Bank of Israel

INFLATION REPORT

2004

January–June

July 2004

14

Catalogue # 3114204014/1
http://www.bankisrael.gov.il

Printed in Israel by Ayalon Press, Jerusalem

Bank of Israel

Jerusalem
July 2004

The Inflation Report for the first half of 2004 is submitted to the government, the Knesset, and the public as part of the process of periodic monitoring of the course of inflation and adherence to the inflation targets set by the government, and is intended to increase the transparency of macroeconomic policy. The transparency of policy—both fiscal and monetary—is important as a means of increasing economic confidence of Israeli and foreign companies and individuals and contributes to the proper functioning of the markets and the economy as a whole.

The CPI (Consumer Price Index) rose by 1.4 percent in the first half of 2004, and in the twelve months to June 2004 it was unchanged. The rise in the CPI in 2004 and in the coming twelve months is expected to be within the price-stability target range of 1–3 percent determined by the government in August 2000. A fixed, continuous target, not per calendar year as was the case previously, enables policy to act at all times to achieve the target for the next twelve months, while allowing for temporary deviations in either direction in order to minimize fluctuations in the interest rate.

In the half year under review the rate of price increases rose towards the middle of the target range, against the backdrop of recovery in real activity that started in the second half of 2003 after two years of recession, and depreciation of the NIS against the dollar following its marked appreciation in 2003. Together with the rise in prices, inflation expectations also went up towards the middle of the target range.

During this period the Bank of Israel acted to attain the target of price stability, reducing the interest to as low a level as possible without adversely affecting stability, while constantly reviewing the indicators that guide its policy. Accordingly, the Bank's interest rate was lowered by a cumulative 1.1 percentage points from the beginning of the year to April, when it reached 4.1 percent, and was kept at that level thereafter.

Economic developments in Israel were led to a large degree by the recovery of global demand, particularly for output of the high-tech industries, which helped to boost exports. The improvement in the economic environment was also supported by the relative quiet on the security front in the period, which resulted in a rise in investment, private consumption and imports. These were helped by the improved mix in macroeconomic policy, i.e., tighter fiscal discipline combined with monetary expansion, reflected by relatively low long-term and short-term real interest rates.

The cuts in government expenditure in line with the target set, together with a significant increase in tax revenues resulting from the recovery in economic activity, are expected to enable the government to meet the deficit target for 2004, which was raised to 4 percent of GDP. The government decision to reduce tax rates following the increase in tax receipts while still meeting the deficit target, instead of reverting to the original deficit target of 3 percent of GDP, will be reflected in the continued rise in the public debt/GDP ratio in 2004.

Government policy plays a major part in shaping the economic environment. Fiscal discipline considered by the public to be credible is also essential for the management of monetary policy. The public's assessment that the government is staying within the budget and deficit framework is likely to be expressed in lower long-term interest rates, in lower short-term and longer-term inflation expectations, and in reduced uncertainty and reduced instability in the financial markets. In this way fiscal policy can enable monetary policy to maintain price stability at relatively low interest rates.

Over the last year the foreign-currency market was relatively calm, with some depreciation of the NIS against the dollar (in the first five months of the year, offset partially thereafter), some of which was the outcome of changes in cross-rates worldwide. Alongside the calm in the foreign-currency market, Israel's risk premium stabilized at a relatively low level, in line with a similar process in other emerging markets; the exchange-rate risk also continued falling. The changes in the exchange rate were affected by short-term factors on the one hand, including the narrowing of the interest-rate differentials and Israelis' adjusting their portfolios, and by the persistent rising trend of capital inflow, against the background of the global economic recovery.

The developments in the foreign-currency market reflect the changes it has undergone over the last few years—liberalization that exposed the economy to short- and long-term capital flows, and the move to what is effectively a floating-exchange-rate regime. Such an environment, in which the markets react to changes in economic conditions and reflect them, emphasizes the importance of a responsible and credible macroeconomic policy, and thereby adds to its efficiency.

The removal of the ceiling on stock of issued Treasury bills at the end of 2001, combined with the increased use that the Bank of Israel makes of market instruments, including Repo transactions from the beginning of 2004, helps make monetary policy more effective, in other words, enables it to achieve its objectives with relatively modest fluctuations in the interest rate. This is because these instruments operate in the context of a wider market, thereby enhancing the policy's transmission mechanism.

The main policy target for the next year and the following years is to maintain economic conditions that will enable the economy to realize its growth potential long term, with a rise in the rate of employment and a reduction in the degree of poverty. To achieve this the government must persist in following a fiscal policy consistent with the targets set—a maximum increase of one percent a year in government expenditure and a deficit of 3 percent of GDP—so that the government debt/GDP ratio will revert to the downward path it followed till the year 2000. Monetary policy will continue to operate to preserve price stability while maintaining financial stability at the lowest possible interest rate, and will thereby support a sustainable growth path. The observance of fiscal discipline and a falling government debt over the next few years will allow that to be attained at relatively low interest.

The policy to encourage continued growth while reducing poverty and increasing employment must center round a significant rise in investment in the infrastructure, with budgetary and extra-budgetary financing. Due to the extent, complexity and essential need for such investments, the government's decision to centralize their handling in the Ministry of Finance must be implemented. At the same time steps must be taken that will boost employment directly: tax policy that will increase the incentive to work, including negative income tax; a significant reduction in the number of foreign workers, mainly via economic means; a real extension of the program for finding jobs for the unemployed; the development of services that will make it easier to go out to work; aid for small and medium-sized businesses, focusing on the aspect of management follow-up; and increased investment in education in areas and populations with particularly low rates of employment. These measures will complement those taken hitherto to reduce the incentives to stay out of the labor market—which are inherent in allowances paid to those of working age—and to reduce the number of foreign workers.

In addition to the above, the government should promote the reforms to increase competition in the economy, including reforms in the capital and money markets intended to encourage nonbank financial intermediation, as well as structural changes required to increase competition in the infrastructure industries.

This Inflation Report was prepared at the Bank of Israel within the framework of the Senior Monetary Forum. The Forum—headed by the Governor—is the inter-departmental team (whose members include the Deputy Governors and the heads of the Monetary, Research, Foreign Currency, and Foreign Exchange Activity Departments) within which monetary policy issues are discussed.

David Klein
Governor

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Summary

- The Consumer Price Index (CPI) rose by 1.4 percent in the first half of 2004 (the period reviewed), and over the twelve months to June 2004 it remained unchanged. The rise in the first half-year marks the return of inflation to the target range of price stability, following the 1.9 percent fall in the CPI in 2003.
- Monetary policy in the period reviewed operated against the background of a trend change in the economic environment: a rise in inflation assessments and actual price rises to within the inflation target range, after they had been below the lower limit of the range in 2003; the depreciation of the NIS against the dollar, following its appreciation in 2003; and recovery in real economic activity that started in the second half of 2003, after the long recession.
- In the first quarter of 2004 expected inflation for one year and two years forward rose to within the target range, and assessments regarding exchange-rate risk remained low. These developments supported continued cuts in the interest rate, but because of the cumulative reductions in 2003, at a slower pace than in the past.
- In April and May expected inflation continued rising within the target range, as the CPI rose. Yield curves rose and their positive slopes became steeper, following their decline in 2003 which was due to the reduction in the deficit, against the backdrop of the rise in yields in the US, and possibly also related to the government's use of surplus revenue to reduce taxes. The combination of changes in several indicators could indicate upward pressure on prices. These developments prompted the Bank of Israel to halt the process of interest-rate reduction.
- The expansion of economic activity that had started in the second half of 2003 continued during the first half of 2004. The rise in GDP reflected an increase in exports, private consumption, and investment, while public consumption fell in the first quarter. The rapid increase in GDP serves to reduce the output gap. The background to the turnaround in activity was essentially the rising trend in global demand, combined with the improved security situation. It was also supported by a better mix of macroeconomic policy, expressed by a relatively low level of long- and short-term real interest rates.
- The budget deficit in 2004 is expected to be 4 percent of GDP, in line with the target set in the Budget Law, despite the cuts in statutory tax rates decided upon in the first half of the year amounting to almost one percent of GDP; this is the result of the turnaround in real activity and the rise in tax revenues.
- The foreign-currency market was relatively stable in the period reviewed, as a result of opposing forces offsetting each other—short-term factors that acted throughout most of the period to weaken the NIS, and long-term forces that acted to strengthen it. In the first quarter the exchange rate was affected mainly by domestic considerations, and in the second quarter, by global developments relating to the dollar.
- Nonresidents' activity in the fist half of 2004 consisted mainly of sales of foreign currency via long-term financial instruments, that was partly offset by purchases of foreign currency via short-term instruments. Israelis, on the other hand, purchased foreign currency, mainly via long-term instruments, but also via short-term ones.

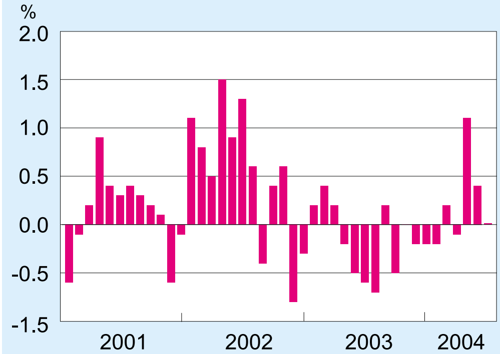
I. THE DEVELOPMENT OF THE CPI AND INFLATION

The Consumer Price Index (CPI) rose by 1.4 percent in the first half of 2004 (the period reviewed), and over the twelve months to June 2004 it remained unchanged. The rise in the first half-year marks the return of inflation to the target range of price stability, following the 1.9 percent fall in the CPI in 2003. The return to price-stability range took place mainly in the second quarter, when the CPI rose by 1.5 percent, compared with a decline in the CPI in the second quarter of 2003 (Figures 1 and 2).

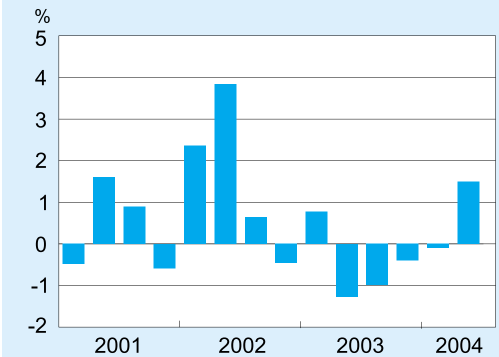
Excluding seasonal items (clothing and footwear, and fruit and vegetables) and housing, the CPI rose by 0.5 percent in 2004:I and 1.7 percent in 2004:II. The housing index, with a weighting of almost 25 percent in the overall index, went up from February to June by 2.3 percent, partly due to the 3.8 percent depreciation of the NIS against the dollar in the relevant months. Prices of nontradables in the CPI excluding housing edged up by only 0.3 percent in the first half of the year.

In the first five months of the year the NIS depreciated against the dollar by more than 4.5 percent, and by almost 4 percent against the currency basket, creating upward pressure on prices throughout the first half-year. In addition to the depreciation, the rise in prices of imported consumer goods should also be noted: these rose by 1.4 percent, in dollar terms, in the first quarter. The Bank of Israel estimates that the 25 percent rise in world oil prices in the first half of the year contributed about 0.3 of a percentage point to the rise in the CPI in that period (Figure 3). The appreciation of the NIS against the dollar and the currency basket and the drop in oil prices in June 2004 are expected to have a moderating effect on price rises in the next few months. The Wholesale Price Index rose by 4.8 percent in the period reviewed, after rising by 3.3 percent in 2003, but in the light of experience over the last ten years it is doubtful that this rise will spill over into the CPI.

Figure 1
Monthly Rates of Change of CPI, January 2001–June 2004

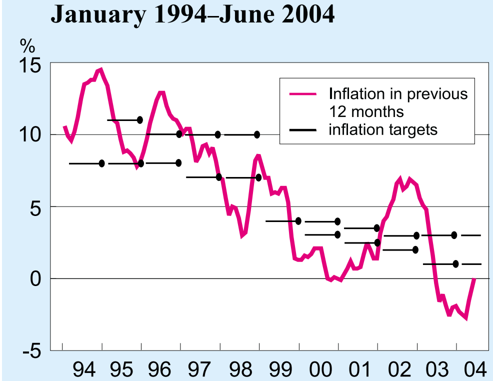


Quarterly Rates of Change of CPI, 2001–June 2004



SOURCE: Central Bureau of Statistics.

Figure 2
Inflation in Previous 12 Months, and Inflation Targets, January 1994–June 2004



SOURCE: Central Bureau of Statistics.

The CPI rose by 1.4 percent in the first half of the year, and was unchanged in the previous 12 months. The price rise in the first half-year means that inflation returned to within the range of price stability, following the fall of 1.9 percent in the CPI in 2003.

II. MONETARY POLICY, INFLATION, AND THE ECONOMIC ENVIRONMENT

a. Monetary policy

In the last few years monetary policy has operated against the background of structural changes in the financial markets, in

Figure 3
The Price of a Barrel of Oil, April 2001–June 2004

SOURCE: Bloomberg

Oil prices rose in the first five months of the year, and peaked at the end of May.

particular the move to more open markets. Thus, the foreign-currency market was liberalized, allowing free capital flows into and out of the economy, and the exchange rate floats freely within a wide band. The ceiling on the quantity of Treasury bills was removed, enabling the Bank of Israel to make greater use of this market instrument to implement its monetary policy and to reduce the use of nontradable instruments such as the banks' deposits in the Bank of Israel. A more open operating environment allows new information to be expressed in the markets more quickly and more efficiently, and can thus help monetary policy to achieve its objectives with smaller fluctuations in the interest rate.

Fiscal policy also affects the monetary policy required to attain the inflation target. Since the middle of 2003 fiscal policy has maintained discipline and has acted to promote reforms that relate to long-term government expenditure. Fiscal policy that acts to lower the government's deficits and reduce the government debt/GDP ratio helps monetary policy to maintain price stability at a relatively low level of interest, closer to world levels.

The backdrop to monetary policy in the first half of 2004 consisted of changes in the economic environment: a rise in inflation assessments and in actual prices (which in 2003 rose by less than the target), depreciation of the NIS against the dollar (until May) following its appreciation in 2003, and continued recovery in real activity that started at the end of 2003 after a prolonged recession.

These developments slowed the pace of interest-rate reductions in the first quarter, and stopped them completely in the second quarter, after cumulative cuts of 5 percentage points, from 9.1 percent at the beginning of 2003 to 4.1 percent at the end of the first half year.

Israel's economy in the first half of 2004 was affected by global trends and by domestic developments: the main cause of the recovery in real activity, expressed by a steep increase in imports and exports and a rise in private consumption and investment, was the recovery in world demand, particularly the recovery in the US economy. This was supported by domestic factors such as the relatively low level of interest in Israel at the beginning of the year, the relative decline in the number of terrorist attacks on civilian targets, and the fiscal policy, which kept within the framework of the budget and used surplus revenues to reduce taxes.

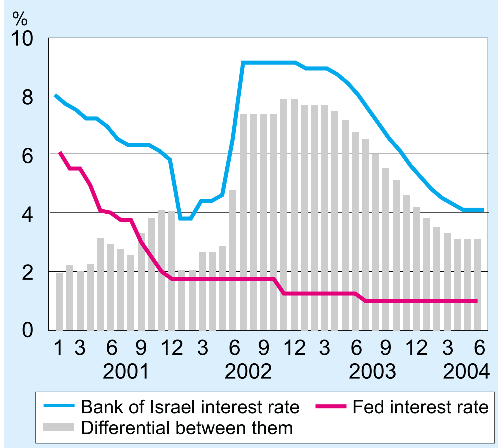
The financial markets were also affected mainly by global developments: the economic recovery in the US, while the slowdown in Europe persisted, raised expectations of an increase in the interest rate in the US and of a strengthening of the dollar against the euro and many other currencies. As a result, the NIS also depreciated against the dollar in this period, by 4.6 percent, but exchange-rate risk, as perceived by the public, remained relatively low. Stability of the NIS has a positive impact on financial stability.

