Bank of Israel

INFLATION REPORT

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Bank of Israel

Letter of the Governor accompanying the Inflation Report for July–September 2008

This Inflation Report, covering the third quarter of 2008, is submitted to the government, the Knesset and the public as part of the process of periodic monitoring of the inflation rate and adherence to the inflation target set by the government. The Report was prepared in the Bank of Israel within the framework of the Senior Monetary Forum, headed by the Governor, the forum in which the Governor makes decisions on the interest rate.

The Consumer Price Index (CPI) rose by 2.0 percent in the third quarter of 2008, and in the twelve months ending in September 2008 by 5.5 percent, well above the upper limit of the price stability target range of 1–3 percent inflation a year. This, despite the fact that in the third quarter the prices of oil and food dropped sharply, against the background of the global slowdown in growth. Price increases in Israel over the last year were greatly affected by the increases in world prices of raw materials before the first quarter of 2008, in particular oil and food prices, and by the buoyant level of demand in Israel. The steep rise in prices in the quarter under review was largely due to the high 8.2 percent increase in the housing component.

In light of the rapid and persistent increase in prices since the beginning of the year, and assessments that Israel's economy was in a full employment situation, the Bank of Israel increased the rate of interest by 25 basis points in each month in the third quarter, and in September it stood at 4.25 percent.

In the last two weeks of the quarter the global financial crisis worsened sharply, and the deterioration became even more severe in the first week of October. This included the collapse of banking and financial institutions in the US, the UK and Europe, an increase in risks, and a credit squeeze; these led to a slump in the prices of financial assets throughout the world. Central banks and governments adopted various rescue plans and other exceptional measures with far-reaching implications for the structure of the markets and their functioning. The deterioration in the global crisis also affected Israel's capital market: uncertainty increased, growth expectations declined further, and prices of shares and bonds fell steeply.

In light of the sharp increase in uncertainty and the decline in expected inflation, in the discussion on the interest rate for October, which took place in the first week of the deterioration in the crisis, it was decided to leave the interest rate unchanged, despite the high rate of inflation (4.4 percent since the beginning of 2008) and the fact that the economy was close to full employment. As mentioned, the deterioration in the global crisis intensified, uncertainty increased further and prices of financial assets dropped faster also in Israel, albeit to a lesser extent, and there was concern that the situation in both the financial and real sectors would worsen. Therefore, given that the reduction in world commodity prices and the expected slowdown in domestic demand greatly eased concern over inflationary pressures, an inter-meeting interest rate decision was taken on 7 October, and the rate was reduced by half a percentage point, to 3.75 percent. The intention was, among other things, to raise the level of liquidity in the domestic financial markets. The day after the decision, a similar step (coordinated among them) was taken by the leading central banks—the Fed, the ECB, the Bank of England and others, which reduced their rates by half a percentage point. The Bank of Israel's decision did not raise inflation expectations for one to two years forward, and these stayed at the lower limit of the target inflation range. In addition, the Bank's interest rate decision halted the upward trend in the real yield to maturity on bonds to all terms (*Galil* bonds), which had accelerated with the worsening of the crisis. In light of the relatively low level of expected inflation, and with the intention of increasing liquidity in the financial sector and providing support for real activity, it was decided at the end of October, at the normal scheduled discussion of the interest rate for November, to reduce the interest rate by a further 25 basis points, to a level of 3.5 percent.

The trend of nominal and real appreciation of the shekel against other currencies continued in the third quarter (until the reduction in the interest rate). The Bank of Israel continued to buy foreign currency in the third quarter, and from 10 July, in light of the rapid cumulative appreciation of the shekel, it increased its purchases to $100 million a day. With the recent rise in uncertainty regarding the situation in the global economy, the Bank of Israel is considering continuing with its purchases of foreign currency even after the completion of its planned increase in the forex reserves.

The main objective of monetary policy is to preserve price stability while supporting economic growth, employment and financial stability. In a period of a global crisis of unprecedented magnitude, such as the present one, the advantages of a flexible inflation targeting approach stand out. Operating under that regime, when inflation deviates from the target range, the Bank of Israel acts to return it gradually to the range, in order to moderate the possible short-term impact on economic activity and financial stability.

According to the assessments of the Bank of Israel and other forecasters, the annual rate of inflation (the rate of price increase over the previous twelve months) in the near future is expected to remain above the target range, but to moderate gradually and return to within the range by the middle of 2009. The downward adjustment of inflation forecasts compared with those in the previous Inflation Report (in July 2008) resulted from the sharp fall in world commodity prices and the worsening of the global crisis beyond previous expectations.

The current period is one of uncertainty about economic developments in Israel: in particular significant risk factors relate on the one hand to inflation and on the other to economic activity. The main risk stems from the deteriorating and persistent global financial crisis. Here it should be noted that Israel is unlike many other countries in that its general financial system, and in particular its banking system, are well-placed to meet the global crisis. The Bank of Israel will continue to monitor the economic situation and assessments of expected developments around the world and in Israel, and will act to achieve price stability while supporting real economic activity and preserving financial stability.

It is possible that the situation will develop to the point in which steps by the government and the Bank of Israel supportive of economic activity may be required, but it is essential that such steps be appropriate to the targets and constraints of the medium and long terms. It is of special importance that such steps should not result in an excessive increase of the government deficit or government debt. In this context it should be noted that the relative resilience of Israel's economy in the face of the global crisis is in significant part due to fiscal responsibility in the last few years, reflected by the decline in the deficit and in the debt/GDP ratio. The anticipated slowdown in economic activity will cause a drop in tax revenues, which may be expected to temporarily increase the government deficit. The credibility accrued by fiscal policy, however, means that a short-term moderate increase in the deficit is not likely to undermine economic stability or the confidence of the public, domestic and foreign investors in Israel's economic policy. Nevertheless, as the ratio of public debt to GDP is still higher than the desired long-term level, care should be taken to avoid steps that would increase the deficit and the debt by more than required as a direct result of the slowdown—i.e., by more than the effect of the automatic stabilizers.

Stanley Fischer
Governor, Bank of Israel

Stanley Fischer

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Summary

- In mid-September there was a significant worsening of the global crisis. As a result of the magnitude of the events that occurred since then, the last two weeks of the third quarter overshadow most of the quarter, i.e., the previous two-and-a-half months. Monetary policy in the third quarter (the period reviewed in this Report) thus divides into two periods. In the first, interest rate decisions were taken on the interest rate for the months of the third quarter, in light of expectations of a global economic slowdown that would have a limited effect on Israel's economy and inflation; in the second period interest rate decisions were taken for the beginning of the fourth quarter, following the deterioration in the global crisis and a revised assessment of the risks.
- The CPI rose by 2.0 percent during the third quarter of 2008. Inflation in the twelve months to the end of September 2008 was 5.5 percent, significantly higher than the upper limit of the price stability target of 1–3 percent annual inflation.
- The most important factor that contributed to the high rate of inflation in the third quarter was a sharp and unexpected surge in the housing component. This was unlike the development in the first half of the year, when the main elements contributing to inflation were the sharp price increases in the energy and food components, as a result of the increase in world oil and food prices in the last few years.
- The global financial crisis continued in the third quarter, and worsened dramatically, on an unprecedented scale, in the last two weeks of the quarter, with the collapse of large financial institutions. The deterioration obliged governments around the world to take several exceptional measures, incurring huge costs and with far-reaching implications for the structure of the markets and their functioning. Share and bond markets world wide reacted to the increased severity of the crisis with sales and redemptions, and sharp price falls. This financial crisis has implications for real global activity, and hence affects the inflation environment, as can be seen for example in the dive in oil prices.
- According to National Accounts data, activity continued to expand in the second quarter, albeit at a slower pace than in the period since mid-2003.
- Some of the data relating to the second quarter and preliminary indicators of the third quarter support the assessment that the slowdown in the rate of expansion will continue; this is mainly due to demand factors (the effect of the global crisis and real appreciation), but also due to supply factors (the full employment environment in the labor market).
- In terms of the effective exchange rate, the shekel strengthened slightly in the third quarter, a period with high exchange rate volatility. The Bank of Israel continued to purchase foreign currency, and at the beginning of the quarter it increased its rate of purchases from $25 million a day to $100 million a day.
- In the course of the quarter, inflation expectations and expectations of increases in the interest rate moderated, and this trend intensified in the last two weeks of the quarter, against the background of the global developments. At the beginning of the quarter inflation expectations were close to the upper limit of the inflation target range, and at the end of the quarter, close to its lower limit.
- The interest rate was increased in each of the months July, August and September, by 25 basis points, reaching 4.25 percent, against the background of the high inflation environment and in light of the increasing uncertainty regarding the timing and extent of the real economic slowdown. On 7 October, in an inter-meeting decision, it was decided to reduce the interest rate by half a percentage point, in reaction to the worsening of the global financial crisis and the fall in inflation expectations. Thereafter, the interest rate for November was cut by 25 basis points, to 3.5 percent.

- According to most assessments, including that of the Bank of Israel, inflation is expected to return to within the target range by the middle of 2009.
- In the third quarter the Bank of Israel, like many other central banks around the world, had to deal with the implications of the worsening of the global financial crisis and the expectations of a slowdown in growth on the one hand, and the high inflation environment on the other. It seems, however, that the downturn in economic activity is more gradual in Israel than in other advanced economies.
- In periods such as the present one with dramatic developments on an unprecedented scale, the advantages of a flexible inflation targeting regime stand out, a regime in which the Bank of Israel acts to return inflation to the inflation target range gradually.

