Bank of Israel

MONETARY POLICY REPORT

(Inflation Report)

January-March 2011

34

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Letter of the Governor accompanying the Monetary Policy Report for January–March 2011

This Monetary Policy Report,* covering the first quarter of 2011, is submitted to the government, the Knesset, and the public as part of the process of assessing the inflation rate in relation to the inflation target set by the government. The Report was prepared in the Senior Monetary Forum of the Bank of Israel, headed by the Governor, the forum in which the Governor makes decisions on the interest rate.

The Consumer Price Index (CPI) increased 0.7 percent in the first quarter of 2011, significantly above the midpoint of the inflation target range, seasonally adjusted. The steep rise of the CPI was influenced by domestic factors – housing prices and fruit and vegetable prices, and by external factors – global prices of energy and commodities.

The development of prices in the past twelve months, which rose 4.3 percent, points to a significant acceleration in the rate of inflation in the first quarter of 2011. The trend of rising housing prices, which began in the beginning of 2008, was reflected in the latest data published during the first quarter, and their increase over the preceding twelve months reached 16.1 percent. These developments increase the concern that the trend of rising housing prices – if it continues – could jeopardize the financial and real stability of the economy.

Economic activity in the first quarter of 2011 continued to expand strongly, a continuation of the fast expansion in 2010, which included all the components of aggregate demand, especially private consumption. The expanding activity continues to be reflected in the labor market: the number of employed persons rose in the last quarter of 2010 at a notable rate, while the unemployment rate remained unchanged. Salary levels in the economy began to rise moderately during the course of the second half of 2010, in contrast to the falling trend which characterized them in recent years.

The economic environment in Israel is reflected in the capital market: although the prices of financial assets hardly rose in the first quarter of the year, they still reached a record level during its course, higher than their average levels before the financial crisis. It also appears that the pace of expansion of economic activity in Israel continues at a high level; according to Bank of Israel estimates, GDP growth in 2011 will reach 4.5 percent, primarily due to an expansion of domestic demand at a pace that could pressure prices upward over the course of 2011.

Emerging market economic activity is expected to grow in the next two years at a high rate, while developed economies are expected to show positive growth, but at a relatively low rate. Better than expected macroeconomic figures were reported recently in the US, which point to a noticeable improvement in activity, specifically a drop in unemployment.

The European Central Bank raised its interest rate at the beginning of April, for the first time since the crisis, but the notice accompanying the interest rate decision left much uncertainty about future hikes. In the US, while there is still

* Previously the Inflation Report. The name is being changed to accord with the term in the new Bank of Israel Law that calls for a Periodic Report on Monetary Policy to be submitted by the Monetary Committee no less than twice annually. When the Monetary Committee is appointed, in accordance with the new Bank of Israel Law (2010), interest rate decisions will be made by the Committee, and it will present the Monetary Policy Report.

no clear intention to raise the interest rate, and expectations are that it will remain at its low level until the end of the year at least, assessments are growing of an impending end of quantitative easing, as scheduled.

Israeli monetary policy was adjusted to the quick changes in economic activity and the local inflation environment. With the worsening of the crisis in the fourth quarter of 2008 and the first quarter of 2009, the Bank of Israel adopted a very expansionary monetary policy, and continued it through 2009 and 2010 as well, with a gradual cutting of the extent of expansion, in line with developments in the economic environment. In the quarter surveyed, with the acceleration in the pace of inflation and growth, fueled primarily by demand, the Bank of Israel quickened the pace of interest rate increases, and thus markedly cut the extent of the expansion: the interest rate for February and March was raised by 25 basis points each time, and in April it was raised by half a percentage point, above forecasts by the capital market and forecasters.

Balance of payments figures show that capital imported by foreigners into Israel in the quarter surveyed continued to be focused in the purchase of makam (short-term debt issued by the Bank of Israel) and in deposits with local banks, rather than direct investment or purchase of shares. The balance of makam held by nonresidents reached $12.5 billion, more than a third of the total stock of makam. The implication is that this capital inflow, which affects the exchange rate, is motivated by short term considerations. In order to reduce the influence of these short-term inflows on the exchange rate, the Bank of Israel intervened in the market and bought foreign currency. In addition, the Bank of Israel imposed in January 2011 a reporting obligation on Israeli residents on their transactions in foreign currency derivatives, and on nonresidents on their transactions in foreign currency derivatives and in makam. The Bank also imposed a reserve requirement on the banks for foreign currency derivative transactions with nonresidents.

The Bank of Israel expects that the year over year rate of inflation in twelve months will be slightly above the upper limit of the inflation target range, accompanied by a gradual process of raising the interest rate, and the rate of inflation will settle within the target range in the second half of 2012. The risks of deviation above or below are balanced. This estimate is based on a continued rise in food and energy prices and increasing demand, which are factors contributing to a higher inflation rate, countered by the rises in the interest rate by the Bank of Israel during the quarter surveyed, which totaled one percentage point, on – as necessary – further rises in the interest rate over the course of the coming year, and on the relative slowness of the global economic recovery, especially in developed markets. As a result there is an increasing widening in interest rate gaps which lead to stronger appreciation pressures.

The Bank of Israel will continue to reduce the extent of monetary expansion, which it has undertaken since the beginning of the financial crisis, in order to keep inflation within the target range, by supporting real activity and maintaining financial stability. The path of the interest rate is not fixed, but rather will be determined in accordance with the inflation environment, economic conditions in Israel and abroad, expectations of interest rate hikes by central banks in leading economies, and taking into account developments in the exchange rate of the shekel. The monthly decisions on the rate of monetary interest, and on intervention in the foreign currency market and its extent, will be made based on developments in those areas.

Stanley Fischer

Stanley Fischer
Governor, Bank of Israel

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Summary*

- **Inflatio**n: The CPI rose by 0.7 percent in the first quarter of 2011 (the quarter reviewed), and it increased 1.5 percent on a seasonally adjusted basis. Major reasons for the rise in the index were housing prices (reflecting primarily rents), food, and energy prices. The rate of inflation over the previous twelve months exceeded the upper limit of the inflation target range, and in March the figure was 4.3 percent. Inflation expectations for the next twelve months reached 3.7 percent on average in March, and long term expectations were at the upper level of the inflation target range. In the past year, there was a rise in the inflation environment, as demand rose and the economy grew. Home prices rose 16.1 percent over the course of the previous twelve months.

- **The global economic environment:** Developed markets continued their process of recovery from the global crisis, even if at a slow pace, while emerging markets are growing at a fast pace. The International Monetary Fund (IMF) forecasts that in 2011 developed markets will grow 2.4 percent and emerging markets will grow 6.5 percent. Over the course of the first quarter, prices of energy and commodities rose, which have boosted inflation rates around the world. In 2011, inflation is expected to be 2.2 percent in developed markets, and 6.9 percent in emerging markets. Interest rates in the US are only expected to rise in about another year, while Europe began raising rates in April, in line with market expectations.

- **Real activity:** Economic activity, which was strong throughout 2010, accelerated in the fourth quarter of 2010 and included all components of aggregate demand, but relied primarily on domestic demand. In the fourth quarter of 2010, Israel's GDP grew by 7.8 percent (in annual terms, seasonally adjusted). Indicators of real economic activity in the first quarter point to continued growth at an impressive rate, its reflection in the labor market, and a boost in exports, as well as continued expansion of private consumption, even if at a more moderate pace than that of 2010.

- **The exchange rate:** Exchange rate movement was not uniform throughout the quarter. In January, the nominal effective exchange rate reflected shekel depreciation of 5.3 percent, and offset the sharp appreciation that preceded it. The depreciation was accompanied by a rise in the implied volatility in shekel-dollar options, against the background of geopolitical instability in various Arab countries and moves by the Bank of Israel in the foreign currency market. Later in the quarter, the nominal effective exchange rate returned to the level of the second half of 2010, and the standard deviation fell. With the interest rate rise for April, announced at the end of the first quarter, shekel appreciation resumed.

- **The financial markets:** Share price rises in Israel slowed in the quarter reviewed, in line with the trends in global stock markets. The Tel Aviv 100 Index fell 2.4 percent (average level of March compared with average level of December 2010). The change in trend came from, among other things, the growing uncertainty of geo-political developments in the Middle East, rising energy prices, and trends in world markets. Nominal and real yield curves of government bonds rose over the course of the quarter, pointing to the establishment of the growth, but also to rising inflation expectations. There was also a continued growth trend of new mortgages.

* The monetary regime within which the Bank of Israel operates is aimed at achieving price stability, defined as inflation rate of between 1 percent and 3 percent a year. (For details see Box 1 in the Bank of Israel Inflation report No. 17, July–December 2005.)

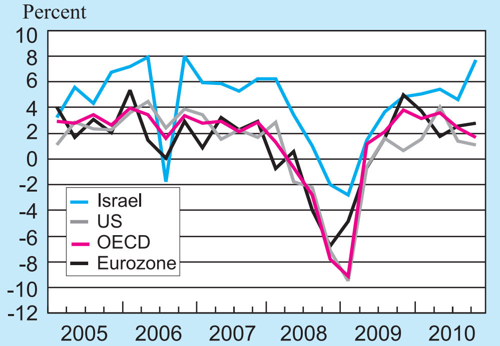
- **Monetary policy:** In the first quarter of 2011, the Bank of Israel accelerated the pace of interest rate increases. For each of the months of February and March, the interest rate was increased 0.25 percentage points, and for April the interest rate was raised 0.50 percentage points, to a level of 3 percent. The rise in inflation expectations for all time frames, actual inflation surpassing the target range, the quick growth of real local activity, and the continued rise of home prices, all supported the boosting of the monetary interest rate in order to bring inflation within the target range, and to protect financial stability and strong economic growth. At the same time, the Bank of Israel continued to operate in the foreign currency market in order to moderate the pressures for strengthening of the shekel. These activities included, besides buying foreign currency, the imposing of a liquidity requirement of 10 percent on banks for derivative transactions in foreign currency vis-à-vis nonresidents, and announcing the imposition of a reporting obligation on various transactions. While in the quarter there was a step away from monetary expansion, when taking economic conditions into account the monetary policy is still expansionary. In April, after the end of the quarter surveyed, the Bank of Israel instructed banks to limit the variable interest rate component of a mortgage to one third of the total loan granted to the borrower.

- **The Bank of Israel Research Department forecast:** The Research Department assessment is that inflation over the next twelve months will be 3.2 percent, slightly above the upper limit of the inflation target range. This is primarily because of the recent rises of commodity and energy prices, but is also because of the continuing rise in housing prices (reflecting rental contracts) and widening demand. At the same time, the economy is expected to continue to grow over the next two years, at strong rates of 4.5 percent in 2011 and 4 percent in 2012. In light of these expectations, it is expected that the interest rate will be raised gradually to about 4.4 percent in one year, and that during the second half of 2012 inflation will settle within the target price stability range.

1. THE BACKGROUND AND INFLATION

A range of factors stand behind the Bank of Israel's monetary policy decisions. In managing monetary policy, the Bank of Israel monitors developments in the global environment, in inflation, and in real and financial activity in Israel. By monitoring the entire range of developments, it is possible to discern the markets' reaction and the likely implications of this reaction on inflation, and thus to determine the level of interest rate suited to the attainment of the inflation target in the near future while encouraging employment and growth, and maintaining stability in the financial markets. During the first quarter of 2011, the Bank of Israel continued the gradual process of raising the interest rate, though at a faster pace than in the past. It adopted a policy conforming to its assessment of the following effects on the economy: (1) the rise in the inflation environment above the upper limit of the inflation target range; (2) domestic demand-based growth of local activity and the contraction of surplus manufacturing capacity; (3) the continued recovery in the global economy alongside geo-political uncertainty and rises in the prices of energy and commodities; (4) the very low levels of central bank interest rates in the major economies; (5) the continued rapid rise in home prices; (6) a temporary influence of pressures for a depreciation in the shekel exchange rate. Described below are the principal developments in the global economy, the exchange rate, real activity, financial activity and inflation, developments which make up the background against which the Bank of Israel made its monetary policy decisions.

