

BANK OF ISRAEL

Office of the Spokesperson and Economic Information

November 27, 2023

**Research Department Staff Forecast, November 2023**

**Abstract**

This document presents the macroeconomic staff forecast formulated by the Bank of Israel Research Department in November 2023[[1]](#footnote-1) concerning the main macroeconomic variables—GDP, inflation, and the interest rate. This forecast was formulated in the midst of the “Swords of Iron” War, which broke out on October 7, 2023 with the cruel attack by terrorist organizations from Gaza. This forecast is an update—outside the normally scheduled quarterly forecasts—of the forecast published in October. As part of this update, we have changed the working assumptions with regard to the war. This forecast was built under the assumption that the war’s direct impact on the economy will continue into 2024 with decreasing intensity compared to the assumption in the October forecast that the direct impact would be concentrate in the fourth quarter of 2023. Similar to the October forecast, we assume that the majority of the war will be concentrated on the southern front. The forecast includes an assessment regarding the economic and fiscal costs of the war, based on data obtained until now. The forecast naturally features a particularly high level of uncertainty, partly in view of the uncertainty with regard to the duration, scope, and nature of the war and with regard to government decisions concerning the State budget.

According to the forecast, GDP is expected to grow by 2 percent in 2023 and in 2024 (compared with growth assessments of 2.3 percent in 2023 and 2.8 percent in 2024 in the October forecast). The inflation rate in the coming four quarters (ending in the fourth quarter of 2024) is expected to be 2.4 percent, and the interest rate in the third quarter of 2024 is expected to be 3.75/4.00 percent.

**The forecast**

The Bank of Israel Research Department compiles a staff forecast of macroeconomic developments based on several models, various data sources, and assessments based on economists’ judgment. The Bank’s DSGE (Dynamic Stochastic General Equilibrium) model—a structural model developed in the Research Department and based on microeconomic foundations—plays a prime role in formulating the macroeconomic forecast.[[2]](#footnote-2) 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”.

In order to formulate estimates of the economic impact of the war, special emphasis was placed on an analysis of real-time data that show the scope of the impact so far on the output of various industries and on uses, as well as on an analysis of past security incidents. In addition to the use of the DSGE model, we used industry-level assessments of the volume of the supply-side impact derived partly from the lack of workers during the war period and the security restrictions on activity. On the demand side, data obtained so far were analyzed in order to assess the impact on the various uses. The results were formulated into a full forecast of the sources and uses using an analysis of the relative severity of the demand and supply restrictions in the various activity components.

1. **The global environment**

Our assessments of expected developments in the global economy are based mainly on projections by international financial institutions and foreign investment houses. The main assumptions regarding the global environment remained virtually unchanged relative to the October forecast, other than a decline in the price of oil. Accordingly, we assume that growth in the advanced economies will be 1.3 percent in 2023 and 0.8 percent in 2024 (compared with 1.2 percent in 2023 and 0.8 percent in 2024 in the October forecast). Our assumption is that world trade will grow by 0.9 percent in 2023 and 3.5 percent in 2024 (unchanged from the October forecast). The inflation forecasts for the advanced economies were revised. Accordingly, our assessment is that inflation in those countries will total 3.4 percent in 2023 (unchanged from the October forecast) and 2.3 percent in 2024 (compared with 2.4 percent in the October forecast). Investment houses’ forecasts of the average interest rate in the advanced economies were revised slightly downward. Accordingly, we assume that the average interest rate in the advanced economies will be 4.8 percent at the end of 2023 (compared with 4.9 percent in the October forecast) and 3.9 percent at the end of 2024 (unchanged from the October forecast). The price of Brent crude oil declined to about $81 per barrel (compared with $90 when the previous forecast was prepared in October).

1. **Real activity in Israel**

GDP is expected to grow by 2 percent in 2023 and in 2024 (Table 1).

