national fund that will absorb earnings from national resources.	About half of state revenues from the taxation of windfall profits from gas and oil resources will be deposited in the planned fund. The fund's assets will be invested abroad and serve as a safety cushion in the event of crisis. It is also decided that the fund's profits will be referred to education, defense, and investments. The fund will be run by the Bank of Israel.

February	22	The Committee on Increasing Competitiveness in the Economy releases its final recommendations.	The Committee recommends, among other things, that a controlling principal in a significant nonfinancial company that also holds a significant financial entity be forced to sell one of them, as it chooses, within four years, and that a director may not serve in a nonfinancial and financial entity concurrently. A significant financial corporation is defined as one that manages NIS 40 billion or more in assets, and a significant non-financial entity is one that has income exceeding NIS 7.5 billion per year for an existing entity and NIS 6 billion for a new one. The recommendations also deal with placing limits on pyramid control and leveraging.
	27	The Bank of Israel leaves its interest rate for March unchanged at 2.5%.	
March	1	The Knesset Finance Committee approves an increase in unrestricted investments by old pension funds from 10% to 22%.	The increase will take place gradually: the maximum rate will be raised to 14% of the old funds' unrestricted investment portfolio in April 2012, to 18% in April 2013, and to 22% in April 2014.
	1	To attenuate the increase in fuel prices, the fuel excise tax is lowered by NIS 0.10.	The price of gasoline (self-service) rose to NIS 7.74 per liter. Absent the decrease in the excise tax, the price would have gone up to NIS 7.84 per liter—a 5.1% increase.
	15	The Supervisor of Banks publishes a draft guidance to increase the minimum core capital ratio in the banking system.	The Supervisor requires banks to attain 9% capital adequacy by 2015 and instructs the two largest banks, Hapoalim and Leumi, to achieve a 10% ratio by 2017. These requirements are more lenient than the market had expected.
	16	SWIFT announces that it has disconnected Iran from its bank transfer system.	The Society for Worldwide Interbank Financial Telecommunication (SWIFT) states in its announcement that the measure was invoked on the basis of a decision by twenty-seven European Union members, in January, to apply far-reaching sanctions against the central bank of Iran and a series of banks and firms associated with it.

March	18	The Government approves the housing section of the Trajtenberg Committee (Committee for Economic and Social Change) report.	The recommendations adopted, at a total sum of NIS 2.33 billion, include the following in the main: placing 187,000 dwellings on the market in the next five years, 60% of which in main demand areas; doubling the municipal property tax rate on dwellings left vacant for more than six months in a given year and more than nine months for dwellings defined as unfit for habitation; application a duty of up to 10% of dwelling price to a contractor who fails to complete construction within about two years of the day on which he receives a building permit; and an increase in government housing assistance. In the last-mentioned provision, the Government decided, among other things, to increase the rent subsidy budget, redefine the criteria for relief, increase the rent subsidy for those waiting for public housing, not to resume promotions for the sale of public housing dwellings, and increase assistance for immigrants.
	18	The Ministerial Committee for Legislative Affairs approves the "Haircuts Bill."	The main provisions of the bill: Formulating a debt settlement for a firm that issued bonds and wishes to impose a "haircut" will be stewarded by a court-appointed expert who will draw up an opinion about whether the arrangement is worth the bondholders' while; appointment of the expert and the acceptance of h/her opinion will be conditions for the approval of a debt settlement unless the court determines otherwise. The bill will be sent on to the Knesset for approval in May.
	23	The socioeconomic cabinet authorizes Mekorot Yizum to carry out a $110 million water infrastructure project in Trinidad.	The performer of the project in Trinidad is a subsidiary of government-owned Mekorot, Ltd. This project comes in addition to another export project in the field of desalination—a $50 million project in Cyprus.
	26	After a year of negotiations between the ministries of Finance and Defense, it is agreed that a system will be set in motion allowing the Ministry of Finance to tighten its supervision of the defense budget.	The system, which includes data on the defense system's wage, pension, and procurement budget, will be activated at the beginning of May.
	26	The Bank of Israel Research Department adjusts its macroeconomic forecast.	The growth forecasts for 2012 and 2013 are adjusted to 3.1% and 3.5%, respectively.
	26	The Bank of Israel leaves its interest rate for April unchanged at 2.5%.	
	28	The Bank of Israel Annual Report for 2011 is released.	

March	30	The Central Bureau of Statistics publishes the unemployment rate in accordance with the OECD method of calculation.	In January, the CBS Labour Force Survey was changed from quarterly to monthly, the sample was increased, and more small localities were included in it. This change raised the rates of unemployment, employment, and labor force participation that the survey yielded. (For elaboration, see the Labor Market section of this publication.)
April	1	A month after the first decrease, the fuel excise tax is lowered again to attenuate the increase in fuel prices.	Instead of an increase of NIS 0.20 per liter of gasoline, the price of this fuel will be raised by 5% due to a NIS 0.15 decrease in the excise tax. It is also decided that the recent excise cuts will be funded by a 2% reduction in the government labor force with the exception of police, nurses, and career soldiers.
	2	The IMF issues its annual report on the Israeli economy.	
	4	The Ministry of Finance publishes a voluntary retirement program for senior staff of government ministries.	The NIS 14.4 million program formulated in conjunction with the Civil Service Commission, is aimed at civil servants aged 55–65 who have held senior positions for at least twelve years and are suffering from burnout.
	5	The Committee for Examination of the Structure of the Natural Gas System releases an interim report.	The Committee's main recommendation is that 400 billion cubic meters of natural gas for Israel should be assured by the end of 2017 and that 350 million cubic meters should be referred to export, but the share of gas for export should be determined separately for each gas reserve. The final report is expected to be released in June.
	16	Jim Yong Kim is elected as the next President of the World Bank.	
	17	The Ministry of Energy and Water launches a project in which 50,000 old refrigerators will be replaced with electricity-saving models.	The project replaces old refrigerators with new and electricity-saving models, with the Ministry subsidizing 30% of the cost of the new refrigerator and the removal of the old one to scrap. The project, budgeted at NIS 50 million, is expected to save each household an estimated NIS 600 per year in its electricity bills. The project joins other electricity conservation projects—subsidizing the purchase of energy-efficient light bulbs and replacing old air conditioners.
	20	The G20 finance ministers enlarge the eurozone crisis bailout fund.	The finance ministers of the world's twenty leading economies (G20) make another $430 billion available to the IMF to rescue member states from crises.

April	22	The Egyptian Government gas company announces the unilateral abrogation of its agreement to provide gas to Israel.	Since the coup in Egypt in February 2011, the pipeline that delivers gas from Egypt to Israel has been blown up several times and the flow of gas has not resumed since the explosion in March 2012. For several months, gas has not flowed regularly from Egypt to Israel; the disruptions are one of the factors behind the increase in electricity rates.
	23	The Government approves the recommendations of the Committee on Increasing Competitiveness in the Economy.	The Government also resolves to set up a committee to steward the legislative process until the Knesset approves the conclusions, which it is expected to do by the end of July.
	23	The Bank of Israel leaves its interest rate for May unchanged at 2.5%.	
	27	S&P downgrades Spain's sovereign rate by two notches, to BBB+ with a negative outlook.	The announcement comes several days after the Spanish central bank states that Spain is in a crisis. S&P, in its announcement, notes that Spain's public debt is projected to continue rising.