Figure 1a
Rates of Growth in Advanced Economies, 2005-10
(quarterly data, annual rates of change)



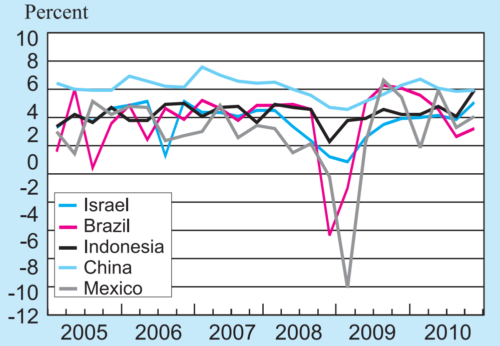
SOURCE: OECD.

a. The global environment

(1) Real activity world wide

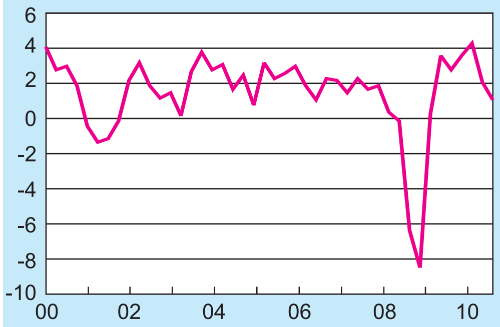
Developed market economies continued the process of recovery from the global crisis, even if at a slow pace, while emerging markets grew quickly. After impressive growth rates at the end of 2009 and in the beginning of 2010, the expansion of economic activity continued in most developed markets, even if at a more moderate pace (Figure 1A). Unemployment rates in those economies are still high, and first signs of their moderation recently began to be seen. In the US, economic growth is becoming established despite weakness in the real estate market. In Europe, growth is centered primarily in leading economies, and less so in the periphery. In emerging markets, fast growth continues (Figure 1B). The International Monetary Fund (IMF) expects continued uneven growth rates between developed markets, at 2.4 percent,

Figure 1b
Rates of Growth in Emerging Market Economies, 2005-10
(quarterly data, annual rates of change)



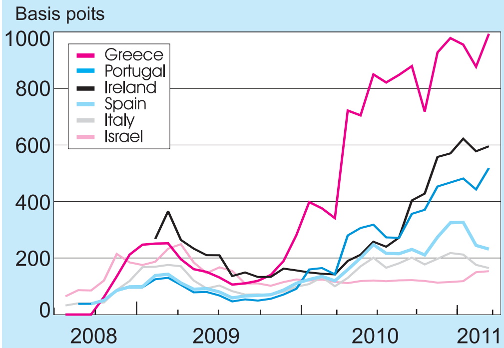
SOURCE: OECD.

Figure 2
World Trade in Goods and Services (quarterly rates of change, 2000 to 2010)



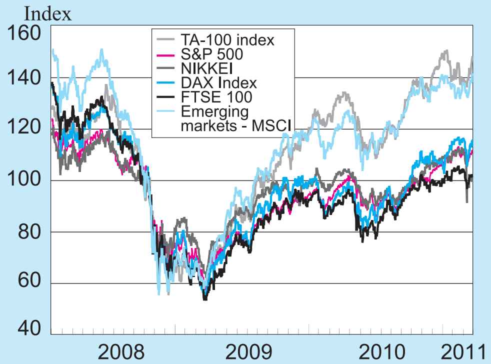
SOURCE: OECD.

Figure 3
CDS Spreads in Israel and the PIIGS Countries, June 2008 to March 2011, (monthly averages)



SOURCE: Bloomberg.

Figure 4
Share Indices Around the World (Based on Dollar Prices), 2008 to March 2011 (daily data, 15 September 2008 = 100)



SOURCE: Bloomberg.

and emerging markets, at 6.5 percent, in 2011, and similar rates in 2012.

Global growth supports continued expansion of world trade, even if the natural disaster in Japan seems likely to somewhat cut into trade in the short term. Against the background of strengthening of economic activity, the volume of world trade grew by 12 percent in 2010 (Figure 2), and the IMF forecasts that during 2011, world trade will grow an additional 7.4 percent. In Japan, due to the catastrophe it was hit with, there is expected to be a significant hit to economic activity in the short term, due to production delays from reduced production capacity in general and energy production in particular. The direct weight of Japan in world trade is about 5 percent, and so the crisis affecting it will slow somewhat the expansion of world trade in the immediate term; yet, a pick-up in the process of reconstruction and renewed building will boost economic activity in Japan, and demand for its output will grow and will support an expansion of world trade.

Since the Israeli economy is a small and open one, expansion of economic activity in the world leads to a rise in demand for local output. Recovery in world markets and expansion of world trade support Israeli exports, and through them – overall local economic activity. The global crisis impacted real activity in Israel primarily through demand for domestic output, both going in to, and exiting, recession. An increase in demand, bringing with it an expansion of output in Israel, pressures prices upward in Israel.

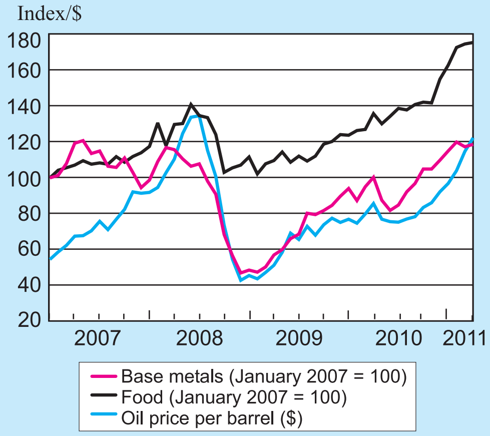
(2) Financial markets

In the first quarter of 2011, uncertainty in global financial markets rose, and the rise in share prices halted. In the first quarter, uncertainty grew in global financial markets, reflected in a rise in the implied volatility in options on leading share indices. The rise in uncertainty came from the worsening of upheaval in Arab countries in the Middle East and North Africa, and the earthquake in Japan. At the same time, several countries in Europe are still finding it difficult to recover from their debt crisis. During the quarter, credit ratings agencies lowered the credit ratings of countries at the focal point of the crisis, and CDS spreads of those countries remained at high levels (Figure 3), despite fund raising by Spain and Portugal at the beginning of the quarter. In order to deal with the debt crisis, European Union countries expanded the aid fund which they set up in order to help deal with the crisis. In February, Ireland received aid from the fund and in the beginning of April, Portugal applied for aid. Against the background of greater uncertainty, the trend of rising global share prices halted during the quarter (Figure 4). In April, after the end of the quarter surveyed, attention to US debt and deficit levels grew, after S&P announced a lowering of its outlook on the credit rating of long term US government debt, from “Stable” to “Negative”.

(3) Global inflation

The pace of rises in the prices of commodities accelerated in the first quarter. In recent years, against the background of strong growth in emerging markets, commodities, food, and energy prices rose consistently, and reached a record in the middle of 2008. With the worsening of the crisis, the trickling down to real activity and a temporary drop in demand by emerging markets, prices plummeted by tens of percentage points, and reached a low point in the first quarter of 2009 (Figure 5). Since then, emerging markets have returned to an accelerated rate of growth, and with that, commodities prices have risen. During the first quarter, prices of basic metals rose 6.8 percent, food prices rose 12.6 percent, and the price of a barrel of Brent crude oil rose 24.3 percent[1]. The rise in the price of energy in general, and in oil in particular, was fed not only by the demand side, as a result of the growth of developing markets, but also by a contraction, or concern of a contraction, in supply, due to a lack of political

Figure 5
Price Indices of Base Metals, Food, and Oil, 2007 to March 2011



SOURCE: Bloomberg.

Table 1
The CPI and Selected Components in Israel and Abroad

(percent change)

	Israel				US				Europe			
	2010	2010: Q4*	2011: Q1*	12 last month	2010	2010: Q4*	2011: Q1*	12 last month	2010	2010: Q4*	2011: Q1*	12 last month
CPI	**2.7**	**3.0**	**2.8**	**4.3**	**1.5**	**1.4**	**8.1**	**2.7**	**2.2**	**4.1**	**4.3**	**2.7**
CPI (seasonally adjusted)[a]		**5.3**	**6.4**			**3.3**	**6.1**			**3.4**	**3.5**	
Energy[b]	-0.4	11.8	23.8	7.7	7.8	16.1	53.1	15.5	11.0	15.6	28.5	13.0
Food (excluding fruit and vegetables)	2.0	2.7	10.9	4.2	1.5	1.3	8.4	2.9	1.5	3.1	4.3	2.5
Fruit and vegetables	16.0	-3.4	-15.6	13.7	1.4	12.9	20.5	3.5	3.2	5.7	6.7	2.2
Housing	4.9	-2.9	5.2	6.4	0.3	-0.8	2.9	0.8	1.3	0.6	1.5	1.3
CPI excluding energy, food, and fruit and vegetables	**2.5**	**2.8**	**0.4**	**3.6**	**0.6**	**0.8**	**2.0**	**1.2**	**1.1**	**2.6**	**1.3**	**1.5**

[a] The estimates of the CPI (seasonally adjusted) for Israel are Bank of Israel calculations. The estimates of the CPI (seasonally adjusted) for Europe do not include tobacco products.
[b] An index made up of several components of the CPI.
* In annual terms.
SOURCE: Based on Central Bureau of Statistics, ECB, Eurostat, and US Bureau of Labor Statistics data.

[1] The average for March 2011 compared with the average of December 2010, in dollar terms.

stability in Middle Eastern oil exporting nations. The assessments of the Bank of Israel research department are that the effects of oil prices on the Consumer Price Index (CPI) are relatively low: a rise of ten percent in the price of oil brings a rise of 0.2–0.6 percentage points in the overall CPI over the next twelve months, primarily in the first half of the year.

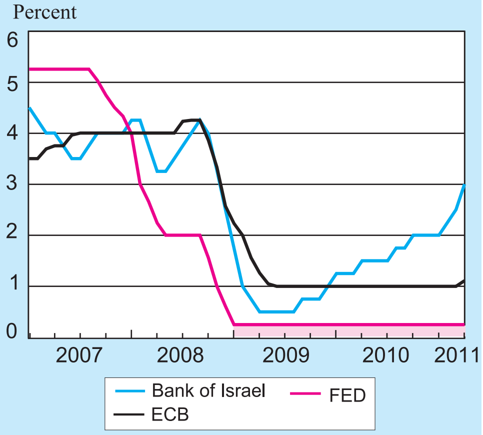
The rise in commodity prices is boosting the rate of inflation around the world, but core price indices in developed markets are restrained. The recent rise in food and energy prices increased the consumer price indices in the US and Europe. Net of their effect, and net of fruit and vegetable prices, which are volatile and have seasonal effects, prices rose in the US in the quarter surveyed by 2 percent, in annual terms, and in Europe they rose 1.3 percent (Table 1).

(4) Monetary policy world wide

Monetary policy in the advanced economies was highly expansionary, while central banks in developing markets continue to back away from monetary expansion. In light of excess production capacity, relatively slow growth, and restrained core inflation rates, central banks of major developed market economies kept interest rates at the very low levels they had reached in 2009 (Figure 6). The beginning of interest rate hikes in the US is still not expected in the near term, despite the rising voices of inflation hawks in the Fed, and estimates by investment banks are that the first interest rate hike will not come until the first quarter of 2012. With that, the Fed's second program of quantitative easing (QE2) is expected to end at the end of the second quarter of 2011, as planned. At the same time, the US Treasury Department will begin to sell its holdings of mortgage backed securities (MBS) which it bought during the crisis. The European Central Bank (ECB) raised its monetary interest rate in April, by 0.25 percentage points, to 1.25 percent. This was the first increase since the crisis broke out, and signals the beginning of a departure from monetary expansion in Europe. The interest rate hike was intended to moderate inflationary pressures in Europe, which followed rises in prices of commodities and energy, despite moderate growth and even though some of the periphery countries in Europe are still mired in debt crises, which weigh on their economic activity. In developing markets, many central banks, including those in India, Chile, Brazil, and Russia, continued to raise interest rates, in the face of accelerated growth rates and marked price increases.