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* The monetary regime within which the Bank of Israel operates is aimed at achieving price stability, defined as an inflation rate of between 1 percent and 3 percent a year. (For details see Box 1 on page 11 in the Bank of Israel Inflation Report No. 17, July–December 2005.)

I. INFLATION AND THE BACKGROUND

a. The international background

The most prominent global economic developments in the third quarter of 2008 took place in the last two weeks of the quarter, i.e., in the second half of September, when events on an unprecedented scale occurred. In that short period there was a dramatic deterioration in the financial crisis in the US, and thereafter in Europe, which obliged various countries to adopt emergency measures with far-reaching implications for the structure of the markets and their functioning. Even before those exceptional developments, the global economy was experiencing a slowdown in growth, accompanied by weakness in the asset markets, tightening of the conditions for obtaining credit from the commercial banks, and large scale debt write-offs. These developments started in the middle of 2007 against the background of the crisis in house prices and subprime mortgages in the US, which soon spread to a wide range of financial and real markets in the US and world wide.[1] Inflation remained high in the third quarter of 2008, related to the rise in energy and food prices in the previous months, but the global crisis began to affect prices of energy and agricultural produce, which fell sharply in the third quarter, so that it seems the risks of inflation in the advanced economies also receded. The situation was a little different in the emerging markets: while in the advanced economies interest rates stayed steady in the third quarter, in the emerging markets they increased.

All the above factors—the financial crisis, the real economic slowdown, and the global interest environment—affect Israel's economy, as it is a small open economy; nevertheless, it appears that at this stage the real economic data (growth, employment, the balance of payments, the trend of the debt/GDP ratio, and the foreign currency reserves) enable it to meet the challenges presented by the global crisis, and that the financial and banking system in Israel is relatively stable.

The worsening of the financial crisis

The financial crisis in the US became more severe in the third quarter, and spread to Europe: write-offs in the financial sector total about half a trillion dollars so far. At this stage, as a result of conservative regulation and the prudent conduct of the banking

1 See Box 2, p. 20 in the Bank of Israel Inflation Report No 21, July–December 2007, and Bank of Israel Anual Report, 2007, Box 4.1 (p.139) and pp.149–153.

sector in Israel, the direct exposure of the sector to the crisis is limited, and it seems that it is not threatening the stability of the financial system in Israel. The main events that indicate the worsening of the global crisis started at the end of the quarter, when the threat of the collapse of banks and other financial institutions made several countries formulate and operate various rescue plans that incorporated unprecedented emergency measures, some of which surprised the markets, and which cost some $3.3 trillion. These steps, some with long-term structural implications, included the nationalization of leading banking and insurance institutions, the purchase of low-quality debt instruments, the direct injection of liquidity into institutions that did not previously have access to the central bank's credit window, and the granting of government guarantees (explicit or implied) for bank deposits to prevent massive withdrawals. Although at this time it appears that these steps reduce the systemic risk and are helping to stabilize the money and credit markets, it is clear that they will have long-term implications for the markets and for monetary policy world wide in the next few years:

- The increase in government deficits (to finance these measures) will exert upward pressure on market interest rates, and also on inflation.
- Setting a norm for rescue plans is likely to strengthen the tendency for large institutions to continue to take great risks in the future, so that regulatory reforms are an essential complement to all rescue plans.
- Such reforms, however, aimed at restoring the proper functioning of the markets and the public's confidence in them, create difficulties for financial and real activity, and may reduce growth to below the high rates which the US and global economies have enjoyed in the last few years.
- Lastly, nationalized financial institutions, despite their comparative advantage in raising sources of finance, are exposed to their own problems of allocating and pricing credit risk.

These issues affect financial and real developments throughout the world, not only in economies in which rescue planes were introduced.

The worsening of the real slowdown

The effect of the financial and real crisis in the US on **Europe** and the **emerging markets** was evident already in the second quarter, even before the dramatic deterioration at the end of the third quarter. In the US and the UK the slowdown persisted; the eurozone, Japan and Canada showed growth; and in the emerging markets the global slowdown resulted in a decline from their high growth rates.

The rate of growth in the US came as a welcome surprise, but the data indicate a mixed picture: exports made a very positive contribution, against the background of the weak dollar, and private consumption also rose by more than expected, but the rise is attributed to the government's program of incentives, so it is reasonable to assume that it will not persist; against these increases, the employment indices continued to show a negative picture—the unemployment rate, the number of hours worked per week, and the number of dismissal notices; there were significant falls in consumption of durables and investments, and the weakness in the real estate market persisted, as did the tightening of credit terms.

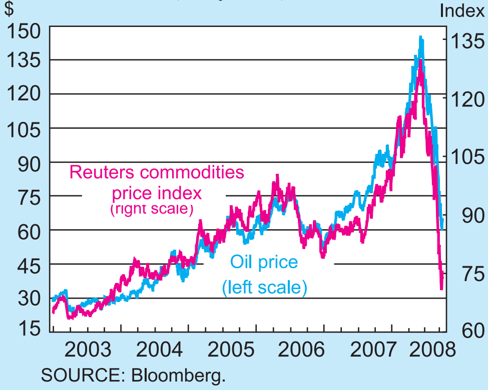
The negative growth in the **eurozone** in the second quarter, with the further rise in the rate of unemployment and the number of bankruptcies, were the extension of some slowdown that could already be seen in some of the member countries in the first quarter. That slowdown did not derive solely from that in the US, the eurozone's main trading partner, nor solely from the strengthening of the euro against the dollar, but was also a result of the financial crisis and the tightening of credit terms, partly due to the purchase of financial assets exposed to the subprime market by European banks and enterprises.

In the emerging markets, which for a long time had proved resilient in the face of the global crisis, the signs of a slowdown from high rates of growth of the last few years became clearer in the second quarter. Nonetheless, strong economic fundamentals in some of those markets continued to grant them a measure of immunity, so that although their growth rates declined, they were still markedly higher than those in the advanced economies.

Inflation around the world

Inflation remains high around the world. The rapid growth of the last few years, in the advanced countries and in the emerging markets, led to unbalanced growths of demand and supply in the energy and agricultural produce markets. The outcome was excess demand, that resulted in accelerated price increases. As demand for energy inputs and agriculture product is inelastic in the short term, the rapid price rises caused a sharp rise in the general price level throughout the world. In the US and Europe the steep rise in prices was not fully reflected in the core components (Table 1). Thus, in the **US** the annual rate of inflation to September was 4.9 percent, but the index excluding energy and food rose by only 2.5 percent. In the **eurozone** the annual rate of inflation

Figure 1
The Commodities Price Index and Oil Prices, 2003 to October 2008
(daily data)



SOURCE: Bloomberg.

was 3.6 percent, above the 2 percent upper limit of the European target, but excluding energy and food it was only 1.9 percent. Inflation in the **emerging markets** was even higher, due to the food component, whose weight in the index in those countries is very high. In India and some Latin American countries inflation in the third quarter exceeded 7 percent a year, and in China it reached 5 percent. In all the emerging markets inflation was high not only when calculated over the previous twelve months, but also in the third quarter itself.

In the third quarter the trend in prices of energy and agricultural produce reversed: Reuters commodities index fell by 25 percent in the third quarter, and the price of a barrel of oil by 30 percent, and their decline continued during October (Figure 1). These price falls considerably reduced expected inflation around the world, as expressed in forecasters' predictions and the US capital market.

As can be seen from Table 1, CPI inflation in the twelve months to September 2008 was higher than in 2007 in Israel, as it was in Europe and the US. It can be seen that in Europe and the US that the rise in inflation was confined to the energy and food components. In Israel, although the index excluding energy, food, and fruit and vegetables did rise a little, it was slightly lower than the respective indices in Europe and the US. Despite the rise in actual inflation, inflation expectations declined steadily during the third quarter, after a long period when they moved around the upper limit of the target range; this was, in part, the effect of the drop in world prices of oil and agricultural produce. Table 5 shows that in the third quarter, average monthly inflation expectations declined to the middle of the target inflation range, but daily data indicate that at the end of the quarter they moved around the lower limit of the target, and at the beginning of October actually fell below it. Figure 15 shows, in addition, the wide range of the forecasters' assessments, which serves to highlight the high current level of uncertainty relative to that in the past.

Table 1
The CPI and Selected Components in Israel and Abroad, 2007 to September 2008

(percent change in previous twelve months)

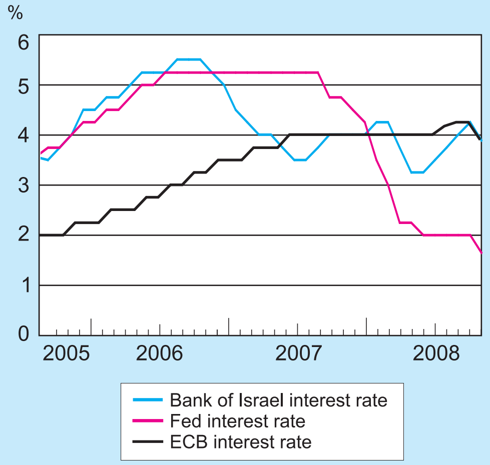
	Israel		US		Europe	
	2007	Sep. 2008	2007	Sep. 2008	2007	Sep. 2008
CPI	**3.4**	**5.5**	**4.1**	**4.9**	**3.1**	**3.6**
Energy	14.4	16.6	17.4	23.1	9.2	13.5
Food (excluding fruit and vegetables)	6.3	12.6	4.8	6.0	5.1	6.2
Fruit and vegetables	7.0	9.8	5.9	10.4	3.1	3.6
CPI excluding energy, food, and fruit and vegetables	1.6	1.8	2.4	2.5	1.9	1.9

SOURCE: Based on Central Bureau of Statistics, ECB, Eurostat, US and Bureau of Labor Statistics data.

