September 24, 2012

RESEARCH DEPARTMENT STAFF FORECAST FOR 2012-2013

Abstract

This document presents the forecast of macroeconomic developments compiled by the Bank of Israel Research Department in September 2012. According to the staff forecast, the inflation rate over the next four quarters (ending in the third quarter of 2013) will be 2.6 percent. The Bank of Israel interest rate is expected to remain at its current level of 2.25%. Gross domestic product (GDP) is expected to grow by 3.3 percent in 2012 and by 3.0 percent in 2013.

FORECAST

The Bank of Israel Research Department compiles a staff forecast of macroeconomic developments on a quarterly basis. The staff forecast is based on several models, various data sources, and assessments based on economists' judgment.[1] The Bank's expanded Dynamic Stochastic General Equilibrium (DSGE) model developed in the Research Department—a structural model based on microeconomic foundations—plays a primary role in developing the macroeconomic forecast.[2] The model provides a framework for analyzing the factors which have an effect on the economy, and allows for integrating information from various sources into a coherent macroeconomic forecast for real and nominal variables, with internal consistency and an "economic story". In addition to formulating the base forecast, the DSGE model is also used to examine alternative scenarios and to evaluate the risks to the baseline forecast.

a. The global environment

The assumptions about the global economy are primarily based on forecasts by investment houses and international institutions (such as the IMF and OECD). Since the formulation of the previous forecast in June, the slowdown in economic activity in eurozone countries has worsened, and has expanded to stronger countries, led by Germany, in parallel with a slowdown in India and China. This development was reflected in a downward revision of forecasts, both in terms of GDP growth in major economies and in terms of the growth rate of world trade. In particular, global GDP is expected to grow in 2012 and 2013 by moderate rates of 1.1% and 1.8% respectively. OECD member state imports are expected to grow at a low rate of 1.9% in 2012, and to rise to 4.5% in 2013. At the same time, interest rates in advanced economies are projected to remain at their low levels in the coming year. Quantitative easing programs that were recently made in the United States and in Europe are intended to support real activity and financial stability in those economies.

[1] An explanation of the staff macroeconomic forecast, and an overview of the models on which it is based, can be found in Inflation Report 31 for the second quarter of 2010, section 3-C.

[2] A Discussion Paper on the model was published in April, under the title: "MOISE: A DSGE Model for the Israeli Economy, Discussion Paper No. 2012.06". It is available on the Bank of Israel website (http://www.boi.gov.il.deptdata/mehkar/papers/dp1206e.pdf).

The price of oil rose to $110 per barrel of Brent Crude, compared to $98.60 when the previous forecast was compiled in June. World prices of agricultural commodities also increased markedly in recent months, and are projected to continue rising in the next few quarters against the background of drought in the US. In light of this, we assess that global inflation in the next year will be higher than projected in the previous forecast.

b. Real activity in Israel

GDP growth is forecast to be 3.3 percent in 2012. The forecast for 2012 was revised slightly upward by 0.2 percentage points compared to that published in June. The revision is mainly the result of a positive surprise in GDP growth data during the first half of the year, mainly influenced by exports, which was partially offset by a more pessimistic outlook for the second half of the year.

GDP is expected to grow by 3% in 2013 – This forecast has been revised downwards against a backdrop of a continued global slowdown and the tax steps taken by the government, which are intended to contribute to the stability of the economy. The downward revision of the forecast is reflected in all components of demand other than public consumption, with the most prominent revision being in investments and exports. The moderation in domestic demand is also projected to be reflected in a marked slowdown in import growth, which is expected to grow by just 2.0 percent in 2013. The slowdown in growth of imports derives from a marked moderation in growth of import-intensive demand components (investment in industries[3] and purchases of durable goods).

[3] Part of the moderation in investments derives from the completion of the setup of a new production line at Intel's facility, which had a notable effect on the pace of growth of investment in recent quarters.

Table 1: Economic Indicators
Research Department Staff Forecast for 2012 and 2013
(rates of change, percent, unless stated otherwise)

	Actual 2011	Bank of Israel forecast 2012	Bank of Israel forecast 2013
GDP	4.7	3.3	3.0
Civilian imports (excluding diamonds, ships, and aircraft)	9.6	9.0	2.0
Private consumption	4.3	3.4	2.2
Fixed capital formation (excluding ships and aircraft)	17.6	5.6	1.0
Public sector consumption (excluding defense imports)	2.7	2.7	3.4
Exports (excluding diamonds and start-ups)	4.4	6.3	3.8
Unemployment rate[a]	7.1	7.1	7.6
Inflation rate[b]	2.5	2.7	2.2
Bank of Israel interest rate[c]	2.90	2.25	2.25

[a] The unemployment rate is consistent with the new estimation methodology at the Central Bureau of Statistics.