The monetary policy reactions by the US and by Europe to the rise in commodities prices are not uniform. Rises in the

Figure 6
The Short-Term Interest Rate in Israel, the US and the Eurozone, 2007–April 2011



SOURCE: The Bank of Israel, the ECB and the FED.

prices of energy and commodities increased production costs in developed markets, and so cut supply in those economies and raised the rate of inflation. In this situation, the question arises as to whether central banks should respond to price rises with monetary constriction as an increase in production costs serves to contract economic activity.[2] In general, the consensus is that monetary policy should allow the balancing of relative prices in the market, but must also be prepared to prevent, through monetary tightening, a rise in medium term and long term inflation expectations, and the trickling down of price rises to salaries and other prices. In actuality, the policy response, as noted, is not uniform, and the ECB was quick to raise the interest rate in response to rises in commodity prices. In contrast, in the US, apparently the rise in energy prices is seen as temporary, and monetary policy is not expected to respond to it. Likewise, US monetary policy, as a rule, responds primarily to core inflation, i.e., inflation net of food and energy price changes, and that is more moderate than overall inflation (Table 1).

Commodity prices and monetary policy

- Since it is increasing costs for importers of commodities, the increase in commodity prices constitutes a negative supply shock. In this situation, substitution exists between the stabilization of inflation and the stabilization of economic activity.
- The prevailing approach is that inflation can be allowed to deviate from its target in the short term as the result of an increase in commodity prices in order to permit an adjustment of relative prices in the economy. Concurrently however, inflation expectations for longer terms must be kept within the targeted range.

Most central banks have two main objectives: price stability and supporting economic activity. The principal instrument used by monetary policy-makers is the interest rate, which is employed in order to stabilize the economy by means of the rate's impact on demand. As an example, during periods of prosperity when the economy is growing rapidly, prices of all products in the economy increase. In such times, the necessary policy response is to raise the interest rate—a measure that has the effect of moderating demand, thereby alleviating inflationary pressures and restoring the economy to a path of sustainable growth. In a situation such as this, raising the interest rate provides a solution for both objectives. The situation is different when the principal shock affecting the economy is a worldwide increase in commodity prices.

A worldwide increase in commodity prices leads to a rise in inflation. The question is whether central banks should react to this by raising the interest rate in order to adhere to the price stability target. The answer to this question is far from simple, especially in commodity-importing economies, for two reasons: Firstly, since commodities (principally energy) are usually used as a production factor in the local economy, a rise in their price leads to an increase in production costs and reduces supply. An increase in commodity

[2] For a discussion of the appropriate response of monetary policy to the rises in commodity prices see the box in this report.

prices will therefore be accompanied by lower growth. An interest rate hike will have the effect of reducing demand, which while stabilizing the general level of prices will exacerbate the downturn in the economy. The second reason monetary contraction is problematic in this situation is that the price increase is exogenous to the economy: Commodity prices are determined in world markets and are affected by global economic developments. As an example, the increase in commodity prices during recent years was fueled by the rapid growth of the large developing economies—principally India and China—and the year-to-date rise in oil prices derives inter alia from political instability in Arab countries. Clearly, local monetary policy is not capable of affecting these trends. An interest rate hike in response to an increase in commodity prices will indeed moderate the measured inflation rate, but this will be concurrent with a decrease in demand and an impact on all prices in the economy. Although commodity prices will also moderate in local currency terms, via the impact of the interest rate on the exchange rate, the prices of all other imported products will moderate as well, at the price of a decrease in the competitiveness of local production.

How then should monetary policy react to an increase in commodity prices? Svensson (2006)[1] examines the problem under New-Keynesian theory. He emphasizes the importance of inflation expectations both as an indicator for policy management and as a variable affecting actual inflation. If the central bank has a high degree of credibility in the eyes of the public, an increase in commodity prices will have an only minor effect on expectations, inflation expectations will be stable and will function as a mechanism that helps the bank to stabilize local prices. If the bank's credibility is poor, the effect of an increase in commodity prices on expectations will be stronger, and these will be translated into higher local inflation. This is because poor credibility leads to less substitutability between inflation and the output gap (according to the Phillips curve). A downturn in the economy will therefore have a relatively minor impact on actual inflation. Accordingly, the lower is the credibility of the central bank, the more aggressive will be the monetary contraction necessary in response to an increase in commodity prices. Svensson emphasizes that the dynamic relationships between the different variables (such as commodity prices, inflation, expectations and the interest rate) are too complex to summarize within the context of a simple operative rule. The "appropriate" policy response depends on the forecast pattern of commodity prices and the impact of this forecast on the output gap and inflation. The process of selecting the interest rate requires an analysis of different policy scenarios and due discretion in the selection of the preferred alternative.

Announcements by monetary policy-makers worldwide conform to this theory. For example, in response to the increase in commodity prices in 2008, rather than expressing concern over the direct price increase the Fed was more worried over their down line effect on inflation expectations. This was due to apprehension that the initial change in relative prices would be transformed into a continual increase in the prices of all products and the possibility that this would reduce the credibility of monetary policy in its ability to maintain low inflation.[2] In the present episode, the Fed regards the increase in commodity prices as temporary and therefore sees no need to respond with increased monetary contraction. If it is maintained however, the increase will pose a threat to growth and to price stability.[3] This policy is apparent from the Fed's focus on

[1] Lars E. O. Svensson, 2006. "Monetary-Policy Challenges: Monetary-Policy Responses to Oil-Price Changes." Princeton University, Mimeo.

[2] Ben S. Bernanke. "Financial Markets, the Economic Outlook and Monetary Policy." Speech at the Women in Housing and Finance and Exchequer Club Joint Luncheon, Washington, DC, January 10, 2008.

Donald L. Kohn. "Global Economic Integration and Decoupling." Speech at the International Research Forum on Monetary Policy, Frankfurt, Germany, June 26, 2008.

[3] Ben S. Bernanke. Semiannual Monetary Policy Report to the Congress before the Committee of Banking, Housing, and Urban Affairs, US Senate, Washington, DC. March 1, 2011.

core inflation, which deducts from the general rate of inflation energy and food prices because these are volatile relative to other consumer prices. In the UK, it is claimed that commodity price shocks affect the general level of prices but not the core inflation rate. The monetary policy response to these shocks should be accommodative—enabling commodity prices to affect the level of prices while ensuring that the initial price increase does not spill over into inflation expectations that would lead to a further wave of increases in the prices of all products and services. Since it takes several months for the shocks to be fully apparent in the economy, a period of time of two years should be tolerated before inflation reverts to the target and when the shocks are strong, even longer than that.[4] The concept in Europe seems to be similar to that in the US and the UK, although the European Central Bank's approach is somewhat more hawkish.[5] The ECB would appear to attach more importance to price stability rather than economic activity, more so in fact than the central banks of the UK and the US.

To conclude, the currently accepted approach in macro theory and at leading central banks is that in the short term inflation can be allowed to deviate from the target in response to an increase in commodity prices, in order to enable an adjustment in relative prices in the economy. However, it is accepted practice to keep inflation expectations for longer terms within the targeted range in order to prevent an erosion in the credibility of monetary policy. In any event, monetary contraction, if necessary, is intended to prevent a worldwide price increase from developing into a local inflationary process. It should be noted that this approach conforms to the new Bank of Israel Law, which permits inflation to deviate from the targeted range in the short term, but obligates the bank to bring it back into the targeted range within two years at the very most.

[4] Mervyn King. Speech at the Civic Centre, Newcastle, January 25, 2011.

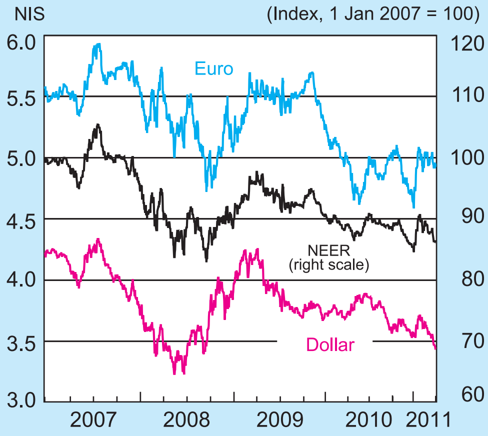
[5] J. C. Trichet, Introductory Statement to the Press Conference (with Q&A); Frankfurt, Germany. January 10, 2008; January 13, 2011; February 2, 2011; March 3, 2011.

b. Development of the shekel exchange rate

The nominal effective exchange rate[3] (NEER) of the shekel depreciated at the beginning of the quarter and then remained at its level of 2010. The appreciation resumed at the end of the period reviewed. In January, the nominal effective exchange rate depreciated by 5.3 percent, thereby canceling out the appreciation of the shekel from the end of the previous year, and thereafter remained unchanged. The depreciation occurred against the background of the geopolitical uncertainty in Arab countries, Bank of Israel and Finance Ministry policy measures, and announcements regarding future measures. The depreciation of the shekel at the beginning of the quarter was accompanied by an increase in the implied volatility of shekel-

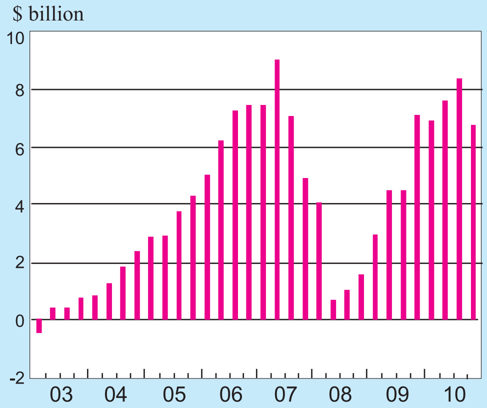
[3] The nominal effective exchange rate is calculated as the weighted average of the exchange rate of the shekel against 28 currencies (which represent 38 countries), on the basis of the weight of Israel's trade with those countries.

Figure 7
The NIS/$, NIS/Euro and the Nominal Effective Exchange Rate, 2007 to March 2011
(daily data)



SOURCE: Bank of Israel.

Figure 8
The Current Account, 2003-10
(Running Four-Quarter Totals)



SOURCE: Based on Central Bureau of Statistics data.

dollar options. When the exchange rate stabilized, the implied volatility decreased. During the quarter as a whole, the NEER depreciated by only 1.6 percent (March 2011 average compared with December 2010 average). From the slightly longer-term perspective, no significant trend is discernible in the exchange rate during the 12 months ending in March (Figure 7). This was despite pressures for an appreciation, to which the Bank of Israel occasionally responded by purchasing foreign currency. The shekel appreciated by 1.1 percent against the dollar during the quarter reviewed, and depreciated by 4.6 percent against the euro (March average compared with December average). The real effective exchange rate (REER) depreciated by 2.2 percent during the quarter reviewed, and its trend was similar to that of the NEER.[4] The appreciation resumed at the end of the quarter, when the monetary interest rate for April was raised by 0.5 percent.

The weakening of the shekel during the quarter reviewed resulted mainly from short-term forces, and the pressures for an appreciation of the shekel active during recent years still exist. The depreciation at the beginning of the quarter developed against the background of policy measures and geopolitical developments. Bank of Israel and Finance Ministry policy measures and announcements regarding future measures included: a requirement to allocate liquidity at a rate of 10 percent against nonresidents' transactions in foreign-currency derivatives, the publication of a draft reporting requirement for transactions in foreign-currency derivatives, a reporting requirement for nonresidents' transactions in *makam* and short-term bonds,[5] and the intention to abolish the tax exemption for foreign investors on capital gains from *makam* and short-term bonds. The geopolitical instability in Arab countries, the rise in energy prices and the deteriorating security situation in Israel increased the level of uncertainty and had the effect of weakening the local currency, although the markets appear to have perceived these events as temporary. However, the interest-rate spread between Israel and the developed countries, which expanded during the quarter reviewed due to the increase in the local interest rate, is encouraging short-term capital inflows to Israel and is thereby strengthening the shekel. Appreciation pressures increased notably after the half a percent interest rate hike for April, which exceeded market expectations. The continuing

[4] The real effective exchange rate is defined as the effective nominal exchange rate, adjusted for Israel's price level relative to that of its trading partners.

