Chapter 3
Inflation and Monetary Policy

- In 2021, the Bank of Israel continued to conduct an accommodative monetary policy in view of the continuing morbidity waves. The interest rate was left at 0.1 percent, and the purchase of government bonds continued, ending toward the end of the year. The monetary policy measures contributed to the impressive recovery of employment and economic activity.
- The Consumer Price Index increased by 2.8 percent in 2021—within the price stability target range and close to its upper bound. This pace of inflation is significantly higher than in 2020, the year in which the COVID-19 pandemic broke out, and is the highest in the past decade. The picture is similar net of the volatile energy and food components.
- The main upward forces on inflation were the recovery of domestic demand following the COVID-19 crisis and the increase in global inflation resulting from the recovery of global demand and interruptions on the supply side. In contrast, the appreciation of the shekel worked to moderate inflation in Israel by lowering the shekel price of imported goods.
- Inflation in Israel was significantly lower than in other OECD countries in 2021. Part of the gap this year was due to the appreciation of the shekel.
- Alongside the increase in inflation, there were also significant increases in inflation expectations for all horizons. Despite their increase, medium- and long-term expectations remained anchored within the inflation target.
- Toward the end of the year, the central banks in some OECD countries began reducing the extent of their monetary accommodation, because inflation in those economies increased to levels beyond their inflation targets. In Israel, the Bank began tapering its accommodation in the second half of the year, when the Monetary Committee decided to end some of the announced programs. By the end of the year, the Bank had ended the special programs that were operated during the COVID-19 crisis. The exit from the monetary programs was completed without shocks to the financial markets.
- In view of the increase in inflation expectations, the accommodative monetary policy contributed to a decline in real yields, thereby further supporting economic activity, and contributing to an increase in demand for assets.
- The shekel appreciated by 7.9 percent in terms of the nominal effective exchange rate in 2021. The appreciation was supported by foreign exchange sales by institutional investors, the large current account surplus, and capital raised by the high-tech sector.
- In response to the sharp appreciation of the shekel at the beginning of the year, and in view of the outbreak of the third wave of the COVID-19 pandemic, which forced restrictions on economic activity that led to a sharp increase in the unemployment rate, and in view of the negative inflation environment, the Bank of Israel announced its intention to purchase $30 billion in foreign exchange over the course of the year. After the shekel again strengthened sharply toward the end of the year, and in view of the fourth wave of the pandemic, the Bank increased its purchases beyond that amount. In total, the Bank purchased about $35 billion over the course of the year, thereby moderating the appreciation of the shekel.

MONETARY POLICY TARGETS

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. The government determined that price stability means an annual inflation rate in a range of 1–3 percent. It was further determined that when inflation deviates from the target range, the Bank must adopt a policy that it believes will return it to the range within a period that does not exceed two years; (2) to support other objectives of the Government's economic policy, especially growth, employment, and reducing social gaps, provided that, in the Committee's opinion, this support shall not prejudice the attainment of price stability over the course of time; and (3) to support the stability and orderly activity of the financial system.

Since October 2011, monetary policy is set by the Bank of Israel Monetary Committee. The conception whereby the central bank has a number of objectives, chiefly maintaining price stability, is referred to in the literature as "flexible inflation targeting". In such a regime, when inflation deviates from the target range, policy makers act to return it gradually to within the range. This gradual nature allows policy makers to also work to achieve the Bank's other objectives, while maintaining price stability in the medium and long terms. The Bank has a variety of tools available to help it achieve its objectives, and is independent in the use of those tools.

This chapter analyzes the changes that took place in the inflation environment this year in view of the economic recovery from the COVID-19 crisis, and how the Monetary Committee acted in response to those changes while also supporting the continued recovery.

1. INFLATION

Inflation in 2021 totaled 2.8 percent—within the price stability target range, and close to its upper bound. This rate was the highest in the past decade.

Inflation in 2021 totaled 2.8 percent—within the price stability target range, and close to its upper bound. This rate was the highest in the past decade, after inflation in 2020 totaled -0.7 percent (Table 3.1). Even excluding the energy and food components, which are volatile, inflation increased markedly—by 2.4 percent in 2021, following inflation of -0.1 percent in 2020 (Table 3.2). The increase in inflation this year is closely related to the recovery process from the COVID-19 crisis, both in Israel and abroad. The recovery in the Israeli economy led to an increase in domestic demand, which was reflected in increases in the prices of nontradable goods, which were virtually unchanged in 2020. The global recovery, which was accompanied by a slow response on the supply side, was reflected in price increases for imported goods and inputs in Israel, after such prices fell markedly in 2020 (Figure 1). The three components that led the price increases this year were housing, food, and transportation and communication (Table 3.2), which have relatively high weights in the Consumer Price Index.

Table 3.1
Main indicators of inflation and monetary policy, 2017–2021

	2017	2018	2019	2020	2021	2021 Q1	2021 Q2	2021 Q3	2021 Q4
A. Inflation (percent)									
1. Inflation target	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
2. Actual inflation[a]	0.4	0.8	0.6	-0.7	2.8	0.8	0.8	0.9	0.3
3. Seasonally adjusted quarterly inflation[b]						2.4	2.8	3.6	2.4
4. One-year inflation expectations derived from capital market[c]	0.2	1.0	1.1	0.0	1.9	1.2	1.9	2.1	2.7
5. Ten-year inflation expectations derived from capital market[c]	2.3	1.8	1.6	1.6	2.0	1.9	1.8	1.9	2.3
6. Forecasters' one-year inflation forecasts[c]	0.6	1.0	1.2	0.5	1.2	0.7	1.1	1.3	1.7
B. Yields (percent)[c]									
1. Bank of Israel declared interest rate	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1
2. Real yield to maturity on one-year government bonds[d]	-0.1	-0.8	-0.8	0.1	-1.9	-1.1	-1.8	-2.0	-2.6
3. Nominal yield to maturity on ten-year government bonds[e]	2.1	2.2	1.6	0.8	1.2	1.1	1.3	1.2	1.3
4. Real yield to maturity on ten-year government bonds[e]	0.6	0.5	0.0	-0.5	-0.8	-0.5	-0.6	-0.8	-1.1
C. Change in the shekel exchange rate (percent)[f]									
1. Nominal effective	-3.9	2.6	-8.0	-4.7	-7.9	1.2	-1.3	-2.5	-5.5
2. Vis-à-vis the dollar	-8.5	7.1	-7.4	-6.6	-3.6	2.0	-1.8	-1.4	-2.4
3. Vis-à-vis the euro	2.7	3.1	-9.6	2.3	-10.4	-0.2	-0.6	-3.7	-6.1
D. Asset prices (percent)									
1. Overall yield on shares (nominal)[f]	-1.1	-3.9	17.8	-0.4	30.9	5.2	6.8	5.1	10.9
2. Home prices	1.4	-0.8	4.2	4.0	13.0	2.3	2.5	2.4	5.2
E. The monetary aggregates (nominal rates of change)[f]									
1. M1 money supply	12.6	12.2	5.1	29.4	22.0	7.3	4.4	6.7	2.1
2. M1 + SRO[g] + unindexed shekel deposits of up to one year (M2)	8.4	2.0	6.3	26.0	17.5	5.2	3.1	4.8	3.3
F. Other background data (percent, seasonally adjusted quarterly data)									
1. Unemployment rate	4.2	4.0	3.8	4.4	5.0	5.1	5.3	5.0	4.4
2. GDP growth rate[h]	4.4	4.0	3.8	-2.2	8.2	-1.1	15.8	7.0	17.6

[a] Change in CPI during the period.

[b] As calculated by the Central Bureau of Statistics.

[c] Period average

[d] Based on the zero coupon yield curve. Period average.

[e] Gross yield, based on the zero coupon yield curve. Period average.

[f] Average of last month in period compared with average of last month in previous period. Minus sign refers to appreciation of the shekel.

[g] Self-Renewing Overnight Deposit (Current Credit Deposit) - a liquid daily deposit.

[h] Annual average compared with average of previous year.

SOURCE: Bank of Israel, Ministry of Finance, and Central Bureau of Statistics.

