Bank of Israel

Monetary Policy Report

Second Half of 2022

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According to the Bank of Israel Law, 5770–2010, the Bank of Israel has three objectives: (1) to maintain price stability, as its central goal; Price stability is defined as an annual inflation rate of between 1 percent and 3 percent; (2) to support other objectives of the government's economic policy, particularly growth, employment and reducing social gaps, provided that this support does not prejudice the attainment of price stability; and (3) to support the stability and orderly activity of the financial system.

In accordance with Section 55(a) of the Bank of Israel Law, 5770-2010, this report is submitted by the Bank of Israel to the government and the Knesset Finance Committee twice annually. The report surveys the economic developments that took place during the period covered by the report. It also surveys the policy required—in the view of the members of the Bank of Israel's Monetary Committee, the forum in which monetary policy decisions are reached—to maintain the inflation rate within the range set by the government and to achieve the other objectives of the government's economic policy. The economy's financial stability is surveyed by the Bank of Israel in its Financial Stability Report.

In accordance with Section 55(b) of the Bank of Israel Law, the current report explains why the inflation rate deviated from the target range determined by the government for more than 6 consecutive months—from the publication of the CPI for January 2022 (on February 15, 2022) through the publication of the CPI for November 2022 (on December 15, 2022). The inflation rate during this period exceeded the upper bound of the target range, and the explanations for that are found in Section A below (Policy and goals).

The Monetary Policy Report for the second half of 2022 was prepared by economists in the Research Department, within the guidelines set by the Monetary Committee. The report is based on data published up to the interest rate decision reached on January 2, 2023.

Abstract

This report surveys the monetary policy during the second half of 2022 and the interest rate decision in January 2023.[1] During this period, the inflation rate in Israel remained above the upper bound of the target and was characterized by volatility, although this rate continued to be low compared to most advanced economies. In the past two years, prices increased in Israel due to a combination of supply factors and in particular external ones, with the most significant ones being the impacts of the war between Russia and Ukraine, which led to a marked increase in prices of energy and commodities, and by continued disruptions in supply chains. However, there were also domestic demand factors, against the background of the economy's return to employment rates higher than those that prevailed before the COVID-19 crisis, which indicated the existence of a tight labor market.

During the half year reviewed, there were increasing signs that price increases are broad, and the Committee assessed that inflation in Israel derives to a large extent from an increase in domestic demand. The Committee also assessed that the monetary tightening processes in Israel and abroad, the moderation of demand, alongside the easing in supply chain disruptions and the decline in oil and other commodities prices act to moderate the inflation rate in Israel. In contrast, the Committee assessed that there is uncertainty regarding the extent of fiscal expansion and wage developments in the economy, and that those will have an impact on the pace of inflation converging to its target.

Monetary policy: The monetary restraint was carried out in 2022 mainly through a calculated and determined increase in the monetary interest rate. Over four interest rate meetings in the second half of 2022, the Committee decided on an interest rate increase of 2.50 percentage points, from 0.75 percent (in June) to a rate of 3.25 percent at the end of 2022. In January 2023, the interest rate was increased by another 0.5 percentage points, to 3.75 percent. The monetary contraction was a direct continuation of the process that began in 2021, with the end of the bond purchase program and of the use of the other special tools that were operated during the COVID-19 crisis. There were also no foreign exchange purchases in the second half of 2022. The monetary policy during this period was characterized by accelerated interest rate increases, compared with the increases that had been expected, based on forecasts at the time. That is, the Committee decided to adopt a front loading policy, similar to other central banks around the world.

The inflation environment: The second half of 2022 was characterized by a high inflation environment relative to previous years. The year over year inflation rate remained above the upper bound of the target throughout the half year, and was characterized by volatility. The year over year inflation rate in November was 5.3 percent. However, the inflation rate in Israel was lower than the rate in most advanced economies. During the half year, the inflation expectations in Israel for short terms, for 1 year, and the 1-year, 1-year forward expectations were in the environment of the upper bound of the target range, and at times were slightly above it. Inflation expectations for longer periods (more than 2 years) continued to be anchored within the target range.

1 In 2022, decisions were made on July 4, August 22, October 3, November 21, and January 2, 2023.

Domestic real activity: The data and indicators presented to the Monetary Committee in the half year reviewed continued to indicate solid growth, but the most recent data showed a slight decline in the growth rate. During the half year, the GDP level continued to be higher than the long-term trend of before the COVID-19 crisis. The current indicators continued to point to a robust level of economic activity. However, some of them indicated moderation in third-quarter growth, which was reflected in, among other things, a slight decline in goods exports and an increase in the number of companies reporting an increase in the magnitude of the difficulty caused due to a lack of orders. Looking forward, the Committee assessed that there are increasing signs of a global economic slowdown and that these are liable to leave their mark on Israel's economy as well.

The labor market: The labor market remained tight in a full employment environment in the half year reviewed, with some slackening seen in data at the end of the period—a moderate increase in the unemployment rate and a slight decline in the employment rate. Nominal wages among the prime working ages (25–64) continued to increase during the period, and still remain above the pre-crisis trend; in real terms, wages, in the most recent data, are near the trend that was forecast before the crisis.

Exchange rates: In the second half of this year, the shekel had a mixed trend. In the beginning of the period, the shekel appreciated against major currencies, but later on it depreciated markedly. From October through the middle of December, the nominal effective exchange rate was relatively stable. This stability reflected mixed trends of the shekel strengthening against the dollar and weakening against the euro. At the end of the reviewed period, the shekel depreciated further.

The global economy: The slowdown in global economic activity that occurred against the background of the war in Ukraine, the energy crisis in Europe and the slowdown in China, continued in the reviewed half year. The beginning of the period was characterized by continued disruptions in supply chains, which led to inflation pressures and a slowing in global activity, but later on, there were some easings in those disruptions.

The increase in inflation around the world led to monetary restraint by central banks. This trend strengthened over the course of the half year, with many central banks adopting a process of bringing forward and accelerating the pace of the interest rate increases (front loading). These steps, together with the other global developments, contributed to a continued slowdown in economic activity, and global growth forecasts were revised downward. In the half year reviewed, the inflation environment worldwide remained markedly higher than central bank targets, though there are some countries in which moderation in inflation became apparent. In view of these trends, the monetary contraction continued around the world, but some central banks began to signal a future slowing in the pace of contraction, and some even began to slow the pace of monetary contraction.

The credit market: The growth rate of new bank credit to the business sector in Israel slowed during the half year, and at the same time, there were increases in the interest rate. However, nonbank credit (mainly corporate bonds) continued to expand, and a notable portion of it was directed to the construction and real estate industry. Additional signs of a possible cooling of the business credit market were seen in Business Tendency Survey data, which pointed to some increase in companies' financing difficulties, though they remain low. New mortgage volume, after reaching a record in the beginning of the year, contracted during the course of the half year, though it remains high. New mortgages were characterized by a loan to value ratio (LTV) similar to the average over the past 2 years, but the payment to income ratio (PTI) continued to increase.

Developments in the financial markets: Financial markets in Israel and worldwide developed similarly over the reviewed half year. Equity indices increased in the beginning of the half year, and at the same time, government bond yields declined. Later on, in view of a slowing in global activity and the monetary policy tightening, there was a change in the trend and there were sharp declines in equity indices, and government bond yields increased. From October through December, in view of the slowing in the pace of interest rate increases, equity indices worldwide increased and government bond yields in Israel and abroad remained essentially unchanged. However, from November there were declines on the domestic capital market, beyond the global trend. Domestic government bond yields increased markedly at the end of the reviewed period.

Developments in financial system stability: The increase in inflation worldwide alongside the increase in interest rates, increased the cost of debt, both for governments and for the private sector and markedly increased the risk for global recession. Although Israel is impacted by global developments, for now it is only moderately. The balance of business credit to the construction and real estate industry remains at a high level.

The housing market: The rise in home prices and rents continued to accelerate in the reviewed period**.** As of November, home prices rose by approximately 20 percent in annual terms. At the same time, rent prices also accelerated by a high rate compared to previous years.

Fiscal policy: In 2022, there was a surplus in government activity of 0.6 percent of GDP. Domestic expenditures stabilized during the half year reviewed at a markedly lower level than what characterized the government during the COVID-19 period and compared to 2019. At the same time, domestic revenue continued to increase at a pace higher than expected based on the various forecasts. Anomalous revenues derived mainly from a high level of net income tax collected, including a one-off collection campaign, and property tax revenues.

