BANK OF ISRAEL
Office of the Spokesperson and Economic Information

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Research Department Staff Forecast, January 2021

Abstract

This document presents the macroeconomic staff forecast formulated by the Bank of Israel Research Department in January 2021 concerning the main macroeconomic variables—GDP, inflation, and the interest rate. The forecast includes two main scenarios: a scenario that includes a process of rapid inoculation of the population that lasts until May 2021 (hereinafter the rapid inoculation scenario), and a scenario that includes a more prolonged inoculation process lasting until June 2022 (the slow inoculation scenario).[1] Following the date of full inoculation in either of the scenarios, there would be no government restrictions with significant impact on economic activity. As of now, in view of the rapid pace of inoculations over the past two weeks, it seems that the rapid scenario is significantly more likely than the slow scenario.

In the rapid inoculation scenario, GDP is expected to expand by 6.3 percent in 2021 and by 5.8 percent in 2022. Inflation in the coming four quarters (ending in the fourth quarter of 2021) is expected to be 0.6 percent, and inflation in 2022 is expected to be 0.9 percent. The broad unemployment rate[2] among those aged 15 and up is expected to decline to 7.7 percent of the labor force by the fourth quarter of 2020, and to continue to decline gradually to 5.4 percent at the end of 2022. The government deficit is expected to be 8 percent of GDP in 2021 and 3.6 percent of GDP in 2022, such that the debt to GDP ratio is expected to be 77 percent in 2021 and 75 percent in 2022. This is all under the assumption that the government carries out policy measures (lowering expenditures and increasing taxes) on a scale that is in line with the restraint derived from the legally mandated expenditure ceiling. Without such an adjustment, expenditures based on existing decisions will lead to a deficit of about 4 percent of GDP in 2022.[3]

In the slow inoculation scenario, GDP is expected to expand by 3.5 percent in 2021 and by 6 percent in 2022. Inflation in the coming four quarters (ending in the fourth

[1] The extent of the duration of the inoculation campaign may be impacted by various factors: the medical effectiveness of the vaccine (including against the mutations recently discovered, and the duration of its effect), the inventory available in Israel, the logistics of the distribution effort, the public's response, or safety deficiencies in the form of side effects discovered in Israel or abroad that would lead to temporary halts of the process.

[2] The broad unemployment rate relates to those who are unemployed under the ordinary definition (those who have not worked, wanted to work, were available to work, and looked for work), employed people who were temporarily absent for an entire week for reasons having to do with COVID-19 (including those on unpaid leave, and nonparticipants who were dismissed since March.

[3] Beyond that, there is obviously uncertainty regarding the policy path that will be adopted by the government following the election.

quarter of 2021) is expected to be 0.1 percent, and inflation in 2022 is expected to be 0.8 percent. The broad unemployment rate (aged 15+) is expected to decline to 11 percent by the fourth quarter of 2021, and to continue declining to 7 percent at the end of 2022. The government deficit is expected to be about 11 percent of GDP in 2021 and 6 percent of GDP in 2022, such that the debt to GDP ratio will be 82 percent in each of these two years.

The Forecast

In this forecast, as in the recent forecasts published, special emphasis is placed on an analysis of the volume of activity in the economy as a result of government restrictions to fight the spread of the virus. In addition, the forecast contains information from various other indicators and models. The Bank's DSGE (Dynamic Stochastic General Equilibrium) model developed in the Research Department—a structural model based on microeconomic foundations—which provides a framework for analyzing the forces that have an effect on the economy, was used to combine them into a macroeconomic forecast of real and nominal variables.[4]

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. Accordingly, our assumption is that GDP growth in the advanced economies will be 3.4 percent in 2021, compared with 5.7 percent in the October forecast, and 3.4 percent in 2022 as well. Based on the OECD forecast, world trade is expected to grow by 4 percent in 2021, 3 percentage points lower than our previous forecast, and by 4.5 percent in 2022. Inflation in the advanced economies is expected to be 1.4 percent in 2021—0.5 percentage points higher than in the previous forecast—and 1.6 percent in 2022. The average interest rate of the central banks is expected to remain at 0.1 until the end of 2022, unchanged from the October forecast. Oil prices increased to about $51 per barrel since the publication of the October forecast.