The forecast in Table 1 is based on the assumption that the war’s direct impact on the economy will reach its peak in the fourth quarter of 2023, and will continue into 2024 with declining intensity. Accordingly, our assessment is that the war will result, on average, in the loss of about 3 percent of GDP by the end of 2024.[[3]](#footnote-3) The impact to GDP is expected to be from both the supply side and the demand side. On the supply side, the broad mobilization of IDF reserve troops and the partial closure of educational institutions, mainly in the first two months of the war, are expected to be reflected in a decline in the supply of labor in all industries. In the construction industry, a particularly significant impact is expected to the supply of labor due to restrictions on the entry of laborers from Judea and Samaria, and the complete stoppage of employment of laborers from Gaza. These are expected to continue having an effect in 2024 as well. In the agriculture industry, a serious impact is expected due to the departure of foreign workers. In addition to the decline in the supply of labor, production capacity in the combat areas and in threatened regions has been harmed due to the impact to physical capital and the ability to work.

On the demand side, negative consumer sentiment is expected to have an impact on consumer demand. Demand for the export of tourism services is also expected to decline, as experience from previous security incidents shows that this impact is expected to be prolonged. In contrast, in the construction industry, an increase in demand is expected within the forecast period due to the need to rehabilitate structures. In view of these developments, our assessment is that the broad unemployment rate[[4]](#footnote-4) among the prime working ages, which has increased in the fourth quarter of 2023, will remain high in 2024.

Relative to the October forecast, the estimated growth forecast for 2023 was revised downward, mainly in view of the analysis of the data obtained since then that show a more significant impact than we assessed to private consumption and production capacity in the construction industry. The 2024 forecast was revised downward, mainly reflecting the updated working assumptions regarding the duration of the direct impact of the war into 2024.

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| **Table 1****Research Department Staff Forecast for 2022–2024**(rates of change, percenta, unless stated otherwise) |
|  | 2022Actual | Estimate for 2023 | Change from the October forecast | Forecast for 2024 | Change from the October forecast |
| **GDP** | **6.5** | **2.0** | **-0.3** | **2.0** | **-0.8** |
| Private consumption | 7.7 | -0.5 | -1.0 | 2.0 | 0.5 |
| Fixed capital formation (excl. ships and aircraft) | 11.0 | 2.0 | -2.0 | 1.0 | 1.0 |
| Public consumption (excl. defense imports) | 1.4 | 8.5 | 6.0 | 1.5 | -5.0 |
| Exports (excl. diamonds and startups) | 9.6 | 1.0 | 1.5 | 1.5 | -2.5 |
| Civilian imports (excl. diamonds, ships, and aircraft) | 12.7 | -3.0 | 3.0 | 1.0 | -1.0 |
| Broad unemployment rate (average for the year, ages 25–64)b | 3.6 | 4.3 | - | 4.5 | - |
| Adjusted employment rate (average for the year, ages 25–64)b | 78.3 | 78.1 | - | 77.6 | - |
| Government deficit (percent of GDP) | -0.6 | 3.7 | 1.4 | 5.0 | 1.5 |
| Debt to GDP ratio (percent) | 60.5 | 63 | 1 | 66 | 1 |
| Inflation (percent)c | 5.1 | 3.5 | 0.0 | 2.4 | -0.1 |
| a In the forecast of National Accounts components, the rate of change is rounded to the nearest half percentage point.b According to the Central Bureau of Statistics definition, the broad unemployment rate includes the unemployed under the normal definition (someone who has not worked, wanted to work, was available to work, and searched for work), as well as employees who were temporarily absent from their jobs for economic reasons (including furloughed workers). Accordingly, the adjusted employment rate does not include those temporarily absent from their jobs for economic reasons.b The average of the Consumer Price Index in the last quarter of the year compared with the average in the last quarter of the previous year. |