The Research Department forecast: The Research Department published three forecasts in the reviewed half year, concurrent with interest rate announcements in July 2022, October 2022, and January 2023. According to the January 2023 forecast, GDP is estimated to grow in 2022 by 6.2 percent, a higher rate than assessed in the forecasts published in July and October. In contrast, the growth rate for 2023 was revised downward. The level of GDP at the end of 2023 is expected to be higher than assessed in the beginning of the half year, in July. The unemployment rate, according to the forecast, is expected to be 4 percent in 2023, on average. The debt to GDP ratio in 2022 and 2023 is expected to be lower than assessed in the beginning of the half year, at about 62 percent in each of the years. In addition, the inflation rate in 2023 is expected to be around the target's upper bound, and the Bank of Israel interest rate is expected to be 4 percent in a year, according to the forecast.

Policy steps

In order to return inflation to a price stability environment in line with the target, the Bank of Israel continued in the second half of 2022 with the process of monetary contraction, and increased the interest rate to 3.25 percent, after an increase to 0.75 percent in the first half of the year. In January 2023, the Committee increased the interest rate by an additional 0.5 percentage points, to 3.75 percent.

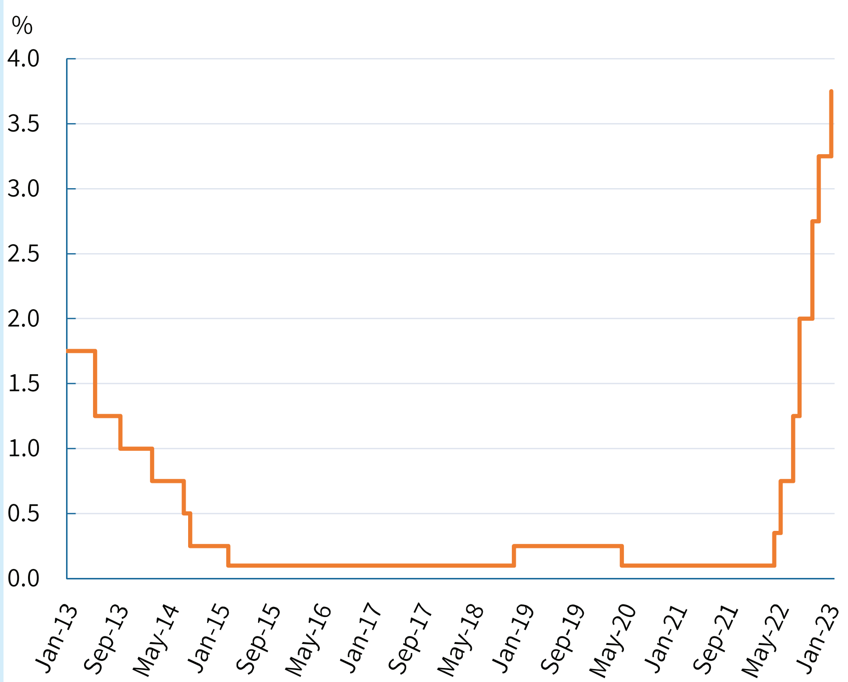
Compared to major central banks worldwide, the Bank of Israel was early to start a policy of monetary contraction, in the second half of 2021. In the first stage, the special tools that were announced at the peak of the COVID 19-crisis in 2020 were halted, in December 2021 government bond purchases were ended, and from February 2022, foreign exchange purchases ceased as well. In its decision in February, the Committee announced that in the coming months a gradual process of increasing the interest rate is expected to begin.

The Monetary Committee continued in 2022 with the process of monetary contraction through a calculated and determined increase in the monetary interest rate. When taking into account the rate of deviation of inflation from its target, the time of increasing the interest rate in Israel began at an earlier stage compared with most major central banks worldwide. That is, the Bank of Israel conducted a slightly more hawkish policy.

During the half year reviewed, the Monetary Committee continued a process of monetary contraction, with the goal of returning the inflation rate to its target, while taking balanced and calculated steps and examining a range of economic developments in Israel and abroad. The Committee assessed that the impact of the monetary contraction occurs with some lag. Compared to the past, the monetary policy was characterized by accelerated increases in the interest rate relative to the expectations about the interest rate increases according to the forecasts at the time. That is, the Committee chose, similar to other central banks worldwide including the US Federal Reserve, to adopt a policy of front loading. One of the factors that led to a strong need to accelerate the pace of interest rate increases is the extent of persistence of the supply shock caused due to the war between Russia and Ukraine and its continuing much longer than what had originally been assessed. In its February decision, the Committee announced that in the coming months it would begin a process of increasing the interest rate, as did occur. The Committee increased the interest rate in four phases in the second half of 2022. The first phase was in July, by half a percentage point (from 0.75 percent to 1.25 percent), then there were two phases of 0.75 percentage points each (to 2 percent and to 2.75 percent), and an additional phase of half a percentage point (0.5 percent, to 3.25 percent). In January 2023, the Committee increased the interest rate by another half a percentage point (0.5 percent), so that at the end of the period the interest rate had reached 3.75 percent (Figure 1).

The year over year inflation rate remained over the course of the half year above the target range and in November was 5.3 percent. In view of the economy's robust activity, which was also accompanied by a tight labor market, inflation was the main factor in establishing a contractionary monetary policy. The Committee discussed over the course of the reviewed period the factors that contributed to the increase of the inflation rate, taking into account how broad it was and the extent of its persistence. Inflation expectations for the medium and long terms remained anchored within the target range, but expectations for periods of up to 2 years deviated from the target at times.

Figure 1
The Bank of Israel Interest Rate
January 2013 – January 2023



SOURCE: Bank of Israel.

At the time of the interest rate decision in July 2022, monetary tightening steps increased in many countries, alongside a downward revision of growth forecasts published by the various international institutions. The year over year inflation rate in Israel continued to increase, and in contrast there was a decline in inflation expectations. In addition, the trend of shekel deprecation continued, economic activity remained at a high level, and the labor market continued to be tight. In particular, the wage in the business sector continued to range above the long term trend. The political uncertainty increased with the dispersal of the Knesset. All six members of the Monetary Committee were of the view that the gradual process of increasing the interest rate should be continued, and they decided to increase the interest rate by 0.5 percentage points to a level of 1.25 percent.[2]

2 Press briefing from July:
https://www.youtube.com/watch?v=vttGSGQUe-0&ab_channel=BankofIsrael-%D7%91%D7%A0%D7%A7%D7%99%D7%A9%D7%A8%D7%90%D7%9C

At the time of the interest rate decision in August 2022, the year over year inflation rate continued to increase and reached a level of 5.2 percent. With that, there was a decline in inflation expectations from the various sources. Economic activity remained at a high level—National Accounts data indicated that GDP was higher, for three quarters, than the trend before the COVID-19 crisis, and the labor market remained tight. The pace of home price increases continued to increase and at the same time there was a decline in the number of transactions and new mortgage volume decreased. The Committee also discussed global activity, which continued to moderate, and the acceleration in the monetary tightening process worldwide. All six Monetary Committee members were of the view that the interest rate should be increased by 0.75 percentage points to a level of 2 percent.

At the time of the interest rate decision in October 2022, the year over year inflation rate had declined slightly but remained above the target‘s upper bound. An analysis of CPI components indicated that the price rises in Israel were broad. In addition, there were increased indications that inflation also derived from domestic factors, which originated in increased demand. Economic activity in Israel remained robust and in particular the labor market continued to indicate tightness. The Committee also discussed the shekel depreciation, against the background of the strengthening of the dollar worldwide, the considerable volatility in the foreign exchange market, and the impact of the exchange rate on the expectation for its return to the target range. As far as the housing market, the pace of increase in home prices remained high, but the number of construction permits and the number of building starts, which had increased in previous quarters, were at a very high level. The Committee also discussed global activity that was continuing to moderate, the strengthening of the monetary tightening trend worldwide, and their impact on the domestic economy. At the end of the discussion, 5 Committee members supported an increase of the interest rate by 0.75 percentage points, to 2.75 percent, and 1 Committee member supported a slightly more moderate increase—of a half a percentage point. The Committee members noted that due to the robust economic activity that was accompanied by a tight labor market and high inflation environment, they decided to continue with an accelerated pace of interest rate increases (front loading).[3]

At the time of the interest rate decision in November 2022, the annual inflation rate returned to increasing and reached 5.1 percent. The Committee continued its assessment that a notable portion of the increase in prices in Israel derives from domestic demand factors. It assessed that the monetary tightening process in Israel and abroad, the moderation in levels of demand, alongside the easings in supply chain disruptions and the decline in commodity prices are acting to moderate inflation. Data on economic activity in Israel continued to indicate a robust growth rate with a slight decline in the most recent data: third quarter growth data were lower than the second quarter, mainly due to a decline in private consumption of durable goods, and labor market data weakened slightly. The Committee also discussed housing market developments and the continued increase in the pace of home price rises. The Committee members noted that indicators point to moderation in the number of home transactions and in new mortgage volume. The Committee members discussed the continued moderation of global activity and the trend of monetary tightening adopted by central banks worldwide. The Committee noted that inflation worldwide remained high, but in

3 Press briefing from October:
https://www.youtube.com/watch?v=vLGKvPH7Kow&ab_channel=BankofIsrael-%D7%91%D7%A0%D7%A7%D7%99%D7%A9%D7%A8%D7%90%D7%9C

some countries, and in particular the US, moderation can be seen in the inflation rate, and that the monetary contraction worldwide continues and some central bank are slowing or signaling a more moderate pace of increase in interest rates going forward. All six Monetary Committee members were of the view that the interest rate should be increased by 0.5 percentage points to a level of 3.25 percent.