[b] Average CPI reading in the final quarter of the year compared with the final quarter average in the previous year.

[c] Average for the final quarter of the year.
Source: Data - based on Central Bureau of Statistics; forecast - Bank of Israel .

In relation to the growth rates of the specific components of GDP in 2013:

The annual growth rate of **private consumption** is expected to slow in 2013 against a background of a decrease in disposable income that is derived both from a slowdown in economic activity and from an increase in taxes.

Fixed Capital Formation (excluding ships and aircraft) – the rate of growth is expected to decline in 2013, mainly against the backdrop of a worldwide slowdown and the expected stability of investments in housing at the high levels of 2012.

Exports (excluding diamonds and start-up firms) – the growth rate is expected to decline in 2013 against the backdrop of pessimistic estimates regarding the recovery of global demand and strengthening geo-political concerns, such that it will lag behind imports in advanced economies.

Public consumption excluding defense imports is projected to increase in 2013 by 3.4 percent. This estimation assumes that real government expenditures (in consumer price terms) will increase in tandem with the overall fiscal expenditure rule, an increase of 4.9%. This is relatively high in 2013, and reflects compensation for real expense deterioration in the previous two years, which derived from an increase in the Consumer Price Index beyond what was forecast.[4]

[4] The government expenditure ceiling for 2013 is relatively high and includes compensation of 1.8 percent due to an increase in the Consumer Price Index beyond what was forecast in the basis for the 2011-2012 budget. Public consumption is expected to expand at a slower rate than government expenditures due to a real increase expected in public sector wages as derived from recent wage agreements.

The current account deficit is expected to total some $800 million in 2012, mainly against the background of the relatively rapid increase in imports. A moderate increase in exports, and especially of imports, is expected in 2013, and a surplus of some $1.5 billion is forecast in the current account.

c. Inflation and interest rate estimates

The staff forecast of the Bank of Israel Research Department is that the rate of inflation in the next four quarters will be 2.6 percent, above the midpoint of the target range of 1–3 percent. Figure 1 shows that the forecast for the inflation rate in the coming year is 0.4 percentage points higher than our forecast in June (which was 2.2 percent in the period ending in the third quarter of 2013).

The forecast for the inflation rate reflects the combination of a number of economic forces—inflationary forces as well as forces acting to restrain inflation. We assess that the taxation steps taken by the government (raising VAT, import taxes and income tax), the continued increase in the housing component, an increase in energy and commodities prices, the significant depreciation of the shekel that took place in the third quarter of the year, and the expected increase in real salaries in the public sector in 2013, will be the main factors in the rise in inflation during the next year. In contrast, the continued slowdown in global economic activity will have a restraining effect on inflation due to reduced demand.

The **Bank of Israel interest rate** is expected to remain at its current level in the coming year, and stand at 2.25 percent until the end of 2013. A major reason for this interest rate level is the low level of the real long-term interest rate here and globally, which is expected to remain at its low level in the next few years. On the other hand, at this stage, the level of real economic activity and the financial situation do not support continued reductions in the interest rate.

Table 2 shows that **the Research Department's assessments of the inflation rate and the interest rate are somewhat higher than those of private forecasters and than expectations derived from the capital markets.** At the same time, the interest rate forecasts for a year from now are almost identical and assume that the interest rate will remain within its current environment of 2.25%.

Table 2
Forecasts for inflation rate and interest rate in the coming year
(percent)

	Bank of Israel Research Department	Capital markets[a]	Private forecasters[b]
Inflation rate[c]	2.6	2.3	2.4
(range of forecasts)			(1.9 - 2.9)
Interest rate[d]	2.3	2.3	2.1
(range of forecasts)			(1.5 - 2.75)

[a] Average for the month of September (through Sept. 23rd).

[b] Inflation and interest rate forecasts are after the publication of the CPI reading for August.

[c] Inflation rate over the coming 12 months.

[d] Expected interest rate at the end of the third quarter of 2013. Capital markets forecast derived from Telbor rates.