[5] See the section on monetary policy in this report for details of these measures.

current account surplus is also contributing to the strengthening of the local currency (Figure 8). It therefore appears that if recent shocks do indeed transpire to be temporary, the pressures for an appreciation of the shekel will continue.

c. Real developments[6]

(1)Demand

The upturn in economic activity increased during the fourth quarter of 2010, and was based mainly on domestic demand. Economic activity, which was strong throughout the whole of 2010, increased in the fourth quarter of 2010 and encompassed all components of aggregate demand, although it was based mainly on domestic demand—private consumption, investment in fixed assets and public consumption excluding defense imports. Exports continued to expand in the second half of 2010, but at a slower pace than that typical of the previous four quarters. Initial indicators for the first quarter of 2011 show continued rapid expansion in demand. However, the intensity of the growth in private consumption is unclear. These developments are indicative of continued pressures for a price increase from the demand side.

Table 2
GDP, Imports and Uses
2008-10:Q4

(volume change from previous period, percent, seasonally adjusted, in annual terms)

	2008	2009	2010	2009: Q3	2009: Q4	2010: Q1	2010: Q2	2010: Q3	2010: Q4
GDP	4.2	0.8	4.7	3.7	5.0	5.2	5.4	4.6	7.8
Business sector output	4.7	0.1	5.4	3.5	5.1	7.0	6.4	4.9	8.9
Imports excluding defense imports, ships, aircraft and diamonds	7.2	-12.3	9.4	14.4	7.7	11.7	13.9	-4.4	9.5
Private consumption	3.0	1.7	5.0	6.3	8.0	1.1	6.4	0.8	8.2
of which: Private consumption excluding consumer durables	1.8	2.6	4.3	3.7	7.9	2.4	3.9	1.9	5.1
Public consumption	2.6	2.5	3.1	-2.4	0.8	2.4	0.1	9.8	6.9
of which: Public consumption excluding defense imports	2.7	4.0	2.8	-0.4	-0.2	-1.0	1.0	8.7	7.3
Gross domestic investment	2.4	-8.9	2.5	-2.2	-39.6	112.9	-18.0	0.6	13.7
of which: Fixed investment	3.9	-5.8	12.6	3.2	-7.0	19.9	23.2	20.2	15.7
Exports excluding diamonds	11.3	-10.0	10.7	10.9	34.3	3.0	19.0	0.2	1.3
of which: Exports excluding diamonds and start-ups	10.5	-9.5	10.6	10.7	28.5	5.0	19.9	-1.2	0.3

SOURCE: Based on Central Bureau of Statistics data.

[6] The data in this section are in annual terms and seasonally adjusted.

Private consumption

Private consumption rose considerably in the fourth quarter of 2010. Private consumption rose by 8.2 percent in the fourth quarter of 2010 compared with the previous quarter. This increase reflects a 5.1 percent growth in current consumption, which accounts for 90 percent of private consumption, and a 39.6 percent increase in consumption of consumer durables.[7] The expansion in consumption derives inter alia from an improvement in purchasing power—a continuing increase in the value of the public's asset portfolio, an improvement in the labor market which was reflected by the consolidation of the unemployment rate at a low level concurrent with an increase in the supply of labor, an appreciation of the shekel, an increase in the real wage after this had changed little for a year, and the accessibility of credit.

Initial indicators for the first quarter of 2011 show continued expansion in private consumption with a slight falloff in the rate of increase. Productivity indices for all industries, and especially for the trade and services industry, show continued rapid expansion in demand. A similar indication is obtained from data on private consumers' credit card purchases. However, the Globes and Bank Hapoalim consumer confidence indices fell during the first quarter of 2011 although their level is still high. The rate of increase in the marketing chains' sales and in imports of consumer goods—especially durables—also slowed.

Investment

Investment in fixed assets increased in the fourth quarter of 2010, mainly as the result of investment for the purpose of increasing production capacity. Investment in fixed assets rose by 15.7 percent in the fourth quarter of 2010 compared with the previous quarter due to a large 26.7 percent increase in investment in machinery and equipment and also, to a lesser extent, due to the continued 9.1 percent expansion in investment in residential buildings resulting from buoyant apartment prices. The growth in economic activity was particularly apparent from the development of inventories, which are recorded as investment. The decline in inventory continued for the fifth consecutive quarter in the fourth quarter of 2010. This means that a large part of demand

[7] In national accounting, purchase of consumer durables is recorded as consumption at time of purchase even though the use of them, meaning consumption of the services which they provide, is staggered over a number of years. Demand for consumer durables is volatile, sensitive to the state of the business cycle and develops in a manner similar to investment. Although the increase in this item is substantial, it is not exceptional relative to past fluctuations in it.

was supplied by reducing inventory that had accrued during the recession, rather than by (increased) production. Developments in imports of capital goods would appear to suggest that investment continued to expand at a considerable rate in the first quarter of 2011 as well.

Imports and exports

The growth in foreign trade resumed, mainly from the import side, after it had nearly stopped in the third quarter of 2010. Foreign trade grew mainly from the demand side in the fourth quarter of 2010, concurrent therefore with a large decrease in the trade balance. Exports (excluding diamonds) rose by 1.3 percent in the fourth quarter of 2010 compared with the previous quarter, and civilian imports of goods and services (excluding diamonds, ships and planes) increased by 9.5 percent. Although these developments had the effect of reducing the trade balance, the balance remained positive, in a continuation of its trend of recent years. The decrease in the trade balance derived inter alia from a deterioration in the terms of trade. Indicators of foreign trade in the first quarter of 2011 show a substantial rebound in exports by the advanced industries concurrent with an unchanged level of exports by the traditional industries. The disaster in Japan is expected to have the effect of holding down Israel's foreign trade in the immediate term, but to an only limited extent.[8]

Public consumption and the budget

Considerable expansion in public consumption. Public consumption excluding defense imports rose by 7.3 percent in the fourth quarter of 2010 compared with the previous quarter. This came in the wake of an impressive growth in the third quarter. The growth in public consumption derived from a 14.1 percent increase in procurement while the labor component rose by 5.4 percent. The growth in public consumption during the fourth quarter was reflected by the aggregate deficit, which totaled NIS 16.1 billion—54 percent of the annual budget deficit. Overall, public consumption excluding defense imports grew by 6.4 percent in the second half of 2010 compared with the first half, an exceptional rate from the long-term perspective.

A domestic budget surplus was apparent in the first quarter of 2011. Government expenditures increased by 2.0 percent in real terms year-on-year during the quarter reviewed.[9] Nevertheless,

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[8] Japan's weight in Israel's exports of goods is 1.4 percent and 3.5 percent in its imports, two thirds of which are vehicle imports.

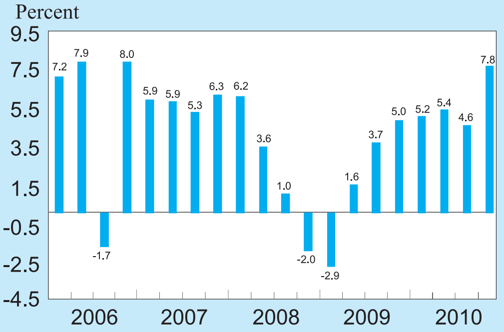
[9] The budget implementation at the beginning of 2010 was partial because the budget had not been approved in the first half of the year.

spending was less than the seasonal pattern matching full implementation of the budget. Domestic tax receipts rose by 9.1 percent in real terms year-on-year,[10] and matched the seasonal pattern conforming to the budget ceiling. Most of the increase derived from receipts of direct taxes.

(2) Supply

GDP

Figure 9
GDP, Quarterly Growth Rates, 2006–10
(annual rates, seasonally adjusted)



SOURCE: Based on Central Bureau of Statistics data.

The supply side responded to the growth in domestic demand by an increase in production. GDP rose by 7.8 percent in the fourth quarter of 2010 compared with the previous quarter (Figure 9), and business-sector product expanded by the even higher rate of 8.9 percent. The GDP growth rate was low relative to the growth in demand, which was partly supplied by imports. Imports of consumer goods expanded at a higher rate in the fourth quarter of 2010. A particularly large increase was recorded in imports of capital goods. Initial indicators for the first quarter of 2011 show continued expansion, but at an intensity that is not clear. Initial results of the Companies Survey indicate that the rate of increase slowed to some extent. However, the Composite State of the Economy Index shows continued GDP growth in the quarter reviewed at a rate not less than in the second half of 2010, and industrial exports reveal a substantial growth in activity.

The labor market

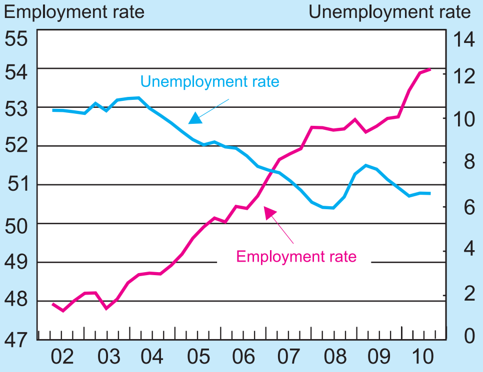
The growth in the economy was apparent from a large increase in the number of work hours and the supply of labor. The number of employed persons rose by 2.5 percent or 18,600 in the fourth quarter of 2010, and the number of unemployed went up by a thousand. This development reflects a growth in the supply of labor. Accordingly and despite the improvement in economic activity, the unemployment rate remained unchanged at a level of 6.6 percent in the fourth quarter. The labor input, which is measured on the basis of the total number of work hours in the economy, rose by 7.2 percent in the fourth quarter of 2010, following an increase of 7.5 percent in the previous quarter. The rapid growth in the labor input is reflected in the number of work hours per employed person and the number of employed persons. Initial data for the quarter reviewed support a continuation of the positive trend in the labor market: Employment Service data show continued growth in demand for workers and a decrease in the number of job seekers. The proportion of vacant posts to total

[10] Exclusive of the effect of legislative changes and non-recurring revenues.

employee posts reached 2.9 percent at the end of the first quarter of the year, continuing the upturn of the previous four quarters. This shows that employers are having greater difficulty in recruiting workers. The Companies Survey shows an increase in demand for workers compared with the previous four quarters. Finally, the trend unemployment rate fell to 6 percent in February.

An upturn in real wages was recorded in the second half of 2010. The average real wage per employee post rose by 3.6 percent in the last quarter of 2010 compared with the third quarter, following an increase of 0.6 percent in the third quarter. These increases partly compensate for the wage erosion at the time of the recession. At the end of 2010, the real wage was 2.3 percent below its level prior to the recession, in the second quarter of 2008. Since the increase in wages per employee post was accompanied by a large increase in the number of work hours per employed person, it is not clear whether this reflects an increase in the cost of the labor input and as a result, pressures for a price increase as well. However, against the background of the growth in the economy and the increase in demand for workers, pressures for wage increases are expected in 2011. The first signs of this are apparent in the agreement for raising the minimum wage and in labor struggles back in the previous quarter, mainly in the public sector. Within that sector, the struggles encompass various sub-sectors: advocates, Foreign Ministry employees, social workers and doctors. A wage increase in the future can be expected to increase the pressures for a price increase, due to higher production costs and the growth in demand for consumption.

Figure 10
The Employment Rate and the Unemployment Rate,[a] 2002-10
(seasonally adjusted, quarterly, percent)



[a] Unemployment rate - percent of labor force (aged 15-64);
Employment rate - percent of working-age population.