At the time of the interest rate decision in January 2023, the inflation rate had increased to 5.3 percent, though in the most recent data there was some moderation in some CPI components, mainly tradables. However, the price increases in Israel remained broad, leading to the Committee's assessment that it reflects the contribution of domestic demand factors. Compared to most advanced economies, the inflation rate in Israel remains relatively low, but net of energy, and fruit and vegetables, the inflation rate is slightly closer to the OECD median. Inflation expectations and forecasts for 1 year and for longer terms were within the target range. Data on activity and the labor market continued to indicate robust economic activity with some decline in the most recent data. According to the Research Department's macroeconomic staff forecast, the level of activity is expected to remain robust and in the economy's potential growth environment, particularly in international comparison. Global activity continued to moderate against the background of the trend of monetary tightening worldwide, the war between Russia and Ukraine, the energy crisis in Europe, and the slowdown in China. The inflation environment worldwide remained high, but in some countries, particularly the US, there was moderation. Due to initial signs of a slowing in inflation, major central banks worldwide slowed their pace of interest rate increases, but monetary policy remained contractionary and was expected to remain like that over the following months. Five out of six Committee members were of the view that the interest rate should increased by 0.5 percentage points to a level of 3.75 percent. One Committee member supported an interest rate increase of 0.75 percentage points, in view of the increase in inflation and the continued depreciation in recent months.[4]

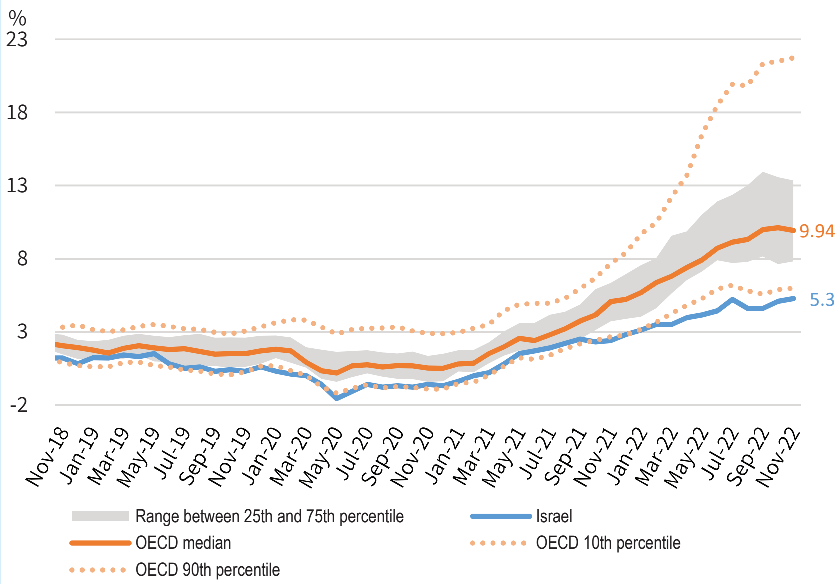
Background Conditions from the Monetary Committee's Perspective

1. The inflation environment

The second half of 2022 was characterized by a high inflation environment compared to recent years, and over the course of the period, the year over year inflation rate remained above the target's upper bound and was characterized by volatility—moderation through September and, later on, a rise back. In November, the year over year inflation rate was 5.3 percent. The inflation rate in Israel continued to be low compared to most advanced economies, around the bottom decile of OECD countries (Figure 2). Some of the differences are explained by gaps in the development of the energy and food components in Israel and abroad (Figure 3). Net of these components, inflation in Israel is at a higher environment, slightly closer to the OECD median. However, and in view of Israel being a small and open economy that includes a significant import component, the high inflation rate worldwide was a force for the increase in the inflation rate in Israel.

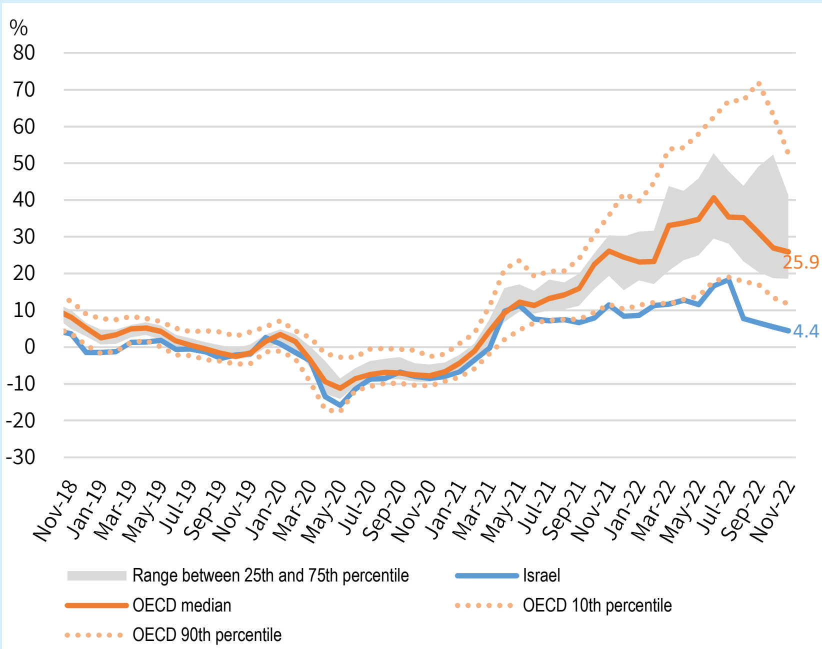
4 The press briefing from January 2023:
https://www.youtube.com/watch?v=2rToaEOzycc&ab_channel=BankofIsrael-%D7%91%D7%A0%D7%A7%D7%99%D7%A9%D7%A8%D7%90%D7%9Cx

Figure 2
Year over year inflation rate in Israel and OECD
November 2018 – November 2022



SOURCE: Based on OECD.

Figure 3
Year over Year Rate of Change in Energy Prices in Israel and OECD
November 2018 - November 2022

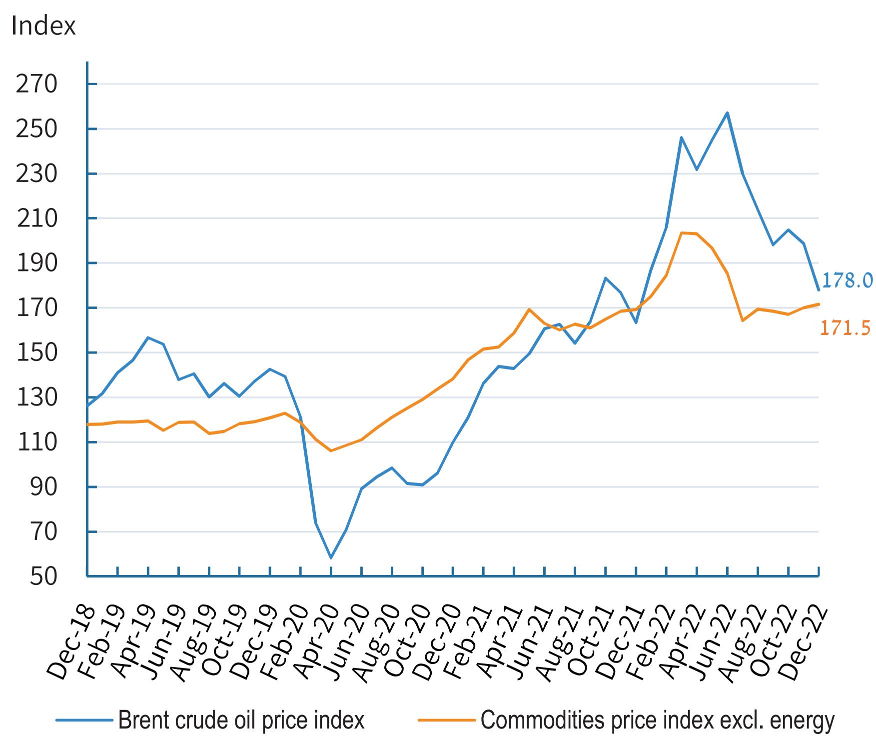


SOURCE: Based on OECD.

