BANK OF ISRAEL
Office of the Spokesperson and Economic Information

April 8, 2019

Research Department Staff Forecast, April 2019

Abstract

This document presents the forecast of macroeconomic developments compiled by the Bank of Israel Research Department in April 2019[1] regarding the main macroeconomic variables—GDP, inflation and the interest rate. According to the staff forecast, gross domestic product (GDP) is projected to increase by 3.2 percent in 2019, slightly lower than the previous forecast, and by 3.5 percent in 2020. The inflation rate in the four quarters ending in the first quarter of 2020 is expected to be 1.3 percent. Inflation during 2019 is expected to total 1.5 percent, and 1.6 percent in 2020. The Bank of Israel interest rate is expected to increase to 0.5 percent toward the end of the third quarter of 2019, and to continue increasing gradually to 1.0 percent by the end of 2020.

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.[2] The Bank's DSGE (Dynamic Stochastic General Equilibrium) model developed in the Research Department—a structural model based on microeconomic foundations—plays a primary role in formulating the macroeconomic forecast.[3] The model provides a framework for analyzing the forces that have an effect on the economy, and allows information from various sources to be combined into a macroeconomic forecast of real and nominal variables, with an internally consistent "economic story".

a. The global environment

Our assessments of expected developments in the global economy are based mainly on projections by international institutions (the International Monetary Fund and the OECD) and by foreign investment houses. These institutions' forecasts for growth and inflation in advanced economies, and imports to those economies, were revised downward since the previous forecast, and indicate an expectation of a global slowdown. Accordingly, we assume that growth in advanced economies will be about 1.9 percent in 2019 and 1.6 percent in 2020, and that the advanced economies' imports

[1] The forecast was presented to the Monetary Committee on January 6, 2019 during its meeting prior to the decision on the Bank of Israel interest rate reached on January 7, 2019.

[2] An explanation of the macroeconomic staff forecasts compiled by the Research Department, as well as a review of the models on which they are based, appear in Inflation Report number 31 (for the second quarter of 2010), Section 3c.

[3] A Discussion Paper on the DSGE model is available on the Bank of Israel website, under the title: "MOISE: A DSGE Model for the Israeli Economy," Discussion Paper No. 2012.06.

will increase by 3.5 percent in 2019 and by 3.3 percent in 2020. Our assumption is that inflation in the advanced economies will total 1.8 percent in 2019 and 1.9 percent 2020. According to investment houses' most recent assessments before the forecast was prepared, the US federal funds rate is expected to be 2.5 percent at the end of 2019 and to remain at that level during 2020 (previous assessments were 3 percent at the end of 2019 and in 2020). The declared interest rate in the eurozone is expected to be 0 percent at the end of 2019, and 0.1 percent at the end of 2020. Since the previous forecast, oil prices have increased. The average price of Brent crude oil was about $64 per barrel in the first quarter of 2019.

b. Real activity in Israel

GDP is expected to grow by 3.2 percent in 2019 and by 3.5 percent in 2020 (Table 1). Growth estimates for 2018 are similar to those that were available at the time of the previous forecast. Our assessment is that the accelerated growth of the past few years has been maximized, in view of the supply constraints in the labor market among other things. Accordingly, our forecast is that the economy's growth rate in 2019–2020 will be slightly higher than the long-term rate (which is estimated at about 3 percent), supported by the activity of a number of large companies.

The forecast of GDP growth in 2019 is slightly lower than the previous forecast, due to the expected global slowdown and its implications for the Israeli economy, and due to a slight change in our assessment regarding the activity of the aforementioned large companies. In particular, an expected moderation in world trade is expected to lower the growth rate of local exports by about one percentage point relative to the previous forecast, with most of the decline coming in 2019.

The GDP growth forecast for 2020 remains unchanged from the previous forecast, since our assessment is that the activity of the aforementioned large companies will offset the negative impact of world trade.

The forecast of private consumption for 2019 has been revised slightly upward, in view of positive developments of a number of relevant indicators, including the annual estimate of National Accounts data. As in our previous forecast, fixed capital formation is expected to contract by 2 percent in 2020 as a result of the conclusion of a number of large investments in the economy (without which the increase in investment is 3.6 percent). These completed investments are expected to contribute to the growth of exports.