1. **The State Budget and fiscal policy**

**The debt-to-GDP ratio is expected to increase to 66 percent at the end of 2024** (Table 1).

The assessment regarding the State Budget for 2024 at this time is exposed to significant uncertainty with regard to the effect of the war and the government’s decisions on how to deal with the military and civilian needs derived from it. The uncertainty mainly involves three factors. The first is the volume of the increase in defense expenditures, their division between domestic expenditures and defense imports, and how much of those expenditures will be covered by military aid from the US government. The second factor is government decisions with regard to assistance to residents of the combat areas, victims and survivors from the region bordering Gaza, and businesses and the public in the rest of the country. This is alongside the lack of clarity with regard to the extent of adjustments that the government will decide upon in order to offset part of this growth in expenditures by reducing other expenditures or raising taxes, and with regard to other potential adjustments to the 2024 budget.[[5]](#footnote-5) The third factor is the extent of the decline in tax revenue due to the war’s effect on the economy, and the pace of its recovery. Beyond these, there is also some uncertainty regarding payments dates and the method of recording some expenditures, which will have an impact on the division of the war’s effects between the 2023 and 2024 budgets.

In building this forecast, our assessment is that the impact on economic activity will lead to a sharp decline in tax revenues in the fourth quarter of 2023, and will continue into 2024. Our assessment is that a significant portion of the increase in defense expenditures and direct civilian expenditures will be spent in 2023, which will necessitate an increase of about NIS 26 billion in the existing budget framework. As a working assumption, or assessment is that in 2024, the government will present a new budget for Knesset approval, which will include an expansion of the existing framework by about NIS 46 billion. The required increase in the budget will depend on the volume of military aid that the US government will provide to Israel during 2024, government decisions on recovery programs, and changes that will be made to other civilian expenditures.[[6]](#footnote-6) All of these are expected to be reflected in an increase of the government budget deficit, which will total 3.7 percent of GDP in 2023 and 5 percent of GDP in 2024. Beyond that, the government has additional expenses totaling about 1 percent of GDP, which will be recorded against the Compensation Fund, mainly in 2023, and will not be included in the budget deficit.[[7]](#footnote-7) In view of this, the government’s debt is expected to increase to about 66 percent of GDP at the end of 2024.

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| **Table 2****Expected fiscal impact of the “Swords of Iron” war (NIS billion)** |
|  | **Total 2023–2025** |
| Gross defense expendituresa | 107 |
| Compensation for direct and indirect damage | 22 |
| Other civilian expenditures | 25 |
| Interest on government debt | 8 |
| **Additional gross expenditures** | **163** |
| **Loss of tax revenueb** | **35** |
| **Total gross effect of the war** | **198** |
| a Including expenditures financed through the military aid from the US government, and before reductions in other expenditures in the defense budget.b Including taxes (excluding VAT on defense imports), National Insurance Institute fees, and health tax. |

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| **Table 3****The war’s impact on the State budget (percent of GDP)** |
|  | 2022 | 2023 | 2024 |
| **Budgetary expenditure** | **26.0** | **27.3** | **28.6** |
| *Of which:* Increase in the defense budget |  | 0.9 | 1.7 |
| Increase in the budget of civilian ministries and interest on the public debt |  | 0.7 | 0.7 |
| Change in other civilian expenditures (working assumption |  | -0.2 | 0.0 |
| **Revenue in the budget** | **26.6** | **23.6** | **23.6** |
| **Budget deficit(+)/surplus (-)** | **-0.6** | **3.7** | **5.0** |
| **Increase in non-budgetary expenditures** |  | **0.8** | **0.2** |
| **Gross public debt** | **60** | **63** | **66** |

1. **Inflation and interest rates**

According to our assessment, **inflation in the four quarters ending in the fourth quarter of 2024 is expected to be 2.4 percent** (Table 4). The inflation forecast for 2024 was revised downward relative to the previous forecast from October, due to revised working assumptions regarding the duration of the effects of the war into 2024—reflecting a more significant impact to demand for consumption—and due to the appreciation of the shekel and the decline in oil prices since the October forecast.