In the second quarter of 2004 yields on US bonds rose as a result of expectations of a rise in interest rates because of the economic recovery; this led to a rise in bond yields around the world, particularly in emerging markets. The latter effect was also partly due to the rise in the risk premium of emerging markets, against the background of geopolitical tension caused by terrorist attacks on Western targets in Moslem countries; this followed the decline in their risk premium in 2003. These factors changed the trend also in the domestic bond market, and yields on both indexed and unindexed bonds rose. Fiscal policy may also have played a role in the rise of bond yields, as surplus revenues were directed towards lowering taxes and not to reducing government debt which has surged in the last few years, and which reached an estimated 106 percent of GDP in the period reviewed.

Economic indicators used for assessing expected inflation also changed direction in the period reviewed; in particular, the assessment that expected inflation for one to two years forward would revert to the target inflation range became firmer, whereas in the first half of 2003 expected inflation had been below the target. This positive change was due mainly to the reductions in the interest rate in 2003, and was supported by depreciation of the NIS and the recovery in economic activity. At the beginning of the year the assessment that expected inflation was rising was not backed by much certainty, but it became firmer during the period reviewed: in 2004:I the changes in the indicators were quite moderate, and it was only in the second quarter when they persisted and became stronger that the trend change could be identified with greater certainty. These considerations lay behind the policymakers' decision to continue lowering the interest rate in the first quarter but at a slower and slower pace, and only in the second quarter, when the indicators regarding the rise in expected inflation to the middle of the target inflation range firmed, were the reductions in the interest rate stopped.

In 2004:I inflation expectations derived from the capital market rose to 1 percent on average, at the lower limit of the target inflation range, after being below it at the end of 2003, and inflation assessments of private forecasters went up to an average of 1.5 percent, in the lower part of the range. The downward trend of bond yields also stopped, and they actually rose a little. The budget was approved by the Knesset on schedule, and the deficit target was considered to be attainable. The NIS depreciated slightly

Figure 4
Short-Term Interest Rates in Israel and the US and the Differential between them,
January 2001–June 2004
(monthly averages, percent)



SOURCE: Bank of Israel

In 2004:I the interest-rate differential between the NIS and the dollar contracted due to the lowering of the interest rate in Israel while interest in the US remained unchanged. At the end of the first half of the year the differential was 3.1 percentage points, down from 4.2 percentage points in December 2003 and 6.75 percentage points in June 2003.

against the dollar, but exchange-rate risks as perceived by the public, derived from the standard deviations of NIS/foreign-currency options, remained at a low level. These indicators, against the backdrop of the low interest rate and the contraction of the interest differential (Figure 4) backed the assessment that the interest rate could continue to be reduced, albeit more slowly than before.

In April and May inflation expectations calculated from the capital market and also private forecasters' inflation assessments continued rising, and reached about 2 percent and 2.6 percent respectively, in line with the actual rise in prices and the depreciation of the NIS. Yields in the bond markets and those on one-year Treasury bills also went up, with the positive slopes of the yield curves strengthening and with a considerable widening of the yield gap between bonds and one-year Treasury bills on the one hand and the Bank of Israel interest rate on the other, a gap that is inconsistent with the long-term target of price stability. The econometric models also showed that the current interest rate is lower than that needed to achieve the inflation target for one to two years forward. In addition to all the above, the combination of various other changes since the beginning of the year could exert upward pressure on prices: expectations that the interest-rate differential would contract due to the assessment that the US interest rate would rise,[1] which exerted pressure for depreciation; a more rapid rise in the money supply; and recovery in real economic activity, expressed in the form of increased domestic demand. All the above prompted the Bank of Israel to halt the process of reducing the interest rate and to leave it unchanged at 4.1 percent for May and June. In June the markets were calm, the NIS appreciated, bond yields dipped a little, and private forecasters' assessments and expectations based on the capital market declined to the middle of the target range. Against the background of the cumulative changes in the economic indicators in the second half of the year, the relatively low level of interest, and expectations that the interest-rate differential would contract, the Bank of Israel kept the interest rate for July unchanged too.

The cumulative reduction in the interest rate in the first half of 2004 was 1.1 percentage points, and the cuts made became smaller and smaller, from 0.4 of a percentage point in January, to 0.3 of a percentage point in February and 0.2 of a percentage point each in March and April.

[1] And indeed the Fed increased the rate by 25 basis points at the end of June.

b. Monetary indicators underlying monetary policy

In its decision-making process, the Bank of Israel tracks the various economic indicators relating to the capital money and foreign-currency markets, and analyzes macroeconomic data on inflation and real activity. In performing the analysis the Bank avails itself of econometric models for forecasting inflation. This process enables it to keep the reaction of the markets and its impact on expected inflation under constant review, and to determine the interest level it considers necessary to achieve the inflation target for one and two years forward, while preserving the stability of the financial markets.

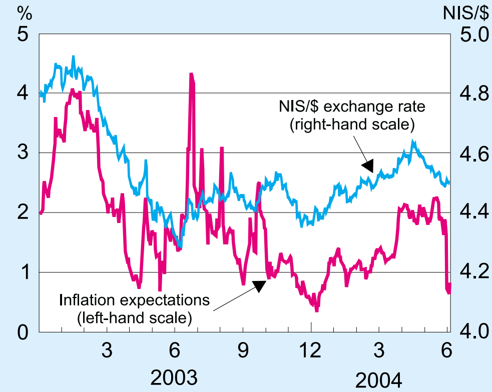
The various indicators are described below, together with a description of their development in the first half of 2004.

(i) Indicators of expected inflation

Inflation expectations for a year ahead derived from the capital market, calculated from the yield gap between Treasury bills and CPI-indexed (*Galil*) bonds, followed an upward trend in the period reviewed until mid-June, having fallen below the lower limit of the target range at the end of 2003. Since February one-year inflation expectations have been with the target range described as price stability: in 2004:I they were close to the lower limit of the range, and in 2004:II they rose and converged towards the middle of the range. The rise in inflation expectations took place at the same time as the NIS depreciated against the dollar (Figure 5), and was supported by the cumulative cuts in the interest rate from 2003, which were directed towards returning expected inflation to within the target range, and by the recovery in real economic activity. At the end of the first half of the year, inflation expectations were at the middle of the target range, with lower nominal and real interest than in the past—close to those of the advanced countries.

Private forecasters' assessments of expected inflation for a year ahead, which had declined in 2003:IV and January 2004 to an average of 1.5 percent, rose from February, and reached 2.6 percent in May, falling again in June to 2.3 percent on average. Throughout the period reviewed most of the forecasts were within the target range: at the beginning of the year they were concentrated in the lower part of the range, and at the end of the half-year were at the middle of the range or in its upper part (Figure 6). These forecasts are based *inter alia* on the assessment that the process of interest-rate reductions would come to its end in 2004:II, and that towards the end of the year and in the first half of 2005 there would be

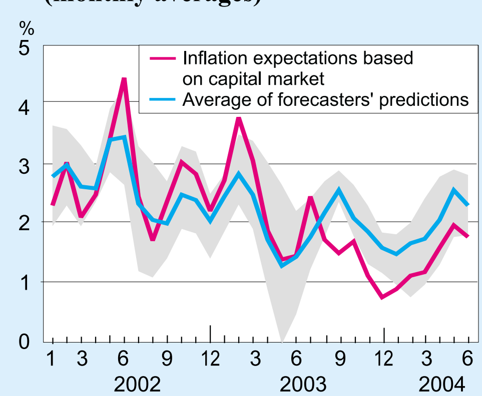
Figure 5
NIS/$ Exchange Rate and Inflation Expectations Derived from Capital Market, January 2003–June 2004 (daily data)



SOURCE: Bank of Israel

One-year inflation expectations, which were below the lower limit of the target at the end of 2003, rose during the first half of 2004 and reached the middle of the target range. The NIS depreciated against the dollar from January to May, and in June it appreciated.

Figure 6
One-Year Inflation Expectations based on the Capital Market, and Forecasters' Predictions, January 2002–June 2004 (monthly averages)



SOURCE: Bank of Israel Monetary Department and private forecasters.

From January to May 2004 inflation expectations derived from the capital market and inflation predictions of private forecasters rose; the average of the private forecasters' predictions was higher than the expectations calculated from the capital market throughout the first half of the year. Inflation expectations based on the capital market and private forecasters' predictions were within the target range for most of the period.

hikes in the interest rate totaling between 0.5 and 1 percentage points.

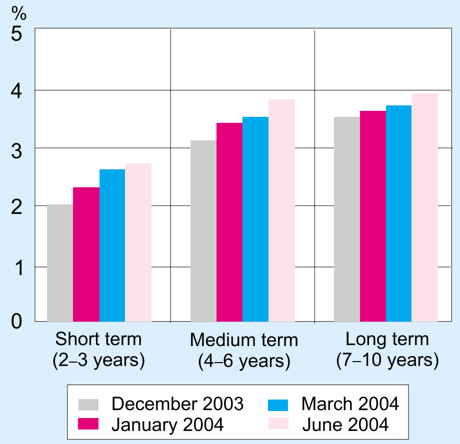
Throughout the first half of the year the private forecasts were higher than those derived from the capital market, unlike in the past: a period of rising expected inflation is generally characterized by steeper increases, and to higher levels, of expectations derived from the capital market. The changes in the private forecasters' assessments in 2004:II were accompanied by a reduction in the normalized standard deviation of their spread,[2] pointing to a reduction in uncertainty among the forecasters.

Long-term inflation expectations (for 2–10 years), measured by the yield gaps between unindexed local-currency (*Shahar*) bonds and CPI-indexed (*Galil*) bonds, rose from 3 percent at the end of December 2003 to 3.6 percent at the end of the first half of 2004. Expectations for all terms rose, but those for shorter terms were within the limits of the target range, and at the end of the half-year were close to the upper limit, while expectations for the medium and longer terms were above the upper limit of the range throughout the period reviewed, and reached 3.8 and 3.9 percent at the end of the period (Figure 7). Among other things, the background to the rise in inflation expectations was provided by the reductions in the Bank of Israel interest rate, which were intended to bring expected inflation for one and two years forward back into the target range, but these reductions also affect inflation in the longer terms. These expectations include a risk-premium element which rises with the length of the expectations horizon.

Econometric models developed in the Bank of Israel help to assess expected inflation and determine the interest-rate path required to attain the target, enabling the processes underlying inflation to be analyzed under various assumptions as to their future development. The models rely on several economic correlations known from the past to predict future developments, thereby providing a convenient structural framework for their analysis. However, since the models cannot reflect developments specific to each period, their usefulness in periods of high uncertainty and sharp or unexpected changes in macroeconomic conditions is limited. The models are thus just one of the tools for assessing expected inflation, and are used, with discretion, together with the various other indicators.

At the beginning of the period the models suggested that the interest rate at that time was appropriate for the achievement of the inflation target for one and two years forward. The models

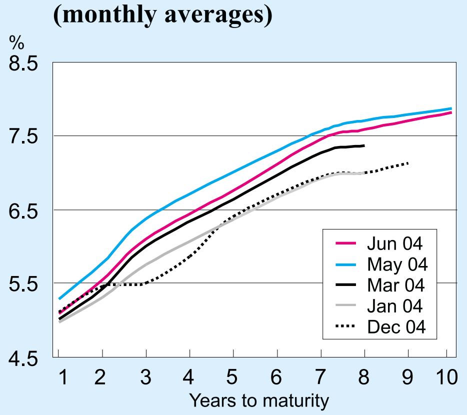
Figure 7
Long-Term (Forward) Inflation Expectations,
December 2003–June 2004
(monthly averages)



SOURCE: Based on Central Bureau of Statistics data.

Inflation expectations for longer terms (from 2 to 10 years) showed an upward trend in the first half of 2004. Expectations for the relatively short term (2–3 years) rose from the middle of the target range to close to the upper limit, whereas those for the medium and long term, which had been slightly above the upper limit, continued rising, and reached 3.8 and 3.9 percent respectively.

Figure 8
Yield to Maturity of Unindexed *Shahar* Bonds,
December 2003–June 2004
(monthly averages)



SOURCE: Bank of Israel Monetary Department.

From January to May 2004 nominal yields rose, after falling during most of 2003. The rise was highest for the longer terms, and the positive slope of the curve became even steeper. Long-term yields (more than five years) went up by 0.6 percentage points in the first half of 2004 to an average level of 7.8 percent at the end of June.

[2] Standard deviation of monthly forecasts *divided by* the average.

showed that thereafter the interest rate was lower than that required, and indicated the possibility that towards the end of 2004, higher interest rates may be necessary.

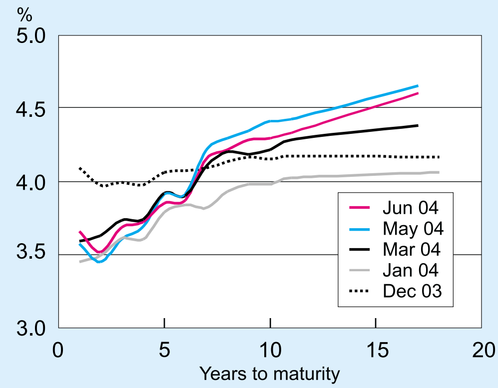
(ii) Other indicators

Yields on government bonds: the downward trend in yields evident for most of 2003 for real and nominal bonds stopped in January 2004. In February the trend reversed and bond yields rose, mainly for the medium and long term. In June the upward trend in yields halted, and they actually fell. Their rise was due mainly to external causes that may have been supported by domestic factors. The principal reason for the increase in bond yields in Israel was the rise of bond yields in the US which reflected expectations of a rise in the interest rate there in 2004 due to the recovery in economic activity and the rise in inflation. The rise in yields was also supported by the rise in the geopolitical risk of emerging markets, expressed by widening yield gaps. Against the background of low interest-rate differentials and the rise in the risk premium, bond yields rose in the domestic market too. It is noteworthy that the rise in yields in Israel's bond market was lower than that in other emerging markets, and it began earlier. The domestic developments that acted to raise bond yields in Israel could include the recovery in economic activity in the period reviewed, expectations of increased investment, and possibly also fiscal policy, that did not use surplus tax revenue to lower the deficit, and thus perpetuated a large and growing debt.

Yields on unindexed (Shahar) bonds rose from February to May, mainly for the medium and long terms, and in June they went down somewhat. At the end of the first half of the year the yields for the medium and long terms reached averages of 6.8 percent and 7.8 percent respectively, about 0.4 and 0.6 percentage points higher than at the end of 2003. Short-term yields rose more moderately and intermittently. These factors resulted in a steepening of the curve's positive slope, reflecting expectations of higher interest rates in the light of the expected rise in interest rates abroad (Figure 8).

Yields on indexed (Galil) bonds declined in January, continuing the decline that had persisted throughout most of 2003. Most of the decline was for the short term, so that the slope of the yield curve became positive. From February to May real yields for the medium and long terms rose. The rise in long-term yields during the whole of the period reviewed totaled 0.4 of a percentage point, bringing them to 4.6 percent, thus steepening the positive slope of the real curve (Figure 9).

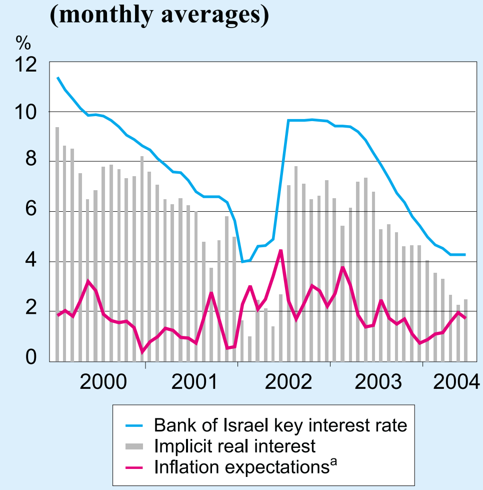
Figure 9
Yield Curve of CPI-Indexed Bonds, December 2003–June 2004
(monthly averages)



SOURCE: Bank of Israel Monetary Department.

In January 2004 the downward trend of real yields which had started in February 2003 halted. From February 2004 to May 2004 real yields rose particularly for the medium and long terms, and the positive slope of the curve became steeper. At the end of the first half of 2004 long-term yields reached 4.6 percent, about 0.4 percentage points higher than at the beginning of the year.

