



## **BANK OF ISRAEL**

Office of the Spokesperson and Economic Information

January 7, 2019

Press Release:

### **Research Department Staff Forecast, January 2019**

#### **Abstract**

This document presents the forecast of macroeconomic developments compiled by the Bank of Israel Research Department in January 2019<sup>1</sup> 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 3.4 percent in 2019, slightly lower than the previous forecast, and by 3.5 percent in 2020. The inflation rate over the next year is expected to be 1.3 percent, slightly lower than the previous forecast, and 1.8 percent in 2020. The Bank of Israel interest rate is expected to increase to 0.5 percent in the third quarter of 2019, and to continue increasing gradually to 1.25 percent by the end of 2020 (the end of the forecast range).

#### **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.<sup>2</sup> 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.<sup>3</sup> 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 remained virtually unchanged since the previous forecast, while their projections for imports to those economies declined slightly. We assume that growth in advanced economies will be about 2.0 percent in 2019 and 1.7

---

<sup>1</sup> The forecast was presented to the Monetary Committee on October 7, 2018 during its meeting prior to the decision on the Bank of Israel interest rate reached on October 8, 2018.

<sup>2</sup> 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.

<sup>3</sup> 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.

percent in 2020, and that the advanced economies' imports will increase by 4.0 percent in 2019 and by 3.7 percent in 2020. Our assumption is that inflation in the advanced economies will total 2 percent in each of 2019 and 2020. According to the most recent assessments of investment houses that were published before the forecast was prepared, the US federal funds rate is expected to be about 3 percent at the end of 2019 and to remain at that level during 2020.<sup>4</sup> The declared interest rate in the eurozone is expected to be 0.1 percent at the end of 2019, and 0.5 percent at the end of 2020. The sharp decline in the price of oil was among the significant changes that took place in the global economic environment since the publication of the previous forecast. The average price of Brent crude oil was about \$68 per barrel in the fourth quarter of 2018, compared with \$76 in the third quarter.

## b. Real activity in Israel

**GDP is expected to grow by 3.4 percent in 2019 and by 3.5 percent in 2020 (Table 1).** National Accounts data indicate that the growth rate in 2018 was lower than the assessment in the previous forecast. Our assessment therefore is that it is more likely that the accelerated growth of recent years has been maximized, inter alia due to the supply constraints in the labor market. Accordingly, our assessment is that in 2019 and 2020, the economy will grow at a rate close to its long-term growth rate (about 3 percent), and that the expected activity of a number of large companies in those years will have an added significant effect. The forecast for 2019 is slightly lower than the previous forecast, due to the slowdown in activity reflected in the National Accounts data. Regarding the uses, private consumption is expected to increase in 2019 at a lower pace than our previous assessment. Fixed capital formation is expected to grow by 3 percent in 2019, but is expected to contract by 2 percent in 2020 as a result of the culmination of several large investments in the economy. The maturation of these investments is expected to contribute to exports, which are therefore expected to grow slightly more than world trade in 2019 and in 2020.

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

(rates of change, percent, unless stated otherwise)

	2018 <sup>a</sup>	Bank of Israel forecast for 2019	Change from the previous forecast	Bank of Israel forecast for 2020
GDP	3.2	3.4	-0.2	3.5
Private consumption	4.1	2.5	-1.0	3.0
Fixed capital formation (excluding ships and aircraft)	1.3	3.0	-0.5	-2.0
Public sector consumption (excluding defense imports)	4.3	3.5	0.5	2.5
Exports (excluding diamonds and start-ups)	3.9	5.5	-	6.0
Civilian imports (excluding diamonds, ships, and aircraft)	6.7	3.0	-1.5	0.5
Unemployment rate <sup>b</sup>	3.5	3.6	0.2	3.6
Inflation rate <sup>c</sup>	1.1	1.3	-0.2	1.8

<sup>4</sup> The expectations derived from futures contracts on the federal funds rate declined in recent days, to 2.35 percent at the end of 2019 and 2.1 percent at the end of 2020. The forecasts of the investment houses have so far remained unchanged. An analysis based on the Research Department's model indicates that this development, which is not accompanied by an update to forecasts of global inflation and activity, is not expected to have a significant effect on local developments.

Bank of Israel interest rate <sup>d</sup>	0.25	0.50	-	1.25
---	------	------	---	------

a) National Accounts data—first estimate by the Central Bureau of Statistics.

b) Annual average of unemployment in the primary 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 four quarters ending in the fourth quarter of 2019 will be 1.3 percent. Inflation at the end of 2020 will be 1.8 percent.** The Consumer Price Index readings published since the publication of the previous forecast indicated a higher-than expected inflation rate, reinforcing the assessment that the moderation of inflation in the third quarter of 2018 was temporary. A number of factors are expected to support inflation in 2019: wage increases, the recent depreciation of the shekel in terms of the nominal effective exchange rate, and increases in the prices of electricity, water, and vehicle insurance. However, oil prices are expected to moderate inflation in the coming months, since they declined sharply during the fourth quarter of 2018. These combined considerations led us to lower the forecast for 2019 slightly. For 2020, our assessment is that the tight labor market will continue to support wage increases and consequently the convergence of inflation to the midpoint of the target range. However, the increase in inflation is expected to remain gradual, against the background of processes that have apparently 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 in the third quarter of 2019,** similar to the forecast from October, and to 0.75 percent in the first quarter of 2020. Overall, the interest rate is expected to rise gradually and to support the convergence of inflation to the midpoint of the target range as well as GDP growth in accordance with the long-term pace.