Table 3.2
Development of prices, by various components, 2017–2021

Period	Consumer Price Index (100%)	Fruit and Vegetables (3.30%)	Food (14.58%)	Housing (24.73%)	Dwellings Maintenance (9.17%)	Furniture and Household Equipment (3.61%)	Clothing and Footwear (2.88%)	Education, Culture and Entertainment (11.20%)	Health (6.04%)	Transport and Communication (18.43%)	Miscellaneous (6.05%)	Energy Index[a]	CPI excluding energy and food	CPI excluding energy, food, and fruit and vegetables	CPI excluding energy, and net of government-initiated price changes	Nontradable component minus electricity, water, communications, food, and fruit and vegetables	Nontradable component minus electricity, water, communications, and fruit and vegetables	Seasonally adjusted CPI[b]
									(end of period, rate of change, percent)									
2017	0.4	-3.8	0.2	2.4	1.1	-3.8	-4.6	0.1	1.0	-0.9	0.5	3.4	0.1	0.2	0.5	2.0	1.8	
2018	0.8	12.4	1.3	1.9	0.8	-1.2	-2.9	0.2	-0.1	-0.5	0.1	-1.5	0.9	0.5	1.1	1.5	1.5	
2019	0.6	-2.8	1.1	2.1	1.8	-2.5	-5.5	1.3	0.0	-0.2	-0.5	2.5	0.4	0.5	0.3	1.8	1.7	
2020	-0.7	4.4	-0.6	-0.2	-0.6	-0.1	-5.7	0.2	-0.6	-2.1	-0.4	-8.2	-0.1	-0.4	-0.2	0.1	0.1	
2021	2.8	-2.0	3.5	3.4	2.7	8.3	-7.3	3.2	1.5	3.3	1.7	7.5	2.4	2.5	2.2	3.4	3.4	
									(monthly rate of change, percent)									
2021																		
January	-0.1	-2.7	0.3	0.3	0.3	0.8	-9.7	0.0	0.1	0.5	0.1	-0.6	-0.2	0.0	-0.1	0.2	0.2	0.2
February	0.3	1.2	0.1	0.2	0.0	0.4	0.5	0.2	0.0	0.6	0.4	1.7	0.2	0.1	0.2	0.2	0.1	0.3
March	0.6	-1.5	0.2	0.6	0.0	0.8	4.6	1.2	-0.2	0.8	0.0	2.4	0.6	0.6	0.4	0.6	0.6	0.3
April	0.3	3.0	0.7	-0.1	0.3	0.4	2.8	0.3	-0.1	0.1	0.1	0.3	0.2	0.2	0.4	0.1	0.1	0.1
May	0.4	3.4	-0.1	-0.1	0.4	0.3	2.0	1.0	0.5	0.1	0.3	0.2	0.5	0.4	0.4	0.3	0.2	0.3
June	0.1	-2.1	0.8	0.2	0.2	0.4	-3.0	0.3	0.3	0.2	0.0	0.6	-0.1	-0.1	0.0	0.3	0.4	0.2
July	0.4	-0.7	0.2	0.4	0.5	0.4	-4.7	0.7	0.5	1.5	0.2	1.6	0.4	0.5	0.4	0.5	0.5	0.3
August	0.3	1.7	-0.4	0.5	0.2	0.6	-1.7	0.9	0.2	0.1	-0.1	0.4	0.4	0.3	0.2	0.5	0.4	0.3
September	0.2	4.1	0.6	0.3	0.3	0.8	-1.5	-1.0	0.2	0.1	0.2	-0.3	0.2	0.0	0.3	0.0	0.1	0.3
October	0.1	-1.4	0.9	0.0	0.3	0.2	3.6	0.7	0.2	-1.1	0.2	0.9	-0.1	0.0	0.1	0.2	0.3	0.0
November	-0.1	-4.6	-0.3	0.3	0.0	2.4	-0.8	-0.8	-0.2	0.4	0.1	2.0	-0.2	0.0	-0.3	0.0	0.0	0.2
December	0.3	-1.9	0.5	0.8	0.2	0.7	1.1	-0.3	0.0	0.0	0.2	-1.8	0.4	0.4	0.3	0.4	0.4	0.4

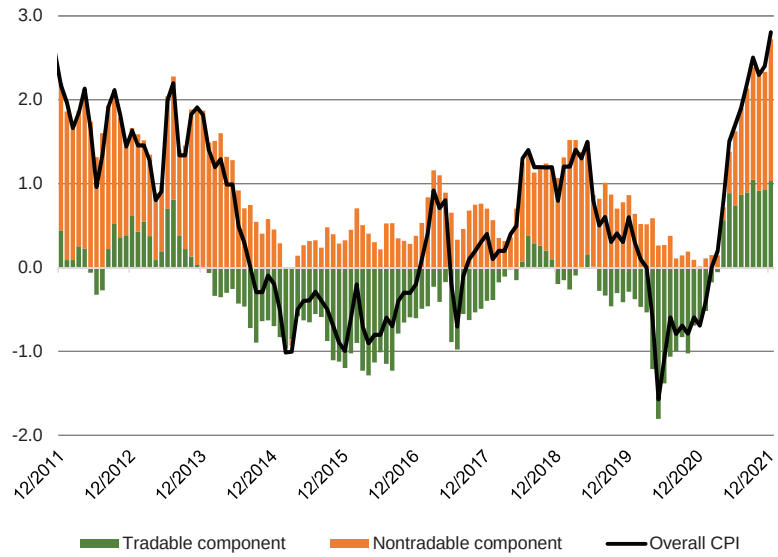
[a] The energy component includes vehicle fuels and oils, and household electricity, natural gas and diesel.

[b] As calculated by the Bank of Israel Research Department (see Box 1 in the Inflation Report for the first quarter of 2010).

The numbers in parentheses are the weights of the components in the overall CPI as of January 2021.

SOURCE: Based on Central Bureau of Statistics.

Figure 3.1
Annual Inflation and Contribution of the Tradable and Nontradable Components, December 2011–December 2021 (percent)

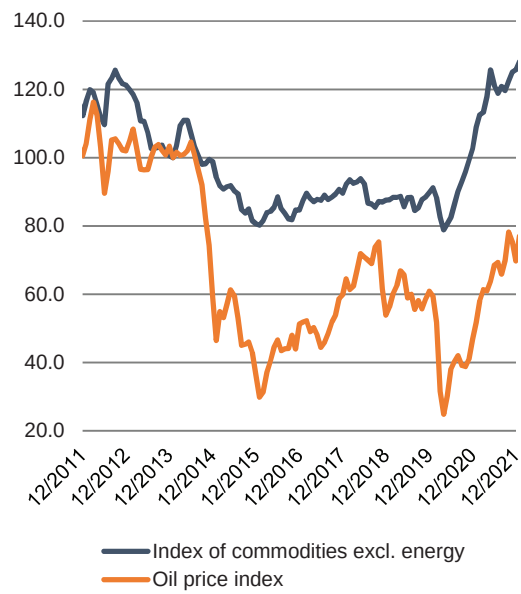


SOURCE: Bank of Israel calculations.

a. The global environment

Following 2020, which featured significant price declines influenced by the decline in demand due to the COVID-19 crisis, global demand recovered rapidly in 2021, influenced by the improvement in the global handling of the pandemic. The recovery of demand was also boosted by the very accommodative monetary and fiscal policies adopted around the world in response to the crisis. In many countries, demand increased to levels higher than before the crisis, which reflected the realization of pent-up demand from during the crisis. The supply side had difficulty keeping up with the sharp increase in demand. The pandemic continued to make

Figure 3.2
Global Energy and Raw Commodity Prices, December 2011–December 2021 (index: Jan. 2014=100)



SOURCE: Bank of Israel calculations.

Following 2020, which featured significant price declines influenced by the decline in demand due to the COVID-19 crisis, global demand recovered rapidly in 2021, influenced by the improvement in the global handling of the pandemic.

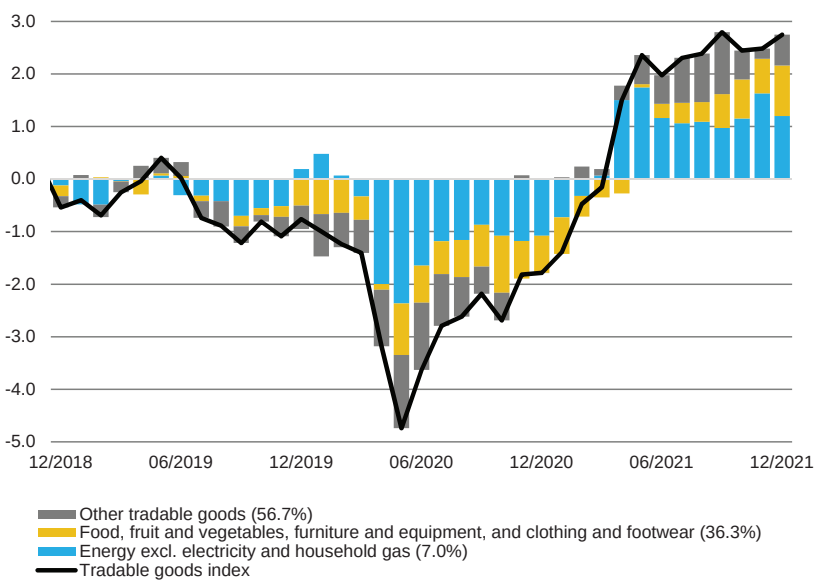
it difficult for manufacturing industries to function in many countries, and created operational difficulties at ports, which were accompanied by significant supply interruptions. In addition, a lack of means of transport to ship goods that were in demand was reflected in a sharp increase in maritime shipping costs.[1] Thus, the recovery of demand together with the slow response of supply led to a sharp increase in the prices of many goods, particularly energy, some to significantly higher levels than before the crisis (Figure 3.2), and a sharp increase in inflation in many countries. The global price increases spurred inflation in Israel, as will be described below.

b. The domestic environment

The increase in the prices of energy, inputs, and other imported commodities was reflected in an increase in the price of tradable goods in the Consumer Price Index, which constitutes 37 percent of the overall index. This followed declines in these prices in 2020.