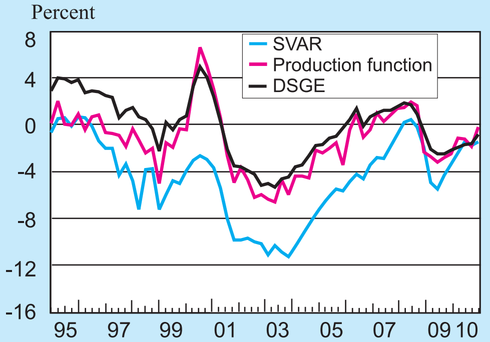
SOURCE: Labour Force Surveys of the Central Bureau of Statistics.

Capital utilization

Capital utilization increased in the fourth quarter of 2010. The ratio of investment to capital in the business sector rose above its long-term trend in the fourth quarter of 2010.[11] An investment-capital ratio higher than the trend is indicative of a lower than desirable capital stock and accordingly, high utilization of capital. The increase in this ratio derived mainly from higher investment in equipment and transportation vehicles and investment in residential buildings. According to the Companies Survey, capital utilization in manufacturing increased in the first quarter of 2011 as well, in a continuation of a persistent upturn since the fourth quarter of 2009. The downtrend in unemployment and the increase in the number of work hours in the economy are also indicative of higher capital utilization.

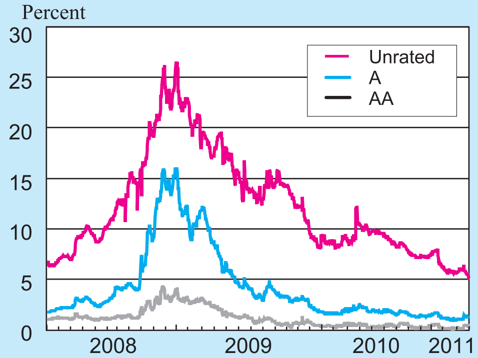
[11] As measured by means of the HP trend.

Figure 11
Indices of the Output Gap
1995-2010 (monthly average)



[a] For details of the calculation of the output gap using the production function and SVAR, see Chapter 2, p. 69, in the Bank of Israel Annual Report, 2008. The output gap based on the DSGE model reflects deviations of GDP from the productivity trend, and not necessarily inflationary pressures. Information on the output gap can be derived from the relative level of each index compared to its level in the past, and not from its absolute level.
SOURCE: The Bank of Israel.

Figure 12
The Average Weighted Yield Gap between CPI-Indexed Corporate Bonds, by Rating, and CPI-Indexed Government Bonds, 2008 to March 2011 (daily data)



SOURCE: Based on Tel Aviv Stock Exchange data.

(3) The effect of real activity on prices

The upturn in demand and GDP growth during 2010 reduced the output gap, with the result that inflationary pressures from the real activity side increased. The output gap expresses the gap between the long-term production potential in the economy—supply—and actual demand. Actual GDP higher than the potential is indicative of demand surpluses, which create inflationary pressures higher than the long-term inflation trend, while product below the potential is indicative of a supply surplus in the economy and low inflationary pressures. According to the indices used by the Bank of Israel Research Department, demand relative to potential production has been rising persistently since the second half of 2009, and is approaching its level prior to the recession (Figure 11).[12] This increase is indicative of an upsurge in inflationary pressures from the real activity side in that period.

Most indicators of real activity show an upsurge in inflationary pressures. The increase in real activity concurrent with a decrease in surplus production capacity and higher capital utilization, growth in demand for workers and pressures for wage increases are all indicative of a contraction of the output gap. Inflationary pressures from the real activity side are therefore expected to be high during the coming months.

d. Financial developments

The upturn in share prices ceased during the quarter reviewed and the level of uncertainty increased. Following the share price rises typical of the stock market during the second half of 2010, the upturn ceased in the quarter reviewed—a development similar to the trend in the emerging markets. In January, the Tel Aviv Stock Exchange reached a historical peak but in February and March, losses were posted. During the quarter as a whole, share prices fell by 2.4 percent (Tel Aviv 100 Index, March 2011 average compared with December 2010 average). The change in trend came against the background of uncertainty resulting from geopolitical developments in the Middle East, the deterioration in the security situation in Israel and the rise in energy prices. Because of the uncertainty, the implied volatility of Maof (Tel Aviv 25 Index) options rose during the entire quarter after falling continually in the second half of 2010.

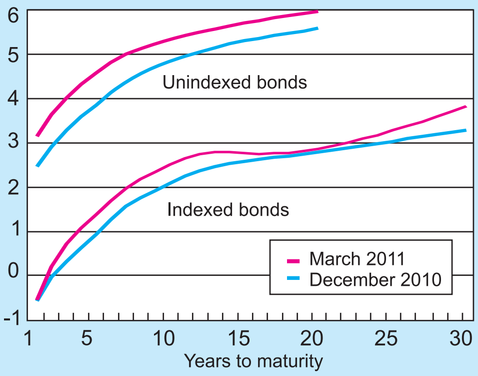
[12] For details of the production function and SVAR (Structural Vector Auto-Regression) method, see Chapter 2 of the Bank of Israel Report for 2008. A third index for the GDP gap, the DSGE, is derived from the forecasting employed by the Bank of Israel Research Division.

Yield spreads between corporate bonds and government bonds increased slightly at the end of the quarter reviewed, although their level is low. The bond market reacted to the increased uncertainty somewhat later than the equities market, and the decrease in the yield spread between CPI-indexed corporate bonds and CPI-indexed government bonds continued during the first two months of the quarter (Figure 12). Only in March was a slight increase recorded in the yield spreads among all grades. Yield spreads have been contracting continually since they peaked at the height of the financial crisis. As expected however, they are higher than in 2007, before the onset of the recession.

The nominal and real yield curves of government bonds were upward biased during the quarter reviewed. During the last two quarters, the nominal and real yield curve of government bonds rose persistently along its entire length, reflecting not only the consolidation of growth but also a rise in inflation expectations. However, the level of yields is still lower than that in the past. The real yield of government bonds for a year remained negative during the quarter reviewed as a result of the expansionary position adopted in local monetary policy and the negative level of short-term real interest rates worldwide. This was because in a small and open economy, in which international capital control is limited, the local real interest rate cannot be detached from alternative yields worldwide. Rapid growth and the expectation that such growth would be sustained led to a rise in real yields for two years and more and to a steepening of the real yield curve. At the end of the quarter reviewed, in response to the 0.5 percent increase in the monetary interest rate for April, the expected real interest rate for a year rose and became positive for the first time since the second quarter of 2009.

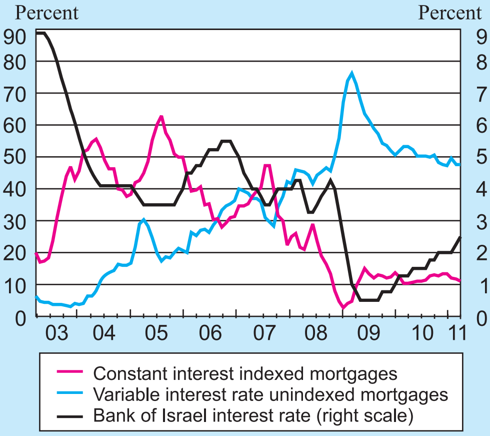
The upward trend in mortgage lending continued while the proportion of floating-rate unindexed mortgage loans remained stable. During the 12 months ending in February 2011, outstanding housing credit increased by 12.8 percent. The increase derived inter alia from the rise in housing prices at a high rate during that period.[13] The proportion of floating-rate unindexed mortgage loans—"prime mortgages"—to total new mortgage lending averaged 48.3 percent in the quarter reviewed, a rate that has remained relatively stable since the last quarter of 2009, after declining from the record 76.5 percent that was recorded in February 2009 (Figure 14). Prior to the recession

Figure 13
Yield To Maturity Curves of Indexed and Unindexed Government Bonds, December 2010 and March 2011 (monthly averages)



SOURCE: Bank of Israel.

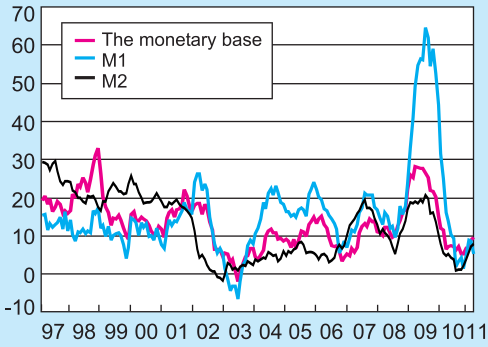
Figure 14
Share of Unindexed Mortgages at Variable Interest Rates and Share of Indexed Mortgages at Constant Interest Rates in Total Mortgages, and the Bank of Israel Interest rate, 2003 to February 2011



SOURCE: Bank of Israel.

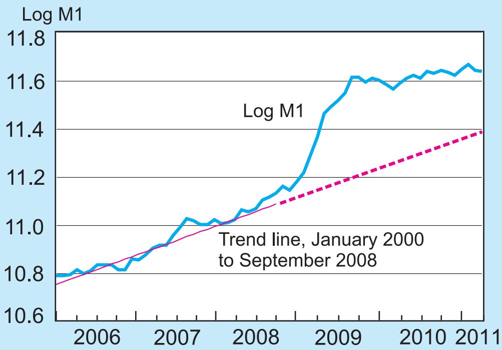
[13] The January 2011 figure, the most up-to-date figure available at the time this report was published, reflects an increase of 16.1 percent in apartment prices compared with January 2010.

Figure 15
The Monetary Aggregates, 1997 to March 2011
(rates of change over previous twelve months)



SOURCE: Bank of Israel.

Figure 16
The Money Supply and its Trends (in Logs), 2006 to March 2011



SOURCE: OECD.

(in the 12 months preceding September 2009), the proportion of these mortgage loans amounted to 43.2 percent. In the absence of policy measures reducing their relative attractiveness, the potential for a large decrease in their proportion therefore appears to be limited.

The expansion of outstanding credit to the business sector is continuing. During the 12 months ending in March, outstanding credit to the business sector increased by 5.1 percent and exclusive of credit from abroad, which is affected by exchange rate fluctuations, by 6.3 percent.[14] The credit growth was centered in the second half of last year. Concurrent with the growth in outstanding credit, business-sector product rose. The supply of credit did not therefore appear to constitute a serious obstacle to economic activity. This is evident from the Companies Survey, which does not indicate financing difficulty, and from data on business-sector bond issues, which reached their highest level since the recession during the quarter reviewed.