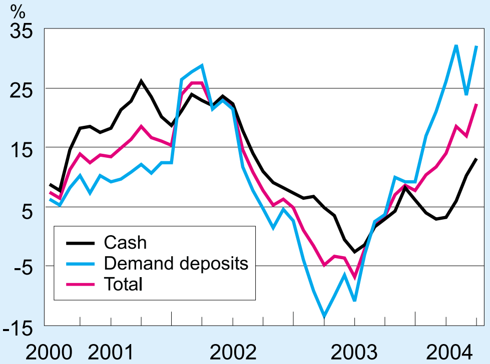
Figure 10
The Bank of Israel's Key Interest Rate,[a] Inflation Expectations,[b] and the Implicit Real Interest Rate, January 2000–June 2004
(monthly averages)



[a] Effective interest rate at Bank of Israel auctions.
[b] For 12 months forward; derived from capital market.
SOURCE: Bank of Israel Monetary Department.

Expected real interest went down during the first half of 2004 by 2.1 percentage points, from 4.6 percent in December 2003 to 2.5 percent at the end of the half year. This follows the reduction of 2.6 percentage points in 2003. The drop in the interest rate was the result of further cuts in the Bank of Israel interest rate combined with the rise in inflation expectations.

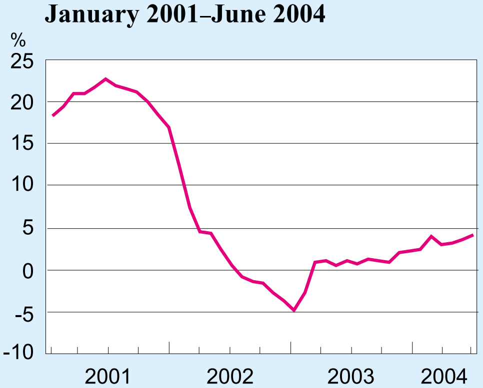
Figure 11
Annual Rates of Change of M1 and its Components, December 2000–June 2004 (monthly averages)



SOURCE: Bank of Israel Monetary Department.

The narrow money supply (M1) rose by 13 percent in the first half of 2004, following its rise of 8 percent in the second half of 2003. The main rise was in demand deposits which surged by 18 percent in January to June 2004, while the cash component increased by a relatively moderate 7 percent.

Figure 12
Annual Rates of Change of M2, January 2001–June 2004



SOURCE: Bank of Israel Monetary Department.

Unindexed local-currency deposits increased by 2.1 percent in the first half of 2004; in the 12 months from July 2003 to June 2004 they rose by 5.4 percent, after declining by 5.4 percent in the 18 months to June 2003.

Expected real interest on Bank of Israel sources is derived from the difference between the central bank's key interest rate and inflation expectations, and serves to indicate the extent of monetary restraint. During the first half of 2004 expected real interest fell considerably, from 4.6 percent at the end of 2003 to 2.5 percent at the end of June 2004—continuing the decline at a similar rate that had occurred in 2003 (Figure 10). This was the outcome of the cuts in the interest rate implemented by the Bank of Israel in the first four months of 2004 and the rise in inflation expectations. This level of real interest is lower than in the past, and was made possible by the low level of inflation and the relative calm prevailing in the financial markets.

The *narrow money supply (M1)*, which accounted for 17 percent of short-term deposits at the end of the first half of 2004, rose by 13 percent in the period reviewed, and by 22 percent during 2003, after negative annual rates of change during the first half of 2003 (Figure 11). Most of the increase was in the current account component, which grew by a steep 18 percent in the period, while cash rose more moderately, by 7 percent. The expansion of the money supply is regarded *inter alia* as a response to the Bank of Israel's cumulative interest-rate reduction and to the recovery in real economic activity.

The *unindexed local-currency deposits of the public (M2)* rose by 2.1 percent in the period reviewed, bringing their rise over the last twelve months to 5.4 percent, and bringing them close to their peak level of the end of 2001 (Figure 12). The increase in these deposits derived mainly from the rise in M1, whereas the rise in the aggregate excluding M1 hardly changed. The modest change in these deposits in recent years is due to the cancellation of the tax benefit of local-currency channels in January 2003, to the reductions in the Bank of Israel interest rate, and to the change in the management of monetary policy—a gradual change from management via deposits in banks to management based on market instruments, particularly on Treasury bills. In the period reviewed the Bank of Israel began to use a new monetary instrument, Repo transactions (see Box 1).

With regard to the composition of M2 by term, the share of short-term deposits went down by 0.9 of as percentage point, although it still remained high, at 77.7 percent, while the share of long-term deposits rose by 0.6 of a percentage point to 13 percent, and the share of medium-term deposits rose to 9.3 percent.

Box 1
Development of the Repo Market by the Bank of Israel

A Repo transaction consists of the sale and repurchase of a security in which one party ("A") to the transaction sells a security to the other party ("B") with an undertaking to repurchase it at a future date and at a price that is known at the time of the transaction.

Repos are currently one of the most important instruments in money markets throughout the world, and are used by many investors and market dealers—including market makers, banks, financial institutions, institutional investors, various types of fund, and companies—and central banks in advanced and emerging countries make use of them in their monetary policy. Repos serve many financial purposes related to liquidity, cash flow management, financing (also as an alternative to bank finance), and risk spread, and they contribute to the existence of developed and efficient bond and money markets, to financial stability, and to the availability of market data.

A central feature of a Repo transaction is the unequivocal right of each party to the transaction to realize the collateral he is holding should the other party breach the contract. In particular the lender (B in the above) has the ability easily to realize the collateral (the security) he is holding if borrower A does not repay the money.

Despite the importance of the Repo instrument, no Repo market developed in Israel till now, due to several barriers. With the intention of promoting the development of the various types of Repo transactions in Israel, and in the context of the process of switching to liquidity management via market instruments, the Bank of Israel introduced Repo auctions for Treasury bills. Together with other authorities, it is also taking steps to remove the barriers to Repo activity, and in particular to regularize the legal status of this instrument, specifically related to the ability to realize the collateral.

The Bank of Israel introduced Repo auctions in March 2004, as part of move to use market instruments to manage its monetary policy. Monetary policy acts to absorb liquidity from the financial markets or inject liquidity into them in order to determine the short-term interest rate, and thus to lead to price stability together with financial stability. Monetary policy can avail itself of several instruments, and the trend around the world is to move over to the use of market instruments, by operating in the open market. These market instruments are accessible to the general public, and not just to a particular sector. One example is the extended use made of Treasury bills since 2002, which enables the public to lend money to the central bank at a guaranteed interest rate, which generally competes with the banks' interest rates, which acts to lower the banking spread, reduces the cost of credit to the general public, and raises the rate of interest paid on deposits. In this way monetary policy has become more efficient and the transmission mechanism is improving: changes in interest rates trickle down to the markets more quickly and reach a wider population.

The Bank of Israel's Repo auctions are held twice a month; in them the Bank sells Treasury bills to the banking corporations and to members of the Tel Aviv Stock Exchange, and repurchases them two weeks later. The amount offered for sale since June 2004 is NIS 200 million per auction (from March to May it was NIS 100 million), and participants bid against each other in the auction with regard to the rate of interest they are to receive from the Bank. There is lively interest and strong demand in the auctions, and the interest rates set are similar to those that were set in the auctions for deposits in the Bank of Israel. As the Repo instrument becomes firmly established and as the barriers to activity in it are removed its use will spread, and in the future it will serve as an important and focal instrument in Israel's capital market.

Figure 13
Annual Rates of Change of Credit to the Public (C3), January 2000–June 2004 (monthly averages)

SOURCE: Bank of Israel Monetary Department.

The credit aggregate, after rising at an average annual rate of about 10 percent in 20002002, remained almost unchanged in the first half of 2004, after-going down by 2.8 percent in 2003.

The *overall credit aggregate (C3)* remained almost unchanged in the period reviewed, after contracting by 2.8 percent in the course of 2003. This is in sharp contrast to the rapid rates of increase of about 10 percent a year in the years from 2000 to 2002 (Figure 13). The lack of growth of the credit aggregate is notable in the light of the recovery of economic activity, and may indicate that the recovery has not yet been felt in all industries but has been concentrated in the high-tech industries, which are less dependent on credit to finance their activity than are other industries. In addition a situation arose in which on the one hand the banks, having learnt the need for risk management, have made their conditions for granting credit to companies more stringent, and on the other, investors were looking for alternative investment because of the low interest rates. This was expressed in the increase of nonbank credit in 2003 and the first half of 2004, and in particular in the rise in bond issues on the stock exchange to NIS 12.3 billion in the period reviewed compared with NIS 6.2 billion in the whole of 2003.

The data also show that the share of foreign-currency credit in total credit stayed almost unchanged at 33 percent in the first half of 2004, while the share of CPI-indexed credit declined by 0.8 of a percentage point to 36.8 percent, and the share of unindexed credit went up to about 30 percent.

The value of the *public's asset portfolio* rose in January–May 2004 by 3.5 percent due to the rise in share prices. The effect of the tax reform on the asset portfolio was very evident: the elimination of various forms of discriminatory taxation was reflected mainly by the rise in the share of tradable assets to about 46 percent, from 42 percent in 2003 and 35 percent in 2002, at the expense of nontradable assets. The share of foreign-currency assets increased by 1 percentage point to 18 percent, at the expense of the share of CPI-indexed assets, which went down to about 42 percent, while the share of unindexed assets remained steady at 40 percent, after rising over the last few years. In the light of the no-change in the unindexed component, the rise in tradable assets is notable—the rise in the share of Treasury bills at the expense of deposits that resulted from the Bank of Israel's increased use of market instruments in the implementation of monetary policy. Within the CPI-indexed component the same pattern of a rise in the share of tradable assets was evident: the share of CPI-indexed bonds increased while the share of savings schemes declined. The was apparently due to the tax reform that set a uniform tax rate for indexed assets, eliminated the tax exemption on interest on savings schemes, and lowered the tax rate on interest income from CPI-indexed bonds. The reduction of tax discrimination on foreign-currency investments also served to increase the share of the foreign-currency component. In 2004 the tax rules relating to basket certificates[3] of foreign securities traded on the Tel Aviv Stock Exchange were brought into line with those applicable to domestic investments. The final phase of the reform is planned for the beginning of 2005, and this will reduce the rates of the capital gains tax on foreign securities (currently 35 percent) and bring them into line with the tax rates on investments in Israel. For individuals and mutual funds the tax will be reduced to 15 percent, and provident and pension funds will be exempt from paying the tax, as applies to their investments in Israel, a change that should make it relatively more worthwhile to invest abroad.

c. Real activity

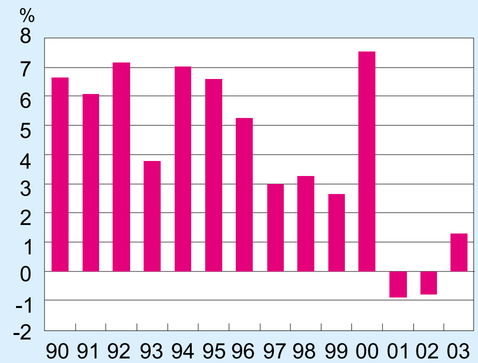
In the first half of 2004 the trend of improvement in economic activity that had started in the second half of 2003 became firmer. GDP rose in the first quarter at an annual rate of 5.1 percent, and business-sector product at an annual rate of more than 7 percent[4] (Figure 14). The rise in GDP reflects an increase in exports, private consumption and investment, while public consumption declined in 2004:I. The data available so far for 2004:II indicate that economic activity continued to increase in those months too, albeit more slowly. The composite state-of-the-economy index, consisting of changes in manufacturing production, turnover in commerce and services, and goods exports and imports, remained steady in the second quarter, reflecting the continued rise in activity at a pace parallel with that of long-term growth. In 2004:II the consumer confidence index reached its highest levels in the last two-and-a-half years, indicating the continuation of the positive developments in private consumption beyond the first quarter.[5] The backdrop to the turnaround in economic activity that started, as stated, in the second half of 2003, was first and foremost the positive reversal of the trend in global demand, together with an improvement in the security situation (a fall in the number of terrorist attacks), the reduction of real interest in 2003, and fiscal policy which adhered to the budget framework, and used surplus tax revenues to lower taxes. The rapid increase in GDP narrows

[3] Basket certificates are securities traded on the Tel Aviv Stock Exchange that guarantee investors indexation to share indices abroad, and that bear lower tax than investments abroad in 2004.

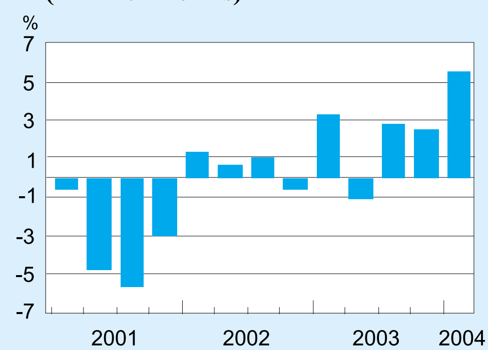
[4] Seasonally adjusted, compared with 2003:IV.

[5] For a discussion of the connection between the consumer confidence index and private consumption see K. Breude and Y. Friedmann (2003), "*The Consumer Survey in Israel: a Leading Indicator of Private Consumption*," Bank of Israel Discussion Paper Series 03.11 (Hebrew).

Figure 14
GDP Rates of Growth, 1990–2003



Quarterly Rates of Growth, 2001:I–2004:I (in annual terms)



SOURCE: The Central Bureau of Statistics.

Economic activity continued to expand in the period reviewed, continuing a trend that had started in the second half of 2003. The increase in the GDP reflects a rise in exports, private consumption, and investment. In 2004:I, however, public consumption fell. The rapid rise in GDP acts to reduce the output gap.

the output gap, as a result of which the downward pressure of prices caused by the recession and felt over the last three years weakened considerably, and may have even changed direction.[6]

Box 2
Changes in the Output Gap and their Effects on Prices

The output gap is the difference between the level of output that, if kept steady, would not create pressure for a change in the inflation rate (henceforth *potential output*) and actual output. A positive gap, i.e., GDP below potential output, means, by definition, downward pressure on prices.[1] In the literature the hypothesis has been put forward that a rapid rise in demand that quickly boosts GDP and acts to close the output gap is likely to push prices up before the gap has been closed completely. For example, recruitment of unemployed workers takes time and they may require retraining, and companies will buy machinery to increase production only when they are convinced that the increased demand is not a temporary rise.

With the initial recovery and the expectation of more than 5 percent GDP growth in 2004, one must examine whether this rapid increase in GDP is likely to reverse the direction of the effect of real activity on prices in the last few years, and exert upward pressure on them. This is referred to in the literature as the speed limit effect. The speed limit is defined as the maximum change in the output gap that can be closed in one time unit without reversing the direction of the effect of real activity on prices. The speed limit together with the output gap defines the highest growth rate at which real activity will still not exert upward pressure on prices.

The speed limit and its effect on prices is a complex empirical issue, with no simple solution, mainly because potential output and the output gap are not observable variables, and they must be estimated before the effect of the output gap on prices can be examined. Only after the gap and its effect on prices have been estimated can a conclusion be drawn as to whether a speed limit exists, and if so what it is.

Research into the existence of a speed limit in seven OECD countries[2] found that four of them do not have any speed limit, and in the other three the effect is small, so that in each of the countries about 70–90 percent of the output gap can be closed within a year without creating upward pressure on prices. The research was carried out with a yearly frequency, so that it was not possible to assess any price effect there may have been within quarters.

Menashe and Yakhin[3] using various approaches to assess Israel's output gap, found a small speed limit effect: a one-percentage-point reduction in the output gap raised prices by one-tenth of a percent. Three other papers that dealt with the effect of the output gap on prices in Israel found no speed limit effect: Djivre and Ribon (2000),[4] who present a macroeconomic model of Israel's economy; Friedman

[1] There are other definitions of potential output. For another definition and a discussion of the effects of the output gap on inflation see Box 2 in the Inflation Report No. 8 for the first half of 2001.