b. Real activity in Israel

In both scenarios in the forecast, economic activity in the fourth quarter of 2020 is identical. Therefore, **in both scenarios, growth for the year in 2020 is expected to be -3.7 percent,** and the average level of economic activity is expected to be about 7 percent lower than the GDP trend prior to the crisis. Average broad unemployment in 2020 is expected to be 15.8 percent (an average of about 16 percent in the fourth quarter). During the forecast period, our assessment is that in both scenarios, activity will be higher than we predicted in the October forecast. This is in view of the start of inoculations before the end of the year—which was earlier than we assumed in October—and in view of a reassessment of nonactivity rates due to the restrictions, particularly during the second lockdown when actual activity was higher than our assumption. This reassessment had a downward impact on our forecast of the volume

[4] An explanation of the macroeconomic forecasts formulated by the Research Department, as well as a survey of the models upon which it is based, appear in Inflation Report number 31 (for the second quarter of 2010), Section 3c. 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.

of inactivity during the lockdowns that are expected during the forecast period in both scenarios (see below), and contributed to the increase in the growth forecast.

In the rapid inoculation scenario, we assume growth of about 6.3 percent in 2021, and about 5.8 percent in 2022. In this scenario, economic activity will moderate slightly at the beginning of 2021 with the current onset of restrictions on activity. With the removal of restrictions, there will be a relatively rapid recovery in activity, which will continue until the end of the second quarter as a result of the inoculation of the population. However, due to the impact on business and household income during the lockdowns, activity will not return to its normal level even when all the restrictions are removed. A further prolonged process will be necessary, which will last throughout the forecast period, so that in 2022, the level of activity is expected to be about 2 percent below the pre-crisis long-term GDP trend. The growth forecast for 2021 is characterized by a recovery of private consumption, which is expected to grow by 12.5 percent following an 11 percent contraction in 2020. A similar recovery is expected on the sources side, as imports are expected to grow by about 11 percent after contraction of 12 percent in 2020. In 2022, an acceleration is expected in the growth rate of investments (8.5 percent) as well as in exports (4.5 percent).

In the slow inoculation scenario, we expect growth of 3.5 percent in 2021, about 3 percentage points higher than our assessment in the low control scenario of the October forecast. This significant improvement is explained by the higher starting point, due to a lower assessment of the inactivity rate during the second lockdown, as well as the earlier start of the inoculation process, which reduced a significant portion of the more extreme risks. However, lockdowns will continue every few months until mid-2022, due to the prolonged inoculation process, which will lead to slower growth than in the rapid inoculation process. In 2022, the growth rate is expected to be 6 percent. The pace of growth of the GDP components in 2021 is lower than in the rapid inoculation scenario, but the forecast still reflects a slight recovery in activity relative to 2020. For 2022, the pace of growth of the various components is expected to be higher in view of the expected recovery upon completion of the inoculation process during the year.

Table 1
Research Department Staff Forecast for 2021–2022
Optimistic scenario and pessimistic scenario

(rates of change, percent, unless stated otherwise)

		Optimistic scenario		Pessimistic scenario	
	2020	Forecast for 2021	Forecast for 2022	Forecast for 2021	Forecast for 2022
GDP	**-3.7**	**6.3**	**5.8**	**3.5**	**6.0**
Private consumption	-11.0	12.5	8.0	7.5	10.5
Fixed capital formation (excl. ships and aircraft)	-7.5	3.5	8.5	-1.5	7.5
Public consumption (excl. defense imports)	3.0	6.5	-1.0	6.5	-1.0
Exports (excl. diamonds and startups)	1.5	3.0	4.5	2.0	4.5
Civilian imports (excl. diamonds, ships, and aircraft)	-12.0	11.0	7.5	6.5	10.5
GDP deviation from the precrisis trend	**-7.0**	**-4.3**	**-1.9**	**-6.8**	**-4.3**
Broad unemployment rate (15+) (Average for the year)	15.8	9.6	6.2	12.5	8.5
Broad unemployment rate – fourth quarter (15+)	**16.3**	**7.7**	**5.4**	**11.0**	**7.0**
Government deficit (percent of GDP)	12	8	3.6–4	11	6