The rate of expansion in the monetary aggregates continued to increase in the quarter reviewed. Following a period of slowdown that began in the third quarter of 2009 when the Bank of Israel raised the interest rate, the rate of expansion in the monetary aggregates increased during the quarter reviewed, in a continuation of its development in the previous quarter. However, the rate of increase was less than in the decade preceding the recession. When the interest rate fell to historically low levels at the beginning of 2009, the cost of holding liquidity decreased, with the result that the money supply, M1, increased greatly although since then its rate of increase has slowed. During the 12 months ending in March 2011, the money supply expanded by 5.2 percent, a rate of increase less than that in the decade preceding the recession, reflecting a reversion of the money supply to its trend (Figure 16). This process is supported by the rise of the interest rate.

e. Inflation and inflation expectations

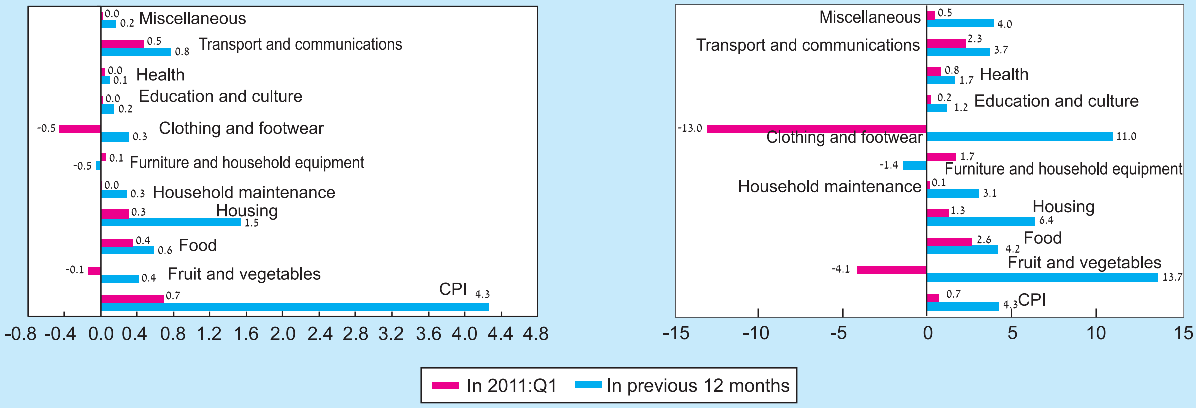
The rise in the CPI during the quarter reviewed resulted mainly from the increase in housing (apartment rental), food and energy prices. The CPI increased by 0.7 percent in the first quarter of the year, despite a moderating seasonal factor. The main factors contributing to the rise in the index were housing prices (apartment rental) and energy prices. Housing prices in the index, which reflect apartment rental fees, rose by 1.3 percent

[14] Because of the lag in the publication of the data, the figure refers to the period from February 2010 to February 2011.

Figure 17

Contribution of the Components of the CPI to the Changes in the CPI in the Previous 12 Months and in 2011:Q1 (percentage points)

Changes in the Components of the CPI in the Previous 12 Months and in 2011:Q1 (percent)

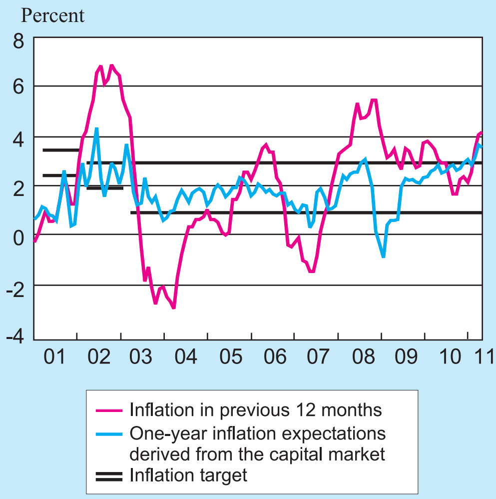


SOURCE: Based on Central Bureau of Statistics data.

during the quarter, a rate reflecting the pressures in the housing market, which also have an effect on apartment prices. This rate of increase is exceptional for the first quarter because apartment rental fees are usually notable for negative seasonality at the beginning of the year: During the last five years, the housing item fell by an average of 0.2 percent in that period of the year. Food prices (excluding fruit and vegetables) rose by 2.6 percent, and the energy components of the index went up by 5.5 percent during the quarter reviewed, following an increase of 2.8 percent in the previous quarter.[15] However, prices of clothing and footwear fell by 13.0 percent due to seasonality. Exclusive of seasonal factors, the general index rose by 1.5 percent during the quarter.[16] This rate of increase, which is above the upper limit of the 1 to 3 percent inflation target set by the government, reflects a rise in the inflation environment.

The faster rate of price increase during recent months brought inflation as measured in the past 12 months above the upper limit of the inflation target. As measured in the last 12 months, the CPI rose by 4.3 percent. The development of inflation exclusive of seasonality during the past year is indicative

Figure 18
Inflation in Previous 12 Months, Inflation Expectations and Inflation Targets, 2001 to March 2010
(monthly averages)

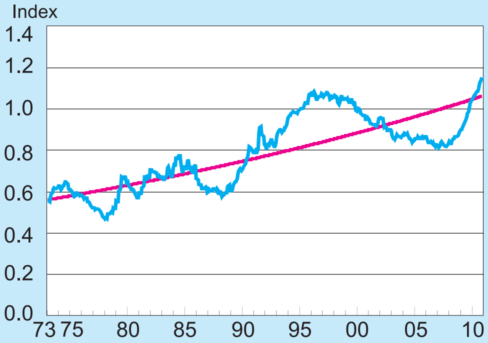


SOURCE: Based on Central Bureau of Statistics data.

[15] The energy components in the CPI are fuels and vehicle oils, kerosene and diesel, and gas and electricity. Their weight in the general index is 6.7 percent.

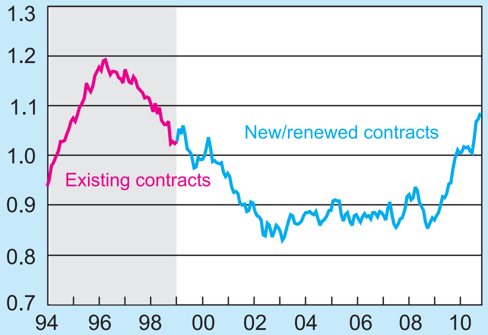
[16] The data for the seasonally-adjusted CPI are based on Bank of Israel calculations. See Box 1 in Inflation Report no. 30 for further details of the seasonal adjustment approach and the principal motive for the deduction of seasonality.

Figure 19
Real House Price Index, 1973-2011
(January 2000 = 1)



SOURCE: OECD.

Figure 20
Ratio of Apartment Prices to Rent, 1994 to January 2011
(January 2000 = 1)



SOURCE: Based on Central Bureau of Statistics data.

of a persistent rise in the inflation environment. For example, the seasonally-adjusted CPI went up by 0.6 percent in the second quarter of 2010, 0.8 percent in the third quarter, 1.3 percent in the fourth quarter and by 1.5 percent in the first quarter of 2011. This development matches the economy's proximity to full employment, and also reflects the worldwide increase in food and energy prices. Housing prices contributed to the development of the index in the past year. Excluding housing, the index increased by 3.6 percent in the last 12 months, and excluding housing and energy prices the index increased by 3.1 percent.

The rapid increase in apartment prices is continuing. According to the Central Bureau of Statistics' Owner-Occupied Apartment Price Survey, apartment prices rose by 16.1 percent.[17] This rate of increase is higher than that derived from the economy's fundamental factors. For example, new and renewed apartment rental contracts rose by 6.4 percent in that period, while the average wage per employee post went up by 4.1 percent. In January 2011 the level of real prices was 8.3 percent higher than its long-term trend. Before the last price increase, at the end of 2007, prices were lower than derived from fundamental factors and their long-term trend (Figures 19 and 20).

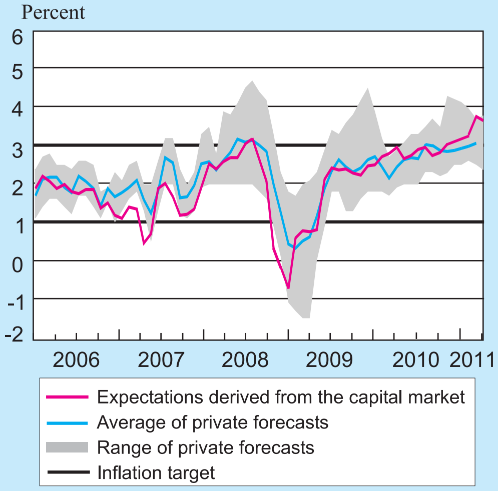
During the quarter reviewed inflation expectations derived from the capital market and private analysts' forecasts rose above the upper limit of the inflation target. Concurrent with the increase in the actual rate of price increase, inflation expectations derived from the capital market rose, and since October 2010 these have been higher than the upper limit of the inflation target, at 3 percent (Figure 21). At the end of the quarter reviewed, inflation expectations for the next 12 months amounted to 3.7 percent (March 2011 average). Private analysts' average forecast for inflation for the next 12 months increased by an only moderate rate during the quarter reviewed, although it slightly exceeded the inflation target and amounted to 3.1 percent. The interest rate forecast for 12 months ahead averaged 3.7 percent. According to analysts' assessments a more rapid course of upturn in the interest rate will therefore be appropriate for the purpose of adhering to the inflation target. It should be noted that both inflation expectations derived from the capital market and private analysts' forecasts have been rising since the second quarter of 2009 (Figure 21). At the end of the quarter reviewed however, in the days following the announcement of the decision to raise

[17] Because of the lag in the publication of the data, the figure refers to the period from January 2010 to January 2011.

the interest rate for April by 0.5 percent, inflation expectations fell to approximately 3.2 percent, from which it is possible to conclude that the market was expecting a more moderate interest rate hike.

Inflation expectations for the long and medium terms also rose during the quarter reviewed, although less than expectations for the short term. Annual inflation expectations for the term of 10 years are currently slightly less than three percent, the upper limit of the inflation target. The challenge facing policy-makers in the near future is to bring down the actual inflation rate and expectations in the markets—especially long-term expectations—towards the center of the inflation target while alleviating any adverse impact on exports and economic activity as a whole.

Figure 21
Inflation Expectations for the Next Year Derived from the Capital Market and According to Private Forecasters, 2006 to March 2011[a]
(monthly averages)



[a] From April 2007, the real yield used in the calculation of inflation expectations is based on the entire yield curve.

SOURCE: Based on private forecasters' reports and capital market data.

2. MONETARY POLICY

The indicators available to the Bank of Israel during the quarter favored a reduction in monetary expansion while maintaining support for the exchange rate. The rise in the inflation environment and its deviation from the target in the short term, the rapid growth in local real activity and the increase in asset prices all supported an increase in the monetary interest rate, for the purpose of attaining the inflation target and maintaining financial stability and sound real activity. Together with the impact of the current account surplus, this policy is increasing the forces for appreciation of the shekel due to an expansion of the interest-rate spread compared with the developed economies. Accordingly, the Bank of Israel remained active in the foreign-currency market in order to moderate the pressures for an appreciation of the local currency. This was despite the weakening of appreciation pressures, at least temporarily, during the quarter reviewed as a result of the geopolitical uncertainty in the Middle East and the deterioration in the security situation in Israel. The Bank of Israel's activity in the foreign-currency market included purchases of foreign currency (mainly at the beginning of the quarter reviewed), the imposition of a 10 percent liquidity requirement on the banking corporations against nonresidents' transactions in foreign-currency derivative, and the publication of a draft reporting requirement for various transactions.

The process of restoring inflation to its target is gradual. In order to restore inflation to within the limits of the targeted range, the Bank of Israel is raising the monetary interest rate, which is its principal policy instrument. As stated, an interest rate hike entails pressures for an appreciation of the shekel,[18] and has the effect of moderating real activity. The process of raising the interest rate is therefore gradual, and has the derivative effect of gradually restoring inflation to its target in accordance with the Bank of Israel Law.

Although the Bank of Israel raised the monetary interest rate more rapidly during the quarter reviewed, policy is still expansionary. Following a moderate increase in the monetary interest rate since the fourth quarter of 2009, the Bank of Israel speeded up its rate hikes in the quarter reviewed. The February and March interest rates were raised by 0.25 percent each, and the interest rate for April was raised by 0.5 percent to a level of 3 percent. The faster rate of increase in the interest rate was necessary in view of the rise in the inflation environment, which was apparent from the continued upturn in inflation expectations derived from the capital market, which reached 3.7 percent, from inflation forecasts which averaged above the upper limit of the inflation target, and from actual inflation during the past year of 4.3 percent. Also supporting an increase in the monetary interest rate were the continued rapid upturn in apartment prices and the rapid expansion of economic activity. Following the monetary interest rate hike for April, the real interest rate on government bonds for a year rose to a quarter of a percent, following negative rates since the second quarter of 2009.[19] The low level of the real interest rate indicates that monetary policy is still expansionary.