[2] D. Turner (1995). "*Speed Limit and Asymmetric Inflation Effects from the Output Gap in the Major Seven Economies*," OECD Economic Studies, 24, 57–87.

[3] Y. Menashe and Y. Yakhin "*Mind the Gap: Structural and Nonstructural Approaches to Quarterly Estimation of the Output Gap in Israel*," Forthcoming (due to appear in Israel Economic Review,.Vol. 2, No. 2).

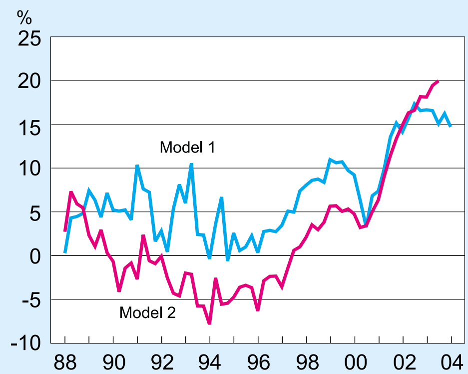
[4] Y. Djivre and S. Ribon, "*Monetary Policy, the Output Gap and Inflation: A Closer Look at the Monetary Policy Transmission Mechanism in Israel*, 1989–1999," Bank of Israel Discussion Paper Series 00.09.

[6] Y. Elashvili, D. Elkayam and M. Regev, "*Estimation of the Output Gap and an Analysis of its Impact on Inflation in Israel in the Last Few Years*," Bank of Israel Monetary Review, August 2002 (Hebrew).

and Sochoi (2004),[5] who estimate the non-accelerating-inflation rate of unemployment (NAIRU), and Elashvili, Elkayam and Regev (2002),[6] who estimate the output gap and its impact on prices. All the above related to the effect of the output gap on prices in the period from the introduction of the Economic Stabilization Program in 1985 till the end of the 1990s and the beginning of the 2000s. As these studies did not deal directly with the speed limit effect, and throughout the period they examined there was no instance of a demand-led strong recovery from recession, it would be incautious to conclude from their findings that the speed limit effect in Israel is not significant. Moreover, as there are different estimates of the size of the output gap, which as stated is not a measurable variable, it is very difficult to identify and to estimate the speed limit effect, even if it exists.

According to the various estimates, the output gap in Israel in the last three years rose by between 7 percent and 13 percent, and according to some assessments it exceeded 15 percent (see figure). These estimates may have an upward bias, as they do not take into account the possibility that some of the loss of output in the last few years may be permanent.[7] The rapid expansion of business-sector product in 2004:I of more than 7 percent in annual terms gives rise to the possibility of a change in direction of the effect of real activity on prices even before the output gap is closed particularly if fast growth continues. This change makes it necessary for those responsible for monetary policy to adopt a cautious approach and to employ discretion in considering the effect of economic activity on prices, as the models currently used by the Bank of Israel do not take into account the possible effect of the speed limit.

The Output Gap, 1988 to March 2004



SOURCE: Model 1- Yakhin and Menashe (2002); Model 2- Djivre and Ribon (2000).

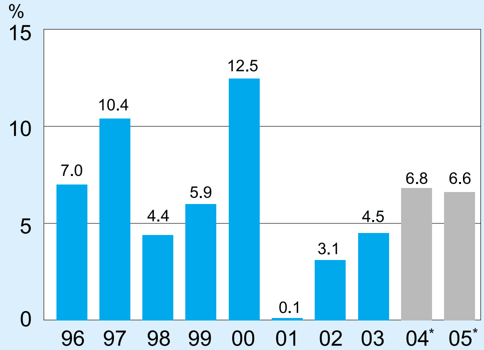
[5] A. Friedman and T. Sochoi, "*Estimating the NAIRU in Israel as an Unobserved Variable*," Bank of Israel Economic Review, 76, January 2004 (Hebrew).

[6] Y. Elashvili, D. Elkayam and M. Regev, "*Estimation of the Output Gap and an Analysis of its Impact on Inflation in Israel in the Last Few Years*," Bank of Israel Monetary Review, August 2002 (Hebrew).

[7] The estimates of the output gap are based on the models in the studies by Djivre and Ribon, and Menashe and Yakhin mentioned above.

In 2004:I the steep upward trend of private consumption that has been evident for about a year persisted, so that over the last four quarters private consumption rose by a cumulative 6.9 percent. In the last year both current consumption and the consumption of durables rose rapidly. There were several factors present during the last year that served to increase private consumption. In the first quarter the relative calm of the security situation had a marked effect, as did the continued rise in the real wage, the low level of real interest that encourages consumption, and the rise in share prices, that acts via the wealth effect. Some of the cut in public expenditure may also have led individuals to purchase services

Figure 15
The Volume Growth of World Trade, 1996–2005

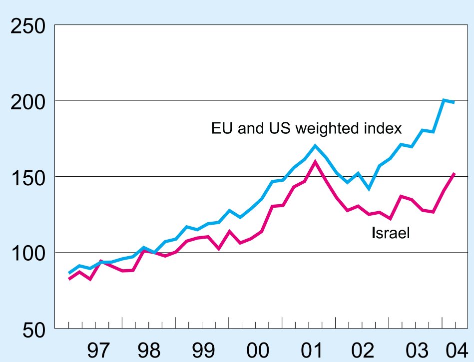


* Forecasts.

SOURCE: World Economic Outlook, IMF, April 2004.

The rise in exports, and in particular in exports of advanced industries, derived mainly from the increase in global demand. According to IMF data, world trade rose by 4.5 percent in real terms in 2003, and is expected to go up by a further 6.8 percent in 2004, in contrast to 2001 when it did not change, and a rise of only 3 percent in 2002.

Figure 16
Israel's Exports Index and the Imports Index[a] of the EU and the US, January 1997–March 2004
(total goods excluding diamonds, in current dollars)



[a] Weighted by industry.

SOURCE: The Central Bureau of Statistics and Eurostat USITC.

previously provided by the public sector, which would also act to increase private consumption. Tax cuts announced by the Ministry of Finance during the first half of 2004 will support a continued rise in private consumption in the next few months.

Investment data indicate that the optimism shown by consumers for more than three quarters affected investors too: fixed investment rose in 2004:I at an annual rate of almost 8 percent—following a continuous decline since the beginning of 2001—a rise that expresses a sharp increase in investment in the principal industries. The change indicates that the growth trend is expected to persist. Investment in residential construction, on the other hand, went down by 7 percent in 2004:I, after rising by 10 percent (in annual terms) in the previous quarter. There are signs, however, that demand for housing is starting to reawaken: the Central Bureau of Statistics survey of apartment sales shows a 3 percent rise in prices that started in February, after a cumulative fall in prices of more than 7 percent over the last year and a half, in addition to which tax revenues from the apartment purchases have risen steeply since the beginning of the year.[7]

The steeply rising trend of goods exports that had started in the second half of 2003 persisted in the first half of 2004. Manufacturing exports were 15 percent higher in the period reviewed than in the previous half year. The rise in exports was especially marked in high-tech industries, with a 17 percent rise from the second half of 2003, but exports of the mixed and traditional industries also increased, albeit more modestly. The rise in exports, and in particular those of the high-tech industries, derived mainly from the rise in world demand: according to IMF data, world trade increased by 4.5 percent in 2003 in real terms, and is expected to increase by a further 6.8 percent in 2004, in contrast to its steady level in 2001 and its rise of only 3 percent in 2002 (Figure 15). These data reflect among other things the developments in the US and the EU, where the upward trend of goods imports continued (Figure 16). The upward trend of tourism exports continued in the first half of 2003: the number of tourist entries into Israel increased by more than 2 percent per month, encouraged by the sharp decline in the number of terrorist attacks. Exports of other services in 2004:I were 17 percent higher than those in 2003:I, partly due to the increased exports of software and R&D services.

The upward trend of goods imports also continued in the period reviewed, and for the first time in three years it encompassed

[7] Even after adjusting for the effect of the rise in the number of transactions that was due to the sanctions by staff in government ministries in 2003:IV, purchase tax revenue still rose.

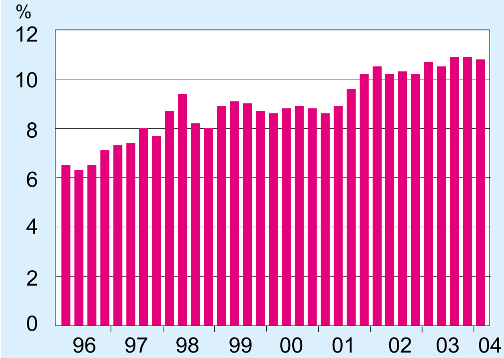
imports of capital goods too. Imports of raw materials and consumer goods continued along the upward path that had started in 2003. These trends in imports and exports are a further indication of the positive development in economic activity which has now been evident for three quarters. The rise in oil prices in the first quarter led to a deterioration of half a percent in the terms-of-trade index, calculated as the ratio of export prices to import prices (excluding ships, aircraft and diamonds). This deterioration followed a deterioration of 4.3 percent in the terms of trade during 2003.

The positive economic developments began to filter down into the labor market too. The Labor Force Survey for 2004:I shows a significant increase in the number of employees and in the participation rate in 2003:IV and 2004:I. The number of employees increased at an annual rate of more than 4 percent in the first half of 2004, and the rise occurred mainly in the private sector, while the number of employees in the public sector remained unchanged. At the same time the participation rate rose sharply by more than half a percentage point, and reached more than 55 percent of the civilian labor force in 2004:I. The unemployment rate dipped by only one-tenth of a percentage point to 10.8 percent (Figure 17), mainly due to the rise in the number of participants in the labor market. The rise in the participation rate as the economy started recovering from the recession may reflect the return to the labor market of workers who had despaired of finding employment during the recession, and who reacted to the greater probability of finding a job. The cuts in transfer payments may also have contributed to the widening of the pool of participants in the labor market.

The downward trend in the number of foreign workers continued in 2004:I. In 2003 their number went down by about 35,000, and stood at about 180,000 in 2004:I. This large scale departure from Israel's labor market makes jobs available to Israelis, improves the chances of unskilled Israeli workers finding jobs, and exerts upward pressure on their wages. The positive changes reflected in the rise in the participation rate are also expressed in the rise in wages: the real wage per employee post has risen at an annual rate of more than 4 percent since the middle of 2003, in line with the data on the increase in private consumption.

The domestic deficit[8] (excluding net credit granted) in January–June 2004 was about NIS 6 billion, consistent with the deficit

Figure 17
The Unemployment Rate,[a] 1996–2004



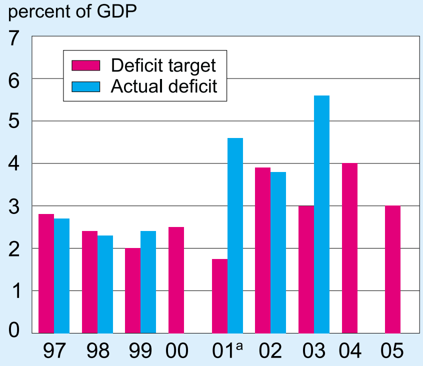
[a] Seasonally adjusted.

SOURCE: Central Bureau of Statistics.

The positive changes in the economy started trickling down into the labor market. The Labor Force Survey for the first quarter of 2004 indicates a considerable increase in the number of employed persons and in the participation rate in that quarter and the previous one, bringing the participation rate in 2004:I to more than 55 percent of the civilian labor force. The unemployment rate declined by only one-tenth of a percentage point to 10.8 percent.

[8] Cash basis.

Figure 18
The Budget Deficit and Target, 1997–2005



[a] The actual deficit for 2001 includes 0.5 percentage points for the delay in US aid.

SOURCE: Based on Central Bureau of Statistics data.

target of 4.0 percent of GDP, after taking into account the expected effect of the tax reductions (Figure 18). Tax revenues in the first half of 2004 were more than 9.5 percent higher, in real terms, than in the first half of 2003, and 9 percent higher after adjusting for legislative changes and the timing of tax rebates. The real increase in tax revenues followed a drop of 7 percent in revenues in 2002 and of 2.5 percent in 2003.[9] The rapid rise of tax revenues during the recovery from the recession indicates their high sensitivity to real activity when the latter changes sharply.

In the light of the increase in tax revenues, the government decided on a series of tax cuts during the last few months; some of them went into effect in the first half of the year, and some at the beginning of July 2004. The tax reductions included: a cut of one percentage point in VAT; reduction in income tax on medium and low incomes; a one-percentage-point cut in corporation tax to 35 percent for 2004, with further reductions scheduled for the next few years so that the tax will be down to 30 percent tax in 2007; and cuts in purchase taxes. According to Ministry of Finance assessments, the tax cuts will reduce tax revenues by NIS 3.7 billion in 2004.[10]

Government expenditure accords fully with the budgeted amount. The government decided to revert to recording its investment in the railways as a budget expenditure from 2004, a step that is expected to increase budget expenditure by 0.3 percent of GDP.

The government's decision to cut taxes instead of reducing the budget deficit must be viewed in the light of the increase in the deficit target just prior to the preparation of the 2004 budget. Against the backdrop of the pessimistic growth forecasts at that time, the government raised the deficit target to 4 percent of GDP. The turnaround in tax revenues enabled the government to choose between two alternative courses of action: reducing taxes and adhering to the (increased) deficit target, or not reducing taxes and reverting instead to the original deficit target. As the decision taken was to lower statutory taxes, and at the same time tax revenues rose by a similar amount, it is expected that the budget deficit in 2004 will be 4 percent of GDP. The deficit will be expressed by a further rise in public debt, which rose steeply in the three years of the recession.

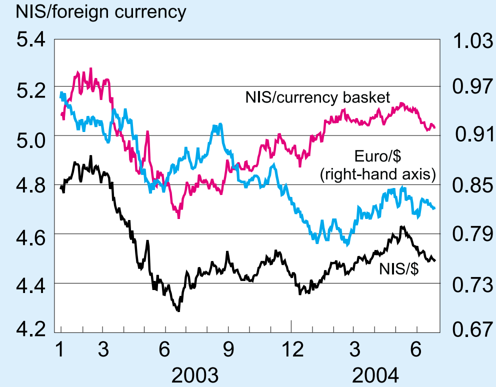
[9] After adjusting for legislative changes and the timing of tax rebates. Source: Monthly reports of the State Revenue Administration.
[10] As some of the reductions only went into effect during the year, the cut in tax revenues in terms of a full fiscal year will be greater.

d. The exchange rate and the foreign-currency activity of the different sectors

(i) The exchange rate

Since the beginning of 2004, the NIS depreciated by 2.7 percent against the dollar, and by 1.5 percent against the currency basket (Figure 19). The course of the NIS against the dollar was not uniform during the period reviewed, nor did the factors causing it act uniformly: in January and February the NIS weakened against the dollar, apparently due to portfolio adjustments by Israelis in response to changes in taxation rules that made local-currency investments less attractive than foreign-currency ones, and to the continued contraction of the interest-rate differential with the reductions in the domestic interest rates, which occurred mainly in 2003. In the next few months the process of portfolio adjustment slowed, and the NIS exchange rate was affected mainly by global exchange-rate trends: the strengthening of the dollar worldwide in March and April also strengthened it against the NIS, and its weakening in May and June weakened it also against the NIS. The changes in the NIS/dollar exchange rate were however more moderate than those of many other currencies against the dollar (Figure 20). Overall, the depreciation of the NIS since the beginning of the year was marked by the persistent relative stability of the NIS. This stability was the outcome of short-term effects acting to weaken the NIS in opposition to long-term effects tending to strengthen it, continuing the trend evident in 2003. The former included the narrowing of interest-rate differentials and yield gaps (Figure 21), the rise in political uncertainty, security incidents across the Green Line, and fluctuations in the dollar in international markets. The long-term factors serving to strengthen the NIS included (1) the continued inflow of long-term capital as Israeli companies raised more funds abroad, reflecting the recovery of the global economy, and in particular of the US economy, and the recovery of high-tech industries, with a rise in new issues in this field in the US. This recovery also supported the increase in Israel's high-tech exports that started in the second half of 2003, which contributed to the surplus on the current account (Figure 22). (2) Government issues guaranteed by the US government. (3) A high level of foreign exchange reserves. (4) A negative net external debt, especially in the short term (Figure 23). (5) the economy's low risk premium. (6) An unprecedentedly high level of holdings of foreign currency by households, and a downward trend in business-sector exposure to depreciation (Figure 24). One long-term factor that actually acts to weaken the NIS is the lowering of

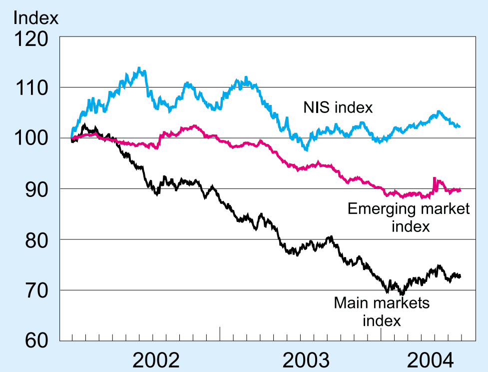
Figure 19
NIS and Euro/$ Exchange Rates, January 2003–June 2004



SOURCE: Bank of Israel.