The increase in the prices of energy, inputs, and other imported commodities was reflected in an increase in the price of tradable goods in the Consumer Price Index, which constitutes 37 percent of the overall index. This followed declines in these prices in 2020 (Figure 3.3). The appreciation of the shekel had a moderating effect on these prices, since it led to a decline in shekel prices, thereby offsetting some of the price increases. In addition, the excise component in gasoline prices, which is set in shekels, also worked to moderate the rate of price increases. Over the year as a whole, the prices of tradable goods increased by 2.8 percent. The prices of nontradable goods and services, which constitute 63 percent of the CPI, also increased by a significantly greater rate than in 2020, increasing by 2.7 percent over the year as a whole (Figure

Figure 3.3
Inflation of the Tradable Component, December 2018–December 2021 (percent)



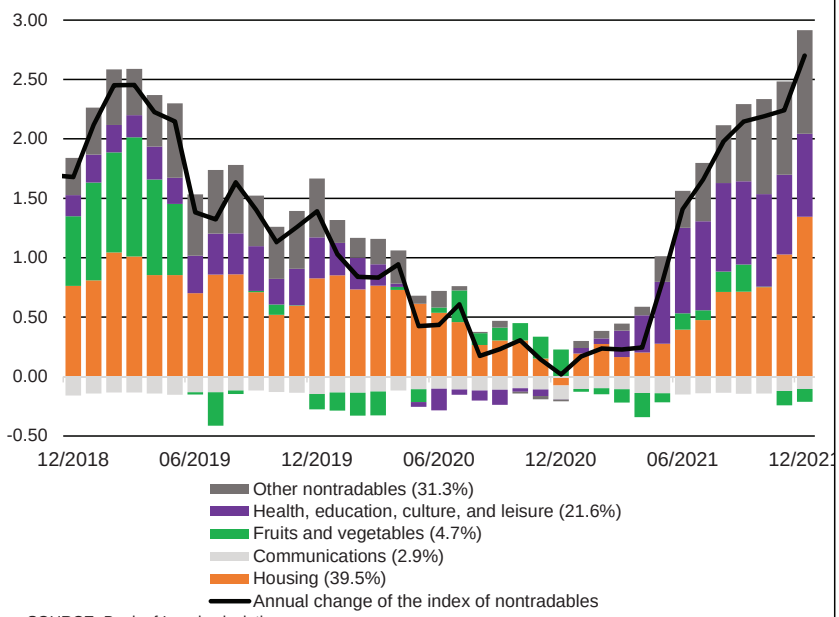
SOURCE: Bank of Israel calculations.

[1] For more information, see IMF, *World Economic Outlook*, October 2021.

3.4). Some of the acceleration of inflation in nontradable goods and services was due to higher prices for imported inputs, while some was due to the increase in domestic demand. (For more information on the recovery of demand, see Chapter 2.)

The prices of nontradable goods and services, which constitute 63 percent of the CPI, also increased by a significantly greater rate than in 2020.

Figure 3.4
Inflation of the Nontradable Component, December 2018–December 2021
(percent)



SOURCE: Bank of Israel calculations.

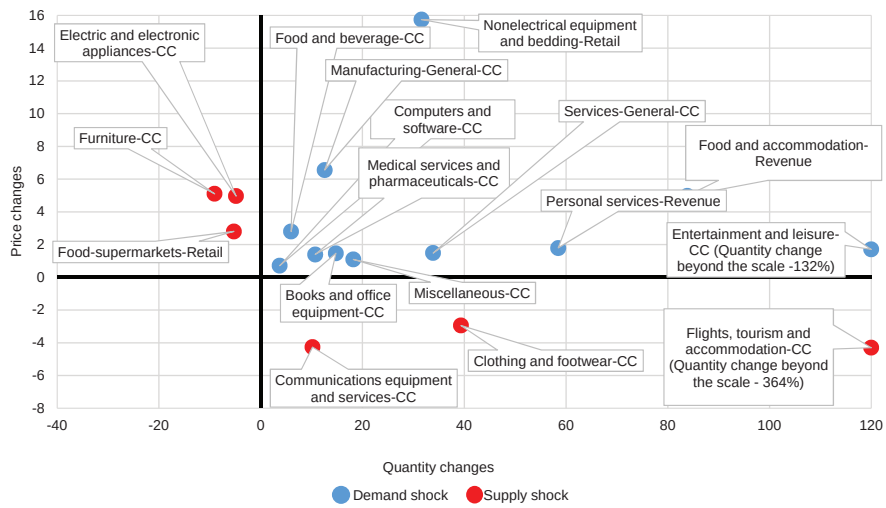
(1) Prices and the recovery from the COVID-19 pandemic—Effects on supply and demand

The global and domestic recovery from the COVID-19 crisis had an impact on prices, as stated, from both the supply and demand sides. Below, we examine the recovery's effect on prices and quantities in a number of industries and subindustries that, together, account for about 60 percent of the Consumer Price Index. Figure 3.5 outlines the changes in the prices of goods and services in various industries (Y axis) and the changes in the quantities of those goods and services supplied (X axis) from November 2020 to November 2021.[2] The Figure is divided into four quadrants based on the price-quantity combination. Points in the quadrants where quantity and price moved in the same direction represent industries where the change in demand had the dominant effect during the year. Points in the quadrants where quantity and price moved in opposite directions represent industries where the change on the supply side

[2] The period was chosen in accordance with the availability of data and in order to maintain a comparison period of one year. The quantities reported are based on data from credit card purchases, the retail sales index, and the revenue index in the various industries.

had the dominant effect. The Figure shows that in most industries, prices increased in parallel with a growth in activity. It also shows that the growth in demand was most prominent in industries that were very hard hit during the COVID-19 crisis, such as leisure and entertainment and food and accommodation. These industries enjoyed a large increase in demand following the end of the lockdowns, which led to renewed consumption of their products. In other industries, the dominant effect was on the supply side. For instance, in the electric and electronic appliance industry, prices increased as quantities declined, which is consistent with the effects of the global supply chain interruptions described above, which were reflected mostly in tradable goods. Finally, there are also industries where the price declined as quantities increased—a positive supply effect that may be due to the appreciation of the shekel, which acted to lower prices in industries such as flights, tourism, and accommodation.

Figure 3.5
Price and Quantity Changes, November 2021 compared to November 2020 (percent)



Note: "CC" refers to the Index of Credit Card Purchases; "Revenue" refers to the economy's revenue index; and "Retail" refers to the Retail Sales Index.
SOURCE: Bank of Israel calculations.

(2) The recovery of demand and the implications for the costs of production

The price changes this year reflected, to a great extent, the recovery of demand with the economy's gradual exit from the COVID-19 crisis.

As stated, the price changes this year reflected, to a great extent, the recovery of demand with the economy's gradual exit from the COVID-19 crisis. The growth in demand works to increase inflation through two channels. First, it works to increase demand for workers, putting upward pressure on wages, which is a central component in the cost of production of many goods and services, and the increase in the costs of production encourages manufacturers to raise the prices of their products. Second, higher demand may enable manufacturers to charge higher prices relative to their

costs of production, particularly in industries where consumer demand is relatively inelastic.[3]

The way in which wages reacted to developments this year was important in terms of the question of the temporary nature of inflation—a sharp increase in wages is expected, as stated, to lead to a further increase in inflation, thereby creating a prolonged process of increasing inflation. According to a Research Department analysis that adjusts for the impact of the employment component on wages, it seems that the rate of increase in the nominal wage this year accelerated relative to the low level it had reached at the peak of the COVID-19 crisis, and that in the second half of 2021, the rate of increase was not exceptional, reaching a level similar to that of 2019—prior to the COVID-19 period. (See the analysis in Chapter 2.)

An analysis of the GDP labor share, which is an approximation of firms' costs of production, shows that it declined this year as a result of an increase in productivity. (For more information, see Chapter 2.) Thus, the increase in productivity enabled firms to absorb the increase in wages without putting upward pressure on inflation.

(3) Housing

The housing component (which measures rents) accounts for about one-quarter of the Consumer Price Index. As such, developments in this component have a large effect on overall inflation. Following the moderate decline in this component in 2020, influenced by the COVID-19 crisis, it again increased in 2021, at a rate that was similar to, and even slightly higher than, its rate in the precrisis years—3.4 percent (Table 3.2). The owner-occupied housing services component, which measures rents in new and renewing contracts and accounts for about 70 percent of the housing component, increased by 3.3 percent, while the rent component increased by just 1.1 percent in 2021. For the year as a whole, the housing component contributed about 0.8 percentage points to overall inflation. The increase in the housing component this year was supported by the improvement in the labor market and the decline of economic uncertainty, as well as by the compensation demanded by landlords for the general increase in prices.