Monetary policy around the world

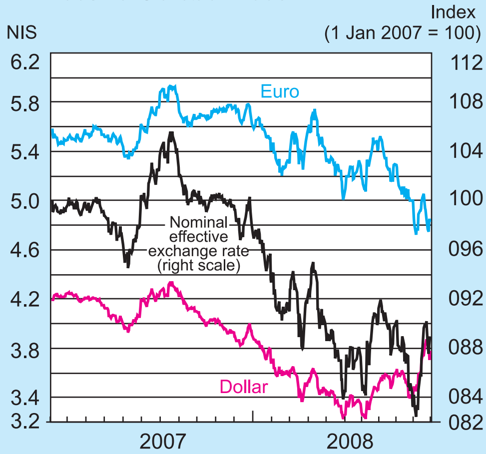
World prices of energy and agricultural produce fell sharply in the third quarter, with the worsening of the global financial crisis and the real economic slowdown, and their decline acted to reduce the risks of inflation and to a significant lowering of inflation expectations. This supported reductions in the interest rate and increased liquidity, a reaction to large scale redemptions and price falls in the financial markets since the deterioration of the financial and real crisis in mid-September. On 8 October, shortly after the end of the quarter, several central banks announced a coordinated inter-meeting decision to cut their interest rates by half a percentage point (Figure 2). Central banks that participated in the decision were the Fed, the ECB, the Bank of Canada, the Bank of England, Sweden's Riksbank and the Swiss National Bank, while the Bank of Japan, whose interest rate was already very low, 0.5 percent, supported the decision. The interest rate in Israel was reduced by the same amount, half a percentage point, a day earlier (7 October), also an unscheduled decision, taken for similar reasons. In the **US** the reductions in the interest rate since September 2007 totaled 3.75 percentage points, and the rate in October following the unscheduled reduction was 1.5 percent. In the **eurozone** the rate had been increased by 25 basis points in July, and following the joint decision on the half-percentage-point reduction it was 3.75 percent. In the **emerging markets**, the situation was slightly different: due to the high weighting of the food component in the CPI in those economies, their rates of inflation were higher than those in the advanced economies, and had a greater impact on the public's purchasing power. Rates of growth in those countries, however, despite the adverse effects of the crisis, were still very high compared with the rates in the advanced economies. Thus, as happened in Israel, the interest rates in several emerging markets, including India, Russia, South Korea, Chile, Mexico and Brazil, were increased during the third quarter. However, the emerging markets have recently been facing withdrawals by foreign investors repatriating capital in light of the crisis affecting their own economies, and this is likely to lead to credit difficulties and to increases in yields in emerging markets too. Some of the emerging markets were also affected adversely by the sharp falls in prices of agricultural produce and oil, which reduced those markets' receipts for their exports. All the above, together with the reduction in the base interest rate in the US and Europe, are expected to result in the reduction in base interest also in the emerging markets. In fact, in October base interest rates were reduced in Taiwan and Korea.

Figure 2
Short-Term Interest Rates in Israel, the US, and the Eurozone, September 2005 to October 2008
(monthly averages)



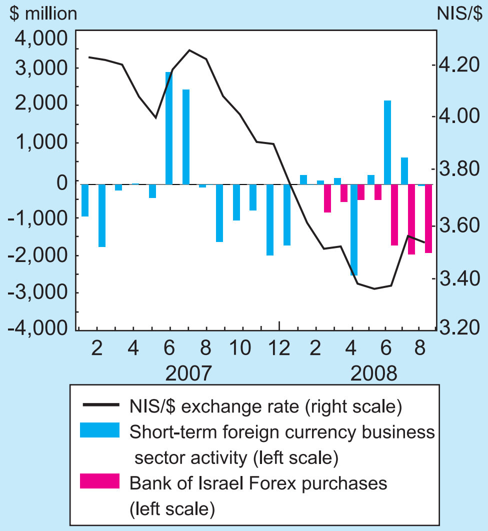
SOURCE: Bank of Israel, the ECB and the FED.

Figure 3
The NIS/$, NIS/Euro and the Nominal Effective Exchange Rate, 2007 to October 2008



SOURCE: Bank of Israel.

Figure 4
The NIS/$ Exchange Rate Short-Term Foreign Currency Activity[a,b] of the Business Sector, and Bank of Israel Forex Purchases, January 2007 to September 2008



[a] All foreign currency activity that is not net investment in shares, direct or portfolio,or long-term credit, or activity of the banks.
[b] Net sales are shown as positive numbers.
SOURCE: Bank of Israel.

b. The exchange rate and the balance of payments

In terms of the nominal effective exchange rate,[2] the shekel strengthened slightly in the course of the third quarter, continuing the trend that started in 2006 (Table 3 and Figure 3), but it did not follow a uniform path in the course of the quarter. On 10 July, after several days of appreciation of the shekel, the Bank of Israel announced that in light of the market conditions and rapid cumulative appreciation it would increase its average rate of daily purchases of foreign currency from $25 million to $100 million[3] (Figure 4). From that day the shekel weakened during about a month, and then started strengthening again. The worsening of the global crisis did not bring about large-scale withdrawals by foreign investors, unlike the situation in many countries in which foreign investors realized their investments and converted them into dollars, which resulted in the marked strengthening of the dollar against most other currencies.

Balance of payments data for the second quarter show that although the surplus in the current account, which in the first half of 2008 had reached about $2.1 billion (in current dollar terms), was slightly higher than in the first half, it was significantly lower than the surpluses in 2006 and the first half of 2007 (Figure 5). This reflects the rising trend of the deficit in the goods and services account since 2006,[4] which took place against the background of the continued strengthening of the shekel that also started in 2006, and against the background of increases in the prices of energy and commodities, demand for which is inelastic in the short and medium terms. The global slowdown and its effect on world trade contributes to the extension of this trend via its negative effect on Israel's exports. Israel's foreign trade data show that in the first half of 2008 the terms of trade index (excluding ships, aircraft, diamonds and fuels) rose by about 3 percent, due to the index of export prices rising faster than that of import prices. The terms of trade index rose to its highest level in two years, and contributed to the reduction of the surplus in the current account, mainly through its expansionary effect on imports.

In the first half of 2008 private sector capital flows strengthened the shekel: alongside the surplus in the current account, there was a net capital inflow. Nonresident direct and portfolio investment

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[2] Weighted average exchange rate of the shekel against the currencies of Israel's trading partners.

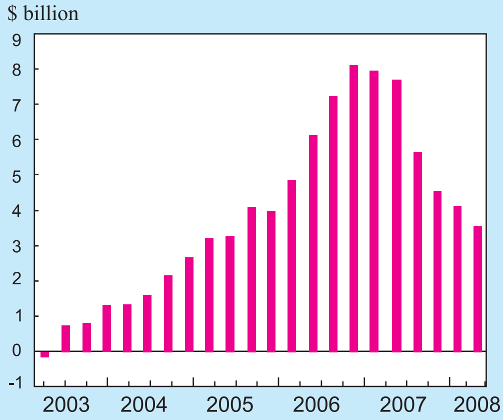
[3] In March 2008 the Bank announced a plan to increase its foreign exchange reserves by about $10 billion to a level of $35–40 billion by purchasing foreign currency in the open market, taking advantage of the current market conditions.

[4] This rise was partially offset by a modest increase in current transfers.

totaled about $5 billion in the half-year, while Israelis' direct and portfolio investment abroad remained low, at about $3 billion, in light of the global growth slowdown and the financial crisis in the US and Europe. Figure 6 shows that the investment outflow of institutional investors was below its level in the first half of 2007. The capital flows and the current account surplus acted to strengthen the shekel, as stated, but the pressures for appreciation were partially offset by forex purchases by the Bank of Israel in the framework of its planned increase in the reserves. The Bank's purchases to the end of the third quarter totaled $7.25 billion.

The shekel appreciated in the third quarter by 1.3 percent in terms of the nominal effective exchange rate. This reflects appreciation of 5.1 percent against the euro, and 3.5 percent against the pound sterling, and depreciation of 1.5 percent against the dollar, and 3.5 percent against the yen. The real exchange rate of the shekel[5] strengthened by 1.2 percent, and over the previous twelve months, by 14 percent.

Figure 5
The Current Account, Running Four-Quarter Totals, 2003:Q1 to 2008:Q2 (quarterly)



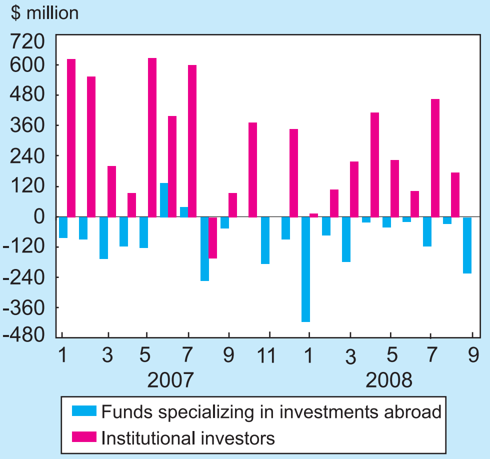
SOURCE: Based on Central Bureau of Statistics data.

c. Real activity[6]

Four years of rapid growth brought Israel's economy to a high level of activity, in production, uses, and employment. That growth brought the economy close to the supply constraint, expressed in low unemployment and appreciation of the real exchange rate. At this stage a downturn in the business cycle is expected: the long period of growth has apparently ended, and a period of more moderate growth is starting. The change will be affected mainly by demand factors (deriving from the global crisis), but possibly also by domestic supply factors (because of the high level of employment). The National Accounts and employment data for the second quarter do indeed indicate some slowdown in growth compared with the rapid rate of the last few years (Table 2 and Figure 7): in the second quarter of 2008 GDP increased at an annual rate of 4.1 percent, and business sector product at a rate of 4.8 percent.