Year over year inflation, net of energy and fruit and vegetables, was low compared to the headline CPI through throughout the first half of 2022, a gap that closed during the reviewed half year. In December, the inflation rate net of energy and fruit and vegetables was 5.3 percent, and net of the impact of taxation and regulation as well was 5.1 percent. Global oil prices declined by 8 percent and other commodities' prices declined by 31 percent during the second half of 2022 (Figure 4). The decline of energy prices in the CPI, by 5.2 percent in the second half, made a negative contribution of 0.3 percentage points to the inflation rate.

The Committee assessed that the increase in inflation in Israel derived in the past 2 years from a combination of several factors. Some were on the supply side—external factors in particular—with the most significant being the war between Russia and Ukraine and the international sanctions related to it. The Committee assessed that the war in Ukraine served as a marked shock that impacted first on inflation worldwide, mainly due to the notable increase in energy and food prices and due to that, an increase in prices in Israel as well. This shock was notable for its persistence, considerably more than what was assessed in the beginning of 2022, and was accompanied by a significant concern that inflation would persist because of that. The war's impacts were among the factors that led the Committee to announce its assessment in February that in the coming months, conditions will allow for the start of a gradual process of raising the interest rate, and later led to a stronger need to accelerate the pace of interest rate increases (front loading).

Figure 4
Indices of Commodity and Oil Prices
Monthly average, December 2018 – December 2022, (Index: 2009=100)



SOURCE: Based on Bloomberg.

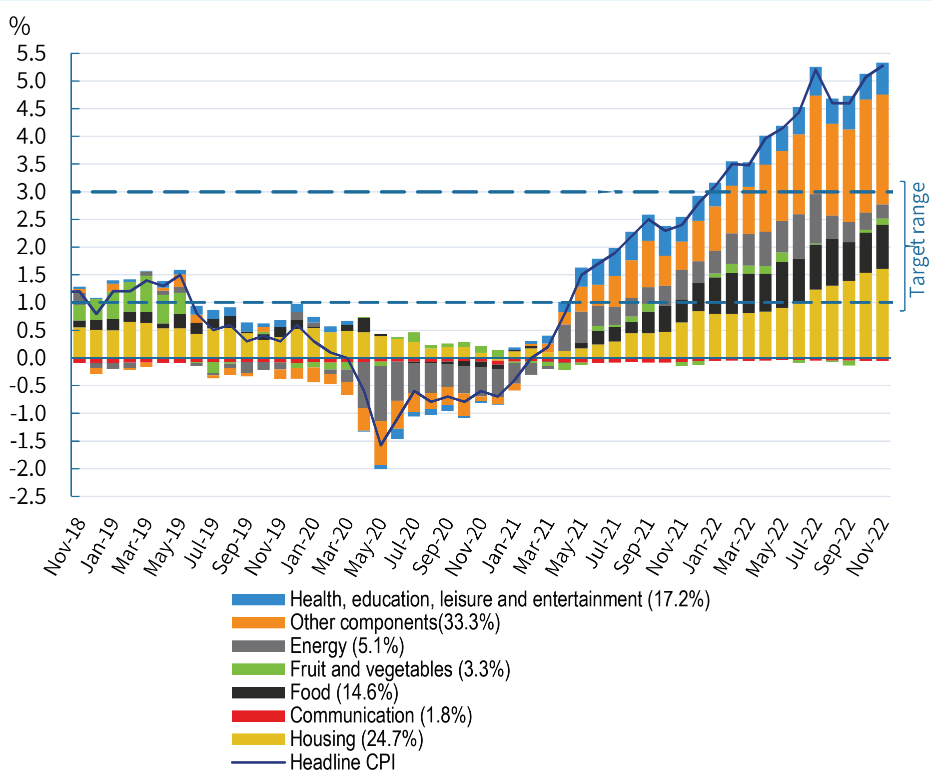
In addition, there were several additional external factors in the past year that led to price increases in Israel, such as global demand, continued disruptions in supply chains, the increase in prices of oil and other commodities; imported inflation; and the shekel depreciation. These factors impacted primarily on tradable goods' prices. The Committee assessed that the impact of supply shocks was lower in Israel than in international comparison.

Inflation in Israel also derived from demand side shocks. During the COVID-19 crisis, there was pent-up demand in Israel, as in other countries. It was released with the listing of the limitations imposed on economic activity with the goal of dealing with the spread of the virus. This increase in demand occurred against the background of the fiscal expansion carried out by the government in order to deal with the economic crisis and that led in parallel to an increase in savings of some households, and against the background of the existence of a tight labor market with an unemployment rate that returned to the low levels that prevailed before the COVID-19 crisis.

Figure 5

Contributions of the Main CPI Components to Inflation[a,b]

November 2018 – November 2022

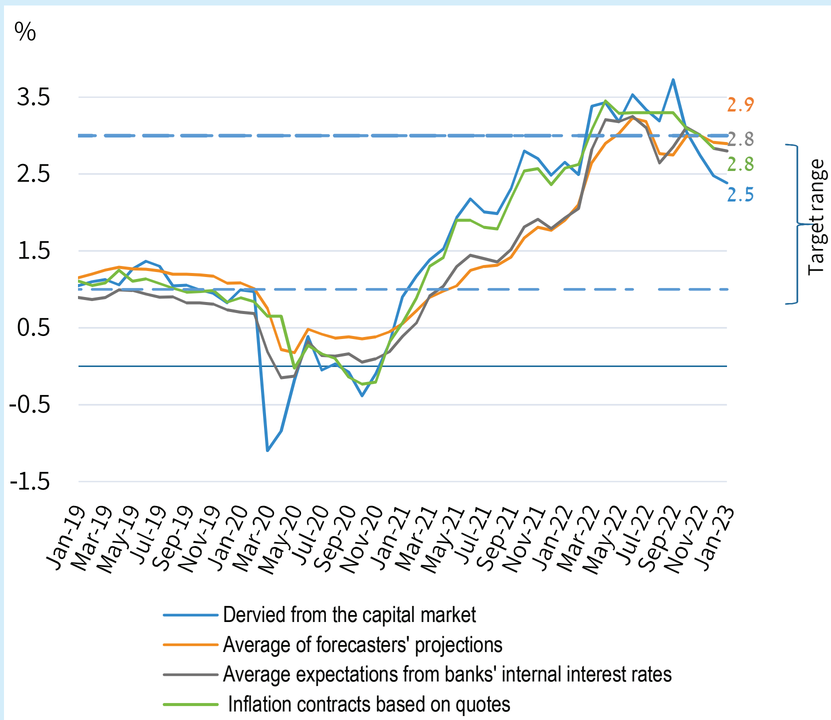


[a] The number in parentheses is the component's share in the headline CPI (as of 2021).
[b] Other includes furniture and household equipment, clothing and footwear, miscellaneous, and the household maintenance and transportation components net of subcomponents relating to energy prices. SOURCE: Based on Central Bureau of Statistics.

During the half year reviewed, there were increasing indications that the price increases were broad—spreads over many components—and the Committee assessed that inflation in Israel derives to a larger extent from an increase in demand for domestic goods and services. An analysis of the wage net of the impact of changes in employee composition indicated that although the wage tended to increase during the reviewed period, it was mainly led by the high tech manufacturing industries. Such analysis was necessary due to the changes that occurred during the COVID-19 crisis due to the closures and workers being placed on unpaid leave. The Committee assessed that the monetary tightening processes in the second half of the year in Israel and abroad, the moderation of the level of demand, easings in supply chains and a decline in prices of oil and other commodities, act to moderate inflation in Israel. However, it assessed that there is also uncertainty regarding the extent of fiscal expansion and wage developments, and that these will have an impact on the pace of convergence of inflation to its target.