From January to June 2004 the NIS depreciated by 2.7 percent against the dollar and by 1.5 percent against the currency basket.

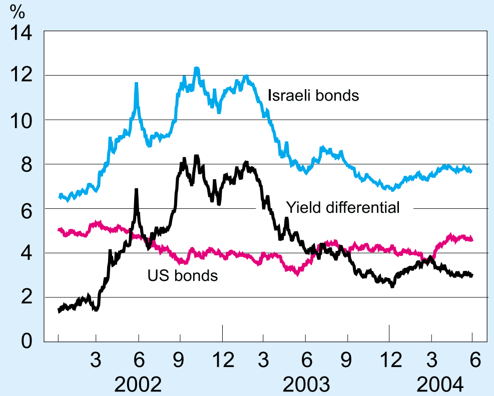
Figure 20
The $ and NIS/$ Exchange-Rate Indices, January 2002–June 2004 (1 January 2002 = 100)



SOURCE: Based on Bloomberg.

In the first few months of 2004 the NIS/$ exchange rate was apparently affected mainly by Israelis adjusting their portfolios in reaction to both the narrowing of interest-rate differentials and the tax reform. In the next few months it seems that the exchange rate was affected mainly by global trends relating to the dollar.

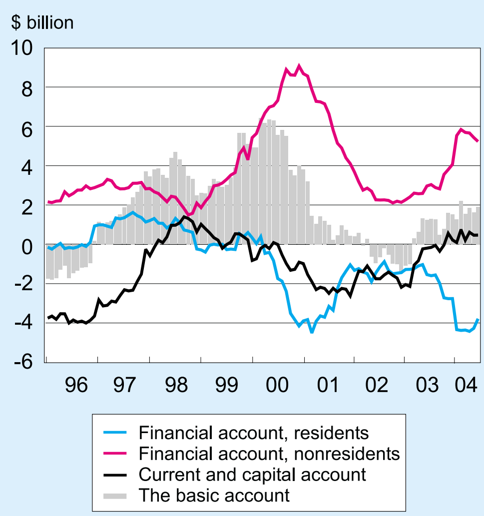
Figure 21
Yields on and the Yield Differential between 10-Year Bonds in the US and Israel, January 2002–June 2004



SOURCE: Based on Bloomberg's database.

In 2004:I, against the background of the moderate decline in yields in the US and their rise in Israel, the differential between them widened. In 2004:II yields in the US started rising rapidly, while in Israel they went up more slowly, so that the differential narrowed. This continues the long-term trend that started in the first quarter of 2003.

Figure 22
Long-Term Foreign-Currency Sales (+) and Purchases (–) (the Basic Account), January 1996–June 2004 (cumulative over previous 12 months)



SOURCE: Bank of Israel.

The basic account, which is the supply of long-term capital to the economy, continued to support the NIS, against the background of the increase in high-tech exports and the persistent inflow of long-term capital resulting from capital raising abroad by Israeli companies.

the level of taxation on investment in the foreign-currency channel to that on the local-currency channel in the context of the tax reform, some of which became effective in 2004, with more due to come into effect at the beginning of 2005.

The stability of the NIS against other currencies was expressed by moderate capital flows and activity in both directions between and within the various market segments. Moreover, exchange-rate risk, as reflected in the implied volatility of NIS/dollar options in the various trade channels and for different terms, remained low. The downward trend that characterized the implied volatility throughout the second half of 2003 persisted in the first quarter of 2004, and in the next few months it stabilized at 5 percent, which is low both relative to its historical level, and in international terms (Figure 25). This occurred despite the effect of structural changes that acted to raise the implied volatility and to bring it closer to the level in advanced countries, changes such as the widening of the exchange-rate band and the completion of the liberalization process. The calm in the foreign-currency market in the period reviewed was also reflected in the continued reduction in the probability of a sharp depreciation (of more than 10 percent within a six-month period), derived from NIS/dollar options; this probability declined from an average of 14.3 percent in the first half of 2003 to about 4 percent at the end of 2003, and to about 2 percent at the end of the first half of 2004 (Figure 26).

Israel's country risk premium, measured by various financial instruments, settled at a low level in 2004:I, as did those of other emerging markets.

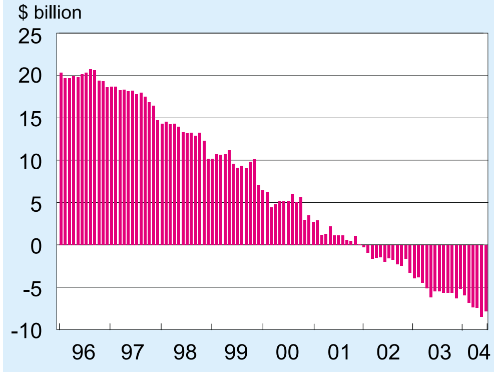
In 2004:II, following a surge in yields in the US and expectations of a rise in the interest rate there in the near future, yields in bond markets around the world started rising, including yields to maturity on bonds in emerging markets. In Israel yields started rising even earlier—apparently against the background of the considerable increase in issues by the business sector, and the feeling in the financial markets that the process of reducing the interest rate had almost come to its end—but the reaction in Israel to the rise in yields in the US was more moderate than the reaction in other emerging markets. The rise in expectations of a rise in the US interest rate and in that of the central banks of other advanced countries lowered international investors' willingness to invest in risky assets, particularly in shares and bonds in emerging markets. This took place against the backdrop of firmer indications of global growth, and in particular growth in the US, which has recently become evident in the US labor market too, and the rise in goods prices, led by fuel prices, which reached record levels at the beginning of June the likes of which were seen in the recent past only in the first Gulf War. In addition, international investors' assessment of risk rose with the US involvement in Iraq, with the apprehension regarding major terror attacks on Western targets, especially in the US, and negative geopolitical developments in several emerging markets. This represented a reversal of the trend prevailing around the world in 2003. Taking a long-term view, Israel's risk premium remained low. In June the world markets were relatively calm, with some reduction in yields to maturity in bond markets. This took place against the background of a decline in oil prices worldwide, among other things, in the wake of the decision by OPEC member countries to increase output, and also as a correction to the rise in yields in the previous two months. In Israel too yields went down slightly, partly as the result of the publication of the CPI for May, which led to a decline in inflation expectations.

Daily turnover in the foreign-currency market in the period reviewed of about \$ 740 million was similar to the daily level in 2003, and exceeded that in the previous six months by about \$ 60 million (Figure 27). The rise from the level in the second half of 2003 was evident both in the foreign financial institutions and among the banks' customers.

(ii) The foreign-currency activity of the different segments

The following table describes the net activity of the principal segments in the foreign-currency market during the period reviewed. The table shows that the trends in this period were determined mainly in the first quarter, when activity was more

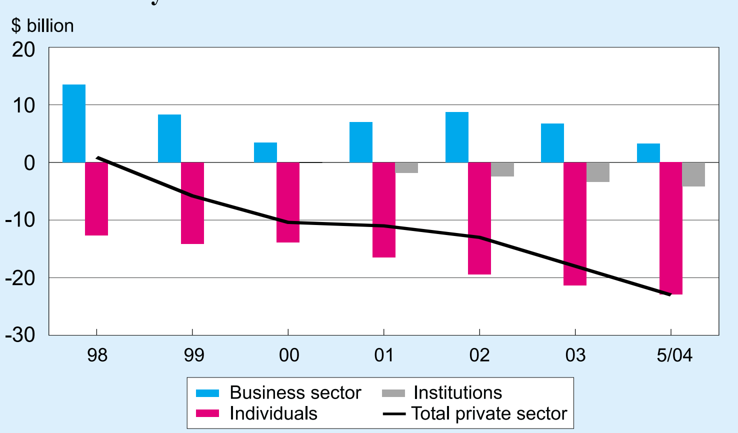
Figure 23
Israel's Net External Debt, January 1996–June 2004



SOURCE: Bank of Israel.

The improvement in the economy's net external debt, which had changed Israel's economy from one with net surplus external liabilities into one with net surplus external assets from January 2002, continued in the period reviewed.

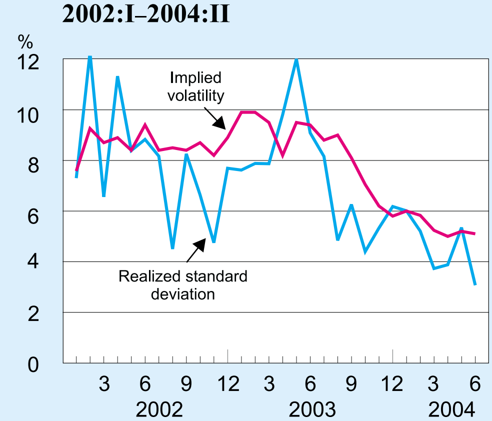
Figure 24
Exposure to Depreciation, by Sector, 1998–May 2004



SOURCE: Bank of Israel.

The exposure of the various sectors continued to decline in the first half of 2004.

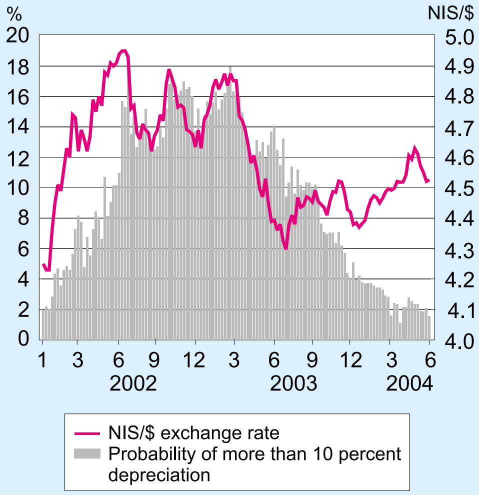
Figure 25
The Standard Deviation of the Daily Change in the NIS/\$ Exchange Rate and the Implied Volatility of NIS/\$ Options Traded Over the Counter, 2002:I–2004:II



SOURCE: Bank of Israel.

In 2004:I the downward trend of the implied volatility of all NIS/\$ options continued, and in 2004:II it stabilized at around 5 percent, a low level both from a historical view and by international standards.

Figure 26
The Representative Exchange Rate and the Probability of Depreciation of more than 10 percent in the Following Six Months, January 2002–June 2004

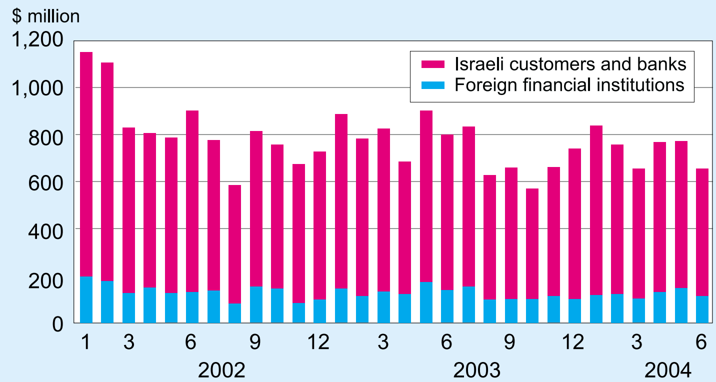


SOURCE: Bank of Israel.

The probability of a steep depreciation in the following six months settled in the first half of 2004 at the low level of 2 percent, similar to its level at the end of 2001.

intense. As will be detailed later, this period was also notable for nonresidents' long-term capital inflow, which was partly offset by Israeli residents' long-term capital outflow. Short-term capital flows in the period reviewed resulted in capital outflow of $ 2 billion. In the first quarter, Israeli residents accounted for the majority of capital outflow, which was supplemented by nonresidents' capital outflow. Nonresidents continued to export capital in the second quarter, but to a lesser extent, while Israeli residents accounted for a net import of capital.

Figure 27
Average Daily Trade in the Foreign-Currency Market (excluding swaps), January 2002–June 2004



SOURCE: Bank of Israel.

In the first half of 2004 daily turnover in the foreign-currency market was similar to the 2003 daily average and exceeded the average for the second half of 2003; the rise between the two half-years was noted in all the sectors active in the foreign-currency market.

Main Indicators of Activity in the NIS/Foreign-Currency, Market Sales (+) and Purchases (–) of Foreign Currency

($ billion)

	Years		Half years 2003		Half years 2004	Quarters, 2004	
	2002	2003	First half	Second half	First half	I	II
Basic long-term activity (with low sensitivity to the interest rate)	**–1.4**	**1.5**	**1.8**	**–0.2**	**1.8**	**1.3**	**0.5**
Total long-term financial account	0.7	1.3	0.8	0.6	0.7	0.3	0.4
of which Nonresidents	2.1	4.1	1.9	2.2	3.0	2.5	0.5
Residents	–1.4	–2.8	–1.1	–1.6	–2.3	–2.2	–0.1
Current account and capital account	–2.1	0.2	1.0	–0.8	1.1	1.0	0.1
Short-term activity (with low sensitivity to the interest rate)	**1.2**	**0.0**	**–0.6**	**0.6**	**–2.2**	**–1.5**	**–0.7**
Total short-term activity excluding banks	0.8	–0.1	–0.2	0.0	–2.1	–2.4	0.3
of which Nonresidents	0.5	1.8	2.4	–0.6	–0.8	–0.6	–0.2
Residents	0.3	–1.9	–2.6	0.6	–1.3	–1.8	0.5
Banks	0.4	0.1	–0.4	0.6	–0.1	0.9	–1.0

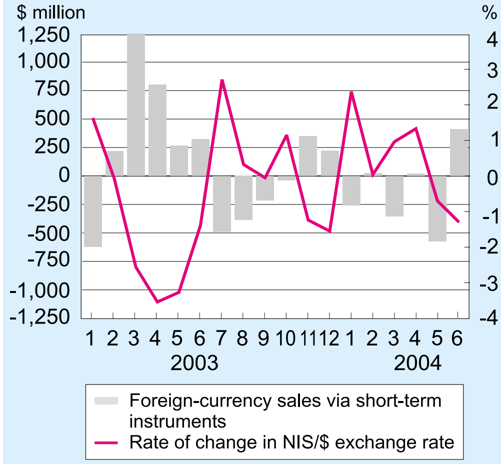
Nonresidents

Nonresidents sold foreign currency to the net amount of about $ 2 billion in the period reviewed, compared with $ 6 billion in the whole of 2003. Nonresidents' activity in the foreign currency market was divided between net sales of foreign currency by means of long-term instruments to the amount of $ 3 billion, and $ 0.8 billion of net purchases of foreign currency via short-term financial instruments.

Nonresidents' long-term capital inflow, most of which was recorded in the first quarter, reflects foreign investors' growing interest in the Israeli economy in view of the economic rebound, especially in the USA, which includes the high-tech industries. The recovery in the issues market in the USA was also apparent among Israeli companies, which raised $ 1.9 billion in the period reviewed compared with $ 0.7 billion in the whole of 2003. The improvement in the issues market was reflected by "semi-Israeli" companies[11] as well and by companies related to Israel, which have raised $2.1 billion to date compared with $ 1.2 billion in the whole of 2003. However, a number of indicators showed a slight slackening in the US issues market towards the end of the period reviewed. This affected actual issues and the issues that were planned by a number of Israeli companies.