That said, it appears that unlike the sharp drop in activity in other advanced economies, the slowdown in Israel is more gradual. On the demand side the slowdown has already started, in both private consumption and investment (reflecting pessimism among households and companies in light of the worsening

Figure 6
New Deposits (+) in Provident Funds Specializing in Investments Abroad, and Institutional Investors' Investments Abroad (+), January 2007 to September 2008



SOURCE: Bank of Israel.

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[5] The index published by the IFS (International Financial Statistics), which measures Israel's real exchange rate against its trading partners, in terms of the CPI.

[6] This section, relating to the third quarter of 2008, is based on the National Accounts and balance of payments data for the second quarter and on preliminary indicators for the third quarter.

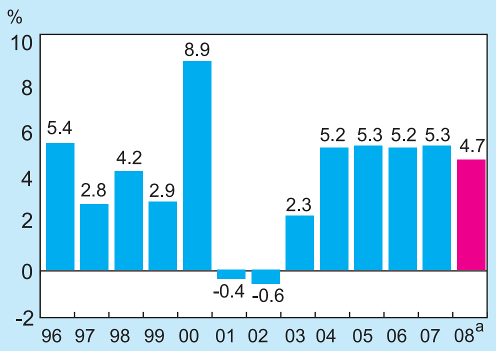
Table 2
GDP, Imports and Uses, 2005-2008:Q2

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

	2005	2006	2007	2007/I	2007/II	2007/III	2007/IV	2008/I	2008/II
GDP	5.1	5.2	5.4	5.6	6.3	5.6	5.9	5.5	4.1
Business sector output	6.2	6.4	6.2	6.5	7.3	6.9	7.3	6.8	4.8
Imports excluding defense imports, ships, aircraft and diamonds	5.3	5.4	13.5	12.5	21.7	10.5	17.4	14.4	-13.7
Private consumption	3.9	4.0	6.7	8.9	4.2	7.7	3.4	8.8	-2.7
of which: Private consumption excluding consumer durables	4.1	3.9	6.1	7.3	3.6	9.8	1.5	3.8	0.6
Public consumption	1.7	2.7	2.9	-1.1	9.3	-1.1	-3.1	7.2	-8.4
of which: Public consumption excluding defense imports	0.7	2.0	3.5	5.9	3.7	2.3	1.6	0.2	-2.3
Gross domestic investment	12.7	6.5	12.0	-25.4	54.4	1.7	18.8	-18.0	17.9
of which: Fixed investment, excluding ships and aircraft	3.4	9.8	13.3	19.3	15.6	20.9	12.0	6.5	3.6
Exports excluding diamonds	6.5	10.3	9.5	7.3	13.3	12.6	13.4	26.3	-2.3
of which: Exports excluding start-ups	7.3	9.7	10.0	13.6	12.6	14.3	8.6	20.5	3.2

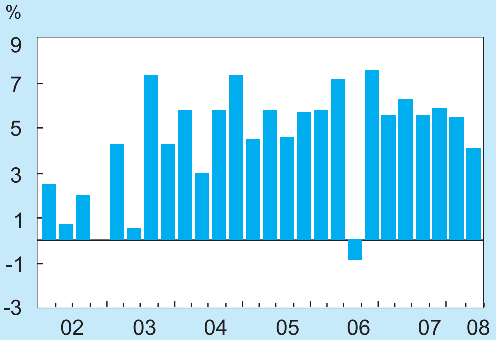
SOURCE: Based on Central Bureau of Statistics data.

Figure 7
GDP, Annual Growth Rates, 1996–2008



[a] Bank of Israel forecast.

Quarterly Growth Rates, 2002 to 2008:Q2 (in annual terms)



SOURCE: Bank of Israel and Central Bureau of Statistics.

of the global crisis) and in exports (against the background of the global slowdown, the financial crisis in the US and Europe, and continued real appreciation). On the supply side, although employment data point to continued growth also in the second quarter, they do give some indication that the growth process that was based on an increase in labor utilization has run its course, and that even without a slowdown in demand, the rate of increase of supply may slow. However, it seems that in light of the global crisis the slowdown in demand will be more significant, so that activity is likely to have a moderating influence on inflation. The Bank of Israel's Companies Survey for the third quarter shows that the growth slowdown has deepened and that it has spread to most areas of activity. It also shows that the slowdown derives mainly from the curbing of the rise in demand, and not from the supply constraint. The data of health tax revenues provide an early indication of the continuation of the slowdown in the third quarter.

Imports and exports

After five years of rapid expansion, in the second quarter of 2008 imports and exports reached a peak that exceeded even the record levels of 2000. The downturn in the business cycle is reflected in the decline in imports and exports in the second quarter—imports at a real annual rate of 14 percent,[7] although this drop followed a rise at a similar rate in the first quarter (affected by a surge in vehicle imports). Exports fell by about 2 percent, reflecting the effect of the global slowdown, and to a smaller extent also the continued appreciation of the shekel. Foreign trade data of the three months July to September confirm the continued moderation of imports and exports.

Private consumption

After four years of rapid increase, in the second quarter of 2008 private consumption reached an unprecedented level; consumption of consumer durables even surpassed the exceptional level recorded in 2000. It appears that this trend halted in the second quarter, when private consumption declined at an annual rate of 3 percent. Although the drop followed a steep rise in the first quarter, which reflected a surge in car purchases for private use,[8] the rise in private consumption excluding car purchases also halted. As a result of the negative property effect brought about by the financial crisis and the pessimism as to the future, private consumption rose more slowly in the first half of 2008 than in the first half of 2007, and is expected to continue at a low level also in the next quarters. This can be seen from preliminary indicators of the third quarter—easing of the upward trend in sales of retail chain stores and the use of credit cards, continued falls in consumer confidence indices and business confidence, and continued decline in trade and services revenue. The easing of private consumption is expected to moderate inflation.

Investment

After three years of rapid increase, gross domestic investment in the last quarters also reached the record levels of 2000. It appears, however, that the downturn in the business cycle is expressed also in investment, as the rise was curbed in the first half of 2008. Investment decisions were taken with the expectations of a slowdown in mind, as can be seen from the Companies Survey and Purchasing Managers Index for the third quarter. The Composite State-of-the-Economy Index also supports such expectations, as since May it has indicated a slowdown of the trend. The probability of a slowdown, as derived from the Companies Survey, is higher than 50 percent, for the first time in four years. Investments were also affected by the rise in the real interest environment in the business sector, as a result of the rise

[7] Excluding defense imports, ships, aircraft and diamonds.

[8] This was a non-recurring increase that derived from changes in taxation and in the system of registering the year of production.

in the (derived) real interest on Bank of Israel sources and the rise in the risk premium on corporate bonds.

Public consumption and the budget

Public expenditure fell in the second quarter at an annual rate of about 8 percent due to significant underspending, also contributing to the slowdown in demand; over the year as a whole, however, almost full expenditure of the budget is expected. On the revenue side, the evidence points to increased severity of the slowdown in the third quarter: in the first three quarters of the year the downward trend in tax revenues that had started in the second half of 2007 continued, with signs that the decline became steeper in the third quarter of 2008, due to a drop in direct tax revenues and a slower rise of indirect tax revenues—one of the indicators of a slowdown in activity. Direct tax revenues declined in all industries except for communications. The steepest falls occurred in the manufacturing industry (in light of the economic slowdown) and in banking (due to the slowdown in Israel and also the global financial crisis). Despite the reduction in tax revenues, however, government receipts were high compared with those expected under the assumptions underlying the planned budget. The significance of a reduction in tax revenues on the one hand, and a rise in expenditure to the extent of full performance of the budget on the other, is that fiscal policy will be expansionary, even though the budget path is developing consistently with meeting the deficit target in 2008. The Bank of Israel considers it of special importance to comply with the deficit ceiling at this time, when the private sector is confronting challenges in the credit market—liquidity problems and a rise in risk assessments—that lead to the depletion of credit sources and an increase in its price.

Figure 8
The Employment Rate and the Unemployment Rate,[a]
2002 to June 2008
(seasonally adjusted, quarterly, percent)

[a] Unemployment rate, percent of labor force; employment rate, percent of working-age population.