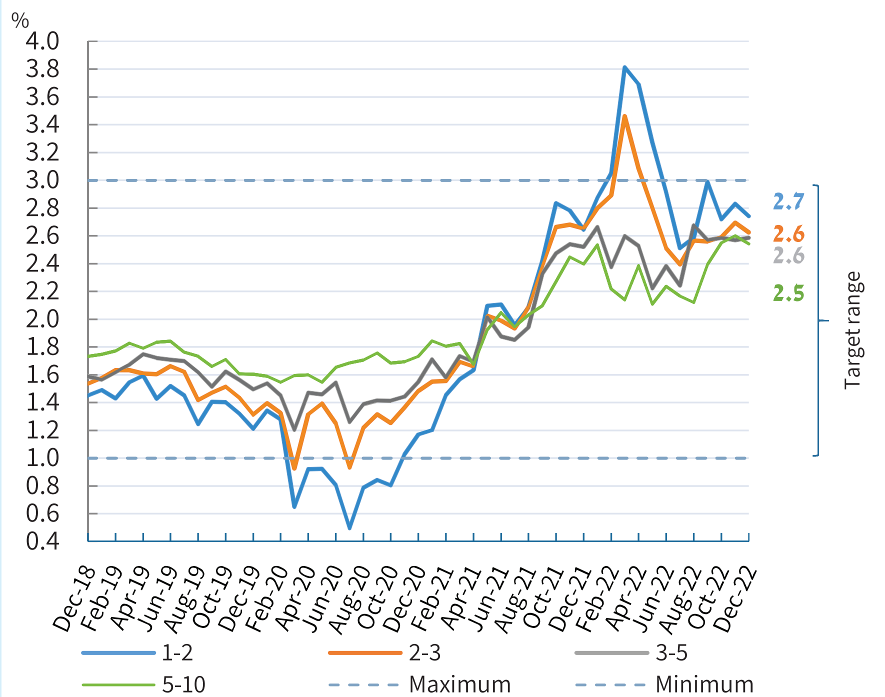
Inflation expectations for the short terms, for a year, and for the 1-year, 1-year forward, were during the course of the reviewed period around the target range's upper bound and at times even above it (Figures 6 and 7). Inflation expectations for longer terms (more than 2 years) continued to be anchored within the target range. As of the end of December, expectations derived from the capital market and those in forecasters' projections for the coming year are within the target range, at 2.5 percent and 2.9 percent, respectively.

Figure 6
One-Year Inflation Forecasts from the Various Sources[a]
December 2018 – December 2022



[a] Monthly averages. SOURCE: Bank of Israel.

Figure 7
Forward Inflation Expectations Derived from the Capital Market[a]
December 2018 – December 2022



[a] Monthly average. SOURCE: Bank of Israel.

2. Domestic real economic activity and the labor market in Israel

The data and indicators presented to the Monetary Committee during the half year reviewed continued to indicate solid growth, with a GDP level in the economy that remains higher than the long-term trend of before the COVID-19 crisis, but also a slight decline in the growth rate seen in the most recent data. In the period reviewed, National Accounts data for the first quarter were revised downward and for the second quarter were revised upward (Table 1). Growth for the third quarter of 2022 was positive, but lower than that of the second quarter. The slowdown in the growth rate was mainly due to a decline in private consumption of durable goods, while current consumption continued to expand (Table 2). Current indicators continued to point in the half year reviewed to a robust level of economic activity and in particular the aggregate balance of the Business Tendency Survey conducted by the Central Bureau of Statistics, which indicated positive assessments by businesses regarding their situation; companies in the manufacturing and construction industries reported a prolonged and notable decline in the equipment and raw materials constraint, however, the level of the constraint remained high compared to before the COVID-19 crisis. In addition, goods exports (excluding ships and aircraft, and diamonds), services exports (excluding startups), and all components of goods imports, remained at a high level.

Several current indicators pointed to a moderation of growth in the third quarter, and among others, goods exports declined slightly and there was an increase in the number of companies reporting an increase in the magnitude of the constraint of a lack of orders, mainly a shortage in orders for export in the services and the high tech manufacturing industries. Looking forward, the Committee assessed that there are growing signs of a slowdown in the global economy, and in Europe in particular, and that these are liable to have an impact on the Israeli economy as well, which as a small and open economy is exposed to global activity.

Table 1
National Accounts - data available at the time of the interest rate decisions
(seasonally adjusted data, quantitative rates of change compared to previous period, in annual terms)

Decision made in		**4/07/22**	**22/08/22**	**3/10/22**	**21/11/22**	**2/01/23**
GDP	2022:Q1	-1.9	-1.8	-2.7	-2.6	-3.3
	2022:Q2			6.8	6.9	7.4
	2022:Q3					1.9
Business sector product	2022:Q1	-1.7	-1.7	-3.6	-3.3	-3.7
	2022:Q2			8.8	9.1	9.8
	2022:Q3					0.6
Private consumption	2022:Q1	-1.5	-0.7	-1.4	-1.0	-1.2
	2022:Q2			10.7	10.4	9.3
	2022:Q3					-2.2
Fixed capital formation	2022:Q1	2.1	2.3	0.5	0.7	0.4
	2022:Q2			6.7	6.5	6.5
	2022:Q3					12.1
Exports excluding diamonds and startups	2022:Q1	-7.0	-8.3	-0.7	0.8	-1.8
	2022:Q2			16.6	16.2	19.9
	2022:Q3					3.6
Civilian imports excluding ships, aircraft, and diamonds	2022:Q1	14.5	14.5	14.9	14.9	13.0
	2022:Q2			13.5	13.5	9.4
	2022:Q3					-2.6

SOURCE: Based on Central Bureau of Statistics.

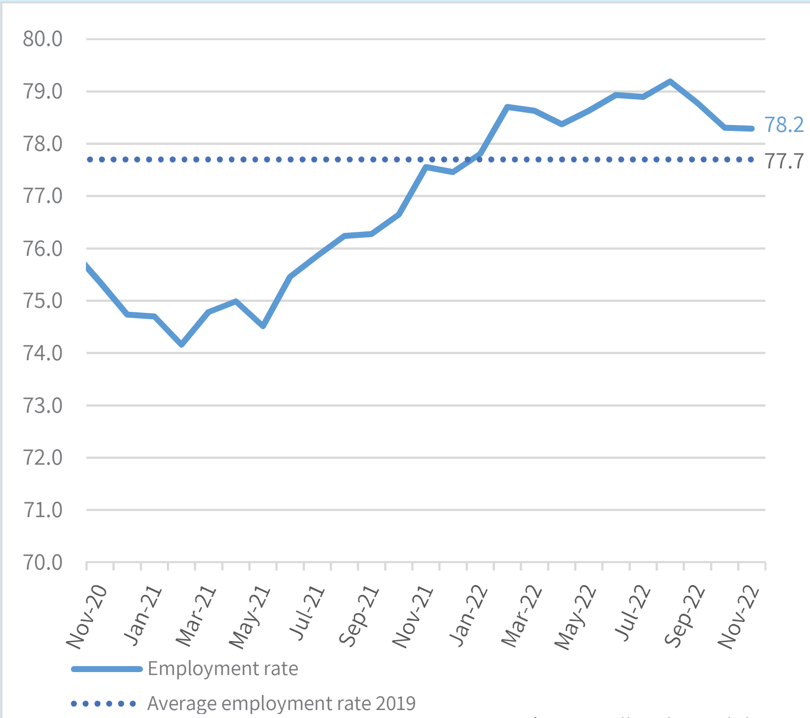
The labor market remained tight during the half year reviewed, with some weakness in the most recent data—a moderate increase in the unemployment rate and a slight decline in the employment rate—but it remained at a high environment that reflects full employment: a low unemployment rate, demand for workers that is still high in most industries, and an employment rate that is similar to its average level before the COVID-19 crisis and even beyond it (Figure 8). The number of job vacancies and their rate out of total posts reached very high levels. At the beginning of the half year, there were signs of a shortage of workers to an extent that limited the ongoing activity of businesses in some industries, so that the tight labor market was reflected in wage pressures in industries characterized by a high wage level and with skilled workers. The nominal wage continued to increase during the period and remained above its pre-crisis trends. However, in real terms, the wage increased less and it is in the environment of the pre-crisis forecast trend. According to the Business Tendency Survey of the Central Bureau of Statistics, at the end of the period there was a decline in businesses' expectations of an increase in the number of employees by them. There was a more significant decline in the high tech manufacturing and accommodation industries.

Table 2
Development of GDP, imports and uses
(seasonally adjusted data, quantitative rates of change compared to previous period, in annual terms)

	2019	2020	2021	2021:Q2	2021:Q3	2021:Q4	2022:Q1	2022:Q2	2022:Q3
GDP	4.2	-1.9	8.6	16.1	9.5	18.5	-3.3	7.4	1.9
Business sector product	4.8	-2.4	10.3	18.3	10.2	23.7	-3.7	9.8	0.6
Imports excluding defense, ships, aircraft and diamonds	2.7	-7.2	18.2	15.5	11.6	26.9	13.0	9.4	-2.6
Private consumption	4.0	-7.9	11.1	29.5	6.2	17.3	-1.2	9.3	-2.2
of which: private consumption excluding durable goods	4.0	-8.6	10.4	24.5	4.4	24.0	0.8	3.8	-0.1
Public consumption	3.0	2.8	4.2	11.8	-0.2	9.9	-10.8	2.4	6.7
of which: public consumption excluding defense imports	3.0	2.6	3.7	9.2	2.9	15.4	-15.1	3.9	2.1
Gross domestic investment	4.9	1.2	12.6	15.8	17.7	26.8	16.0	-5.0	19.5
of which: in fixed assets	3.3	-3.9	11.7	6.6	21.4	18.4	0.4	6.5	12.1
Exports excluding diamonds	5.5	-1.9	13.3	11.4	15.8	30.1	-7.7	23.7	2.1
of which: exports excluding diamonds and startups	5.1	0.2	11.8	9.8	12.4	23.8	-1.8	19.9	3.6

SOURCE: Based on Central Bureau of Statistics.