The moderation of inflation within the forecast period is mainly due to the impact to consumer sentiment and to demand for consumption. The forces moderating inflation are expected to be partly offset, mainly in the short term, by supply side interruptions due to the war, which are acting to increase the prices of goods and services. These constraints include an impact to the supply of labor in view of the mobilization of reserve forces and the partial closure of educational institutions, and an impact to production capacity and supply chain disruptions.

**The interest rate is expected to be 3.75/4.00 percent in the fourth quarter of 2024** (Table 4). The interest rate level during the forecast period will help stabilize the financial markets and support domestic demand.

Table 4 shows that the Research Department’s staff forecast regarding inflation in the coming year is slightly higher than expectations derived from the capital market and the average of the private forecasters’ projections. Regarding the interest rate, the staff forecast is higher than expectations from both sources.

| **Table 4** |
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| **Inflation forecast for the coming year and interest rate forecast for one year from now** |
| (percent) |
|  | Bank of Israel Research Department | Capital marketsa | Private forecastersb |
| Inflation ratec | 2.4 | 2.6 | 2.4 (2.1–2.8) |
| (range of forecasts) |  |  |  |
| Interest rated | 3.75/4.00 | 3.3 | 3.65 |
| (range of forecasts) |  |  | (3.00–4.00) |
| a) Inflation expectations are seasonally adjusted (as of November 23, 2023).b) The average of forecasts published following the publication of the Consumer Price Index for October 2023.c) Research Department: the inflation rate during the four quarters ending in the fourth quarter of 2024.  |
| d) Research Department: the average interest rate in the fourth quarter of 2024. Expectations derived from the capital market are based on the Telbor market (as of November 24, 2023).SOURCE: Bank of Israel. |

1. **Main risks to the forecast**

The basic forecast that we have presented estimates the effect of the war assuming that the main part of it will be on one front against the terrorist organizations in Gaza, and that its effects will continue into 2024 with declining intensity. A change in the duration, scope, or intensity of the war will obviously have a material impact on actual economic developments. In the fiscal realm, there are risks due to the uncertainty with regard to the volume and financing of government expenditures. If the government decides to further increase expenditures and/or avoid reducing other expenditures, the deficit and debt are expected to grow further accordingly. These are expected to have implications on the interest rate and inflation as well.

1. The forecast was presented to the Bank of Israel Monetary Committee on November 26, 2023, prior to the decision on the interest rate made on November 27, 2023. [↑](#footnote-ref-1)
2. 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. [↑](#footnote-ref-2)
3. Average impact at the GDP level in each quarter compared with a forecast that would have been derived from the state of the economy prior to the war. [↑](#footnote-ref-3)
4. In addition to the unemployed, the broad unemployment rate includes those temporarily absent from their jobs for economic reasons (including furloughed employees). [↑](#footnote-ref-4)
5. Since decisions have not yet been made with regard to adjustments to the 2024 budget, we are not including estimates of these adjustments in the forecast. [↑](#footnote-ref-5)
6. The growth in defense expenditures in 2023–2024 and in civil rehabilitation expenditures in 2024 represent only some of the included costs, which will be spread out over 2025 as well. [↑](#footnote-ref-6)
7. Compensation in respect of direct and indirect damages to civilians are not considered expenditures in the State Budget, but rather as extra-budgetary expenditures based on the Property Tax and Compensation Fund Law, 5721–1961.  Because this compensation is unfunded, its costs do not increase the budgetary deficit. However, the government is required to finance it by raising debt. Since the publication of the previous forecast, the government has approved a business continuity program for October–November, with the possibility of extending it to December 2023. This program provides grants to businesses throughout Israel in accordance with the decline in revenue, wage expenses, and their fixed inputs. In addition, the government increased the number of localities where businesses are eligible for full compensation for indirect damages. All these increased the total amount of compensation beyond the Compensation Fund’s balance, which was NIS 17.7 billion prior to the war. Our assumption is that all payments beyond that balance will be funded as part of the State budget. [↑](#footnote-ref-7)