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

The labor market

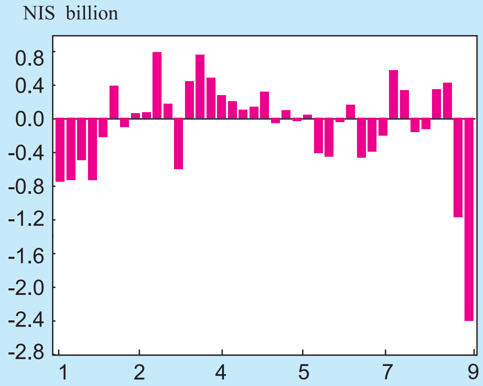
Labor market data for the second quarter is showing indications that the market is approaching full employment (Figure 8). Thus, the rate of unemployment has fallen to 5.9 percent, which is its lowest level in 20 years, while among the population with 16 or more years of schooling, it has fallen to 3 percent, its lowest level in 13 years. Although the decline is partly due to the drop in the participation rate, which is at its highest level since the establishment of the State, the increase in the number of employed was still higher than the increase in the working-age population. The largest increase, which occurred in the manufacturing industry, was least anticipated in view of the slowdown in the industry as a result of both the global situation and the continuing real appreciation of the exchange rate. Nonetheless, it is certainly possible that this figure—which is largely influenced by the recruitment of labor by large firms—is concealing a more complex picture among mid-size and small firms, which have been more affected by the slowdown in exports and local sales. The rise in employment in recent years has brought the labor market to the vicinity of full employment, which has in turn brought the economy close to its constraint on growth in real activity and the exhaustion of the growth process based on rising employment. This development is evidence of a turning point during the third quarter due to the expected slowdown in the growth of demand for output. Further evidence of this can be found in the Survey of Expectations in Manufacturing which forecasts a decline in the total number of workers in manufacturing and in the indices of consumer confidence (an indicator of the feeling of job security), as well as total receipts from the health tax (an indicator of the total wage payments in the economy) which remained at the nominal level they were at in the second quarter.

d. Financial developments

Against the background of the worsening global financial crisis, there were redemptions of mutual funds and provident funds on an unprecedented scale, although they were concentrated in the last two weeks of September as a result of the global events during that period (Figure 9 and 10). Therefore, and against the background of higher risk as perceived by local players in the market, the prices of corporate bonds fell significantly and the share indices were characterized by a high rate of volatility, particularly during the second half of September. The increase in the price of credit has apparently led to a reduction in the rate of growth in total credit and to an increase in the share of bank credit at the expense of non-bank credit. During the third quarter, the yield curves of government bonds reflected the falling inflation expectations (as opposed to the trend that characterized the second quarter) accompanied by weaker expectations of a rise in the interest rate (Table 3 and Figures 13–15).

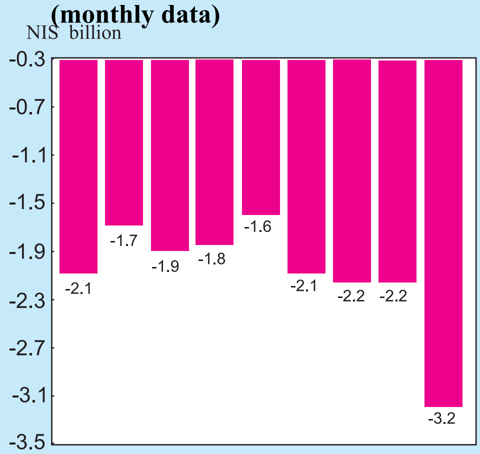
During each of the months of the third quarter, there were net redemptions of financial holdings in Israel by foreign investors (mostly in shares and government bonds), a trend that characterized all emerging markets. During the second half of September, there were also redemptions of mutual funds and provident funds by the Israeli public on a significant scale (Figure 9 and 10). The funds redeemed from these investment channels were directed to government bonds, *makam* and deposits, which can be characterized as a "flight to safety." As a result, share prices

Figure 9
Total Accumulation in (+) and Withdrawals from (-) Mutual Funds, January to September 2008 (weekly)



SOURCE: Bank of Israel.

Figure 10
Withdrawals from Provident Funds (monthly data)



SOURCE: Bank of Israel.

dropped sharply, as did the yield on corporate bonds (primarily since mid-September), while the yields on government bonds and the spread between them and the yield on long-term US government bonds remained relatively stable (Figure 5).

Table 3
The Domestic Assets Markets, April-October 2008

	04/08	05/08	06/08	07/08	08/08	09/08	10/08
Yields to maturity (monthly average, percent)							
3-month *makam*	3.0	3.5	3.7	3.8	4.1	4.2	3.6
1-year *makam*	3.7	4.1	4.3	4.4	4.5	4.3	3.5
Unindexed 5-year bonds	5.1	5.4	5.4	5.3	5.2	5.2	5.3
Unindexed 20-year bonds	6.5	6.5	6.5	6.6	6.4	6.4	6.8
CPI-indexed 1-year bonds	1.0	1.4	1.3	1.2	1.8	2.2	3.1
CPI-indexed 5-year bonds	2.4	2.5	2.5	2.5	2.7	3.0	3.6
CPI-indexed 30-year bonds	3.6	3.5	3.4	3.5	3.5	3.6	4.0
Yield gap between government bonds and private bonds rated AA–AAA (percentage points)	1.4	1.2	1.3	1.5	1.4	1.5	2.4
Private unrated bonds excluding real estate (percentage points)	8.1	7.6	8.9	11.1	13.0	13.4	18.3
Share market (percentage change during the month)							
General share price index	6.5	2.1	-3.0	-4.7	-2.3	-11.8	-17.6
Tel Aviv 25 index	8.4	3.4	-2.9	-4.7	-2.7	-11.9	-18.2
Foreign currency market (percentage change during the month)							
NIS/$	-3.5	-5.7	3.7	3.5	3.5	-4.8	10.6
NIS/€	-5.1	-6.1	5.6	2.5	-2.2	-5.6	-3.5
Effective exchange rate	-3.9	-5.9	4.4	3.4	-0.2	-5.4	4.3
Risk indices derived from the trade in NIS/$ options in the Tel Aviv Stock Exchange (monthly averages, percent)							
Implied standard deviation	14.5	14.3	14.9	15.8	13.1	13.8	18.0
Probability of depreciation greater than 3%	12.0	11.5	12.9	14.9	10.8	11.1	16.8
Probability of appreciation greater than 3%	8.8	7.3	9.1	9.6	5.7	8.7	16.3

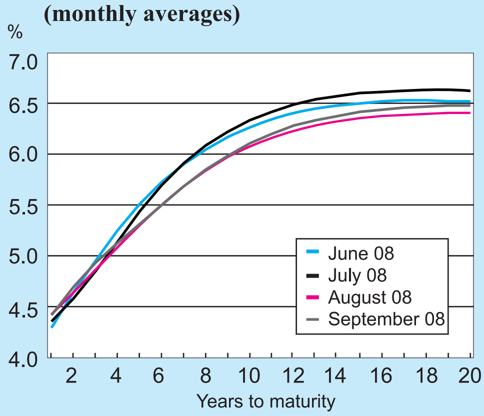
SOURCE: Bank of Israel.

Against this background, the yield spreads between corporate bonds and government bonds continued to rise in the third quarter (Table 3). Those on high-rated bonds, which comprise most of the bond market, widened moderately, while spreads on low-rated bonds, which comprise only about 10 percent of the bond market, continued to widen significantly and reached their highest level since the beginning of the financial crisis in the US in the summer of 2007. A particularly sharp increase characterized the real estate industry, in which the yield spread between non-rated bonds—which constitute about 5 percent of the bond market—and *Galil* bonds rose from 12.5 percent in the second quarter to 18.9 percent in the third quarter, simultaneously with the rise in the yield on Galil bonds. It is worth mentioning that this data is expressed as averages for the period; daily figures show even higher yield spreads, especially after mid-September. Nonetheless, there are no signs of a credit crunch in the economy. The share market has declined by about 30 percent during the period under review relative to its record level at the end of 2007. The period can be divided into two sub-periods (Table 3): July-August, during which the Maof index did not have a clear trend, and September, during which it fell by about 12 percent following the collapse of the investment banking industry on Wall Street that month.

The increased cost of credit and the difficulties in obtaining it led to a more moderate real rate of growth in total shekel credit during the third quarter. Market conditions also affected the composition of this type of credit, with the share of banks as credit suppliers increasing since the beginning of the year as a result of the difficulty in obtaining credit from non-bank sources. This contrasted with the previous three years in which non-bank credit grew at the expense of bank credit. The effect of this development on the quality of bank credit portfolios is still unclear. In any case, the banking system in Israel was described as stable in a Bank of Israel statement on October 7 and furthermore the central bank is prepared to assist the banks using all the tools at its disposal, and to whatever extent necessary, in order to protect depositors. It has been stressed by the Bank that in view of the stability in the banking system such assistance is not currently necessary.

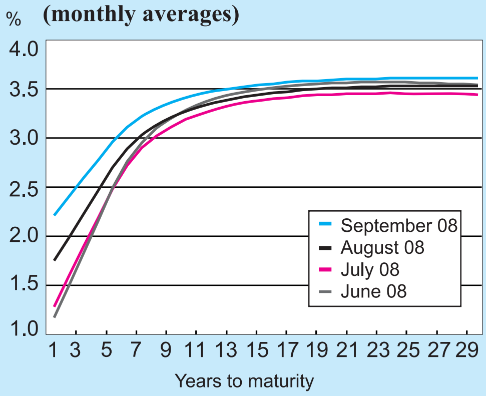
The expectations of inflation for the coming 12 months, as reflected by the yield-to-maturity curves of government bonds, declined during the quarter from the upper part of the inflation target range to the lower part (Table 5). At the same time, expectations of an increase in the Bank of Israel interest rate also diminished, as reflected in the reduced slope of the *makam* yield curve (Table 3). This trend has characterized the entire period under review as a result of the drop in the prices of imported inputs and the increase in the interest rate; however, the trend became more pronounced during the last two weeks of the quarter as a result of the global developments in that period. During the third quarter, the slope of the unindexed yield curve was reduced as a result of a small increase in short-term yields, which occurred simultaneously with the raising of the Bank of Israel interest rate, and a small decrease in yields for maturities of over three years (Figure 11 and Table 3). The indexed curve shifted up in the third quarter from the low level it reached in the second quarter. This occurred primarily for maturities of less than 8 years and

Figure 11
Yield-To-Maturity Curve of Unindexed Bonds, June to September 2008
(monthly averages)



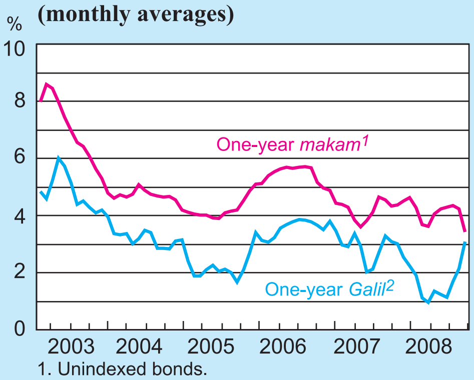
SOURCE: Bank of Israel.