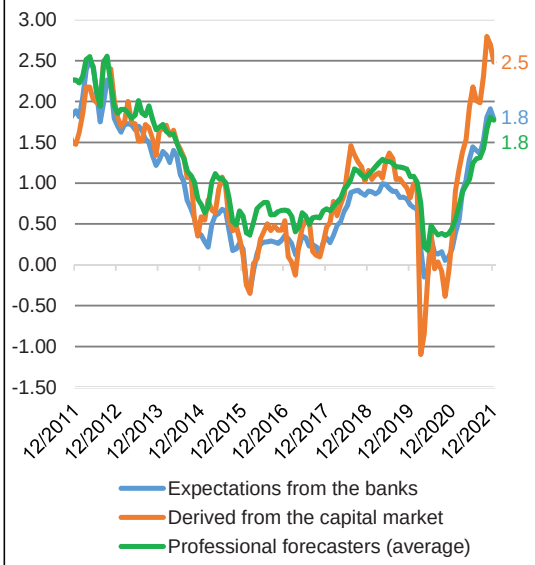
(4) Inflation expectations

As stated, there were a number of contributory factors to the increase in inflation this year. Some of the increase was due to the direct effect of the factors we have discussed, and some was due to the behavior of various factors that react to the future price pressures they expect—their inflation expectations.

[3] In the New-Keynesian model, which is the common framework for analyzing monetary policy, inflation is determined by the "Philips Curve", which posits that inflation depends on manufacturers' inflation expectations, the marginal cost of production, and spreads that the manufacturers charge above their marginal costs.

The public's inflation expectations are an important variable for central banks. They have an impact on the economy, both on the supply side through their effect on the pricing decisions of firms and workers, who take expected price increases into account in their wage demands, and on the demand side through their effect on the public's consumption and investment decisions.[4] Moreover, since they include the assessments of many participants, they provide a source of information regarding the future development of inflation.

Figure 3.6
One-Year Inflation Expectations from Various Sources, December 2011–December 2021 (percent)



SOURCE: Bank of Israel calculations.

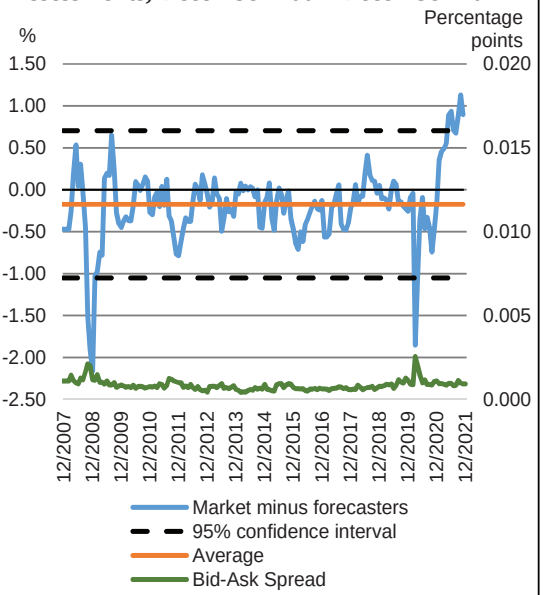
During the year, in view of the upward forces on inflation, short-term inflation expectations according to all sources increased sharply, reaching levels higher than those that were prevalent in recent years, particularly before the crisis.

In order to monitor the public's expectations, the Bank of Israel looks at indicators from various sources. During the year, in view of the upward forces on inflation that are outlined above, short-term inflation expectations according to all sources increased sharply, reaching levels higher than those that were prevalent in recent years, particularly before the crisis (Figure 3.6). In particular, the increase in expectations derived from the capital market was much sharper than the increase in expectations from other sources. The difference between the sources was exceptional, as shown in Figure 3.7. The Figure also shows that the two previous cases in which the difference was anomalous—the Global Financial Crisis in 2008–9 and the peak of the COVID-19 crisis in March 2020—took place in view of low liquidity in the indexed bond market, as indicated by the Bid-Ask spread. In those cases, the difference was negative, with expectations from the capital market dropping beyond the decline in projections by professional forecasters. This is consistent with the explanation that the difference that developed between the sources was due to liquidity shortages in the market and not to a difference in inflation assessments of the various sources.[5] In contrast with these two cases, toward the end of 2021 the difference was positive, and developed in view of the normal functioning of the market. A Research Department analysis shows that

[4] An increase in households' inflation expectations may, for instance, encourage them to bring consumption forward to the present. Against this, the increase in expectations also exerts a restraining force due to its negative impact on the public's real purchasing power. These factors are included in the decline of real yields as a result of an increase in inflation expectations. The literature generally considers the expansionary effect to be dominant.

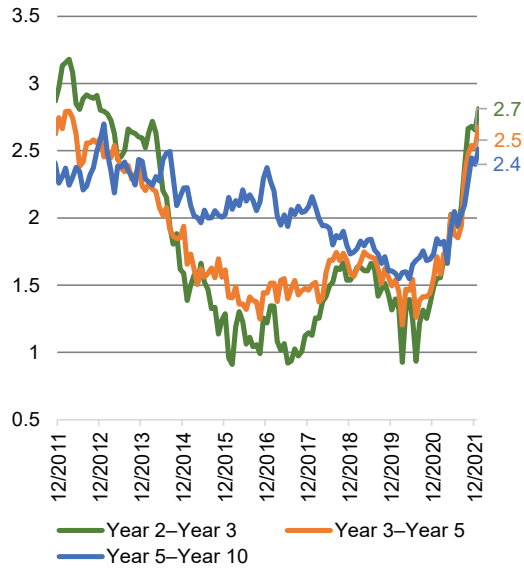
[5] In periods of liquidity distress, investors prefer nominal bonds, which are generally more liquid than real bonds, so their yield declines, and with it the measured inflation expectations.

Figure 3.7
Difference Between Capital Market Expectations and Private Forecasters' Assessments, December 2007–December 2021



SOURCE: Bank of Israel calculations.

Figure 3.8
Medium- and Long-Term Inflation Expectations, December 2011–December 2021 (percent)



SOURCE: Bank of Israel calculations.

the reason for this difference has to do with the premium demanded by capital market investors for the inflationary risk inherent in holding nominal bonds.[6] According to this analysis, some of the increase in inflation expectations derived from the capital market reflect an increase in inflation expectations themselves, while the rest reflect an increase in the inflation risk premium demanded by investors. Net of this premium, inflation expectations from the market were much lower, even lower than those of the professional forecasters.

Another reason for central banks to monitor inflation expectations, particularly for the medium and long terms, is to make sure that expectations remain anchored—i.e. that they do not markedly diverge from the central bank's inflation target—since the public trusts the central bank's intention and ability to achieve the target. In this context, it is common to monitor mainly medium- and long-term inflation expectations, since these are less influenced by short-term developments, some of which the central bank may prefer not to respond to, and since they reflect investors' assessments regarding the development of inflation in horizons where the central banks are expected to meet the inflation target. The anchoring of expectations helps the central bank meet the inflation target, since thanks to such anchoring, manufacturers, consumers, and workers will act based on the understanding that inflation over time will be close to the central bank target, and will avoid sharp reactions to temporary shocks. The anchoring of expectations prevents temporary shocks to inflation from having too strong an impact

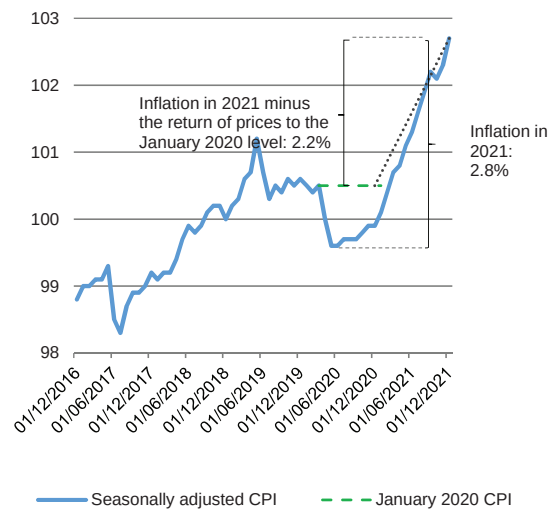
6 For more information, see Box 2 in the *Monetary Policy Report* for the second half of 2021.

on the prices set by manufacturers or on the wages demanded by workers, and thereby moderates the response of inflation to shocks. The loss of the anchor may, in extreme cases, even lead to the divergence of inflation due to a circular process of self-fulfilling expectations. This year in particular, due to the sharp increase in inflation in view of the large monetary and fiscal expansions, central banks attributed great importance to tracking the extent of anchoring of inflation expectations. In Israel, medium- and long-term expectations increased markedly during the year (Figure 3.8). However, net of the risk premium, they remained virtually unchanged. Box 3.1 examines the extent of expectation anchoring from a historical perspective, and finds that during the reviewed period, expectations were anchored almost completely.