Nonresidents' activity by means of short-term instruments (Figure 28) reflects their expectations regarding short-term developments in interest-rate differentials and in the exchange rate of the NIS against different currencies, principally the dollar. Nonresidents' capital outflow via short-term instruments during the period reviewed appears to reflect their assessments that the attractiveness of investment in the NIS had decreased in the short term, since the interest-rate differentials had contracted as a result of the continued reduction in the NIS interest rate. This was in addition to the change in nonresidents' assessments regarding the NIS during April. After some foreign financial institutions had assessed in the first quarter that the NIS would appreciate against the dollar within the term of a year while others had actually forecast a depreciation, at the beginning of the second quarter most of these institutions were expecting a depreciation of the NIS. Some of the assessments seem to have changed again towards the end of the quarter, mainly due to the worldwide weakening of the dollar. The majority of foreign currency purchases were by

Figure 28
Nonresidents' Short-Term Activity in the Foreign-Currency Market, and Monthly Changes in the NIS/$ Exchange Rate, January 2003–June 2004

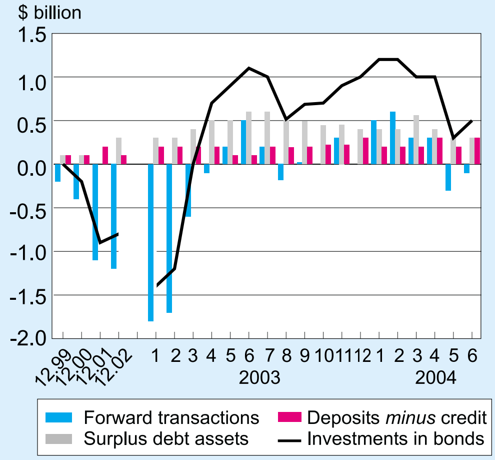


SOURCE: Bank of Israel.

In the period reviewed nonresidents purchased $ 0.8 billion of foreign currency via short-term instruments; most was via derivatives, and $0.2 billion via the sale of government bonds.

[11] Companies defined as semi-Israeli are companies listed abroad and that are therefore from the balance-of-payments aspect regarded as foreign companies, but a large part of whose activity is conducted in Israel. For this reason, they affect the foreign currency market in Israel and are regarded as Israeli companies by nonresidents.

Figure 29
Nonresidents' Surplus Local-Currency Debt Assets, December 1999–June 2004



SOURCE: Central Bureau of statistics.

At the end of the period reviewed nonresidents continued to hold short-term pro-NIS positions, even after selling foreign currency via short-term instruments.

means of forward transactions, while a small part of the purchases consisted of NIS-dollar options. In the second quarter, nonresidents began to sell part of their local currency asset holdings traded on the Tel Aviv Stock Exchange – mainly *Shahar* bonds – a phenomenon that was observed in other emerging markets as well. Background factors in this respect were the yield levels of these bonds and nonresidents' assessments that a large decline in the yields was not to be expected (in contrast to their assessments at the beginning of 2003), the rise in inflation expectations in Israel and assessments that this would lead to an increase in the local interest rate, and the rise in yields in the American bond market, which reduced the yield differentials between Israel and the USA.

But even after selling foreign currency via short-term instruments, nonresidents continued to hold short-term positions favoring the NIS during the period reviewed, although to a lesser extent than previously (Figure 29).

Israeli residents

Israeli residents purchased foreign currency to the net amount of about $ 3.5 million in the period reviewed, compared with $ 4.7 billion in the whole of 2003. Israeli residents' purchases of foreign currency were divided between $ 1.3 billion of net purchases by means of long-term instruments, that is investments in shares abroad, and net purchases of $ 1.3 billion via short-term financial instruments. Their activity via short-term instruments was not uniform in direction: Foreign currency purchases by means of certain instruments (the purchase of foreign bonds, an accrual in deposits in Israel and abroad, the extension of foreign-currency credit to nonresidents and the receipt of foreign-currency credit from the banking system) were partly offset by sales of foreign currency via other instruments (the receipt of foreign-currency credit from abroad, and mainly the future sale of foreign currency by means of forward transactions and options).

Israeli residents adjusted their portfolios to an increasing extent during the initial months of the year in response to the implementation of the tax reform and the decrease in the interest-rate differential, against the background of the interest-rate reduction in Israel, which mainly occurred in 2003. The portfolio adjustment was reflected by a growth in individuals' foreign-currency assets and by a decrease in the business sector's foreign-currency liabilities. The process of adjustment included a continuation of individuals' net accrual in mutual funds specializing in foreign-currency investment during January and February. Subsequently, this accrual slowed to a considerable extent.

A change in business sector activity was also recorded from March onwards. After repaying foreign-currency credit in the first two months of the year, in March the business sector again took this form of credit, although the sector's foreign-currency deposits increased at the same time. It should be noted however that during most of the period reviewed, the business sector sold a net amount of foreign currency by means of forward transactions and options.

The pace of institutional investors' investments abroad during the period reviewed was slower than initially expected. This was because the timing of their investments, which reflects the implementation of a long-term strategy of dispersing investments and risks, was affected by short-term factors as well, including the slower decrease in the NIS-dollar interest-rate differential, the slower rate of price increase in international financial markets, principally the US equities market that has seen a lull in recent months, and the purchase of foreign-currency assets instead of Gilboa bonds, which are due for maturity in 2004. The investments of financial entities and mutual funds specializing in foreign currency will also be affected by the changes in the tax regulations that are scheduled for the beginning of 2005—the abolition of the tax discrimination in favor of investment in Israel as compared to investment abroad.

e. Global developments

The rebound in the global economy increased during recent months. The recovery was not uniform: In the USA and South East Asia, growth consolidated and was also reflected in the labor markets and domestic demand. In Europe however, the labor market and domestic demand are still weak. The OECD expect global growth to continue and to spread in Europe as well, while in the USA and the Far East it will become more moderate in response to less expansionary monetary policy. The OECD also expect the global recovery to be accompanied by price stability, despite the recent large increases in commodities prices and mainly in oil prices. This is because most of the OECD countries still have unutilized production capacity. This optimistic scenario could fail to materialize if commodities and energy prices continue to rise and/or the growth differentials between the economic blocs increase, which will lead to instability and to increased exchange-rate volatility. In such a case, the increased uncertainty in the money markets could impair the allocation of resources, particularly to the eurozone and the Japanese economies.

In the USA, which is the powerhouse for global growth, encouraging data on the labor market began to appear in the second quarter following a long period when the impact of rapid economic growth appeared to have bypassed this market. The Fed recently assessed that GDP is expanding on a stable and sustainable course, and that despite the recent rise in inflation an upsurge is not feared at present since surplus production capacity still exists and inflation expectations are absent. The increase in wages resulting from the improvement in the labor market is expected to come at the expense of firms' profitability, rather than lead to an increase in prices. Assessments in the financial markets as reflected in futures contracts are of an increase in the Fed's interest rate to a level of 2.1 percent at the end of the year, compared with the current level of 1.25 percent.

Growth in the eurozone is still lagging behind global growth. Although the data for the eurozone are surprisingly good, the labor market and domestic demand there are still weak in comparison with the USA and the Far East. The ECB believes that the process of slow recovery will continue, while the risk of inflation is tending to increase due to the rise in the prices of oil and other commodities. At the beginning of May, ten countries joined the fifteen member states of the European Union. No major economic impact is expected as result of this development in the near future, since it will be a long time before the new members join the European Monetary Union.

In Japan, the economic recovery has spread from the export sector to other areas of the economy. The improvement is apparent in the labor market and from the sense of confidence among consumers and the business sector. However, the level of prices is still falling, a trend that is expected to continue until the beginning of next year. A considerable slowdown in economic growth is feared in China, which is a key destination for Japanese exports. This is because of the possibility that the present pace of growth in China will lead to an over-heating of the Chinese economy, which will force that country's leaders to adopt a policy of severe restraint.

Rapid global economic development has been reflected by the rise in commodities prices, particularly fuel prices, which also resulted from the political and security instability in certain of the large oil-producing countries (Iraq, Saudi Arabia and Nigeria). The international financial markets' response came in the form of a large drop in prices in the fixed-income markets and the equities markets, and an appreciable strengthening of the dollar against most currencies. These trends recently became more moderate in a number of financial markets, and in other markets actually reversed.

III. EXPECTED DEVELOPMENTS IN INFLATION AND THE FORECAST FOR THE NEXT FEW YEARS

a. Expected changes in the main variables affecting inflation

(i) Global developments

The most reasonable scenario for the next two years is of sustained growth in the USA and an increasing pace of recovery in Europe and Japan, concurrent with the retention of low levels of inflation and a decline in unemployment rates. A growth rate of 3.5 percent is forecast for the OECD countries in 2004 followed by a slight decrease in 2005, after growth of only 2 percent in 2003. The US growth rate is expected to reach 4.7 percent in 2004, and the still negative output gap is expected to close in the next twelve months.[12] The growth rate forecast for the EU is much lower, at 1.6 percent, and output gap is expected to remain negative.

The inflation forecast for the OECD countries in 2004 was recently revised upward, mainly due to the rise in the forecasts for the USA, but its level is still low at 1.7 percent, similar to the inflation forecasts in the USA and the EU. These inflation rates are expected to prevail in 2005 as well. In Japan, the decline in prices that began several years ago is expected to continue, and the forecast for 2004 is a price-level decrease of 1.8 percent followed by a more moderate decrease of 1.1 percent in 2005. In the USA, the central bank has begun to raise the interest rate, although in view of the low rates of inflation this process is expected to be gradual and to accelerate to some extent in 2005. In the eurozone however, the central bank is not expected to adjust the interest rate in the coming year and if it does, only to a very moderate extent.

(ii) Fiscal policy

The year 2004 is expected to end with a budget deficit of about 4 percent of GDP, in line with the target set in the Budget Law. The deficit is expected to adhere to its targeted level despite the cuts in the statutory taxes at a rate of nearly one percent of GDP that were prescribed in the course of the year. This is due to the turnaround in real activity and the increase in tax receipts. Prior to the preparation of the 2005 budget, the government is expected to approve a budget containing a real increase in expenditures of no more than one percent of GDP. Another restriction on the budget is the deficit ceiling of 3 percent of GDP. Given the cuts in statutory

[12] SOURCE: OECD Economic Outlook 75, May 2004.

taxes and the increase in public sector wage expenditures once the wage reduction agreement in the sector ends in June 2005, the need to adhere to a budget deficit of 3 percent of GDP will dictate the constraint on government spending.

(iii) Real activity

In view of the sustained growth in the USA and the increased pace of recovery in Japan and Europe, GDP is expected to rise by 3.7% in 2004 and business-sector product by over 5 percent. Exports are expected to increase by 9 percent and private consumption by more than 4 percent. Investment in fixed assets, which is slower to react to a rebound in activity due to the under-utilization of production capacity in a recession period, is expected to expand by slightly less than 4 percent. Civilian imports are expected to increase by 9 percent. Public consumption, which reflects a continued policy of reducing public spending, is expected to decrease by nearly one percent. Under this forecast, the unemployment rate is expected to fall only slightly in the course of the year. The rise in the labor force participation rate and the downward trend in the unemployment rate are indicative of a contraction of the output gap. The continuation of this trend weakens the downward pressure on prices from real activity that has prevailed in recent years, and is actually expected to lead to upward pressure.

(iv) Expected developments in foreign exchange and capital flows

According to the Bank of Israel's long-range forecast for the foreign-currency market, a surplus of long-term capital inflow is expected in the coming year. This forecast is based *inter alia* on assessments by business-sector elements that IPOs abroad by Israeli firms and investment in Israeli start-up companies will increase due to the growing expectations of a global economic recovery, especially in the high-tech sector.

Nonresidents' long-term capital inflow is expected to be partly offset by Israeli residents' long-term capital outflow. This is because residents' investments abroad are expected to increase in line with preparations for the abolition of the tax discrimination between domestic and foreign securities in 2005, and as part of a long-term trend of portfolio adjustment. The process of portfolio adjustment resulting from the abolition of the tax discrimination is expected to be gradual and to be staggered over a considerable period of time, for several reasons: the learning process, the preference for investment in domestic financial assets, the rate of change in relative yields, and the exploitation of investment opportunities. This assessment is based on the assumption that local investors will not change their investment patterns as a result of the reform. However, these patterns may change in the wake of the reform, meaning that the natural tendency for domestic investment will decrease, a development that could increase the reform's impact on capital outflow.

With respect to short-term activity, experience of recent years shows that apart from the interest-rate differentials between Israel and abroad, short-term capital flows are affected by a variety of domestic and global factors, including changes in the dollar against other currencies. As a result, it is difficult to assess the direction and the intensity of their impact of the development of the exchange rate. However, in view of the relative stability of the NIS and geopolitical developments in Israel and the Middle East region, in the foreseeable future the volatility of the exchange rate is likely to be influenced mainly by worldwide developments in the dollar.

b. Assessments of future inflation and the balance of inflation risks

(i) Assessments of future inflation

Inflation in 2004 and in the next twelve months is expected to be within the limits of the targeted range. This is indicated by all assessments of inflation – those derived from the capital market, private forecasters' assessments and those in the Bank of Israel's Companies Survey. Most of the assessments are based on a rise in the Bank of Israel's interest rate by 0.5 to 1 percentage points in the course of the coming year (from the fourth quarter of 2004), a moderate depreciation in the exchange rate, a recovery in real activity and a fiscal policy aimed at attaining the targets that have been set.

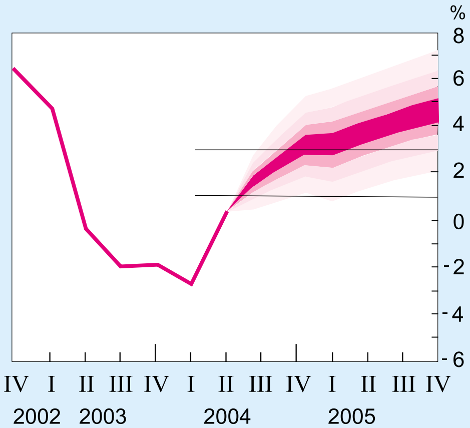
Assessments of Inflation for 2004 and Forward

(percent)

	Target	Derived from capital market	Private forecasters	Companies survey
2004, average	2	1.6	2.1	
Range	(1–3)		(1.8–2.5)	
12 months forward, average	2	1.4	1.9	2.7
Range	(1–3)		(1.5–2.3)	

The Bank of Israel's assessments are in line with the different forecasts and assessments. Under simulations conducted at the Bank of Israel by means of econometric models, on the assumption that the interest rate and the exchange rate will be retained at their

Figure 30
Actual and Expected Inflation at the Current Interest Rate and Exchange Rate (cumulative increase in CPI over previous four quarters)



SOURCE: Bank of Israel.

The areas of the values of future inflation arround the specific prediction are shown in shades of magenta. The color becomes paler the further the inflation value is from the specific prediction.
The forecast for 2004 and 2005, given the current interest rate and no change in the exchange rate, shows that the probability of overshooting the price-stability target is significantly higher than the probability of falling short of it.

present levels, inflation will be slightly above the target in the next twelve months, and will exceed 4 percent in 2005. These simulations together with other indicators that were mentioned previously serve as a basis for the analysis of anticipated developments and for determining the interest-rate path that is required for attaining the target. According to the simulations, a rise in the short-term nominal interest rate would appear to be necessary in order to adhere to the target. Such a rise is likely to be reflected in the short-term real interest rate as well. As in the past, the extent to which this is necessary will be re-examined monthly.

The fan chart (Figure 30) makes it possible to examine uncertainty regarding the attainment of the inflation target on the basis of the inflation equation, which is a component of the models that the Bank of Israel uses to forecast inflation. The forecast data presented in the diagram for the years 2004 and 2005, given the present level of the interest rate and a static exchange rate, show that the probability of an upward deviation from the inflation target is significantly higher than the probability of a downward deviation. The longer the lapse of time, the greater is the probability of an upward deviation from the inflation target. As stated therefore, a rise in the interest rate will be necessary at some point in order to ensure that the target of price stability is attained.