**Table 2**  
**Inflation and interest rate forecasts for the coming year**

	Bank of Israel Research Department	Capital markets <sup>a</sup>	Private forecasters <sup>b</sup>
Inflation rate <sup>c</sup>	1.3	1.2	1.2
(range of forecasts)			(0.7–2.2)
Interest rate <sup>d</sup>	0.5	0.76	0.65
(range of forecasts)			(-0.10–1.00)

a) Average following publication of the Consumer Price Index for November. Inflation expectations are seasonally adjusted.

b) The forecasts for 2019 published following the publication of the Consumer Price Index for November.

c) Inflation rate in the coming year. Research Department: in the four quarters ending in the fourth quarter of 2019.

d) The interest rate one year from now. (Research Department: in the fourth quarter of 2019.)  
Expectations from the capital market are based on the Telbor market.  
SOURCE: Bank of Israel.

Table 2 indicates that the forecast compiled by the Research Department regarding inflation is close to the average of private forecasters' projections and to expectations derived from the capital market. In contrast, the Research Department's forecast regarding the interest rate in one year is lower than the average of the private forecasters and the projections derived from the capital market.

#### **d. Main risks to the forecast**

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

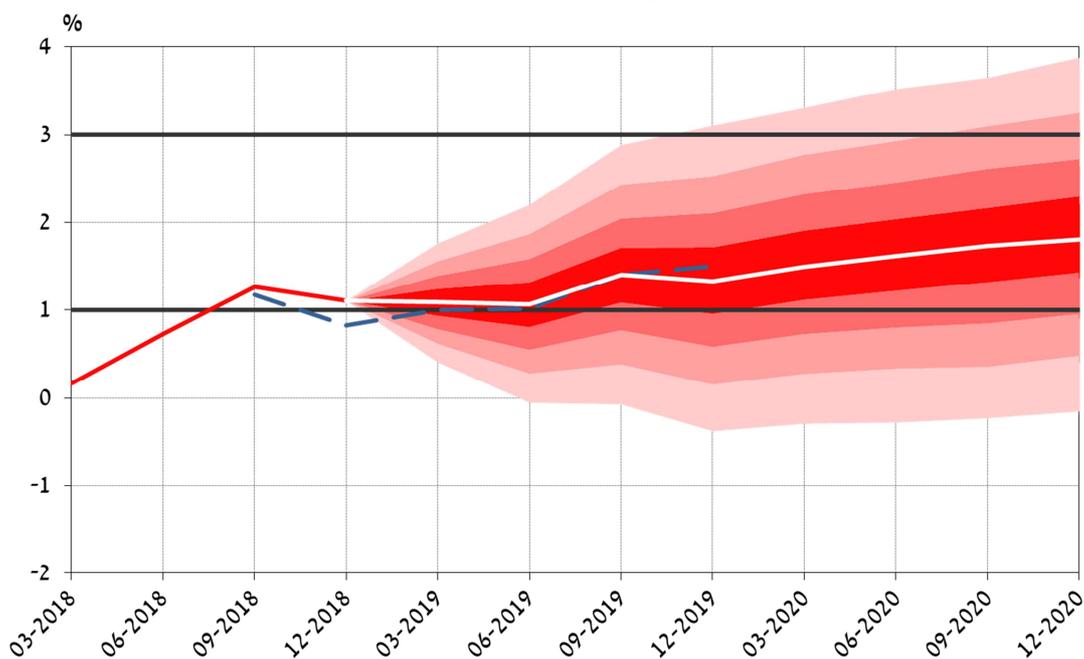
Regarding the global environment, the International Monetary Fund and the OECD noted in the recent publications that the downward risks to growth and world trade have increased. The main risks include the possibility that the trade war between the US and China may worsen, uncertainty regarding an agreement concerning the UK leaving the European Union, and questions regarding the abilities of the US and some European countries to carry deficits such as those upon which the forecast is based. Uncertainty in the global environment has been reflected in, among other things, the recent volatility in the financial markets, which in and of itself may lead, under certain circumstances, to a slowdown in the real economy globally and in Israel.

In the domestic environment, there is uncertainty regarding the extent to which the expected increase in wages and in the prices of some inputs (electricity and water) will be passed on to product prices, inter alia due to animated public discussion and the government's declaration that it will act to reduce price increases.