(5) Inflation net of the COVID-19 effects

During the year, like other central banks, the Bank of Israel tried to assess the extent to which the increase in inflation reflects basic economic forces, and the extent to which it comprises a correction of price levels back to the levels from before the exceptionally strong price declines caused by the crisis in 2020. Among other things, this distinction was important in determining whether the inflation was temporary, which would be indicated if it was mainly due to an adjustment back to the precrisis price levels. It is not easy to assess, either conceptually or practically, how much of the price increases can be attributed to the temporary component, since part of the price increases is a natural process of inflation that accompanies the economic recovery.[7]

Figure 3.9
Consumer Price Index, December 2016–December 2021



SOURCE: Bank of Israel calculations.

[7] An example of a development that clearly must be partially adjusted for is the increase in energy prices. As Figure 3 above demonstrates, at the start of the COVID-19 crisis, oil prices fell sharply, and within a year, they returned to their precrisis levels. Due to the decline in oil prices to very low levels, its **rate** of increase following the crisis was extremely high, particularly relative to its prior rate of decline. Therefore, looking at the high rate of increase may create the mistaken impression that energy prices increased much more sharply than they declined, while in actuality, the increase reflects only a return to the original price level. However, in most CPI components, the changes were much smaller, so that when looking at the overall CPI, it is not likely that such distortions were significant.

In order to assess whether the high inflation rate this year, relative to previous years, was mainly due to a correction of prices back to their precrisis levels, Figure 3.9 shows the development of the Consumer Price Index (seasonally adjusted). The Figure shows that at the end of 2021, the CPI was markedly higher not only than its level at the end of 2020, but also than its level prior to the COVID-19 crisis. Relative to the precrisis level, the CPI increased by 2.2 percent by the end of 2021, compared with an increase of 2.8 percent relative to the CPI at the end of 2020 (the 2021 inflation rate). As stated, part of the increase in prices from their low 2020 level reflects basic economic forces, such as the recovery of demand, and should not necessarily be discounted. Figure 3.9 shows that even if the entire component reflected a return to precrisis prices is netted out, the inflation rate in 2021 is still significantly higher than it was in previous years.

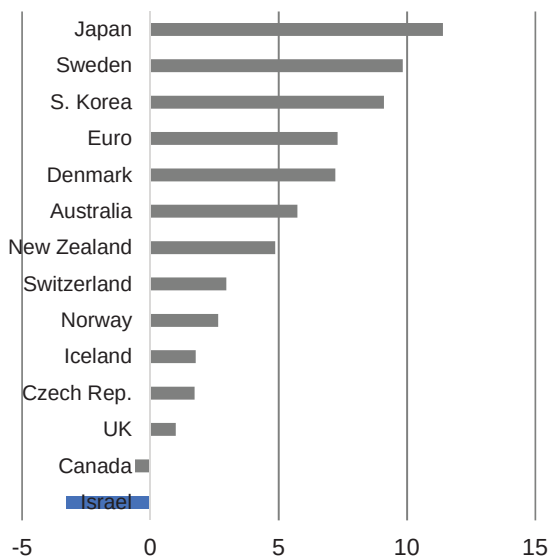
(6) The exchange rate

The shekel appreciated by 7.9 percent this year in terms of the nominal effective exchange rate. Against the US dollar, the shekel appreciated by about 3 percent, and against the euro it appreciated by about 11 percent. This continued the roughly decade-and-a-half trend of appreciation. The appreciation this year was anomalous by international comparison, as of all the currencies shown in Figure 3.10, the shekel appreciated the most.

The shekel appreciated by 7.9 percent this year in terms of the nominal effective exchange rate.

The demand for shekels was led by institutional investors, which significantly increased their volume of foreign exchange sales. This trend began back in March 2020, in view of the increase in equity prices in foreign markets and the institutional investors' desire to hedge their exposures to foreign exchange. Nonresidents also continued to sell foreign exchange, although at a more moderate volume than last year (Figure 3.11). Nonresidents' foreign exchange sales were due to significant volumes of direct and financial investments in Israel. The factors that led to the appreciation of the shekel in previous years remained

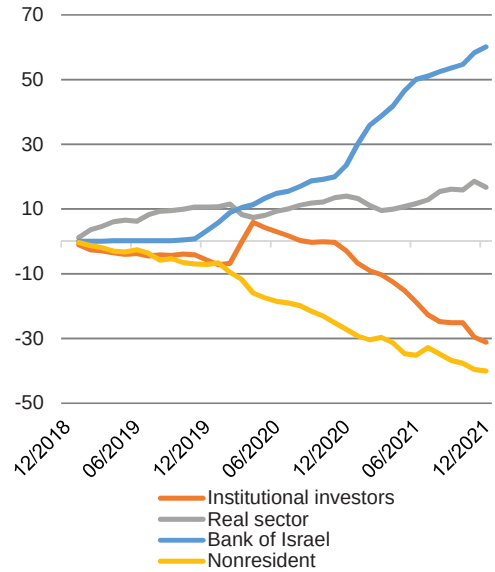
Figure 3.10
Exchange Rate of the Shekel and Selected Currencies Against the US Dollar, Rate of Change, December, 31 2020–December 31, 2021 (percent)



Note: OECD countries defined as "advanced economies" by the IMF.
SOURCE: Bank of Israel calculations.

intensive this year: the current account surplus remained very high, influenced by the increase of global demand for high-tech products. The success of high-tech also led to an increase in foreign investments in Israeli startup companies, which also supported the appreciation.[8] Figure 3.11 shows that against the sale of dollars by nonresidents and institutional investors, the Bank of Israel bought a similar volume of foreign exchange. (For a more detailed discussion of the Bank's foreign exchange purchases, see the monetary policy section below.)

Figure 3.11
Cumulative Foreign Exchange Purchases (+) of the Main Segments, December 2018–December 2021



SOURCE: Bank of Israel calculations.

The appreciation had a significant moderating effect on inflation this year. According to Research Department estimations, the pass-through from the shekel's appreciation to overall inflation was about 0.2.[9] Based on this estimation, the shekel's appreciation made a negative contribution of about 1.1 percentage points to inflation.[10]

In recent years, inflation in Israel was consistently lower than in other OECD countries. The same was true in 2021.

(7) Inflation in Israel compared with the rest of the world

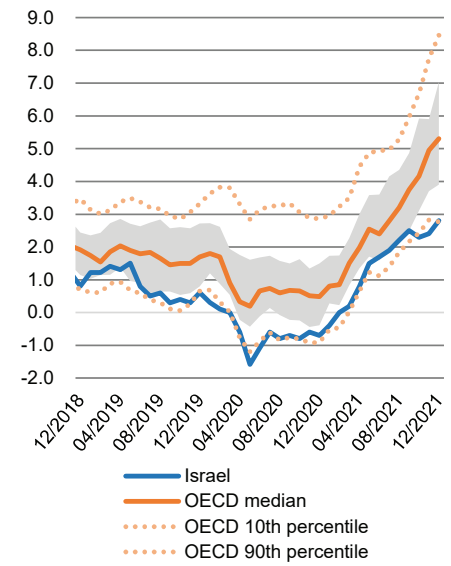
In recent years, inflation in Israel was consistently lower than other OECD countries (Figure 3.12a). The same was true in 2021 (with Israel in the 10th percentile of the distribution). However, net of the food and energy components, which are volatile, it was closer to the OECD average (the 37th percentile of the distribution—Figure 3.12b). The comparison points to the significant contribution of the exchange rate. Among other things, the appreciation of the shekel greatly moderated the increase in the energy component in Israel, thereby contributing to the moderation of overall inflation relative to other countries. The appreciation's impact on inflation in Israel relative to the OECD can be assessed using the above estimation: Net of the appreciation, inflation was 3.9 percent—the 25th percentile of the distribution—lower than the median rate (5.3 percent). This means that even net of the appreciation, inflation in Israel was less than it was in most OECD countries.

[8] For more information on this topic, see Chapter 1 – The Economy and Economic Policy.

[9] Based on the Research Department's structural DSGE model and on simple regressions to outline the exchange rate's effect on inflation.

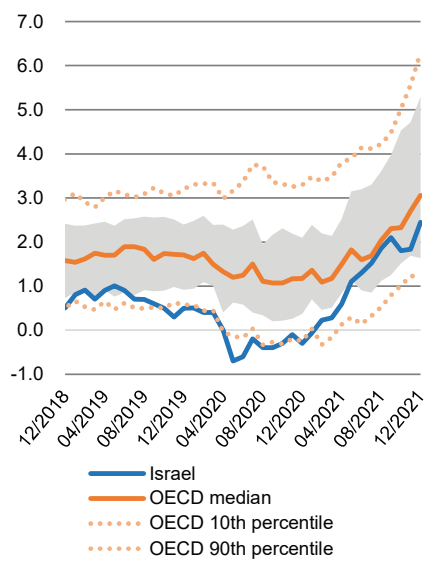
[10] Since some of the appreciation's effects on inflation appear with a lag, this calculation is based on the appreciation that took place between September 2020 and September 2021—5.5 percent.