(ii) The balance of inflation risks

The main factors that could produce an upward deviation from the limits of the price stability range are:

- A further decrease in the output gap, as reflected *inter alia* by a decline in the unemployment rate, which will be reflected by high imports and exports, and by a rise in private consumption and investment. These could weaken the downward pressure on prices, and possibly even lead to an upward pressure on prices.
- A larger than expected interest-rate rise in the USA will lead to a larger than expected decrease in the interest-rate differential, which could exert pressure for a depreciation of the NIS. In addition, a comparison between the tax regulations on basket certificates of foreign securities traded on the Tel Aviv Stock Exchange this year and the tax regulations applying to investment abroad at the beginning of 2005 are expected to lead to a growth in investment abroad.
- A serious deterioration in the fiscal situation as the result of political developments in Israel or abroad.

The main factors that could keep inflation within or below the limits of the targeted range are:

- Improvement in the geopolitical and security situation, which, if it persists, could lead to an upsurge in capital inflow, for the long term as well, and to increased supply in the foreign-currency market.
- Global economic recovery and particularly a rebound in the USA, which increase the chances of an upturn in activity in the issues markets. A resumption of stock issues abroad by Israeli companies and nonresidents' increased flow of direct investment in Israel could lead to a growth in capital inflow to Israel and to pressure for an appreciation of the NIS.

The Bank of Israel will continue to regularly assess developments and adjust the interest rate to the extent that it believes to be necessary in order to attain the inflation target.

Appendix 1

Press releases regarding the Bank of Israel's monetary policy monthly programs January–July 2004

The Bank of Israel's Monetary Program for January 2004

The Bank of Israel today announced its monetary program for January 2004, according to which the interest rate will be reduced by 0.4 percentage points to 4.8 percent. This brings the cumulative reduction in the Bank of Israel's interest rate since December 2002 to 4.3 percentage points.

The continuation of the process of reducing the interest rate is made possible by the fact that one-year inflation expectations are slightly below the price-stability target of 1–3 percent, against the background of the actual reduction in the Consumer Price Index in the last twelve months, the continued moderate level of real economic activity, and the relative calm in the foreign currency, money, and capital markets. The cut in the interest rate serves to support the encouragement of economic growth and increase employment—short-term interest declined from 7.2 percent in December 2002 to 4.5 percent in December 2003—while maintaining price and financial stability.

One-year inflation expectations derived from the capital market declined in December, and are currently slightly below the lower boundary of the target range (i.e., just below 1 percent), and expectations for the second year ahead are still within the target range. Private forecasters' predictions of 12-month inflation are down slightly and are below the middle of the target range; some of the models developed by the Bank of Israel indicate that it is possible to attain the inflation target for the coming year and the following year while slowly continuing to reduce the interest rate.

The changes in the composition of the public's asset portfolio derive inter alia from the process of interest-rate reduction by the Bank of Israel. Most prominent among them this year is the rise in the proportion of shares in it due to the increase in their price, and this accounted for about two-thirds of the increase in the portfolio between the beginning of the year and October 2003. The decline in short- and long-term interest rates led to a rise in the value of tradable assets, and their proportion expanded relative to bank deposits. Furthermore, despite the marked reduction in the interest-rate differential between Israel and the rest of the world as a result of Israel's interest-rate reduction process, there has been a gradual alignment between the share of local-currency and foreign-currency assets in the portfolio, alongside the continued sound functioning of the markets.

The interest-rate policy is directed towards achieving price stability on an ongoing basis, and not necessarily for any particular calendar year. Any attempt to achieve the target of price stability by the end of 2003, following the fall in prices since the beginning of the year, would have required the rapid acceleration of inflation in the short term, alongside steep cuts in interest rates, which could have endangered financial stability, the process of economic recovery, and in the final analysis price stability itself. Accordingly, the Bank of Israel's policy at all times is aimed at attaining price stability over a period of one and two years forward.

In the last few months the decline in yields on government bonds has persisted, albeit at a slower rate: since the beginning of the year nominal yields (on 10-year bonds) have dropped by more than 4.5 percentage points to a level of about 7.0 percent, and real yields by more than 1.5 percentage points to a level of about 4.2 percent. The reduction in long-term interest on government bonds apparently indicates that the public considers that the budget deficit (which is relatively large and greater than in 2002) derives mainly from the temporary effect of the low level of economic activity in reducing the government's tax revenues, and that it is to a lesser degree a structural deficit constituting a long-term problem.

The approval of the government's budget for 2004 and the avoidance of any departure from the budget framework is vital for maintaining the stability that has been attained. Adherence to this stance, and the determination to return to a declining government deficit and debt path, together with the reform of the labor market and the implementation of the plans for infrastructure investment, contribute to steering the economy back to a growth path. Departure from this path, in view of the large government debt, could lead to a rise in nominal and real yields, and hamper the process of economic recovery that has recently begun to emerge.

The calm in the foreign currency market, expressed in the strengthening of the NIS relative to the dollar and its depreciation against the euro, reflects shifts in the international currency markets. Israel's risk premium, as measured by the 5-year credit-default-swap (CDS) market, remained at 60 basis points in December, after the downward path evident since the first quarter of 2003. The calm in the market appears to be due to the US government loan guarantees and the credibility of macroeconomic policy in the eyes of the public.

Nonresidents' short-term capital inflow to Israel is affected among other things by changes in interest rates in other advanced and emerging economies (not only the US and Europe) to which international capital flows are directed. This can be seen from Table 3: the Bank of Israel's interest rate is already slightly below the upper level of interest rates of central banks in the advanced economies (Australia and New Zealand—5 percent), only one percentage point higher than in the UK, and in the mid-range of central-bank interest rates in emerging markets and other developing economies.

The Bank of Israel monitors developments in the markets and will continue to act to turn the inflation rate back to the price stability range while bolstering financial stability. Subject to these conditions, the Bank will continue to act to support the policy of fostering employment and bolstering economic activity.

The Bank of Israel's Monetary Program for February 2004

The Bank of Israel today announced its monetary program for February 2004, according to which the interest rate will be reduced by 0.3 percentage points to 4.5 percent. This brings the cumulative reduction in the Bank of Israel's interest rate since December 2002 to 4.6 percentage points.

The continuation of the process of reducing the interest rate is made possible by the fact that one-year inflation expectations are in the lower part of the price-stability target range of 1–3 percent, against the background of the actual reduction in the Consumer Price Index in the last twelve months, the continued moderate level of real economic activity, and the relative calm in the foreign currency, money and capital markets. Concurrent with the process of reducing the interest rate and narrowing the interest-rate differential between Israel and other countries, the money supply rose by almost 9 percent in the last year and the NIS depreciated by about 8 percent against the currency basket since the end of June. The continued gradual reduction of the interest rate, in the light of its current level and its reduction by more than a half since the end of 2002, has lowered short-term real interest from 7.2 percent to 4.1 percent in that period, and therefore helps to encourage growth and boost employment while maintaining price and financial stability.

One-year inflation expectations derived from the capital market rose slightly in January, and are currently at the lower boundary of the target range, and expectations for the second year ahead are within the target range. Private forecasters' predictions of 12-month inflation rose slightly and are below the middle of the target range, and some of the models developed by the Bank of Israel indicate that it is possible to attain the inflation target for the coming year and the following year while slowly continuing to reduce the interest rate.

Changes in the composition of the public's asset portfolio in 2003 derived inter alia from the process of interest-rate reduction by the Bank of Israel. Most prominent among the changes this year is the rise in the proportion of shares in the portfolio due to the increase in their price, which accounted for almost two-thirds of the increase in the portfolio. The decline in short- and long-term interest rates led to a rise in the value of the tradable assets portfolio, with a switch from bank deposits to investment in tradable assets which was also partly due to changes in taxation on financial assets. Furthermore, despite the marked reduction in the interest-rate differential between Israel and the rest of the world, with the continued proper functioning of the markets there has been a gradual adjustment of the shares of local-currency and foreign-currency assets; only in the last two months have there been indications of a certain rise in Israelis' investment abroad.

In the last few months the decline in yields on government bonds has persisted, albeit at a slower rate: since the beginning of the year nominal yields (on 10-year bonds) have dropped by more than 4.5 percentage points to a level of about 6.9 percent, and real long-term yields by more than 2.0 percentage points to a level of about 4.0 percent. The reduction in long-term interest on government bonds apparently indicates that the public considers that the budget deficit in 2003 (which was relatively large and greater than in 2002) derives mainly from the temporary effect of the low level of economic activity in reducing the government's tax revenues, and that it is to a lesser degree a structural deficit constituting a long-term problem.

Following the Knesset's approval of the government's budget for 2004, adhering to its framework is vital for the preservation of the stability that has been attained. The determination to return to a declining government deficit and debt path, together with the reform of the labor market and the implementation of the plans for infrastructure investment, will help to steer the economy back onto a path of growth. Departure from this path, in view of the large government debt, is likely to lead to a rise in nominal and real yields and to hamper the process of economic recovery that has recently begun to emerge.

The calm in the foreign currency market evident in the last two months continued, with the strengthening of the NIS relative to the dollar and its marked depreciation against the euro reflecting changes in the international currency markets. Israel's risk premium, as measured by the 5-year credit-default-swap (CDS) market, remained at 60 basis points in January, after the downward path evident since the first quarter of 2003. The calm in the market appears to be due to the US government loan guarantees and the credibility of macroeconomic policy in the eyes of the public.

Nonresidents' short-term capital inflow to Israel is affected among other things by changes in interest rates in other advanced and emerging economies (not only the US and Europe) to which international capital flows are directed. In this context Israel's interest rate may be compared to that in other countries (Table 3): the Bank of Israel's interest rate is slightly below the interest rates of central banks in some advanced economies (Australia, 5.25 percent and New Zealand, 5 percent), only 0.75 percentage points higher than in the UK, and in the mid-range of central-bank interest rates in emerging markets and other developing economies. Moreover, the differential between interest on tradable government bonds such as in the US and Israel has contracted more rapidly than that derived from central banks' interest rates.

The Bank of Israel monitors developments in the markets and will continue to act to bring the inflation rate into the price stability range while bolstering financial stability. Subject to these conditions, the Bank will continue to act to support the policy of fostering employment and boosting economic activity.

The Bank of Israel's Monetary Program for March 2004

The Bank of Israel today announced its monetary program for March 2004, according to which the interest rate will be reduced by 0.2 percentage points to 4.3 percent. This brings the cumulative reduction in the Bank of Israel's interest rate since December 2002 to 4.8 percentage points.

This reduction in the interest rate is made possible—despite a certain rise in inflation expectations and in long-term interest rates—by the continued calm in the foreign currency, money and capital markets, the actual reduction in the Consumer Price Index in the last year, and the continued moderate level of activity in the economy which is slowly emerging from recession. Together with the process of reducing the interest rate and narrowing the interest-rate differential between Israel and other countries, the money supply rose by about 10 percent in the last year and the NIS depreciated by about 8 percent against the currency basket since the end of June 2003. The cuts in the Bank of Israel interest rate since the end of 2002 have lowered short-term real interest from 7.2 percent to 3.1 percent in that period, and therefore help to encourage growth and boost employment while maintaining price stability and financial stability.

One-year inflation expectations derived from the capital market rose in January and February, and are currently above the lower boundary of the target range. Expectations for the second year ahead also rose, and are currently in the upper part of the target range. Private forecasters' predictions of 12-month inflation also rose slightly and are below the middle of the target range, and some of the models developed by the Bank of Israel still indicate that it is possible to attain the inflation target for the coming year and the following year while continuing to reduce the interest rate slowly.

Changes in the composition of the public's asset portfolio in 2003 derived inter alia from the process of interest-rate reduction by the Bank of Israel. Most prominent among the changes is the rise in the proportion of shares in the portfolio due to the increase in their price, which accounted for almost two-thirds of the increase in the portfolio. The decline in short- and long-term interest rates led to a rise in the value of the tradable assets portfolio, with a switch from bank deposits to investment in tradable assets which was also partly due to changes in taxes on financial assets. Furthermore, despite the reduction in the interest-rate differential between Israel and the rest of the world, there has been a gradual adjustment of the shares of local-currency and foreign-currency assets, as the markets continued functioning properly; only in the last two months have there been indications of a certain rise in Israelis' investment abroad.

In the last month the decline in yields on government bonds halted, and a small rise was evident, particularly in the yield on the longest unindexed bond, which rose to 7.3 percent from 7.0 percent at the end of 2003. This follows a marked fall in yields during 2003, against the background of the reassertion of fiscal control, the receipt of the loan guarantees from the US government and the reduction of Israel's country risk. Perseverance in reverting to a downward path for the budget deficit and government debt is essential for the maintenance of stability and the continued reduction in interest rates for all periods. In this context it should be noted that the downward trend in Treasury bill yields also stopped, and for the first time since mid-2002 the yield on 12-month Treasury bills is higher than the Bank of Israel rate of interest. Deviation from a downward sloping deficit path, against the background of the high government debt of 105 percent of GDP, is likely to cause a rise in nominal and real yields and to create obstacles along the route of economic recovery, the first signs of which have appeared recently.

The calm in the foreign currency market evident in the last two months continued, with the weakening of the NIS relative to the dollar and its faster depreciation against the euro reflecting changes in the international currency markets. Israel's risk premium, as measured by the 5-year credit-default-swap (CDS) market, remained at 60 basis points in February, after the downward path evident since the first quarter of 2003. Nonresidents' short-term capital inflow to Israel is affected among other things by changes in interest rates in other advanced and emerging economies (not only the US and Europe) to which international capital flows are directed. In this context Israel's interest rate may be compared to that in other countries (Table 3): the Bank of Israel's interest rate is lower than the interest rates of central banks in some advanced economies (Australia, 5.25 percent and New Zealand, 5 percent), only 0.3 percentage points higher than in the UK, and in the mid-range of central-bank interest rates in emerging markets and other developing economies.

The Bank of Israel monitors developments in the markets and will continue to act, as it has acted hitherto, to bring the inflation rate into the price stability range while bolstering financial stability. This policy, which has reduced the short-term real rate of interest, helps to foster employment and boost economic activity, which is the main objective of the economic policy.

The Bank of Israel's Monetary Program for April 2004

The Bank of Israel today announced its monetary program for April 2004, according to which the interest rate will be reduced by 0.2 percentage points to 4.1 percent. This brings the cumulative reduction in the Bank of Israel's interest rate since December 2002 to 5 percentage points.

This reduction in the interest rate is consistent with the need to bring inflation into the price-stability range of 1 to 3 percent a year and to stabilize it there. Inflation expectations, as derived from the bond yields on the capital market, are still in the area of the lower limit of the target, at around 1.2 percent. Private forecasters' predictions of 12-month inflation reached about 1.8 percent. These developments regarding the inflation rate are also supported by the slow weakening of the NIS against the dollar, and its faster depreciation against the currency basket, in the first quarter of the year. Concurrently, there was continued stability in the financial markets in general and in the foreign-currency market in particular.

Assessments of the development of fiscal policy over the year suggest that the budget target set by the government at 4 percent of GDP is attainable. These assessments are also reflected by the financial markets, and especially by the changes in the yields on bonds issued by the government to finance the deficit.

Together with continued financial stability, the resilience of the economy is also recognized by the international capital markets. The financial risk of Israel's economy—as viewed by Israeli and foreign investors, as expressed in the latest publications by international financial companies and as measured by the 5-year credit-default-swap (CDS) market—continues to decline and reached a low level.

Another sign of the economy's stability, in particular as it is an economy open to capital flows, is the public's gradual adjustment of its financial assets portfolio, against the background of the lowering of the interest rate, the reform of income tax on individuals, and the completion of the foreign exchange liberalization process. This adjustment reflects the public's desire to spread its investments between local and foreign assets, and between bank deposits and capital-market investments, and thereby to reduce the risks of these investments and even improve their rates of return.