Figure 12
Yield-To-Maturity Curve of CPI-Indexed Bonds, June to September 2008
(monthly averages)



SOURCE: Bank of Israel.

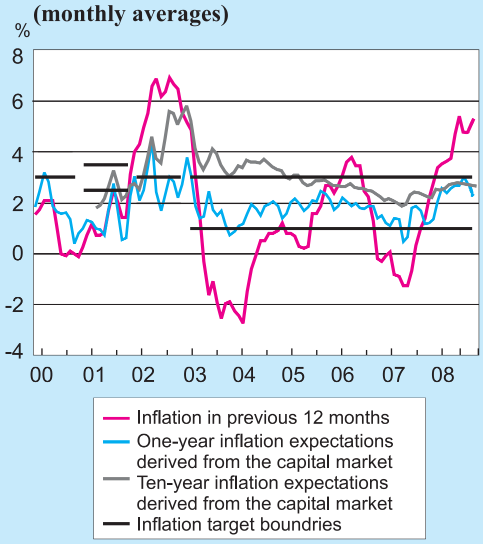
Figure 13
Nominal and Real Yields to One Year, January 2003 to October 2008
(monthly averages)



1. Unindexed bonds.
2. CPI-indexed bonds.
SOURCE: Bank of Israel.

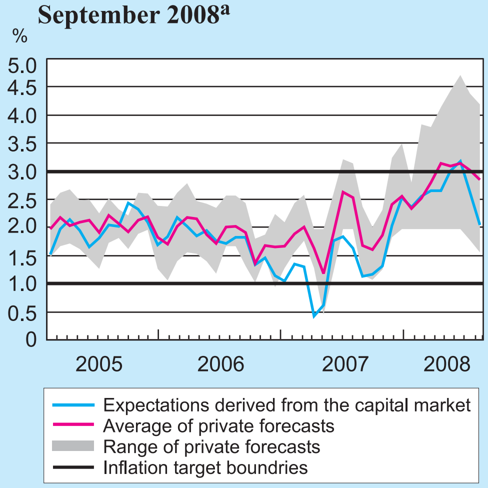
therefore the curve's slope was reduced (Figure 12 and Table 3). The shift upward of the indexed curve was the result of two factors: the lower expectations of inflation as a result of the fall in commodity prices and the expected slowdown in demand and the general decline in the demand for bonds (primarily corporate bonds but also government bonds), especially following the deterioration in the global situation in mid-September.

Figure 14
Inflation in Previous 12 Months, Inflation Expectations and Inflation Targets, 2000 to September 2008
(monthly averages)



SOURCE: Based on Central Bureau of Statistics data.

Figure 15
Inflation Expectations for the Next Year Derived from the Capital Market and According to Private Forecasters, and the Inflation Target, 2005 to September 2008[a]



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

SOURCE: Private forecasters' reports and Bank of Israel.

e. Inflation developments during the third quarter

The CPI rose at a cumulative rate of 2.0 percent during the third quarter,[9] which is equivalent to an annual seasonally-adjusted rate of 7 percent. This was primarily the result of the sharp rise in the price of housing. Inflation during the previous 12 months stood at 5.5 percent at the end of the quarter, which is well above the upper boundary of the target range (Table 4 and Figure 14).

Inflation has exceeded its target since the end of 2007 due to the accelerated increase in the global prices of energy and agricultural commodities. However, in the third quarter of 2008, this was due to the contribution of the housing component, which increased beyond earlier expectations (Table 4 and Figures 16a and 16b). This is in contrast to the first half of the year when most components of the CPI increased only moderately and the high rate of inflation was the result of the increase in the energy and food components. During the quarter under review, the effect of the energy and food components was more moderate due to the global slowdown and the decline in the prices of energy and agricultural commodities.

The sharp increases in the housing component,[10] which were primarily the result of the renewal of rental contracts,[11] can be attributed to three background factors: (1) The high rate of inflation since the end of 2007 which eroded the real value of rents (in cases where the rent was indexed to the dollar exchange rate, the erosion was even greater due to the sharp appreciation). This erosion was "corrected for" on the date of the contract's renewal. (2) Rents are affected by, among other things, inflation expectations until the end of the contract period. During most of the third quarter—apart from the last two weeks of September—

[9] The cumulative change during the three months of the third quarter.

[10] The housing component is highly seasonal, with higher increases in costs during the summer months. The seasonality is understood with respect to the number of contracts being renewed, but the reason for seasonality in the rent specified in these contracts is unclear. Whatever the case, during the third quarter of 2008 the housing component increased at a high rate relative to the same period in previous years.

[11] The weight of rental contracts being renewed within the housing index is about 75 percent.

Table 4
Changes in Selected Components of the Consumer Price Index (CPI), their Weights, and their Contribution to the CPI, September 2008

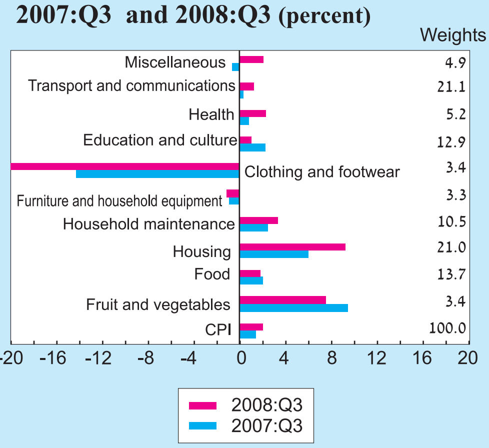
		Previous 12 months		2008:Q3	
	Weight in index	Rate of change in index	Contribution to CPI	Rate of change in index	Contribution to CPI
CPI	**100.0**	**5.5**	**5.5**	**2.0**	**2.0**
Housing	21.0	4.4	0.9	8.2	1.7
Energy	13.7	12.6	1.7	1.0	0.1
Food (excl. fruit and vegetables)	7.3	16.6	1.2	1.6	0.1
Fruit and vegetables	3.4	9.8	0.3	7.7	0.3

SOURCE: Based on Central Bureau of Statistics data.

expectations of inflation for the coming 12 months fluctuated around the upper boundary of the target range, and sometimes even exceeded it. (3) Housing prices have risen since the beginning of the year due to falling supply—which was the result of the sharp drop in housing starts and in the inventory of houses for sale—while, at the same time, rents fell. This phenomenon, which contrasted with the correlated evolution of the two indices in previous years, led to a drop in the yield on investment in housing, which put pressure on rents. It can be expected that the effect of the first two factors in raising rents will soon exhaust itself due to the expected lower inflation environment in the near future. With regard to the third factor, i.e. the fall in the yield on investment in housing, the picture is mixed. The yield on the investment in housing can also increase because of a drop in housing prices—as the demand for housing weakens—due to the wealth and liquidity effects of the global crisis on both Israeli buyers and foreign residents. However, in view of the drop in supply (due partly to the difficulty in raising capital in the real estate industry), the continued increase in housing prices is a possibility and this would also affect rents. In this context, it is worthwhile mentioning the long lead time involved in housing projects, such that even when housing starts begin to increase, it will be another approximately two years until the inventory of houses for sale increases.

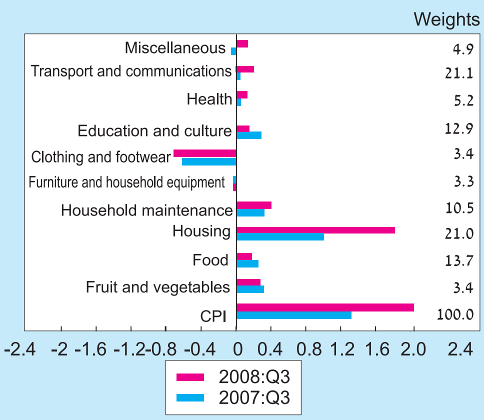
The housing component accounted for the largest contribution to the high rate of inflation during the third quarter and, as already mentioned, was higher than expected. However, as can be seen in Figures 16a and 16b, two other components also contributed to inflation—housing maintenance (due to increased water rates) and fruit and vegetables—though to a lesser extent than housing.

Figure 16a
Changes in the Components of the CPI, 2007:Q3 and 2008:Q3 (percent)



SOURCE: Based on Central Bureau of Statistics data.

Figure 16b
Contribution of the Components of the CPI to the Changes in the CPI, 2007:Q3 and 2008:Q3 (percentage points)



SOURCE: Based on Central Bureau of Statistics data.

II. MONETARY POLICY

Monetary policy during the period under review can essentially be divided into two periods. During the first period, the interest rate decisions were made for the months of the third quarter and were based on expectations that the global slowdown would have only a limited effect on the Israeli economy and on inflation. As a result, it was decided to raise the Bank of Israel interest rate by measured, though continuous, steps of 0.25 percentage points each, up to a level of 4.25 percent (Table 5 and Figures 2 and 17). These decisions were made against the background of increasing inflation and a low interest rate, on the one hand, and the global and local slowdowns, on the other. During the second period, interest rate decisions were made for the beginning of the fourth quarter following a worsening of the global crisis and a new assessment of risk in its wake. During this period, the interest rate was cut to a level of 3.50 percent in two stages, one of which was unscheduled.