Figure 3.12a
OECD Overall Annual Inflation, December 2018–December 2021



SOURCE: Based on OECD.stat.

Figure 3.12b
OECD Annual Inflation Excl. Energy and Food, December 2018–December 2021



SOURCE: Based on OECD.stat.

2. MONETARY POLICY

a. Policy measures

At the beginning of the year, the objective of monetary policy was to support the continued recovery process from the COVID-19 crisis, with an emphasis on the continued proper functioning of the credit market. During the year, the economy continued to recover from the health crisis, fiscal uncertainty declined due to the establishment of the government and then the approval of the budget, and inflation began to increase. Due to these developments, the Monetary Committee decided to gradually end the use of the special monetary tools it had operated in response to the COVID-19 crisis, but to continue its accommodative policy in order to continue supporting the recovery of economic activity.

At the beginning of the year, the objective of monetary policy was to support the continued recovery process from the COVID-19 crisis, with an emphasis on the continued proper functioning of the credit market.

(1) The monetary interest rate

The monetary interest rate remained unchanged during the year, at 0.1 percent. This means that the extent of monetary support that the Committee provided to the economy this year through the interest rate remained unchanged relative to the previous year. The monetary interest rate is the central banks' main policy tool, but due to its proximity to the lower bound, the Monetary Committee decided to respond to the COVID-19 crisis using additional monetary tools.

(2) Purchase of government bonds

During 2021, the Bank of Israel purchased NIS 39 billion worth of government bonds, continuing the purchasing program that it started in 2020 with the aim of easing long-term credit costs for businesses and households.[11] The Bank of Israel thus completed the planned bond purchasing amount. During 2020, it purchased NIS 46 billion in government bonds as part of a purchasing program of up to NIS 50 billion that was announced in March 2020, and in October 2020 the Bank announced its intention to expand the program to a total of NIS 85 billion.[12,13]

(3) Foreign exchange purchases

In 2021, the Bank of Israel purchased about 35 billion dollars. This amount is significantly higher than the amount purchased in 2020, and is the highest annual purchase amount since the Bank began purchasing foreign exchange.

In 2021, the Bank of Israel purchased about 35 billion dollars. This amount is significantly higher than the amount purchased in 2020 (21 billion dollars), and is the highest annual purchase amount since the Bank began purchasing foreign exchange. Most of the amount was purchased as part of the program announced by the Bank on January 14, under which it would purchase 30 billion dollars in 2021. That announcement came after a sharp appreciation of the shekel in view of the third wave of the COVID-19 pandemic—which forced the government to decide on further restrictions in addition to those that were in place as part of the previous waves—together with the high level of uncertainty that accompanied the increase in morbidity, and in view of the negative inflation at the time. The objective of the program was to support export and import-substitute industries, and through them the economy as a whole, in order to moderate the negative impact of the appreciation on activity at that time. Most of the purchases were made in the first half of the year (Figure 3.13). Following the announcement of the purchasing program, the Bank clarified that if it saw a need, it would purchase more than the amount in the program.[14] Toward the end of the year, when there was another sharp appreciation, and in view of the fourth wave of the pandemic that added further uncertainty regarding the government's ability to operate without further restrictions, the Bank purchased foreign exchange beyond the $30 billion amount.

Foreign exchange purchases act to moderate appreciatory pressures, thereby moderating the decline in export profitability, and therefore the decline in export

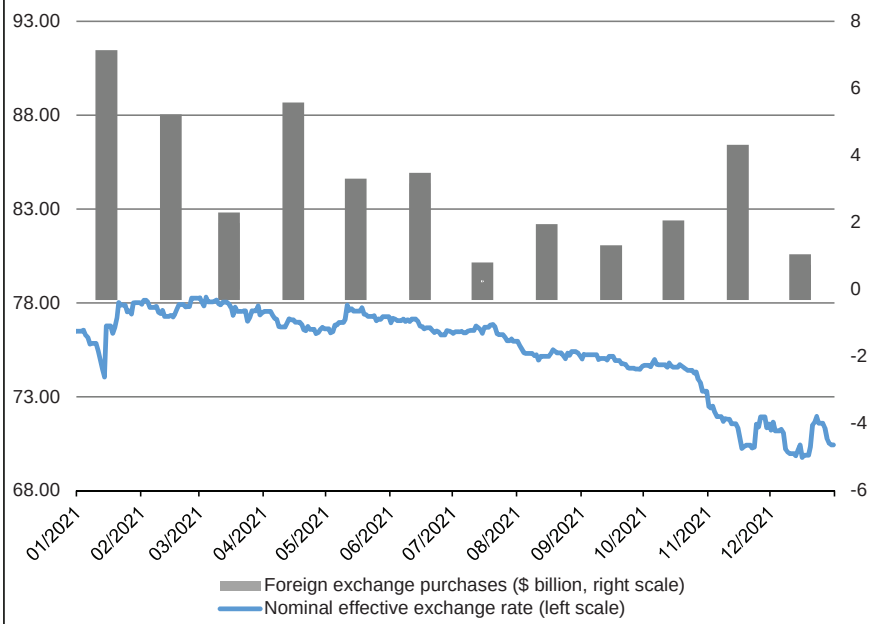
[11] The channels through which government bond purchases are effective are described in Box 3.2 of the Bank of Israel's *Annual Report* for 2020.

[12] According to an analysis that appears in Chapter 3 of the Bank of Israel's *Annual Report* for 2020, the announcement of the purchases in March 2020 had a statistically significant effect on the decline in yields, and it seems that this was mainly by relieving the liquidity distress that was prevalent at the time.

[13] In 2020, the Bank of Israel also purchased a small quantity of corporate bonds, totaling NIS 3.5 billion.

[14] For instance, in the April 19, 2021 interest rate decision, the Bank of Israel Governor said: "The Monetary Committee's decision on its foreign exchange purchase program for 2021, at an unprecedented scope of $30 billion, supports the continued exit from the crisis and the goal of returning inflation to within its target range. We will continue to implement this program as we announced, and will even expand it if necessary, in accordance with economic conditions and development."

Figure 3.13
Nominal Effective Exchange Rate of the Shekel and Monthly Forex Purchases, January–December 2021



SOURCE: Bank of Israel calculations.

volumes. In parallel, they moderate the decline in the shekel price of imported products, thereby weakening the impact on industries that produce products that can be imported. In addition, moderating the decline in prices of imported products prevents a decline that is too sharp in inflation, and with it in inflation expectations. In terms of the extent of support for exports, findings in the literature from Israel and abroad show that the negative ramifications of an appreciated currency on the profitability of exporting firms is mainly focused on small firms that tend to have low productivity and tend to suffer from financing constraints. Therefore, the moderation of appreciation pressures may mitigate the impact to the profitability of small firms, thereby helping them "keep their heads above water" and get through difficult periods such as the COVID-19 crisis, and in this way support activity and employment.[15] The Monetary Committee's assessment was that the use of foreign exchange purchases would serve the achievement of the Bank's objectives both by moderating the decline in inflation and by supporting activity.

Following the announcement of the intention to purchase 30 billion dollars, the shekel depreciated by about 4 percent on January 15, 2021. As Figure 3.13 shows,

[15] In relation to the Israeli economy, it was found that a depreciation of the shekel has only a slight impact on total exports, but has a significant impact on small firms. It was also found that an appreciation markedly increases the likelihood that small firms will stop exporting. For more information, see Arnon Barak and Gilad Brand, "The Impact of Exchange Rate Heterogeneity on Manufacturing Companies in Israel" (publication forthcoming).

this is an unusual daily fluctuation of the exchange rate. It is likely that this fluctuation was due to the announcement of the Bank's intention to purchase a large volume of foreign exchange. Moreover, it is likely that this fluctuation is an approximation of foreign exchange market investors' assessment at the time regarding the expected impact of such purchases on the shekel exchange rate, since the exchange rate has asset-like features: investors that expect future purchases that will have an impact on the price should price in that impact right when the information of expected purchases is received. One of the challenges in assessing the impact of an announcement of foreign exchange purchases is in properly assessing not only the immediate impact of the announcement, but also how persistent that impact is. A simple glance at Figure 3.13 shows that during a significant part of the year, the shekel remained depreciated relative to its level at the time of the announcement, but it is difficult to assess how much of that is due to the impact of the announcement and the purchases.[16]

In order to obtain an estimate of the extent of accommodation resulting from the foreign exchange purchases this year, we assume that foreign exchange market investors' assessments at that time in relation to the extent of the program's impact is a good approximation of the actual effect. In other words, we assume that total purchases within the program led to a depreciation of 4 percent—the depreciation that took place on the date the program was announced—and that the actual foreign exchange purchases made thereafter throughout the year helped maintain this level of depreciation. It is, however, important to note the significant uncertainty surrounding this estimation. The calculation was made based on the assumption that the exchange rate's reaction on the date of the announcement is a good approximation of the program's actual effect on the development of the exchange rate during the year. While it is possible that the exchange rate's reaction on the date of the announcement was exaggerated, and that the program's depreciatory effect was essentially smaller, it is also possible that without the announcement, the foreign exchange market dynamic would have led to a significant appreciation, such that relative to this scenario, the program contributed to a depreciation (relative to a situation of no announcement) of more than 4 percent.