The Bank of Israel continues to monitor with a very watchful eye the spread that has widened in the last three months between long-term and short-term yields on the domestic capital market. Thus, for example, the yield spread between three-month Treasury bills and 10-year *Shahar* bonds that stood at 2.1 percentage points in December 2003, reached 3.1 percentage points in March 2004. The persistent widening of this spread, at a time when the money supply is rising, is inconsistent with price-stability in the long run.

The persistent lowering of the interest rate since the end of 2002 helps bring about sustainable growth while maintaining price and financial stability. In this context is should be emphasized that the reduction of the Bank of Israel interest rate, combined with the rise in expected inflation to within the price-stability target, creates a process of reducing short-term real interest. This interest went down from 7.2 percent in December 2002 to 4.6 percent in December 2003, and continued declining to reach 3.3 percent in March 2004. Thus the interest-rate policy contributes to the achievement of the central objective of economic policy.

The Bank of Israel's interest rate continues to be lower than the interest rates in several advanced economies (Australia, and New Zealand), and similar to the rate in the UK. It is also similar to the average rate of central banks in emerging markets and other developing economies. This comparison with the interest rates of a wide range of countries is important because short-term capital flows into and out of the economy (by domestic and foreign investors) are affected by changes in interest rates in the various emerging markets and developing economies.

The Bank of Israel's current interest-rate policy will continue as long as the inflation path is consistent with the government's price-stability target and the financial markets continue to exhibit stability and financial resilience.

The Bank of Israel's Monetary Program for May 2004

The Bank of Israel today announced its monetary program for May 2004, according to which the interest rate will be unchanged at 4.1 percent, following its 5-percentage-point cumulative reduction that started at the end of 2002.

This pause in the process of lowering the interest rate, against the background of a certain rise in inflation expectations for one year forward and in private forecasters' assessments, results from the development of certain parameters since the beginning of the year that create upward pressure on prices.

First, the NIS has depreciated by a cumulative 4 percent against the dollar since the beginning of the year, and by 2.5 percent against the currency basket.

Second, the rise in the money supply has accelerated, with a rise of 8 percent in the first four months of 2004 compared with a rise in the last twelve months of 14 percent.

Third, the rise in the money supply should be viewed against the background of the fact that since the beginning of the year the downward trend in yields on one-year Treasury bills and on government bonds has halted, and even reversed, and these have risen by 0.7 percentage points despite the reduction in the Bank of Israel interest rate.

Fourth, since the middle of 2003 the nominal and real wage per employee post have risen by more in the public sector than in the private sector, in contrast to their downward trend in 2002 and the first half of 2003.

Fifth, estimates of business-sector growth have been revised upwards, and now stand at 5 percent for 2004, compared with the modest rise of less than 2 percent in 2003.

Since the beginning of the year the differential between the yield on government bonds and the Bank of Israel interest rate has expanded markedly, which is inconsistent in the long run with price stability. Thus the differential between the yield on unindexed 10-year *Shahar* bonds and the Bank of Israel interest rate reached 3.3 percentage points in April 2004, up from only 2.0 percentage points in January 2004. This took place against the background of the rise in the yield on *Shahar* bonds from 7.0 percent in January 2004 to 7.6

percent in April 2004, a period when the Bank of Israel's interest rate was declining. The differential between the yield on CPI-indexed ten-year *Galil* government bonds and the Bank of Israel real interest rate also rose to 1.4 percentage points in April 2004 from 0.2 percentage points in January 2004. This differential too widened due to the rise of the real yield on the *Galil* bonds, on the one hand, and the fall in the Bank of Israel implicit real interest to 2.9 percent, on the other (see Table A below)

The possibility of renewing the process of reducing the interest rate in the next few months will be affected by the following developments, and will depend on the inflation path remaining consistent with the price-stability target and on calm in the financial markets:

- A rise in capital inflow into the economy larger than capital outflow, which could occur with the increase in business-sector activity, is likely to cause the strengthening of the NIS, and reduce pressures for price rises;
- A fiscal policy that focuses on reducing the high debt burden, 105 percent of GDP in 2003, is likely to cause the renewal of the downward trend in yields on the domestic market, in contrast to the trend in the first four months of 2004, and this will probably enable the short-term interest rate to be reduced.

The Bank of Israel will continue the review its interest-rate policy month by month in the light of the above and other relevant developments, and will continue to strive towards the maintenance of price stability within the framework of the government's inflation target. In so doing it will contribute to the creation of the conditions required to support the turnaround in economic activity and the achievement of sustainable growth.

The Bank of Israel's interest rate continues to be lower than that of the central banks of some advanced economies (Australia and New Zealand), and similar to that of the Bank of England and to the average interest rate of the advanced and emerging countries.

The Bank of Israel's Monetary Program for June 2004

The Bank of Israel today announced its monetary program for June 2004, according to which the interest rate will be unchanged at 4.1 percent. From the end of 2002 to April 2004 the interest rate was cut by a cumulative 5 percentage points, and this is the second consecutive month in which the rate is being kept unchanged.

The relatively steep rise in prices reflected by the latest published CPI and that expected for the current month, based on forecasts of various experts, drive home the point that despite price stability in Israel since 1999, the monthly volatility of the CPI is much higher than in other countries that enjoy price stability. This situation, against the background of the relatively rapid recovery of economic activity, introduces an element of uncertainty about the path of inflation in the future, and makes the closest monitoring essential to ensure that it remains consistent with the long-term price-stability range of 1–3 percent a year. The decision not to change the interest rate for June means the continued reduction in short-term real interest to a new low of about 2.4 percent, because of the rise in inflation expectations. This policy is aimed at supporting continued economic recovery, as long as the Bank of Israel assesses that this does not conflict with price stability, which is one of the conditions necessary for the creation of sustained growth.

Three important developments played a part in the Bank's decision not to change the interest rate.

- First, assessments of inflation for one year forward derived from the capital market and from private forecasters' forecasts remain consistent with the target range of price stability.
- Second, fiscal policy continues to observe fiscal discipline that increases the likelihood that the government will adhere to the 2003 deficit target of 4 percent of GDP, and that conditions will be created that will enable the government to cut the deficit to 3 percent of GDP in 2005 in accordance with its decision. These are the

conditions necessary both to halt the upward trend of yields on government bonds that started at the beginning of the year and to boost investment in the economy.

- Third, the foreign-currency market continues to feature regular activity by buyers and sellers. On one side there is long-term capital inflow, deriving from economic growth, and on the other, an outflow of short-term capital resulting from a contraction of interest-rate differentials. These capital flows led to some excess demand for foreign currency that has weakened the NIS since the beginning of the year by about 5 percent against the dollar and by 4 percent against the currency basket. Ongoing economic recovery, particularly if based on the high-tech industries, will probably lead to increased long-term capital inflow during the year.

The Bank of Israel 's interest rate is still lower than that of the central banks of some advanced economies (the UK, Australia and New Zealand) and similar to the average rate of the central banks of the advanced and emerging countries.

The Bank of Israel's Interest Rate for July 2004

The Bank of Israel today announced that in the context of its monetary program for July 2004, the interest rate will be unchanged at 4.1 percent. From the end of 2002 to April 2004 the interest rate was cut by a cumulative 5 percentage points.

The decision to leave the interest rate unchanged for the third month in succession is based on the expectation that inflation one and two years forward will follow a path consistent with that of price stability, i.e., 1–3 percent a year. Inflation expectations derived from the capital market and the predictions of private forecasters for the next twelve months are around 2 percent.

In addition, developments in the capital market, and in particular in the government bond market and the foreign-currency market, give strong support to the decision not to change the interest rate for July. In the government bond market the upward trend in yields evident since the beginning of the year has halted, and since the beginning of June they have actually declined slightly. This change, which can be explained by the increasing likelihood that the government will meet its deficit target of 4 percent of GDP in 2004 and by surplus borrowing by the government in the first half of the year, also led to a halt in the widening of the differential between the yield on government bonds and the Bank of Israel's interest rate. This widening differential is inconsistent in the long term with price stability. The foreign-currency market is calm, with the main developments being a certain strengthening of the NIS and, recently, relatively moderate fluctuations, chiefly connected with external factors; no clear market trend is evident, despite the latest occurrences in the political arena.

The decision not to change the interest rate for July means that short-term real interest continues at a very low level of about 2.2 percent. This policy is intended to continue supporting economic recovery, as long as the Bank of Israel assesses that this is consistent with price stability, which is one of the conditions necessary for the creation of sustained growth.

It is important that the government continue to maintain the credibility of its macroeconomic policy that focuses on the long-term budget targets that it set, that it persist in carrying out structural reforms such as those in the labor market, public services, the Ports Authority and the financial markets, and that it ensure that the infrastructure investment program is executed at a faster pace. The right decisions in the discussions on the budget for 2005 that are scheduled to start in July will play a significant role in the assessment of whether the economy's current growth is sustainable.

The differentials between the Bank of Israel's interest rate, both current and expected, and those of other central banks continue to contract, and the Bank of Israel's interest rate is still lower than that of the central banks of some advanced economies (the UK, Australia and New Zealand). This trend supports short-term capital outflow from Israel, and the balance in the foreign-currency market is maintained at present by long-term capital inflow accompanying economic growth.

Appendix Table 1
Range of Monthly Change in CPI, Standard Deviation of the Monthly Change, and Annual Inflation Rate, 1993–2004

(percent)

	Annual rate of inflation (1)	Largest monthly change (2)	Smallest monthly change (3)	Difference between largest and smallest monthly change (4) = (2) – (3)	Inter-month standard deviation (6)
1993	11.2	1.4	0.1	1.3	0.46
1994	14.5	2.0	0.6	1.4	0.36
1995	8.1	1.2	–0.1	1.3	0.46
1996	10.6	1.7	0.3	1.4	0.45
1997	7.0	1.2	–0.3	1.5	0.55
1998	8.6	3.0	–0.2	3.2	0.93[a]
1999	1.3	0.7	–0.8	1.5	0.44
2000	0.0	0.9	–0.6	1.5	0.48
2001	1.4	0.9	–0.6	1.5	0.42
2002	6.5	1.5	–0.8	2.3	0.71
2003	–1.9	0.4	–0.7	1.1	0.36
First half of 2003	–1.0	0.4	–0.6	1.0	0.40
First half of 2004	2.8	1.1	–0.2	1.3	0.48

[a] The deviation of this figure from the long-term trend derives from the steep rise in the exchange rate in December 1998, which constituted only a temporary shock.

Appendix Table 2
Interest Rates in Israel and the US, 1998–2004

End of year	Central banks' interest rates: Israel: Change	Israel: Interest rate[a]	US: Change	US: Interest rate	Differential between central banks' interest rates	Yield spread between US and Israel 10-year government bonds[b]
	Percentage points	%	Percentage points	%	Percentage points	Percentage points
1998		13.5		4.75	8.75	
1999	–2.3	11.2	0.75	5.50	5.70	–3.05
2000	–3.0	8.2	4.1	6.50	1.70	–4.0
2001	–2.4	5.8	–4.75	1.75	4.05	1.6
2002	3.3	9.1	–0.5	1.25	7.85	6.8
2003	–3.9	5.2	–0.25	1.00	4.2	3.0
Monthly data						
2002 December	0.0	9.1	0.0	1.25	7.85	6.8
2003 January	–0.2	8.9	0.0	1.25	7.65	7.5
February	0.0	8.9	0.0	1.25	7.65	7.9
March	0.0	8.9	0.0	1.25	7.65	7.0
April	–0.2	8.7	0.0	1.25	7.45	5.6
May	–0.3	8.4	0.0	1.25	7.15	5.0
June	–0.4	8.0	0.0	1.25	6.75	4.7
July	–0.5	7.5	–0.25	1.00	6.50	4.1
August	–0.5	7.0	0.0	1.00	6.00	4.3
September	–0.5	6.5	0.0	1.00	5.50	4.0
October	–0.4	6.1	0.0	1.00	5.10	3.6
November	–0.5	5.6	0.0	1.00	4.6	3.3
December	–0.4	5.2	0.0	1.00	5.2	3.0
2004 January	–0.4	4.8	0.0	1.00	3.8	3.1
February	–0.3	4.5	0.0	1.00	3.5	3.5
March	–0.2	4.3	0.0	1.00	3.3	3.8
April	–0.2	4.1	0.0	1.00	3.1	3.6
May	0.0	4.1	0.0	1.00	3.1	3.2
June	0.0	4.1	0.0	1.00	3.1	3.0
July	0.0	4.1	0.25	1.25	2.85	

[a] The rate of interest set in the previous month's monetary program for the month indicated in the table.
[b] The yield spread between 10–year *Shahar* and 10-year US government bonds.

Appendix Table 3
The Bank of Israel Nominal and Real Rates of Interest, and the Yield on Treasury Bills and on CPI-Indexed and Unindexed Government Bonds, 1998–2004

(monthly average, percent)

		Headline rate (simple)[a]	Bank of Israel rate of interest Effective[b]	Bank of Israel rate of interest Real[c]	Yield on 12-month Treasury bills	Yield on unindexed 10-year bonds	Real yield on 9–10 year bonds[d]
1998		13.5	14.5	7.9	12.4		5.2
1999		11.2	11.9	9.2	10.1		5.2
2000		8.2	8.6	8.2	7.8		5.8
2001		5.8	5.6	5.0	5.0	6.6	4.4
2002		9.1	9.6	7.2	7.9	10.8	5.7
2003		5.2	5.4	4.6	4.9	7.1	4.1
2003	January	8.9	9.4	6.5	8.1	11.4	5.9
	February	8.9	9.4	5.4	8.8	11.7	5.8
	March	8.9	9.4	6.1	8.6	10.7	5.7
	April	8.7	9.2	7.2	8.1	9.5	5.4
	May	8.4	8.9	7.5	7.6	8.5	5.0
	June	8.0	8.4	6.8	7.1	7.9	4.6
	July	7.5	7.9	5.4	6.7	8.1	4.4
	August	7.0	7.3	5.4	6.6	8.6	4.7
	September	6.5	6.7	5.2	6.2	8.3	4.6
	October	6.1	6.4	4.7	5.8	7.6	4.4
	November	5.6	5.8	4.7	5.4	7.3	4.2
	December	5.2	5.4	4.6	4.9	7.1	4.1
2004	January	4.8	5.0	4.1	4.7	7.0	4.0
	February	4.5	4.7	3.5	4.8	7.4	4.1
	March	4.3	4.5	3.3	4.7	7.4	4.2
	April	4.1	4.3	2.7	4.8	7.6	4.3
	May	4.1	4.3	2.3	5.2	7.9	4.4
	June	4.1	4.3	2.5	5.0	7.8	4.3

[a] Announced interest rate in simple annual terms (excluding compound interest).
[b] Calculated as the daily compound interest rate, based on the interbank rate.
[c] The real rate of interest is the effective rate of interest *less* inflation expectations derived from the capital market.

Appendix Table 4
The Differential between Yield on Treasury Bills and Government Bonds and the Bank of Israel Interest Rate, 1998–2004

		Differential between yield on 12-month Treasury bills and the effective Bank of Israel interest rate	Differential between the yield on unindexed 9-10 year bonds and the effective Bank of Israel interest rate	Differential between the yield on CPI-indexed 10-year bonds and the Bank of Israel real interest rate
1998		–2.1		–2.7
1999		–1.8		–4.0
2000		–0.8		–2.4
2001		–0.6	1.0	–0.6
2002		–1.7	1.2	–1.5
2003		–0.5	1.7	–0.5
2003	January	–1.3	2.0	–0.6
	February	–0.6	2.3	0.4
	March	–0.8	1.3	–0.4
	April	–1.1	0.3	–1.8
	May	–1.3	–0.4	–2.5
	June	–1.3	–0.5	–2.2
	July	–1.2	0.1	–1.0
	August	–0.7	1.3	–0.7
	September	–0.5	1.6	–0.6
	October	–0.6	1.2	–0.3
	November	–0.4	1.5	–0.5
	December	–0.5	1.7	–0.5
2004	January	–0.3	2.0	–0.1
	February	0.1	2.7	0.6
	March	0.2	2.9	0.9
	April	0.5	3.3	1.6
	May	0.9	3.6	2.1
	June	0.7	3.5	1.8