Table 1
Economic Indicators
Research Department Staff Forecast for 2019–2020

(rates of change, percent, unless stated otherwise)

	2018[a]	Bank of Israel forecast for 2019	Change from the previous forecast	Bank of Israel forecast for 2020	Change from the previous forecast
GDP	3.3	3.2	-0.2	3.5	-
Private consumption	3.9	3.0	0.5	3.0	-
Fixed capital formation (excluding ships and aircraft)	1.4	3.0	-	-2.0	-
Public sector consumption (excluding defense imports)	3.5	3.5	-	2.5	-
Exports (excluding diamonds and start-ups)	4.4	4.0	-1.5	6.0	-
Civilian imports (excluding diamonds, ships, and aircraft)	4.9	3.0	-	0.5	-
Unemployment rate[b]	3.5	3.7	0.1	3.7	0.1
Inflation rate[c]	1.1	1.5	0.2	1.6	-0.2
Bank of Israel interest rate[d]	0.25	0.50	-	1.00	-0.25

a) National Accounts data—second estimate by the Central Bureau of Statistics.
b) Annual average of unemployment in the prime working ages (25–64).
c) Average CPI reading in the final quarter of the year compared with the final-quarter average in the previous year.
d) End of the year.

c. Inflation and interest rate estimates

According to the staff forecast, the inflation rate in the next four quarters will be 1.3 percent. Inflation at the end of 2019 is expected to be 1.5 percent, and inflation at the end of 2020 is expected to be 1.6 percent. The Consumer Price Index readings published since the publication of the previous forecast indicate that inflation in the first quarter was higher than in the previous forecast. We expect that inflation will revert to a lower rate in the coming quarters, and our basic assessment remains in place—inflation is expected to continue increasing gradually toward the center of the target range.

An analysis of all of the developments since the previous forecast led us **to lower the inflation path in the forecast slightly**, mainly due to the appreciation of the shekel in terms of the nominal effective exchange rate (the first quarter of 2019 compared with the fourth quarter of 2018) and the decline in the global inflation environment. In contrast, the increase in oil prices partly offset these effects. Our assessment remains that the tight labor market will continue to support wage increases and inflation. The prices of nontradable goods are expected to increase at a higher rate than the prices of tradable goods, further to the long-term trends in tradable goods prices and due to structural processes (including government measures to lower the cost of living and the development of e-commerce).

In summation, our assessment remains that inflation is expected to increase gradually, in view of processes that have not yet been fully maximized, including the continued growth of competition, government measures to lower the cost of living, and the development of e-commerce.

According to the Research Department's assessment, the Bank of Israel interest rate is expected to increase to 0.5 percent toward the end of the third quarter of 2019, and to increase twice in 2020. In our assessment, the forecast interest rate path supports the convergence of inflation to the midpoint of the target range and GDP growth at the potential rate. The interest rate path in this forecast is moderate relative to the previous forecast, and consistent with the forecast inflation path, which was revised downward, and with the moderation of the forecast global interest rate path. It is also in line with the ~~expected~~ decline in the expected interest rate path derived from market expectations (the Telbor curve flattened).

Table 2 indicates that the forecast compiled by the Research Department regarding inflation in the coming year and the interest rate in one year are quite close to the average of the private forecasters and slightly higher than expectations derived from the capital market.

Table 2
Inflation and interest rate forecasts for the coming year

(percent)

	Bank of Israel Research Department	Capital markets[a]	Private forecasters[b]
Inflation rate[c] (range of forecasts)	1.3	1.1	1.3 (1.0–1.7)
Interest rate[d] (range of forecasts)	0.5	0.4	0.5 (0–0.75)

a) Average following publication of the Consumer Price Index for February. Inflation expectations are seasonally adjusted.
b) The forecasts for 2019 published following the publication of the Consumer Price Index for February.
c) Inflation rate in the coming year. Research Department: in the four quarters ending in the first quarter of 2020.
d) The interest rate one year from now. (Research Department: in the first quarter of 2020.) Expectations from the capital market are based on the Telbor market.
SOURCE: Bank of Israel.

d. Main risks to the forecast

Several factors may lead to economic developments that differ from those in the forecast.

Regarding the global environment, the international institutions continued to note in their recent publications that the downward risks to growth and world trade remain. The main risks include the possibility that the trade war between the US and China may worsen, uncertainty regarding the UK's departure from the European Union, and uncertainty regarding fiscal policy in a number of advanced economies.