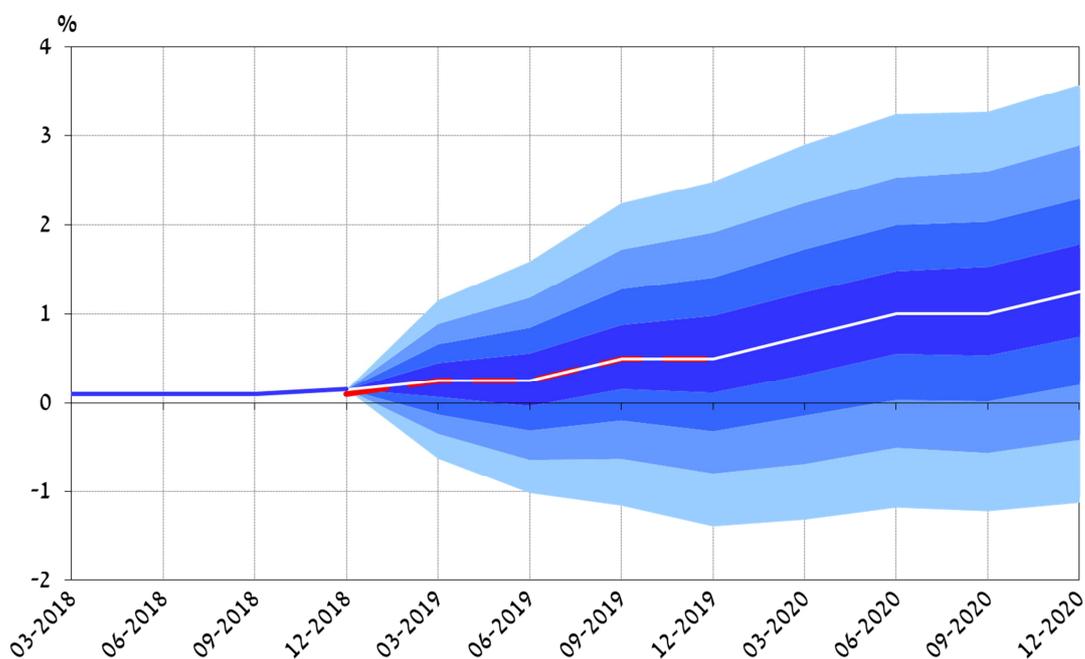
There is also a downward risk to the forecast due to uncertainty regarding the causes of the decline in growth. The forecast is based on the assessment that the slowdown in the growth rate is mainly due to the economy having maximized its surplus production capacity and the increased effect of constraints on the supply side. However, the slowdown in growth may reflect some slowdown in the growth rate of domestic demand. In such a situation, the slowdown in growth may be more significant than just to the long-term rate, and domestic inflation may increase more moderately.

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.

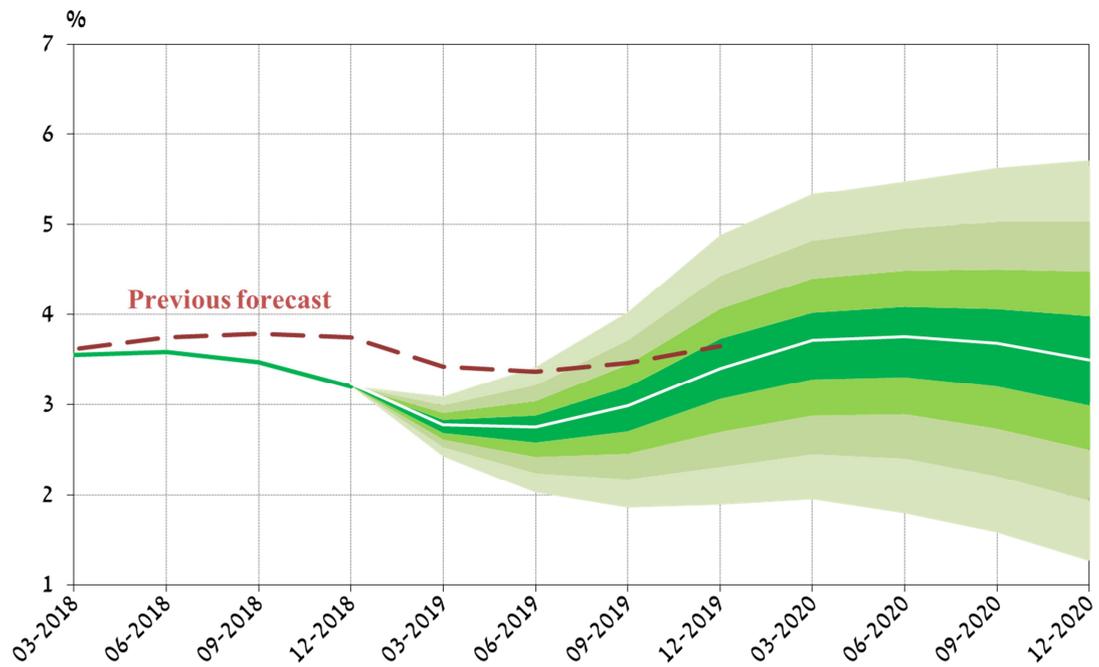
**Figure 1**  
**Actual Inflation and Fan Chart of Expected Inflation**  
 (Cumulative increase in prices in the previous four quarters)



**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 September 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).