In order to assess the extent of the accommodation, we must assess the extent to which the exchange rate affects the relevant macroeconomic variables. The pass-through coefficient from the exchange rate to inflation, according to models used by the Research Department, is estimated at about 0.2 or slightly less.[17] According to this estimation, and assuming that the purchases led to a depreciation of 4 percent,

[16] Previous work done at the Research Department shows that the effect of foreign exchange purchases on the exchange rate remained for some time. For instance, Caspi, Friedman, and Ribon found that foreign exchange purchases had a statistically significant effect for at least 30 days (Itamar Caspi, Amit Friedman, and Sigal Ribon (2018). "The Immediate Impact and Persistent Effect of FX Purchases on the Exchange Rate", Discussion Papers Series 2018.04). Regarding longer terms, data limitations make it difficult to draw conclusions as to whether there is a depreciatory effect.

[17] This estimation was used in the calculation outlined in Section 2.6 relating to the exchange rate's effect on inflation, and is based on the estimation of the Research Department's structural DSGE model and on simple regressions to describe the exchange rate's impact on inflation.

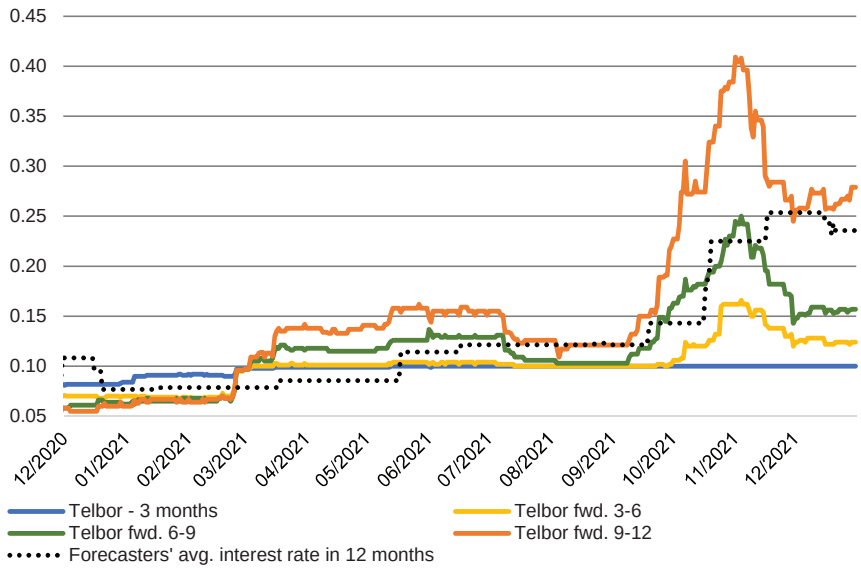
the purchasing program contributed about 0.8 percentage points to the increase in inflation. It is interesting to compare this estimated effect with the effect of a cut in the interest rate. Before we make such a comparison, though, it is important to emphasize that even though we propose here to translate foreign exchange purchases into terms of use of the monetary interest rate, these are two tools that are different by nature. While the interest rate works broadly on the entire economy, foreign exchange purchases are more focused on the tradable segment. While the preferred tool for dealing with broad needs during routine times is the interest rate, this year, due to the interest rate's proximity to zero, the uncertainty regarding the implications of using a negative interest rate, and the high level of uncertainty accompanying the COVID-19 crisis, the Monetary Committee chose to use foreign exchange purchases as an additional tool to support economic activity and inflation. An estimation using the Research Department's DSGE model assesses the elasticity of inflation relative to the interest rate at about 1. Therefore, in view of the above calculation that a depreciation of 4 percent raises inflation by about 0.8 percentage points, we can assume that the impact of the purchases on inflation was the equivalent of the impact that a reduction of about 0.8 percentage points in the interest rate would have on inflation.

(4) Forward guidance

During 2021, the Monetary Committee continued to announce that monetary policy would remain accommodative for a prolonged period.[18] It is reasonable to assume that this guidance contributed to some extent to the market's assessment that the Bank of Israel interest rate would be left unchanged for some time, despite the recovery of economic activity and the increase in inflation. Figure 3.14 shows that during most of the year, most participants in the Telbor market and most professional forecasters held the assessment that the Bank of Israel would not increase the interest rate for at least a year. During the year, interest rate expectations increased, reaching a peak in November before moderating slightly, but they remain very moderate. At the end of the year, assessments regarding the interest rate in one year were just 0.25 percent. As will be described below, under the influence of expectations of continued accommodative monetary policy, the increase in inflation expectations as a result of the recovery from the crisis was mainly reflected in a decline in the short-medium part of the real yield curve, and not in an increase of the nominal curve, thereby supporting economic activity.

[18] In the interest rate decision of October 7, 2021, the Committee changed the text "The Committee will continue to conduct a very accommodative monetary policy for a prolonged time" to "The Committee will continue to conduct an accommodative monetary policy for a prolonged time". In addition, the Committee noted for the first time a horizon for ending the quantitative easing programs in the coming months, depending on the continuation of the recovery.

Figure 3.14
Expected Bank of Israel Interest Rate According to Forecasters and the Telbor Market, December 2020–December 2021 (percent)



SOURCE: Bank of Israel calculations.

(5) Loans to the banks

The Bank of Israel continued providing long-term loans to the banks this year in order for them to provide credit to small and micro businesses. The balance of such loans increased by about NIS 20 billion, further to a similar amount of loans provided by the Bank in 2020. The aim of these loans was to increase the supply of credit to small businesses, in order to moderate the impact these businesses suffered due to the COVID-19 crisis. This program ended in July, after total loans issued within it reached the set amount of NIS 40 billion.[19] For more information, see Chapter 4 – The Financial System.

Other than foreign exchange purchases, the Monetary Committee halted or reduced the use of the additional monetary tools during the year that it had used in response to the COVID-19 crisis, maintained the very low interest rate, and continued to announce that policy would remain accommodative for a prolonged period.

b. The extent of monetary accommodation

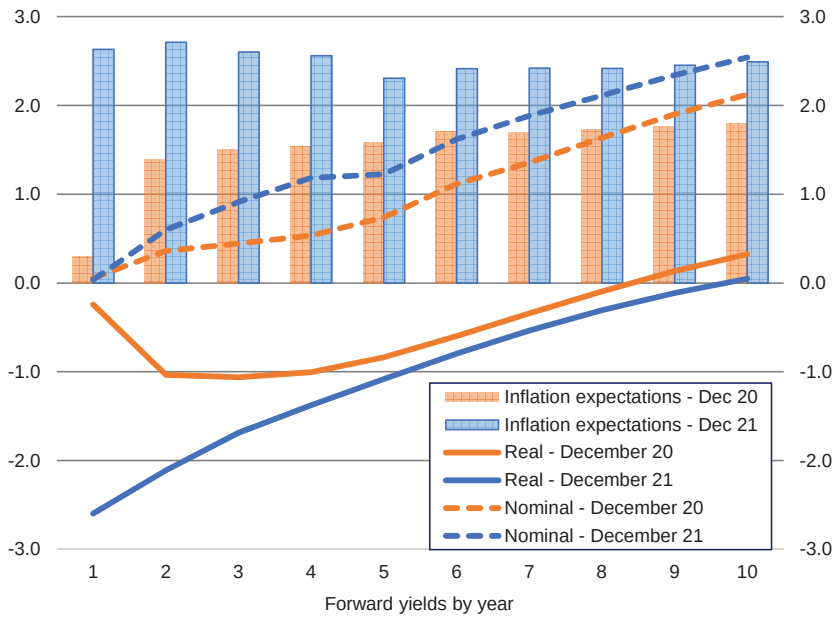
As described above, other than foreign exchange purchases, the Monetary Committee halted or reduced the use of the additional monetary tools during the year that it had used in response to the COVID-19 crisis, maintained the very low interest rate, and continued to announce that policy would remain accommodative for a prolonged period. In order to examine the extent of monetary accommodation derived from the policy measures, it is common to look at the development of real short- and medium-

[19] Pursuant to a decision by the Monetary Committee on April 6, 2020, the Bank of Israel provided the banking system with 3-year loans at a fixed interest rate of 0.1 percent. Later on, based on a decision from October 22, 2020, a further element of this program was put in place under which the loans were for 4 years at an interest rate of -0.1 percent.