The Bank of Israel continued to purchase in the foreign-currency market, and a liquidity requirement was imposed on nonresidents' transactions in foreign-currency derivatives. Foreign-currency purchases decreased during the quarter. In January, the Bank of Israel purchased $2.085 billion. In February and March, after appreciation pressures had abated, it purchased only $400 million overall. At the end of the quarter, the Bank of Israel's foreign exchange reserves amounted to $74.5 billion. When appreciation pressures resumed in April, foreign-currency purchases resumed as well. At the end of January 2011 the Bank of Israel imposed a 10 percent liquidity requirement on banking corporations in Israel against nonresidents' transactions in foreign-currency derivatives, and published a draft reporting requirement for nonresidents' transactions in Makam and short-term bonds. Apart from reducing the worthwhileness of short-term shekel saving by nonresidents, thereby supporting the exchange rate of

[18] The change in the exchange rate is effectively part of the transmission mechanism from monetary policy to prices.

[19] The rise in the real interest rate reflects a decline in inflation expectations in the capital market.

the shekel, these measures had a stability-related objective since they are expected to reduce the volatility in short-term capital movements to the economy.

Following the imposition of a liquidity requirement against nonresidents' transactions in foreign-currency derivatives, nonresidents' activity in *makam* decreased slightly, at least in the short term. Before the worsening of the financial crisis, in September 2008, the proportion of foreign investors' holdings to the total balance of *makam* amounted to only one percent. When an interest-rate gap against the developed economies' emerged and the local interest rate attracted short-term foreign investors, their holdings proportionate to the total balance of *makam* increased and in January 2011, before the liquidity requirement was imposed, reached 34 percent. The liquidity requirement is reducing the shekel yield at the same rate as the liquidity requirement, and is therefore reducing the relative feasibility of the shekel channel. After this requirement was imposed, nonresidents' *makam* purchases decreased in February and initial data for March show a reduction in their holdings. However, it is reasonable to assume that part of this effect derived from a renewed assessment of the situation by foreign investors due to apprehension over an increase in the liquidity ratio in the future and pressures for a depreciation of the shekel, even if only temporary, as the result of geopolitical instability and deterioration in the security situation in Israel. This is because at the present interest rate spread and liquidity ratio, saving in *makam* is still attractive relative to the alternatives in the developed economies. In addition, it should be noted that the liquidity requirement is imposed on banking corporations alone, and not on institutional investors. It is therefore possible that foreign investors may choose to operate via institutional investors in order to prevent an erosion in yield resulting from the liquidity requirement.

In view of the continuing trends in the housing market, the rate of a mortgage granted to a borrower at floating-rate interest has been limited to a third of the entire loan. In April the Supervisor of Banks issued a directive that the floating-rate part of a mortgage must be limited to a third of the entire housing loan which the banking corporation grants to a borrower. The restriction applies to new housing loans in all floating-rate interest tracks, in which the interest rate is likely to change during a period of less than five years. The directive was issued due to the continuing trends in the housing market, and most notably the large volume of new housing loans granted at floating-rate interest, which imply a risk for borrowers and as a result, to the entire banking system. The directive also prescribes a disclosure requirement to customers who in the past took out mortgages in an unindexed floating-rate track based on the prime rate, in cases where this component of the loan accounts for a third or more of the total. The disclosure requirement is intended to increase these borrowers' awareness of the potential implications of a rise in the interest rate on the level of their monthly repayments, and thereby enable them to conduct a more educated examination of this risk and the alternatives for minimizing it.

3. UPDATE OF FORECASTS

a. The global environment

Worldwide, a continuation of unbalanced growth is expected—slow growth accompanied by low inflation in the developed countries and rapid growth with high inflation in the developing countries. According to the IMF forecast, the annual growth rate in the developed countries will amount to 2.5 percent in the next two years (Table 3). More rapid growth is expected in the US, at 2.8 percent in 2011 and 2.9 percent in 2012, and an improvement in the unemployment rate is apparent there. Renewed pressure deriving from the debt crisis in some European countries is among the risk factors threatening to lead to lower than forecast growth. In view of the moderate level of demand, consumer prices in the developed countries are expected to rise by 2.2 percent in 2011 and 1.7 percent in 2012, despite the expectation of a substantial increase in energy and commodity

Table 3
GDP Growth in 2010, and IMF Forecasts for 2011 and 2012

(percent)

	Actual	Estimate	Estimate
	2010	2011	2012
Average GDP growth			
Global	5.0	4.4	4.5
Advanced economies	3.0	2.4	2.6
US	2.8	2.8	2.9
EU	1.7	1.6	1.8
Japan	3.9	1.4	2.1
Emerging markets	7.3	6.5	6.5
Inflation (annual average)			
Advanced economies	1.6	2.2	1.7
Emerging markets	6.2	6.9	5.3

SOURCE: IMF World Economic Outlook Update, April 2011.

prices. With respect to the developing countries, IMF economists forecast an annual growth rate of 6.5 percent in the next two years, and that the burgeoning demand in those countries will lead to inflation of 6.9 percent in 2011 and 5.3 percent in 2012. Based on these forecasts, the rate of expansion in world trade will remain high, at 7 percent in the each of the next two years.

Investment banks expect the European Central Bank to raise the interest rate during 2011, while the interest rate in the US will remain at a low level at least until the end of the year. According to worldwide investment banks' forecast average, the interest rate in the US will only begin to rise during the first quarter of 2012. In Europe, the expectation of a quarter percent rate hike materialized in the beginning of the second quarter of 2011, and the interest rate forecast for the end of the year is 1.75 percent. These forecasts indicate that the ECB is perceived as more hawkish than the Fed, since the same analysts expect stronger growth in the US to the accompaniment of slightly higher inflation than in Europe.

b. Real activity in Israel[20]

Israel's GDP is expected to grow by 4.5 percent in 2011, mainly due to the expansion of domestic demand. Gross domestic product is expected to grow by 4.5 percent and 4.0 percent respectively in 2011 and 2012. The growth forecast for 2011 was adjusted upward relative to that reported in the previous Inflation Report (3.7 percent), mainly as a result of the end effect of the surprisingly high growth rate in the last quarter of 2010 (7.8 percent). GDP growth in 2011 expected to be based largely on expansion of domestic demand. Private consumption and investment in fixed assets will also support an increase in disposable income and the shortage of capital stocks, especially residential apartments, will support investment growth. The end of the sharp downturn in inventories in 2010 is expected to contribute to GDP expansion in 2011 as well.

Israel's exports are expected to grow at a relatively slow rate. In contrast to domestic demand, the rate of export growth for the rest of the year is expected to be less than its long-term trend (6.5 percent) and the expansion in the world trade. This moderate growth is the result inter alia of the real appreciation, which is harming export profitability and therefore its supply as well. It should also be remembered that Israeli exports were less

[20] The Bank of Israel forecast was compiled on the basis of data that were available up to the date of the interest-rate decision for April 2011 (27.3.2011).

Table 4
Economic Indicators

(rates of change, percent, unless stated otherwise)

	Actual	Bank of Israel Forecast[a]	
	2010	2011	2012
GDP	4.7	4.5	4.0
Private consumption	5.0	3.9	3.7
Gross domestic investment	12.6	7.8	5.4
Public consumption	3.1	2.7	2.0
Imports (civilian, excluding ships, aircraft and diamonds)	9.4	9.7	4.0
Exports (excluding diamonds)	10.7	4.3	5.1
Current account ($ billion)	6.7	3.4	3.1
Unemployment rate	6.7	6.1	5.9
Public deficit (percent of GDP)[b]	5.3	2.8	2.3
Gross debt/GDB ratio (percent of GDP)[b]	79.2	76.1	74.6

[a] The Bank of Israel's forecast dated March 3, 2011. The forecast of the public deficit and the debt/GDP ratio for 2012 depend on government policy.
[b] Assuming full expenditure of the government budget, and
• assuming that the budgets for 2011 and 2012 will be in line with the government's budget proposals. The underlying forecast of income is derived from the Bank of Israel's macroeconomic forecast and the tax model;
• the figures for 2010 and 2011 include the Bank of Israel's estimate of transfers from other budget items to the Defense item and changes in classification;
• not including repayment of principal to the National Insurance Institute.
SOURCE: Based on Central Bureau of Statistics data; forecasts—Bank of Israel.

hard hit during the global recession, due among other reasons to the fact that the products that were worst hit in the recession (automobiles and other consumer durables, for example) are not within Israel's field of specialization. As the world recovers from the recession, trade in these products can be expected to grow more rapidly than in those products that were not harmed by the recession. Accordingly, Israel's export growth rate in the exit years from the recession may be less than the rate of increase in world trade. However, the diversion of Israeli exports during the recession to countries whose economies are expanding relatively rapidly is not expected to lead to a future downward adjustment of the weight of Israeli exports in world trade.

The growth in demand is supported by a rapid expansion in the supply of production factors—labor force participation and capital stocks—and by a rapid growth in imports. GDP growth in 2011 is expected to be higher than its long-term rate despite the economy's proximity to full employment. This growth is possible due to the expansion of the supply side, in the form of a persistent increase in the labor force participation rate—with the result that the unemployment rate will be only slightly lower than the end of 2010 and will average 6.1 percent in 2011—and the expansion of capital stocks due to the rebound in investment in fixed assets in 2010. In 2011 the expansion of demand is expected to be based to a growing extent on imports, which will grow by 10 percent, due to the appreciation of the shekel which is reducing the cost of imports relative to local production, the proximity to full employment and a high proportion of imports in the uses that are growing rapidly (investment in fixed assets and investment in inventory). The relatively rapid expansion of imports, together with the moderate growth in exports and deterioration in the terms of trade are all expected to lead to a decrease in the current account surplus to approximately $3 billion, half the amount recorded last year.

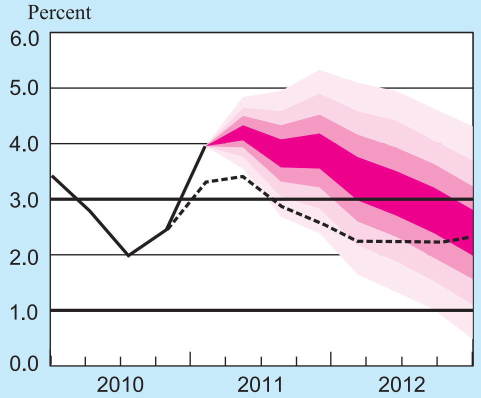
c. Inflation estimates and the balance of inflation risks

In the estimation of the Bank of Israel's Research Department[21], the inflation rate in 12 months time will be slightly above the upper limit of the inflation target, and will converge within the targeted range in the second half of 2012. The inflation rate in the last 12 months was 4.3 percent, above the upper limit of the inflation target, because of the combination of a number of significant inflationary forces. (See Section 1). The Research Department estimates that while the inflation rate will become more moderate during the coming year, it will remain high. From the perspective of the past 12 months, inflation is expected to remain about the upper limit of the targeted range during the coming year, and to amount to 3.2 percent in a year's time. However, the expected increase in the Bank of Israel's interest rate from its present rate of 3 percent to 4.4 percent in one year conforms to the consolidation of inflation within the targeted range in the second half of 2012 (Figures 22 and 23).

This estimate reflects a combination of a number of economic forces, most of which have the effect of keeping inflation high. These include the worldwide increase in commodity prices, the demand surplus for housing services and expansion of demand for GDP. A major inflationary factor in the period concerned is the worldwide increase in energy and commodity prices (in foreign-currency terms) during recent months, especially food and metals prices which are rising due to growing demand in emerging markets, extreme weather conditions and fires, and soaring oil prices that are

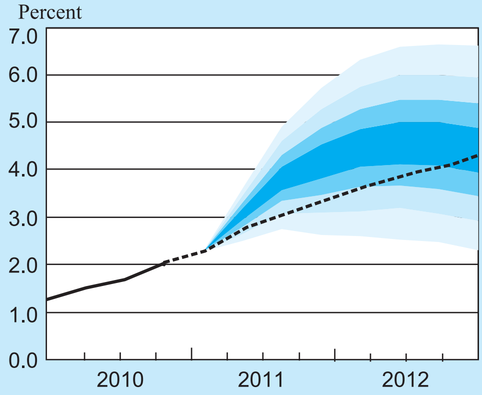
[21] The inflation estimate in this report is part of a staff forecast compiled by the Bank of Israel Research Department each quarter. For an explanation of the Department's staff forecasts and their underlying models, see Inflation Report no. 31 for April–June 2010, Section 3.c.