Figure 8
The Employment Rate for Ages 25-64[1]
November 2020– November 2022

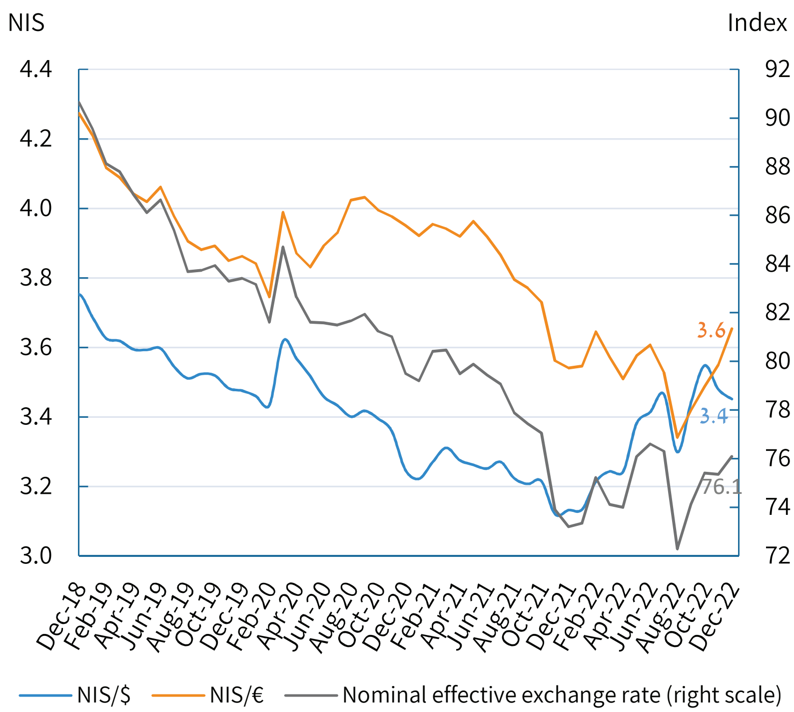


SOURCE: Based on Central Bureau of Statistics. [1]seasonally adjusted data

3. The exchange rate

Over the course of the second half of the year the shekel trend was mixed, with relatively high volatility. At the beginning of the period, the shekel appreciated against major currencies (Figure 9)—from the beginning of July through the end of August, the nominal effective exchange rate appreciated sharply, by approximately 10 percent, but in September there was a marked deprecation of the shekel vis-à-vis the dollar, the euro, and in terms of the nominal effective exchange rate. From October through the middle of December the nominal effective exchange rate was relatively stable, but this stability reflected mixed trends—the strengthening of the shekel vis-à-vis the dollar and its weakening against the euro. At the end of the reviewed period there was an additional depreciation in the shekel. Over the full year, the shekel depreciated by approximately 10 percent against the dollar, but in terms of the nominal effective exchange rate the shekel only depreciated by about 4 percent.[5]

Figure 9
Selected Exchange Rates
Monthly averages, December 2018 – December 2022



SOURCE: Bank of Israel.

5 December 2022 monthly average compared with the figure in the previous year.

The exchange rate serves as a transmission channel for monetary policy, as the developments in the exchange rate have an effect on inflation in Israel and on the development of tradable goods prices, in particular. The Committee assessed that the foreign exchange market in Israel is impacted considerably by investments of foreign institutional investors and by financial market results, while in contrast there are offsetting impacts, such as the high tech manufacturing industry and the investments in it. During the reviewed half year, the Bank of Israel did not intervene in the foreign exchange market.

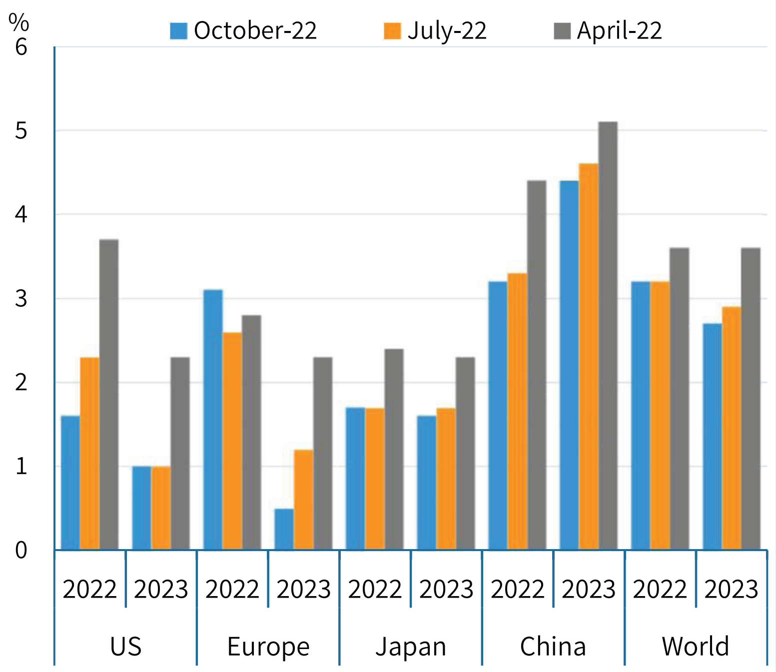
4. The global economy

In the reviewed half year, the slowdown in global activity continued, against the background of the continuing war between Russia and Ukraine, the energy crisis in Europe, and the slowdown in China. In the beginning of the half year reviewed, there were continued disruptions in the supply chains, which led to inflation pressures and to a slowdown in the pace of global economic activity. However, over the course of the half year, both in Israel and abroad, there were some easings in supply chain disruptions and in transport prices.

The increase in the inflation rate worldwide led to monetary tightening by central banks. This trend strengthened over the course of the half-year, with many central banks, including the US Federal Reserve and the ECB, adopting a process of accelerating the pace of increasing the interest rate (front loading). These steps, together with the energy crisis in Europe, the war in Ukraine, and the slowdown in China, continued to contribute to the expectation for continued slowing in economic activity, as was reflected in, among other things, purchasing managers indices in advanced and emerging economies.

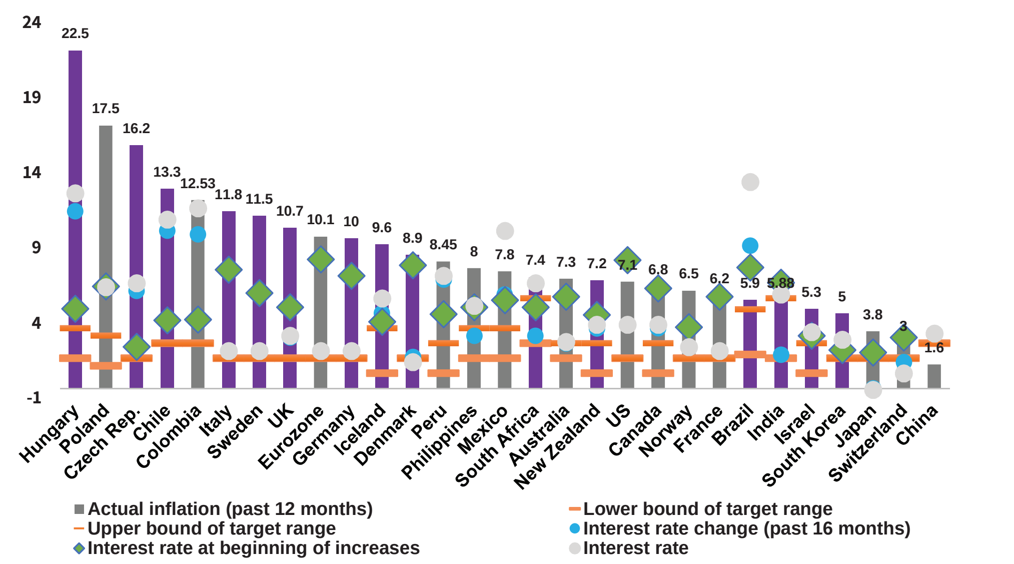
In view of the global developments, world growth forecasts of international institutions and of investment houses were revised downward during the half year (Figure 10). The risk of recession increased in many countries, and in Europe it grew markedly. The inflation environment worldwide remained considerably higher than central bank targets, though in many of the countries, and the US in particular, moderation is apparent—the rate of increase in the CPI in the US declined from a record 9.1 percent in June to 7.1 percent in November. In the eurozone and in the UK, the inflation rate accelerated during most of the half year, and in November it was 11.1 percent in the eurozone, a moderate decline compared to the record in October (11.5 percent). In view of these trends, although the monetary contraction continued worldwide, central banks began to signal a slowing in the future in the pace of the tightening, and some even began to carry that out. In particular, after a series of consecutive increases by a more significant rate of 0.75 percentage points, the US Federal Reserve and the ECB increased the interest rate by only a half a percentage point in December. During the half year, the Fed continued its process of quantitative tightening.