The main factor behind the decision to raise the interest rate in the third month of the quarter was the increasingly inflationary environment, which was the result of two factors: global prices of energy and agricultural commodities and the apparent exhaustion of the potential for high growth rates. With regard to the former, there had been indications of a reduction in the expected rate of inflation at the time of the interest rate decisions in August and September—due to some extent to the previous interest rate hikes but primarily due to the drop in the global prices of energy and agricultural commodities—but it was too early to confidently assess the effect this would have and whether it would persist over time, in view of the prolonged period during which these prices increased significantly. The second factor was the apparent approach of the economy to exhaustion of its high growth potential. Since the labor market was apparently in the vicinity of full employment, a slowdown in the rate of growth in the supply of output was expected. During that same period, it appeared that no parallel drop had yet occurred in demand and therefore the Bank of Israel was of the opinion that a moderate contractionary policy was required in order to curb demand and bring it into line with supply.

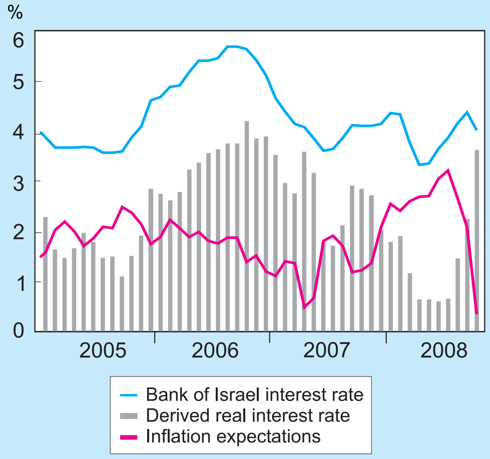
The inflationary environment during these months was manifested not only in actual inflation but also in the various forecasts of the future path of inflation and the interest rate. Thus, despite the fall in the prices of imported inputs, the rates of inflation in recent months have been higher than both earlier expectations and the seasonal path that is consistent with the achievement of the target. This implies that the economy is approaching its supply constraint and that there exist local sources of inflation. The Bank of Israel's models, as well as the capital market and the forecasts of private forecasters, indicated the need to raise the interest rate in view of the expectations that the rate of inflation will exceed the upper boundary of the target range in coming months (Table 5). There have been signs that expectations of inflation are beginning to decline somewhat. However, according to information implicit in the *makam* yield curve and according to private forecasters and the Bank of Israel's models, this decline was accompanied by expectations that increases in the Bank of Israel interest rate would continue. This was because the real (derived) rate of interest on Bank of Israel sources appeared to be

Table 5
The Inflation and Interest Environment, January-October 2008
(monthly averages)

	04/08	05/08	06/08	07/08	08/08	09/08	10/08
Inflation environment (percent)							
Monthly change in CPI	1.5	0.7	0.1	1.1	0.8	0.0	*
Forecasters' predictions of monthly CPI (average of forecasts prior to publication of CPI)	0.8	0.7	0.5	0.6	0.6	0.4	0.0
Annual change in CPI	4.7	5.4	4.8	4.8	5.0	5.8	*
One-year inflation expectations derived from the capital market	2.7	2.7	3.0	3.2	2.7	2.1	0.3
Forecasters' one-year inflation predictions	2.8	3.2	3.1	3.1	3.0	2.8	2.0
Forward inflation expectations[a] to different terms							
Short term (second and third years forward)	2.9	2.8	3.0	3.0	2.5	2.2	1.5
Medium term (fourth to sixth years forward)	2.7	2.8	2.9	2.9	2.5	2.4	2.1
Long term (seventh to tenth years forward)	2.7	2.8	2.9	2.8	2.6	2.5	2.9
Interest rates and interest rate differentials							
Bank of Israel interest rate	3.25	3.25	3.50	3.75	4.00	4.25	3.93
Derived real interest rate	0.6	0.6	0.6	0.6	1.4	2.2	3.7
Short-term interest rate differential between Israel and the US (prior to decision for the next month's rate)	1.00	1.25	1.50	1.75	2.00	2.25	2.35
Short-term interest rate differential between Israel and the eurozone (prior to decision for the next month's rate)	-0.75	-0.75	-0.50	-0.50	-0.25	0.00	-0.17
Forecasters' predictions of nominal interest rate for next month (prior to the decision)	3.33	3.25	3.50	3.75	3.75	4.25	4.42
Forecasters' predictions of interest rate a year hence	3.7	3.9	4.2	4.0	4.0	4.2	4.4
Long-term (10-year) nominal interest rate differential between Israel and US	2.4	2.3	2.1	2.3	2.2	2.4	2.5
Long-term (10-year) real interest rate differential between Israel and US	1.8	1.8	1.6	1.7	1.6	1.6	1.2

* Unavailble during the Prepuration of this Report.
[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.

Figure 17
The Bank of Israel Interest Rate,[a] Inflation Expectations,[b] and the Derived Real Interest Rate, 2005 to October 2008 (monthly averages)



[a] The effective interest rate in the Bank of Israel auctions.
[b] For 12 months, derived from the capital market.
SOURCE: Bank of Israel.

lower than required in view of the high expectations of inflation (Table 5 and Figure 17).

The rate of interest was raised in measured steps of 0.25 percentage points each due to the increasing uncertainty regarding the risk of inflation. On the one hand, there had been unexpectedly high rates of inflation for a number of months, while on the other hand the strong shekel and the global slowdown had resulted in lower prices for imported inputs. The high level of uncertainty with regard to inflation was manifested in, among others things, the wide dispersion of private forecasts (Figure 15). An additional reason for the gradual changes in the rate of interest is related to the high uncertainty that has affected policy decisions for the past year or so. In other words, a high rate of interest is called for in view of the inflationary environment, while considerations of financial stability and the support of real economic activity dictate a low rate of interest. During most of the period, the trend in the exchange rate also called for a low interest rate.

At a later stage, the intensification of the financial and real crises, and the expected reduction in inflation as a result, created a gradual shift in the balance of considerations affecting the interest rate decision. This included a sharp increase of volatility in the financial markets and a sharp decrease in capital market expectations and in private forecasts of inflation for the coming twelve months, which were accompanied by weakened expectations of further increases in the interest rate. It appears that the contraction of demand will be the dominant factor in the slowdown and that the stage in which local supply constraints become relevant was brief and has come to an end. These developments led to more expensive credit in the economy, which unlike the order of events in the US and Europe was the result of the slowdown rather than its cause. In any case, this turnaround led to interest rate cuts. Thus, for the beginning of October, the rate of interest was left unchanged; during the second half of October, the interest rate was cut by 0.5 percentage points in an unscheduled decision; and the interest rate for November was reduced by 0.25 percentage points to a level of 3.50 percent.

III. UPDATE OF FORECASTS

a. The global environment

Following the release of national accounts figures for the second quarter and based on current data for the third quarter, the forecasts for global economic activity have been adjusted downward both by central banks and international organizations, and some forecasts have even been changed from “slowdown” to “recession.” In the previous Inflation Report (July 2008), it was the assessment of the Bank of Israel that there exists a high probability of continued increases in the prices of oil and commodities, although the probability of a financial crisis and a severe recession had diminished. In view of recent developments, both in the prices of energy and commodities and in the financial markets, this assessment has been adjusted downward. As a result of recent developments, there has also been a turnaround in monetary policy around the world, with the intensifying financial crisis climbing to the top of the agenda. Thus, there is a growing tendency towards reducing the monetary rate of interest in many economies and the postponement of interest rate increases in economies where the interest rate was already low.

Table 6
GDP Growth and Inflation in 2007, and World Bank Growth and Inflation Forecasts for 2008 and 2009

	2007	2008	2009
Average GDP growth, percent			
Global	5.0	3.9	3.0
Advanced economies	2.6	1.5	0.5
US	2.0	1.6	0.1
EU	2.6	1.3	0.2
Japan	2.1	0.7	0.5
Emerging markets	8.0	6.9	6.1
Inflation (during the year, percent)			
Advanced economies	2.2	3.6	2.0
US	2.9	4.2	1.8
EU	2.1	3.5	1.9
Japan	0.0	1.6	0.9
Emerging markets	6.4	9.4	7.8

SOURCE: IMF World Economic Outlook, October 2008.

International organizations, including the World Bank, the OECD and the IMF, are continuing to update their forecasts of growth in view of the expectations of a slowdown (Table 6). The second quarter figures for the major economies and the intensified financial crisis in the US and Europe have led these organizations to the assessment that the slowdown will continue during the second half of 2008 and that recovery is not expected to begin before the second half of 2009. The slowdown in growth will be particularly felt in the developed countries. In the **US**, growth will be affected by the liquidity crisis and the credit crunch, which even after the measures taken by the government and the sharp declines in asset prices, will continue to limit leveraged purchases of firms, real estate and financial products. All this will continue to negatively affect the labor and housing markets and the indices of consumer confidence. The inventory of houses for sale continues to grow and many foreclosed homes have yet to be offered for sale. Following the contraction of activity during the second quarter in **Europe,** there is growing fear of a recession (which is defined as two consecutive quarters of negative growth) in view of the continuing decline in the demand for exports (due to the slowdown in the US), the scarcity of credit and the negative developments in the housing market (due to the intensifying financial crisis). Growth in the **developing economies** is expected to decline due to slower global growth.