Figure 22
Actual Inflation and Fan Chart[a] of Expected Inflation,[b] 2010-12 (cumulative increase in prices in previous four quarters)



[a] The center of the fan chart is based on the Bank of Israel Research Department assessment.
The width of the chart is based on the Department's medium-scale DSGE (dynamic stochastic general quilibrium) model. The full fan covers 66 percent of the distribution of expected inflation.
[b] The dotted line is the middle of the fan chart shown in the previous Inflation Report (No. 33, February).
SOURCE: Bank of Israel.

Figure 23
Actual Bank of Israel Interest Rate and Fan Chart[a] of Expected Interest Rate,[b] 2010-12



[a] The center of the fan chart is based on the Bank of Israel Research Department assessment. The width of the chart is based on the Department's medium-scale DSGE (dynamic stochastic general equilibrium) model. The full fan covers 66 percent of the distribution of the expected interest rate.
[b] The dotted line is the middle of the fan chart shown in the previous Inflation Report (No. 33, February).
SOURCE: Bank of Israel.

accompanying the growth in emerging market economies and the instability in the Arab world. Looking ahead, the growth in demand in emerging markets will likely continue to exert upward pressure on commodity prices. As regards oil prices, while it can be assumed that the pressure for an increase in oil prices will moderate when the crisis in the Arab world abates, the disaster in Japan may lead to reservations over the wisdom of relying on nuclear energy worldwide, which will continue to exert upward pressure on oil prices. When constructing the above-mentioned forecast, it was assumed that oil prices will not continue to rise but will remain at a relatively high level (approximately $115 a barrel). We estimate that the decrease in the demand surplus in the housing market will be limited, with the result that the upturn in the housing item will slow very gradually and will continue to contribute to inflation. The expansion of demand for GDP, which is reflected by the reduction of excess production capacity, may push up inflation by raising the cost of local factors of production, especially the cost of labor, and via firms' efforts to increase their profitability. While it is estimated that nominal wages are expected to continue rising at a relatively high rate this year, one of the reasons for the wage increases expected is the decrease in real wages in 2009 and the moderate increase in 2010 relative to the rate of growth in labor productivity. Inflationary pressures from the labor market therefore currently appear to be limited. These could increase as demand continues to expand, or as a result of wage struggles by large labor unions. Apart from their direct effect, the inflationary factors described here also have an indirect effect via the public's expectations: The expectation of inflation higher than the target could increase prices in the present, due to the impact of expectations on wage agreements and current pricing decisions.

The main factor expected to have moderating effect on inflation is an appreciation of the nominal effective exchange rate. An effective appreciation of 6.5 percent was recorded in 2010. The appreciation resumed at the end of the first quarter of 2011, when the monetary interest rate for April was raised by 0.5 percent. The appreciation is having the effect of reducing the prices of goods that are imported to Israel, although the transmission from the exchange rate to prices is gradual rather than immediate. It can therefore be estimated that import prices have not yet fully matched the new level of exchange rate, with the result that their downward adjustment will continue during 2011 as well. Apart from that, background conditions to the nominal appreciation still exist. These include the current account surplus (which is however expected to decrease) and the

Table 5
Assessments of Inflation over The Next Twelve Months

(percent)

	Target	Capital market[a]	Private forecasters[b]	Companies Survey[c]	Bank of Israel's forecast
Average	2	3.1	3.1	3.1	3.2
Range	1-3		2.5-3.7	1.0-5.0	

[a] March average.
[b] After publication of the March CPI.
[c] Range of assessments (covering 90 percent, i.e., excluding the tails). Based on companies' responses received in the second half of March.
[d] Bank of Israel Research Department assessment.
SOURCE: Bank of Israel.

interest-rate spread between Israel and abroad. The expansion in the interest-rate spread is expected to continue due to the high inflation environment and the decrease in excess production capacity in Israel, at a time when the US and Europe have yet to recover from the recession. For this reason, the level of central banks' interest rate there is extremely low (0.0-0.25 percent in the US, 1.25 percent in Europe). These interest-rate levels are having the effect of holding down the rate of increase in the local interest rate.

The inflation forecast and course of the interest rate are higher than in the previous Inflation Report. Figures 22 and 23 provide a comparison with the estimates in the previous Inflation Report (February 2011). Looking ahead to the next 12 months, the inflation forecast of 3.2 percent is higher than the previous report, which was 2.3 percent for the first quarter of 2012. The inflation forecast was adjusted for four reasons: (1) indexes in January and February 2011 that were slightly higher than expected, which are creating a base effect on the course of inflation up to a year ahead; (2) the 30 percent upsurge in oil prices since the end of 2010; (3) the publication of more positive than expected data on the economy's growth at the end of 2010; and (4) a temporary halt to the nominal appreciation in the first quarter of 2011. In view of the high inflation forecast and the improvement in real activity, the course of the interest rate was adjusted upward from 3.6 percent to 4.4 percent in a year's time.

Like the Bank of Israel's estimates, market assessments of inflation amount to 3.1 percent, with the expectation of an interest rate hike to a level of between 4.2 and 4.4 percent in a year's time. Inflation expectations for a year as measured from the capital market fell from 3.7 to 3.1 percent as a result of the interest rate hike for April. At present, market expectations are similar to those prevailing at the time of writing of the Inflation Report for the previous quarter (3.2 percent). Concurrently, the Bank of Israel interest rate derived from the Telbor market for a year ahead is 4.4 percent. Private analysts' assessments averaged 3.1 percent at the end of April, similar to their assessments at the time when the Inflation Report for the previous quarter was written (3.0 percent). Their average forecast is that the Bank of Israel interest rate will rise to 4.2 percent in one year. The forecast average from the Companies Survey was upward adjusted to 3.1 percent compared with 2.6 percent in the previous survey.

A major risk factor to the non-materialization of the inflation forecast is the continued upturn in energy and commodity prices. While it was assumed in the basic forecast that world commodity and energy prices would calm to some extent, the risk exists that these prices will continue to rise, and possibly even faster. An evaluation conducted by the Bank of Israel found that a 10 percent increase in oil prices leads to a 0.2 to 0.6 percent rise in inflation, depending on the extent to which the increase in oil prices is perceived as permanent. In addition, it was found that a 10 percent increase in food prices worldwide raises inflation in Israel by 0.15 percentage point. Although these are small elasticities, in view of the vibrant demand for local output, the final prices may absorb the price increase in imported inputs and goods more rapidly than usual times in which those elasticities were measured. The principal factor that may lead to inflation lower than that in the basic forecast is an increased rate of appreciation, or a strengthening of the transmission from the exchange rate to prices, a transmission that was weakened in recent years. The last uncertainty factor is the housing item in the CPI (which is based on apartment rental fees). While housing prices may rise at a high and possibly an increasingly high rate, the excess increase in housing prices may already have ended or government measures may have the effect of restraining these prices. However, in an alternative scenario, which was examined on the assumption that housing prices will rise by only two percent during the coming year, it was found that inflation will still be located in the upper part of the inflation target.

The Bank of Israel will continue to monitor economic developments in Israel, abroad, and in the financial markets. The Bank will adjust the instruments at its disposal, and especially the course of the monetary interest, in order to attain its objectives of price stability, the encouragement of employment and growth, and support for stability in the financial system.

Appendix Table 1
The Domestic Assets Markets, October 2010 to March 2011

	10/10	11/10	12/10	01/11	02/11	03/11
Yields to maturity (monthly average, percent)						
3-month *makam*	1.9	2.0	2.1	2.1	2.3	2.7
1-year *makam*	2.4	2.4	2.4	2.5	2.8	3.1
Unindexed 5-year bonds	3.6	3.7	3.9	4.1	4.4	4.7
Unindexed 20-year bonds	5.5	5.6	5.7	5.8	6.0	6.1
CPI-indexed 1-year bonds	-0.6	-0.8	-0.5	-0.8	-0.9	-0.5
CPI-indexed 5-year bonds	0.7	0.7	1.0	1.0	1.2	1.4
CPI-indexed 30-year bonds	3.0	3.1	3.3	3.3	3.6	3.8
Yield gap between government bonds and						
private bonds rated AA–AAA[a] (percentage points)	1.1	1.1	1.0	1.0	1.0	1.0
private unrated bonds excluding real estate[a] (percentage points)	6.7	6.7	6.7	6.1	5.5	5.6
Share market (percentage change during the month)						
General share price index	4.1	-2.7	5.4	-0.3	-2.1	-0.2
Tel Aviv 25 index	3.9	-2.2	6.4	-2.5	-0.2	2.4
Foreign currency market (percentage change during the month)						
NIS/$	-0.8	1.3	-3.6	4.5	-2.4	-3.9
NIS/€	0.7	-4.7	-1.1	7.3	-1.4	-1.2
Nominal effective exchange rate	0.0	-1.6	-2.0	5.3	-1.7	-2.6
Risk measurement's derived from the trade in NIS/$ options in the Tel Aviv Stock Exchange (monthly averages, percent)						
Implied uolatility	9.2	8.8	8.0	9.0	9.9	9.2
Probability of depreciation greater than 3%	3.6	2.6	2.2	3.5	5.4	5.5
Probability of appreciation greater than 3%	2.4	1.9	1.3	2.2	2.6	1.4

[a] CPI-indexed bonds, excluding convertibles, with a yield of up to 60 percent, and with a duration of more than one year.
SOURCE: Bank of Israel.

Appendix Table 2
The Inflation Environment and Interest Rates, October to March 2011

(percent, monthly averages)

	10/10	11/10	12/10	01/11	02/11	03/11
Inflation environment (percent)						
Monthly change in CPI	0.3	0.1	0.4	0.2	0.3	2.0
Forecasters' predictions of monthly CPI (average of forecasts prior to publication of CPI)	0.2	0.3	0.1	0.2	0.0	0.1
Annual change in CPI	2.5	2.3	2.7	3.6	4.2	4.3
One-year inflation expectations derived from the capital market[a]	3.0	3.2	3.0	3.3	3.8	3.7
Forecasters' one-year inflation predictions	2.9	2.9	2.9	3.0	3.0	3.1
Inflation expectations to different terms[a]						
Short term (second and third years forward)	2.9	3.1	2.9	3.0	3.1	3.1
Medium term (fourth to sixth years forward)	2.7	2.8	2.8	2.8	2.9	3.0
Long term (seventh to tenth years forward)	2.7	2.7	2.6	2.6	2.5	2.4
Interest rates and interest rate differentials						
Bank of Israel interest rate	2.00	2.00	2.00	2.00	2.25	2.50
Derived real interest rate	-1.0	-1.1	-0.9	-1.2	-1.4	-1.1
Short-term interest rate differential between Israel and the US (prior to decision on the next month's rate)	1.75	1.75	1.75	1.75	2.00	2.25
Short-term interest rate differential between Israel and the eurozone (prior to decision on the next month's rate)	1.00	1.00	1.00	1.00	1.25	1.50
Forecasters' predictions of nominal interest rate for next month (prior to the decision)	0.2	0.0	0.1	0.1	0.2	0.2
Forecasters' predictions of interest rate a year hence	2.9	3.0	3.1	3.2	3.4	3.8
Long-term (10-year) nominal interest rate differential between Israel and US	2.0	1.9	1.7	1.7	1.7	2.1
Long-term (10-year) real interest rate differential between Israel and US	1.2	1.2	1.1	1.2	1.1	1.6

[a] Inflation expectations are measured from the difference between yields on local currency unindexed and indexed bonds. These expectations include an element of risk premium, which rises with the length of the term to which the expectations relate.
SOURCE: Based on Central Bureau of Statistics data and private forecasters' reports.