c. Inflation and interest rates

In the rapid inoculation scenario, inflation in the next four quarters (ending in the fourth quarter of 2021) is expected to be 0.6 percent, and inflation in 2022 is expected to be 0.9 percent (Table 2). In the slow inoculation scenario, inflation in the next four quarters is expected to be 0.1 percent, and inflation in 2022 is expected to be 0.8 percent.

Our assessment in both scenarios is that the improvement in economic activity, together with the dissipation of the effect of the appreciation that has taken place until now, will lead to a moderate increase in inflation during the forecast period, such that at the end of 2022, inflation is expected to be close to the lower bound of the inflation target range.

In both scenarios, our assessment is that in one year, the Bank of Israel interest rate will be in the range of 0–0.1 percent (Table 2), similar to our assessment in the October forecast.

The low interest rate supports the recovery of demand and the lowering of financing costs for businesses (insofar as credit will be available to them), and it is part of the group of tools being used by the Bank of Israel to deal with the crisis. Should further monetary accommodation be necessary beyond the monetary interest rate, the Bank of Israel may expand or accelerate the use of existing or additional monetary policy tools.

Table 2 shows that the private forecasters' projections of inflation in the coming 12 months and inflation expectations derived from the capital market are within the staff forecast's range in both scenarios. In regard to the interest rate in one year (end of 2021), both the forecasters' projections and expectations derived from the capital market are also within the Research Department's forecast range.

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)	0.1–0.6	0.4	0.5 (-0.4–1.3)
Interest rate[d] (range of forecasts)	0–0.1	0.06	0.08 (-0.2–0.1)

a) Average expectations following the publication of the November CPI. Inflation expectations are seasonally adjusted.
b) The forecasts published in the week following the publication of the November CPI.
c) Inflation rate in the coming year. Research Department: in the four quarters ending in the fourth quarter of 2021.
d) The interest rate one year from now. (Research Department: in the fourth quarter of 2021.) Expectations derived from the capital market are based on the Telbor market.
SOURCE: Bank of Israel.

d. Main risks to the forecast[5]

The Research Department's staff forecast presents two scenarios that reflect boundaries between an optimistic rapid inoculation scenario and a pessimistic slow inoculation scenario. These scenarios reflect a reasonable, but not absolute, range of the severity of the economic impact resulting from COVID-19. More optimistic scenarios (such as a more rapid recovery following the pandemic) and more pessimistic scenarios (such as serious lockdowns as in the past, a worsening of financial stability, and others) are certainly possible. The risks to the forecast are therefore developments that will lead to a more optimistic scenario than the rapid inoculation scenario or a more pessimistic scenario than the slow inoculation scenario. Risks in the health field include a scenario in which mutations of the virus are resilient to the vaccines that have been developed, and the development of morbidity such that the nature and number of lockdowns differs from our assessment. In the economic field, there is uncertainty regarding the economy's response during the recovery, including the depth of the "scars" that the crisis will leave on the economy. In the policy field, a risk to the forecast is present by how the high morbidity from both COVID-19 and the flu will be dealt with during the remaining winter months. Lastly, there is an additional risk due to the political uncertainty that is affecting fiscal policy, particularly the passage of the 2021 budget and the timing of the passage of the 2022 budget.

[5] In view of the anomalous uncertainty in the forecast and the unusual volatility of the activity variables, the forecast is being published without the interest rate, inflation, and GDP fan charts.