Figure 10
IMF Forecast of Annual Growth Rate, 2022 and 2023



SOURCE: International Monetary Fund.

Figure 11
The Inflation Target, Actual Inflation, and the Change in Central Bank Interest Rates In Israel and Advanced Economies
Status as viewed by the Monetary Committee at the January 2023 decision



*Purple indicates countries that announced tapering before 2022.
SOURCE: Based on central bank data.

5. The credit market and developments in financial markets

The developments in banking business credit indicated that over the course of the half year there was moderation—the growth rate of new bank credit to the business sector slowed and at the same time there were interest rate increases, though nonbank credit (mainly corporate bonds) continued to expand, with a significant portion of it directed to the construction and real estate industry. An additional sign of possible cooling in the business credit market was seen in data from the Business Tendency Survey, which indicated some increase in companies' financing difficulties, though the average level of financing difficulties among large and medium-sized businesses remained low from a long term perspective.

After reaching a record in the beginning of the year, new mortgage volume contracted during the half, though it remained high. New mortgages taken out were characterized by a loan to value ratio (LTV) similar to the average one in the past two years. In contrast, the payment to income ratio (PTI) continued to increase. The various indicators show that households dealt with a continued increase in home prices and with the interest rate increases by lengthening the term to final repayment, purchasing slightly less expensive homes, and increasing their PTI.

The development of the financial markets in Israel in the half year reviewed was similar to the rest of the world. In the beginning, main equity indices in Israel, like abroad, increased, and at the same time, government bond yields declined, with considerable volatility. Later, against the background of a slowing in global activity, interest rate increases, and hawkish forward guidance by central banks worldwide, there was a change in the trend, and there were, along with high volatility, sharp declines in equity indices. In addition, there were marked increases in government bond yields, and corporate bond spreads widened, indicating an increase in default risk due to the changes in the economic environment. From October through December, in view of the slowing in the pace of interest rate increases or the signals of a future slowing, equity indices worldwide increased, and government bond yields both in Israel and abroad remained essentially unchanged. However, from November there were declines in the domestic capital market beyond the worldwide trend. Domestic government bond yields increased markedly at the end of the period reviewed.

6. Developments in the stability of the financial system

The increase in inflation worldwide alongside the rise in interest rates increased the cost of debt, both for countries and for the private sector (businesses and households) and markedly raised the risk of recession. The cost of debt for many countries increased notably, after the scope of debt reached historically high levels. In addition, significant financial difficulties began to arise among developing countries that are dealing with higher financing costs. Although Israel is impacted by global developments, for now only moderately. The balance of business credit to the real estate industry remained throughout the period reviewed high from a historical perspective. Residential real estate prices continued their steeply rising trend, in contrast to the change in the global trend which was reflected in home prices in several advanced economies beginning to decline.

Together with the increase in market volatility, the challenges to financial stability increased. However, the Monetary Committee assessed, through ongoing follow-up of market developments in Israel and their orderly activity, that the financial system in Israel is in a good position.

Table 3
Developments in the Domestic Asset Markets

	07/22	08/22	09/22	10/22	11/22	12/22
Yield to maturity (monthly averages, percent)						
3-month makam	0.9	1.4	1.8	1.9	2.7	3.3
1-year makam	1.7	2.0	2.7	3.1	3.3	3.6
Unindexed 5-year notes	2.4	2.4	3.0	3.3	3.3	3.5
Unindexed 10-year notes	2.6	2.6	3.1	3.4	3.3	3.4
Unindexed 20-year bonds	3.3	3.3	3.5	3.7	3.5	3.6
CPI-indexed 1-year notes	-1.6	-1.1	-1.0	0.0	0.5	1.0
CPI-indexed 5-year notes	-0.2	-0.3	0.2	0.6	0.6	0.8
CPI-indexed 10-year notes	0.3	0.2	0.5	0.7	0.6	0.8
Yield spread between government bonds and corporate bonds rated AA (percentage points)[a]	1.5	1.5	1.6	1.6	1.5	1.6
Stock market (rate of change during the month)						
General shares index	6.3	2.8	-9.0	2.5	-4.2	-4.3
Tel Aviv 35 Index	6.5	3.4	-8.8	5.8	-4.9	-2.8
Foreign exchange market (rate of change during the month)						
$/NIS	-3.1	-1.5	6.0	-0.4	-2.5	2.3
€/NIS	-4.5	-3.9	4.5	0.3	1.9	5.3
Nominal effective exchange rate	-4.3	-3.1	4.4	-0.7	0.1	3.3

a The calculation is based on fixed-rate, CPI-indexed bonds, excluding convertible and structured bonds, with a yield of up to 100 percent and a term to maturity of more than 6 months.
SOURCE: Bank of Israel.

7. Fiscal policy

In 2022, a surplus built up in government activity, of 0.6 percent of GDP. Over the course of the reviewed half year, domestic expenditures stabilized at a markedly lower level than that which characterized the government activity during the COVID-19 period, and slightly lower than the level in 2019. At the same time, domestic revenues continued to increase at a pace higher than expected according to the various forecasts. Examining the source for the anomalous revenues indicated that tax revenues during the past year were made up mostly of direct taxes, and they are explained by a high level of income tax revenues, including a one-off collection campaign, and the collection of real estate taxes. At the end of the reviewed period, real estate tax revenues remained high, but they are dropping sharply. Although income tax revenue remained high compared to its pre-crisis trend, at the end of the half year it converged to its trend.

8. The housing market

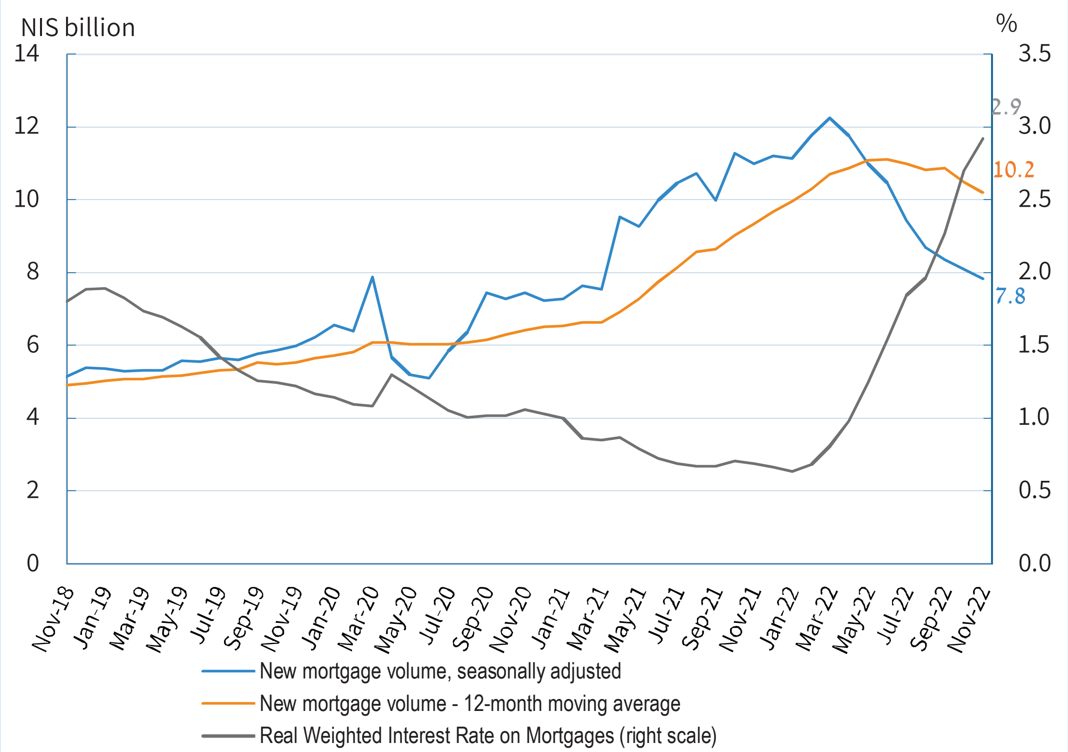
The rate of increase in home prices continued to rise over the course of the second half of 2022. In the 12 past months, home prices rose by approximately 20 percent, a markedly high pace compared to that of recent years. Alongside that, the number of home transactions and new mortgage volume declined consistently throughout the half year, but remain for now at historically high levels (Figure 12). At the same time, rent prices also accelerated at a rapid pace compared to that of recent years, and the Owner-Occupied Housing Services index increased by about 6 percent in the past year (Figure 13). At the end of the reviewed period, there was a real annual rise in rents of about 1 percent.