In view of the declines in the prices of energy and food during the third quarter and in contrast to the forecasts presented in the previous Inflation Report (July 2008), the forecasts of a continuing global slowdown are accompanied by forecasts of lower inflation and interest rates.

b. Real and financial activity in Israel

The slowdown in the growth of the Israeli economy is expected to continue in the third and fourth quarters as a result of the global crisis. However, the economy's favorable initial conditions—the growth in recent years, the high rate of employment, the surplus in the balance of payments, the declining trend of the debt-to-GDP ratio and the large and growing foreign exchange reserves—are expected to moderate the effects of the slowdown. Following the release of the growth figures for the second quarter, the Bank of Israel's forecast of growth for 2008 was adjusted upward to 4.7 percent (Table 7), accompanied by a 6.1 percent rate of unemployment, which followed the upward adjustment presented in the previous Inflation Report (July 2008). This forecast is largely the result of growth that has already taken place in the second half of 2007 and the first half of 2008; however, a significant slowdown is expected during the second half of the year relative to the growth achieved in the first half, as a result of both the reduced rate of growth in supply (due to the already high rates of employment) and the reduction in all components of demand, i.e. exports (as a result of the global slowdown),[12] private consumption and investment (due to the wealth effect resulting from the financial crisis, pessimism and the upward trend in the real interest rate). The forecast of a surplus in the

[12] For a discussion of the effect of global demand in general, and demand in the US in particular, on Israeli exports, see the Bank of Israel Annual Report for 2007, Box 7.1 and 7.2.

current account was adjusted downward to about $250 million in view of the expected slowdown in the growth of exports due to the global slowdown and the continuing appreciation. The forecast for growth in 2009 was adjusted downward to 2.7 percent (accompanied by a moderate rise in the unemployment rate) which was based on the weak growth in the US and Europe during the second quarter. Recovery is expected during the second half of 2009.

It appears that the global financial crisis does not pose a threat to the stability of the banking system. Of course, if a threat does develop, the Bank of Israel will use the tools available to it in order to protect depositors.

c. Expected exchange rate developments

The surplus in the **current account** is expected to continue (Table 7) although the global slowdown and its effect on the demand for exports will act to reduce it. In the **capital account**, pressure towards the net import of capital is expected to continue since despite the global crisis, the relatively good situation of the Israeli economy is expected to continue to work towards the reduction of capital outflow by Israeli residents and at the same will continue to encourage both direct and financial investment by foreign residents in the economy or at least will prevent major

Table 7
Economic Indicators for 2007, and Bank of Israel Forecasts for 2008 and 2009
(rates of change, percent, unless stated otherwise)

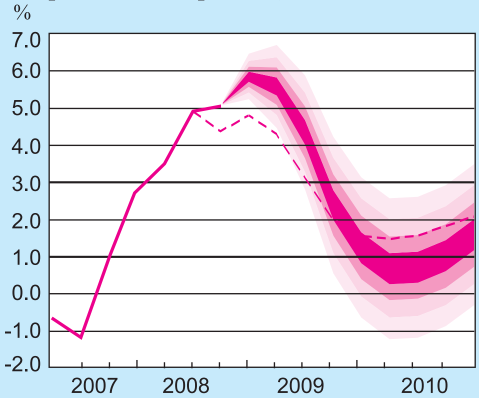
	Actual	Forecast	
	2007	2008	2009
GDP	5.4	4.7	2.7
Private consumption	6.7	4.6	3.2
Gross domestic investment	12.0	3.5	1.9
Public consumption	2.9	1.6	1.7
Imports	12.3	7.0	3.8
Exports	8.4	9.6	4.0
Net current account ($ mill)	5,197	2,673	1,979
Unemployment rate	7.3	6.1	6.5
Public deficit (percent of GDP)[a]	1.0	1.8	2.5
Gross debt/GDP ratio (percent)	79.8	76.2	76.0

[a] Excluding the Bank of Israel.
SOURCE: Central Bureau of Statistics and the Bank of Israel.

redemptions of foreign investment. The combination of these two effects—the current account surplus and the pressure towards a net import of capital—is expected to support the strengthening of the shekel in the future. Nevertheless, it must be borne in mind that the exchange rate is also greatly affected by short-term capital flows that react to other factors, whose direction is hard to predict.

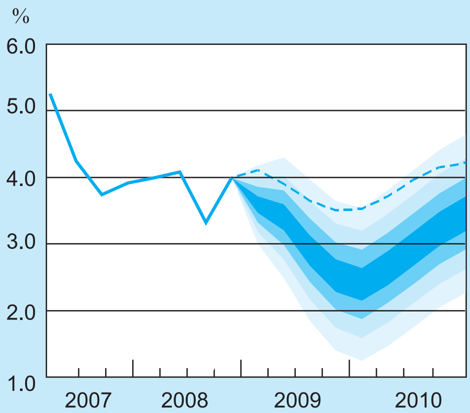
In view of the increasing uncertainty regarding the global economy, the Bank of Israel announced on October 7 that it is considering the possibility of continuing the purchase of foreign currency for a defined period after the completion of the current program to expand reserves.

Figure 18
Actual Inflation and Fan Chart[a] of Expected Inflation[b], 2007-2010
(rate of cumulative price increases in previous four quarters)



[a] 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 (April-June 2008).
SOURCE: Bank of Israel.

Figure 19
Actual Bank of Israel Interest Rate and Fan Chart[a] of Expected Interest Rate,[b] 2007-2010



[a] The full fan covers 66 percent of the distributiuon of the expected interest rate.
[b] The dotted line is the middle of the fan chart shown in the previous Inflation Report (April-June 2008).
SOURCE: Bank of Israel.

d. Estimates regarding future inflation and its risk balance

Various forecasts were modified following the developments during the fourth quarter, including that of the Bank of Israel (Table 8). The forecast for inflation was adjusted upward in the short term and downward in the intermediate term (Figure 18), such that inflation is expected to return to the target range during the next six months. The expected path of the interest rate was adjusted downward (Figure 19). This assessment is conditional on the stabilization of global energy and food prices, among other things.

Figures 18 and 19 illustrate the change in the expected paths of inflation and the interest rate in comparison to the forecast presented in the previous Inflation Report (July 2008). **The forecast for short-term inflation has been adjusted upward** since inflation during the third quarter was higher than forecast. This was due to the increase in the housing component, the depreciation of the shekel during the first part of the quarter, and the delayed effect of the increase in energy prices in previous quarters. A higher rate of inflation at the start of the forecast

Table 8
Assessments of Inflation over Next Twelve Months[a] (percent)

	Target	Capital market	Private forecasters	Companies Survey	Bank of Israel
Average	2	0.4[b]	1.6	3.7	
Range	1-3		0.2-2.9	1.4-5.5[c]	1.3-2.5

[a] It is reasonable to assume that this estimate has a downward bias to the extent that the yield on indexed bonds includes a liquidity premium.
[b] The forecasts are from the second half of October 2008, except for the Companies Survey, which was carried out during the third quarter of the year.
[c] Covering 90 percent of the inflation expectations (excluding the tails).
SOURCE: Bank of Israel.

period, i.e. during the third quarter, means that inflation will also be higher in subsequent quarters. This is due to its effect on price adjustment in the near future and the “base effect” according to which annual inflation remains high until a year has passed and the data for the third quarter are no longer in the calculation. **The forecast for inflation in the intermediate term has been adjusted downward** as a result of the intensifying global crisis and the decline in energy and commodity prices, which was more pronounced than assumed for the forecast in the previous Inflation Report. **The expected path of the interest rate was adjusted downward** relative to the path forecast in the previous Inflation Report in view of the lowered expectations of inflation during the coming twelve months and the expected trends in interest rates worldwide.

The Bank of Israel employs a number of models for the charting of possible scenarios (simulations) and analysis of risk regarding the future trends of inflation and the interest rate. The model simulations serve as input in the decision making process. The models differ from one another in, among other things, their assumptions regarding the way in which expectations of inflation are created and the effect of expected inflation on inflation in the short term (through its effect on economic decisions made in the present). One model is based on rational expectations and the assumption that expected inflation and the expectations of global economic variables have a dominant effect on inflation in the short term. This model predicts a rapid drop in inflation and a downward trend for the interest rate. The other model assumes that inflation in the short term is determined primarily by inflation in recent periods. This model also predicts a drop in inflation, though at the same time it predicts an upward trend in the interest rate. Due to the different characters of the models, it can be expected that they will produce different results when the past behavior of the variables significantly differs from their expected behavior in the future. During the period under review, in which a significant turnaround began, greater weight is being attributed to the expectations-based model than to the inertia-based model. We would further mention that extreme events, such as those that are currently affecting the global financial market, limit the ability to forecast and analyze risk using models.

From the perspective of the last twelve months, inflation is expected to converge to the target range within about six months. As part of a flexible inflation targeting regime, the Bank of Israel is working to gradually return inflation to within the target range in order to minimize the fluctuations in the interest rate and in real and financial activity.

Within the range of a year, it appears that the risk of undershooting the inflation target range is higher than the risk of overshooting it. The continuation of current trends—the appreciation in the exchange rate, the intensifying global crisis, the slowdown in the economy's growth and the decline in oil and commodity prices—will work to reduce inflation and perhaps will even increase the risk of undershooting the target range. In contrast, the main risk of overshooting the target range lies in the possibility of a sharp depreciation. The inflation and interest rate fans (Figures 18 and 19) reflect some of the inflationary and deflationary risks. In comparison to the assessment of risk presented in the previous Inflation Report, it appears that in the longer term (12 months or more), the risk of inflation overshooting the target range has decreased while the risk of undershooting has increased.

The Bank of Israel will continue to monitor developments and any indications that these risks are being realized. The Bank will continue working to return inflation to within the target range of price stability, 1–3 percent, and, subject to that, will support real economic activity and employment while maintaining the economy's financial stability.