In the domestic environment, due to the upcoming elections, there is uncertainty regarding whether and to what extent the government will change its behavior in relation to the cost of living and the housing market. It is also difficult to assess in advance how the new government will deal with the need to make fiscal adjustments.

The various measures the government will take will affect growth and inflation. In addition, there is uncertainty regarding the future development of the exchange rate and regarding the intensity of the effect of increased competition in the economy, as well as the effects of these factors on inflation.

Figures 1 to 3 present fan charts around the inflation rate, interest rate and GDP growth forecasts. The center of the fan (the white line) reflects the Research Department's staff forecast. The broken line represents the baseline forecast from the previous quarter. The width of the fan does not reflect a judgmental assessment of the risks to the forecast or their distribution, but is derived from the estimated distribution of the shocks in the Research Department's DSGE model. The fan encompasses 66 percent of the expected distribution.

Figure 1
Actual Inflation and Fan Chart of Expected Inflation
(Cumulative increase in prices in the previous four quarters)

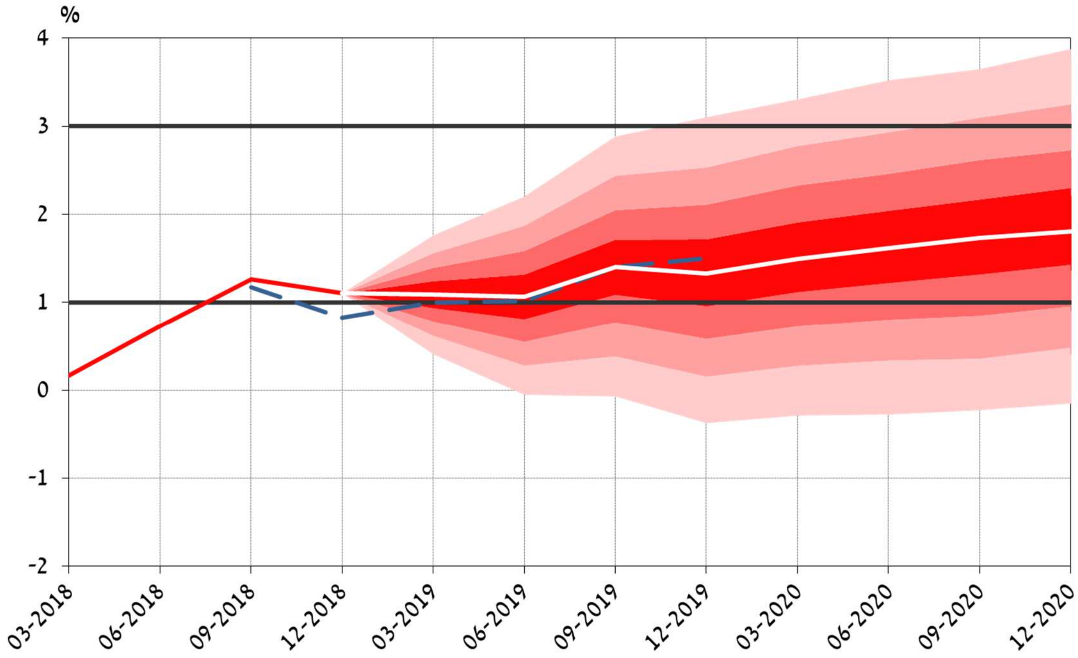


Figure 2
Actual Bank of Israel Interest Rate and Fan Chart of Expected Interest Rate