In the half year reviewed, there were also developments on the supply side. Construction data indicated a prolonged increase in the number of building starts and of construction permits, which reached high levels. In contrast, data on building completions, against the background of a lengthening of construction duration, remained low. The Governor of the Bank of Israel emphasized over the course of the period that the issue of home prices, beyond being an economic problem, is also a substantial social issue.

Figure 12

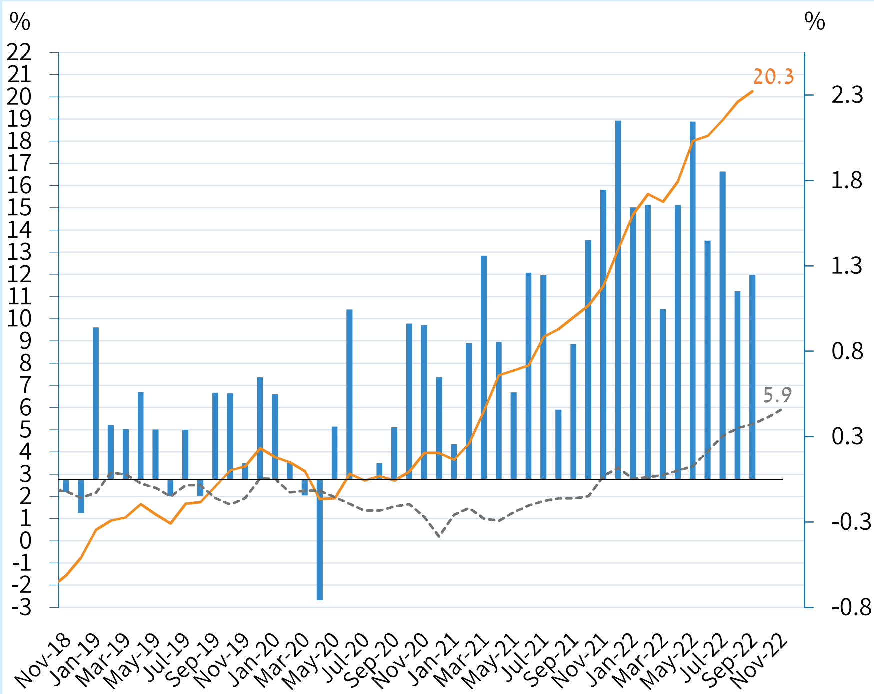
New Mortgage Volume and the Real Weighted Interest Rate on Mortgages

November 2018 – November 2022



SOURCE: Bank of Israel - Banking Supervision Department.

Figure 13
Home Price Survey and Owner-Occupied Housing Service Index
November 2018 – November 2022



SOURCE: Based on Central Bureau of Statistics.

The Macroeconomic Forecast and the Committee's Assessment Regarding the Expected Trajectories

1. The Research Department's macroeconomic forecast

The Research Department published three staff forecasts during the reviewed half year, concurrent with three interest rate announcements—in July 2022, October 2022, and January 2023.

According to the January 2023 forecast, GDP will grow in 2022 by 6.3 percent, slightly above the forecast from October (6 percent), and a higher rate than forecast in July (5 percent). In contrast, the growth forecast for 2023 was revised downward, from 3.5 percent to 3 percent in the October forecast and to 2.8 percent in January forecast. However, the level of GDP at the end of 2023 is expected to be higher than what was assessed in the beginning of the half year. The unemployment rate among the prime working ages (25–64) is expected to be 4 percent, on average, in 2023. The debt to GDP ratio in 2022 and 2023 is expected to be 62 percent, lower than assessed in the July and October forecasts. The inflation rate is expected to be at the upper bound of the target—3 percent—in 2023.

2. The expected inflation and growth trajectories

Economic activity remained robust during the half year reviewed, and the GDP level continued to be higher than the pre-crisis long-term trend. However, there was a slight decline in third quarter growth data. Labor market data indicated a similar picture—a tight labor market with some weakness in the most recent data. Looking ahead, the Monetary Committee assessed that there are increasing signs of a slowdown in global economic activity, particularly in Europe, and that these are liable to leave their mark in the Israeli economy as well, which as a small and open economy is exposed to global activity.

The inflation environment remained high compared to recent years and throughout the half year, the year over year inflation rate was above the target's upper bound. The Committee assessed that the increase in inflation in Israel in the past 2 years derived from a combination of factors from the supply side and in particular, factors external to the economy, but also by shocks from the demand side. Over the course of the half year, the picture presented to the Committee became clearer—that the price increases are broad and that inflation in Israel derives to a greater extent from an increase in domestic demand. The Committee assessed that the monetary tightening processes in Israel and abroad in the second half of the year, the moderation of the level of demand, the easings in supply chain disruptions, and the decline in oil and other commodity prices, are acting to moderate the inflation rate. However, the Committee assessed that the extent of fiscal expansion and the development of wages will have a moderating impact on the pace of convergence of the inflation rate to its target.

In the Research Department's forecast at the beginning of 2022, the assessment was that the inflation rate is expected to return to the target range during that year. In view of the developments in Israel and abroad during the half year reviewed, the assessments and forecasts from July and October were updated, and the expectation was that the date of return will occur in 2023. According to the Research Department's revised forecast of January 2023, inflation will return to the target range only at the end of 2023. Due to the increase in the inflation environment along with strong activity data, the Monetary Committee continued with a calculated and determined increase in the interest rate. The monetary policy was characterized in the half year reviewed by an acceleration of the interest rate increases relative to the expectations regarding the interest rate by to the forecasts at the time (front loading).

In the reviewed half year, the GDP level continued to be above the pre-COVID-19 crisis long-term trend, but according to the Research Department's forecast in January and the assessments of the Monetary Committee, GDP growth is expected to slow in 2023, so that the GDP level will decline to slightly below the trend.

The Committee is determined to retrieve the inflation rate to within the target range defined as price stability, a necessary condition for economic stability and a growth-supporting environment. The Committee emphasizes that the pace of raising the interest rate in the future will be determined in accordance with data on activity and the development of inflation, in order to continue to support the attainment of the policy goals. This is because high inflation involves increasing uncertainty and a difficulty in making decisions at the household and business level, and thus it weighs on economic conduct and adversely impacts growth and welfare, first and foremost among weaker strata. In addition, the more that inflation becomes entrenched, the more difficult it becomes to eradicate it and stricter monetary policy is required to restrain it.

Table 4
Research Department Forecast
(Rate of change in percent, unless otherwise noted)

Forecast for year:	2022			2023		
Date of forecast	**07/22**	**10/22**	**01/23**	**07/22**	**10/22**	**01/23**
GDP	5.0	6.0	6.3	3.5	3.0	2.8
Private consumption	7.5	8.0	7.0	4.5	3.5	4.0
Fixed capital formation (excluding ships and aircraft)	5.0	8.0	9.0	3.0	3.0	3.0
Public consumption (excluding defense imports)	4.0	4.0	1.0	3.0	4.0	3.5
Exports (excluding diamonds and startups)	3.0	8.0	10.5	2.5	2.5	2.0
Civilian imports (excluding diamonds, ships and aircraft)	7.5	12.5	11.5	3.0	3.5	4.0
Unemployment rate (ages 25-64, yearly average)	3.3	3.1	3.2	3.5	3.5	4.0
Government deficit (percent of GDP)	0.7	0.3	-0.3	1.2	1.0	1.8
Debt to GDP ratio	66.0	65.0	62.0	63.9	63.0	62.0
Inflation rate[a]	4.5	4.6	5.2	2.4	2.5	3.0
Date of forecast	**07/22**	**10/22**	**01/23**			
Inflation in the coming year[b]	3.3	2.7	3.0			
Interest rate in another year[c]	2.75	3.5	4.0			

a Average of CPI in the final quarter of the year vs. the average CPI in the final quarter of the previous year.

b Over the 4 quarters ending in the corresponding quarter of the next year.

c In the corresponding quarter in the next year.

SOURCE: Bank of Israel.