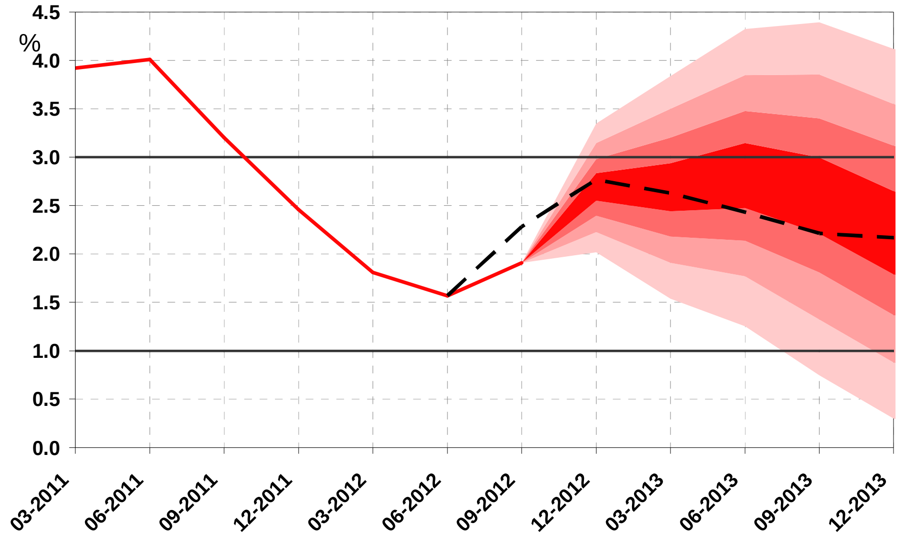
SOURCE: Bank of Israel.

Balance of risks in the forecast: It appears that there are two principal risks to real economic activity and inflation during the next year. The first is in the geopolitical uncertainty in the Middle East, which may cause an increase in the price of oil and damage local real economic activity by harming exports and investments. This mechanism may also be reflected if the geopolitical scenario does not take place but is only reflected in concerns among consumers and investors.

The second risk may come from Europe if the eurozone breaks apart. Such a scenario may have far-reaching effects on real and financial economic activity worldwide, which will have a significant impact on the local market as well.

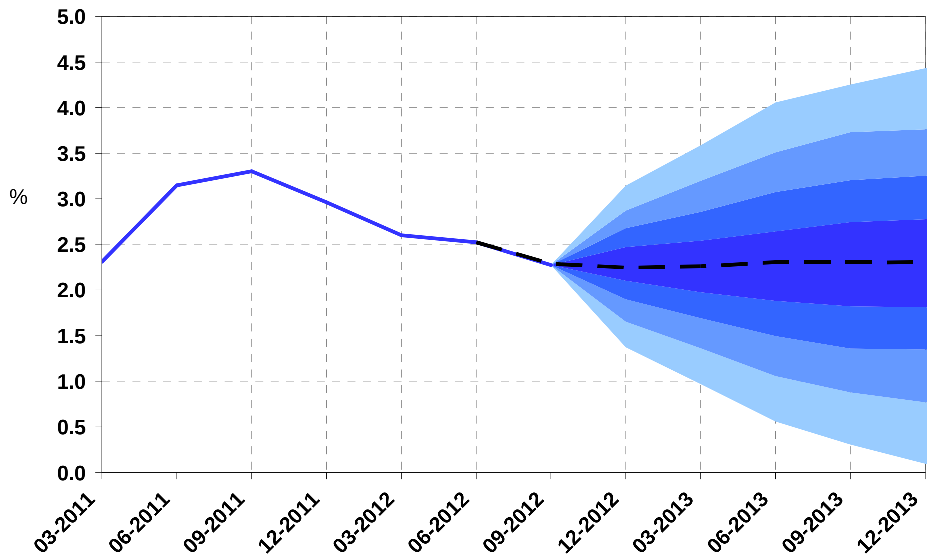
Figures 1 and 2 present fan charts around the inflation rate and interest rate forecasts (the broken line represents the baseline forecast of June 2012). The width of the fan distribution is derived from the **estimated** distributions of the shocks in the Research Department's DSGE model.

Figure 1
Actual Inflation and Fan Chart of Expected Inflation, 2012-2013
(cumulative increase in prices in previous four quarters)



The center of the fan charts is based on the Bank of Israel Research department assessment. The width of the chart is based on the department's medium-scale DSGE (dynamic stochastic general equilibrium) model. The full fan covers 66 percent of the distribution of expected inflation.
The dotted line corresponds to the previous staff forecast (published in June).
Source: Bank of Israel.

Figure 2
Actual Bank of Israel Interest Rate and Fan Chart[a] of Expected Interest Rate,[b] 2012-2013



The center of the fan charts is based on the Bank of Israel Research department assessment. The width of the chart is based on the department's medium-scale DSGE (dynamic stochastic general equilibrium) model. The full fan covers 66 percent of the distribution of expected interest rate.
The dotted line corresponds to the previous staff forecast (published in June).
Source: Bank of Israel.