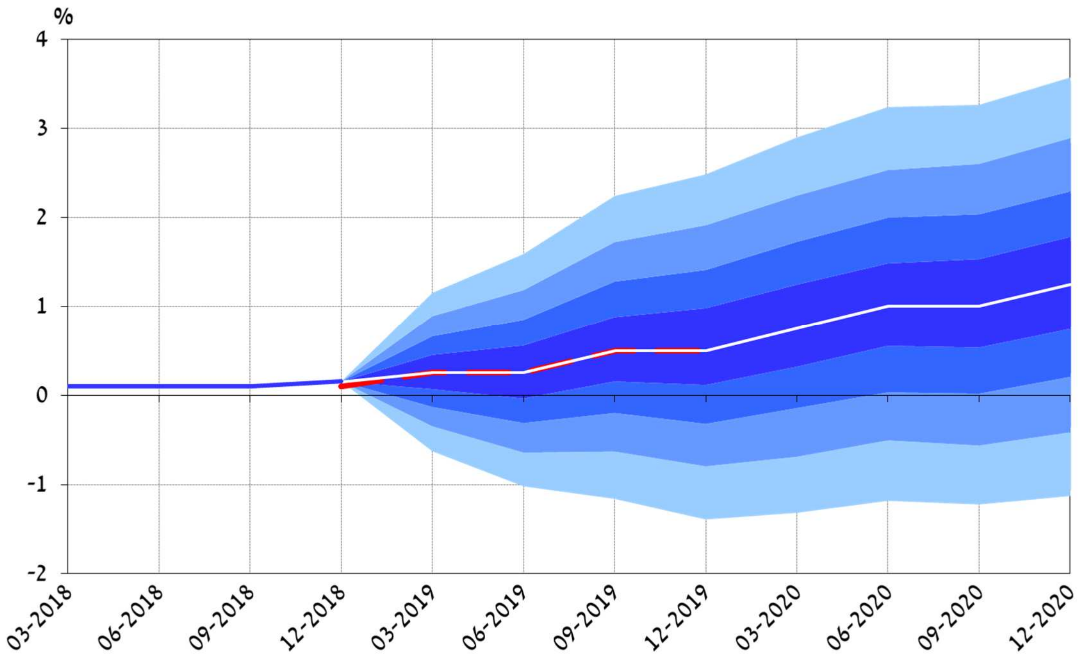
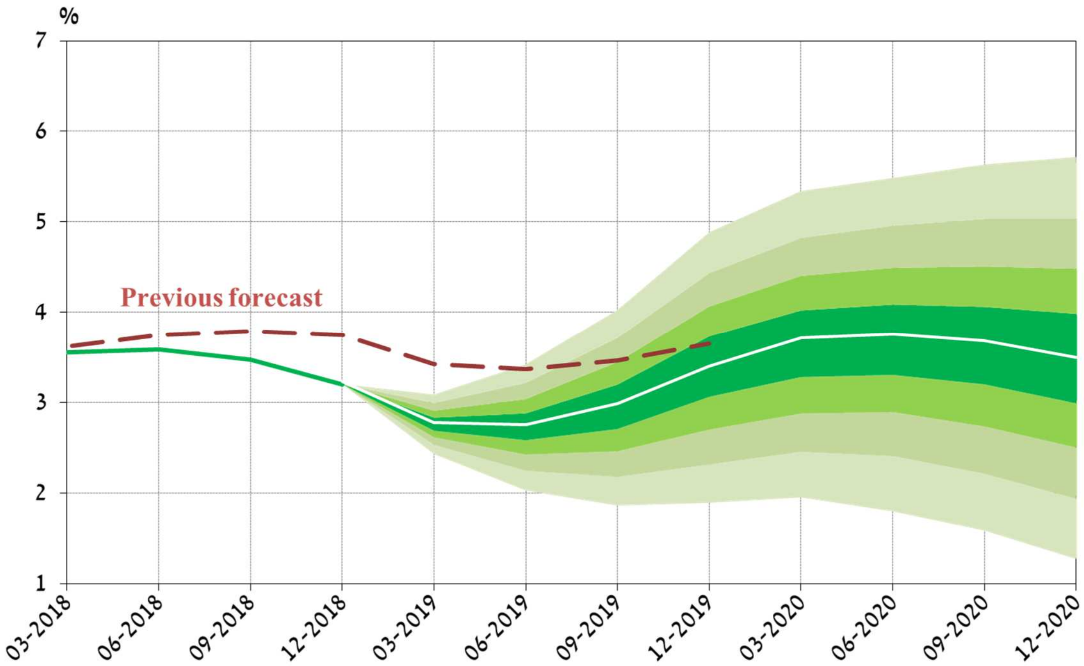


Figure 3
Actual GDP Growth Rate in the Past Four Quarters and Fan Chart of Expected Growth Rate
(Total GDP over the past four quarters relative to GDP in the preceding four quarters)



Regarding GDP growth (Figure 3), until December 2018, the broken line reflects the data and estimates that were known at the time the previous forecast was formulated, while the solid line reflects the updated data and estimates (the difference between them derives from new data and revisions to the data by the Central Bureau of Statistics).