term yields, which are relevant to the public's consumption and investment decisions. Real yields for these terms are affected by monetary policy measures both directly, through the policy measures' influence on nominal yields, and indirectly through their influence on the public's inflation expectations.[20]

As noted above, the public's inflation expectations increased sharply during the year. As a result, short- and medium-term real yields declined sharply. Figure 3.15 shows the real and nominal forward yields at the end of 2020 and at the end of 2021, and inflation expectations at those two points in time.[21] As the Figure shows, one-year real

Figure 3.15
Forward Nominal and Real Yield Curves and Inflation Expectations, December 2021 compared to December 2020 (percent)



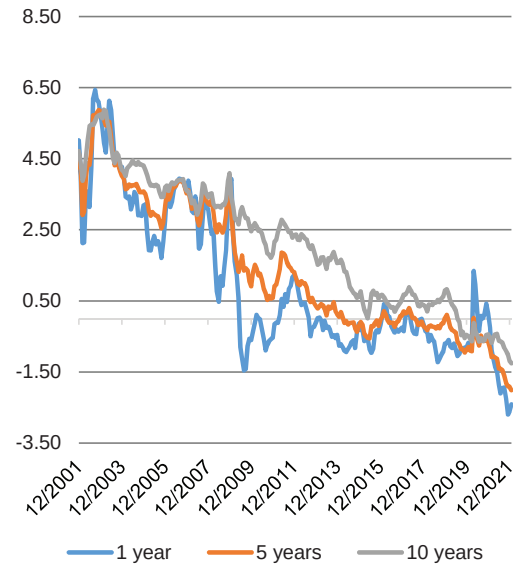
SOURCE: Bank of Israel calculations.

[20] Within the new-Keynesian model, the extent of monetary accommodation is reflected through the "IS equation". This equation describes the level of activity in the present as a function of the expected level of activity in the future and of the extent of monetary accommodation. See for instance Richard Clarida, Jordi Galli, and Mark Gettler (1999), "The Science of Monetary Policy: A New Keynesian Perspective", *Journal of Economic Literature*, 37(4): 1661–1707. To be precise, in order to assess the extent of monetary accommodation, we must also take into account the "natural" real interest rate for the various ranges. The natural interest rate is what we would obtain in a hypothetical situation in which prices and wages are elastic. In contrast with inflation expectations, the natural interest rate is unobserved, so it is difficult to assess its level. However, the dominant factor this year, the increase in demand, works to raise the natural interest rate. It therefore seems that even taking the development of the natural interest rate into account, the extent of monetary accommodation increased this year, and was even higher than what would have been obtained by looking at the development of real yields on their own.

[21] The forward yield curve shows the one-year yield in each of the coming ten years. The normal yield curve shows the average yield that is expected during the entire period up to the relevant year, such that the medium- and long-term yields are also affected by the short-term yields.

yields declined sharply during the year, by about 2.5 percentage points, which was entirely the result of the increase in inflation expectations. There was a similar development in yields for up to 3 years. This means that the increase in the public's inflation expectations was mainly reflected in a decline in short-term real yields, and to a lesser extent in an increase in nominal yields.[22] The public's understanding that the Bank of Israel would not rush to increase the interest rate in response to an increase in inflation, an understanding that was strengthened by the Bank's forward guidance policy, apparently contributed to this. Thus, the increase in inflation expectations actually led to significant deepening of monetary accommodation.

Figure 3.16
Average Long-Term Real Yield in Israel, December 2001–December 2021 (monthly averages)



SOURCE: Bank of Israel calculations.

The continued accommodation this year empowered the prolonged downward trend of real yields, mainly for short terms.

The continued accommodation this year intensified the prolonged downward trend of real yields, mainly for short terms. Figure 3.16 shows the development of real yields to various ranges from a long-term perspective. As the Figure shows, in the recent decades, long-term real yields declined continuously, but the decline this year mainly reflected the decline in the short end of the curve, as a result of the factors outlined above. Real yields reach historic lows this year. The one-year real yield was -2.7 percent at the end of 2021, while the 10-year real yield was -1.2 percent at the end of the year. As described above in the discussion of the importance of inflation expectations for economic development, a decline in the real yield curve supports aggregate demand. It also acts to increase demand for various assets. The decline in real yields was not unique to Israel, and their level was not exceptional by international comparison.

In view of the marked increase in inflation and the strong recovery of activity, the Monetary Committee gradually ended the quantitative easing program in shekels but left the interest rate unchanged with the aim of ensuring the economy's continued recovery, particularly that of the labor market, from the COVID-19 crisis, in an environment of considerable uncertainty regarding the implications of additional

[22] Longer-term real yields are mainly affected by real factors and not by monetary policy, so changes in long-term inflation expectations are mainly reflected in the nominal yields.

waves of morbidity. The Monetary Committee's decisions were made in view of repeated waves of uncertainty caused by infection waves of the COVID-19 virus. Such outbreaks repeatedly forced the government to decide on restrictions that harmed economic activity, and strengthened the need to adopt an anticyclical macroeconomic policy (fiscal and monetary) that would support activity while minimizing unemployment, similar to the policies enacted in all countries that were hit by the COVID-19 crisis. It should be emphasized that in 2021, there were two broad waves of infection. The "third wave" took place at the beginning of the year, forcing the government to impose restrictions on incoming tourism and on gatherings, leading to direct harm to economic activity. This harm was also influenced by parents' ability to work in the midst of the restrictions imposed on the education system. Toward the end of the year, the Omicron wave began spreading rapidly, leading to further uncertainty that forced the government to "close the skies" (after it had been decided to open them under restrictions beforehand).

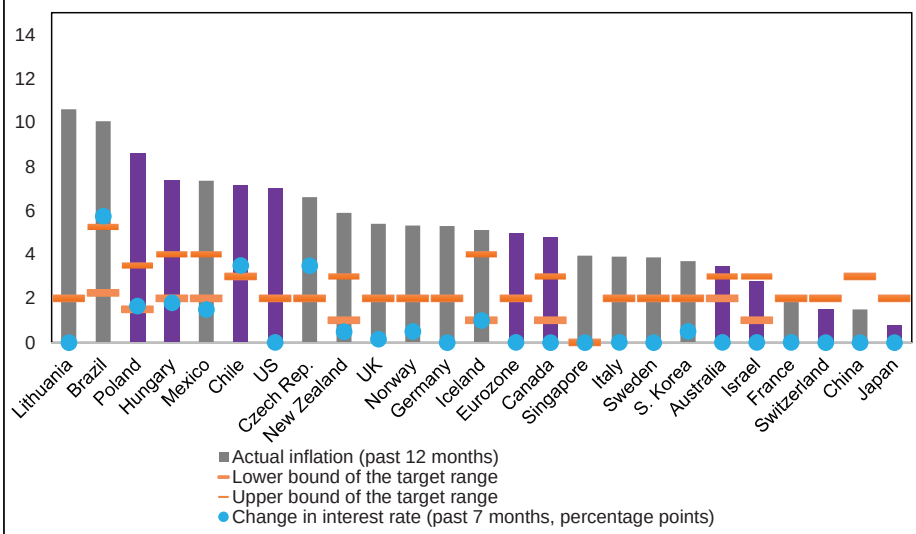
The prevailing assessment during the year, both at the Bank of Israel and abroad, was that the increase in global inflation was mostly due to factors that would subside within a relatively short time. The expectation was that global supply would manage to adjust itself relatively quickly to the high demand, so that inflation would return to a more moderate level. In such a situation, monetary tightening would have likely made it unnecessarily difficult for activity to recover. This concern became even stronger in view of the fact that monetary policy affects the economy with a lag, such that monetary tightening could have failed to moderate inflation when it was high and lowered it excessively when the effect of the temporary factors had already subsided. Such a decline in the inflation environment could have returned the economy to a situation where monetary policy would have had a limited ability to provide support to the economy due to the interest rate's proximity to the zero lower bound.[23] While the inflation rate in Israel did increase relative to 2020, it remained within the target range throughout the entire year, while some other countries deviated strongly upward from their inflation targets. The lagged effects of the appreciation and the continued increase in competition were among the factors in the moderate increase of inflation in Israel.

Most central banks adopted an approach similar to the one that the Monetary Committee chose, and kept monetary policy very accommodative throughout most of the year. Toward the end of the year, following the continued increase in inflation, a number of central banks began tapering the use of accommodative tools. In a number of countries where inflation significantly exceeded the target, the central banks increased the interest rates. In others, such as the United States, they accelerated the tapering

[23] While a number of countries did lower their interest rate to negative levels in recent years, it seems that the reasonable lower bound is close to zero. The proximity of interest rates around the world to the zero lower bound in recent years, and the difficulties this created for central banks, were behind many of the measures the central banks took, particularly the redrafting of the inflation targets, to distance them from the area where monetary policy would be limited in its use of its main policy tool—the monetary interest rate. (For more information regarding these changes, see Box 3.2.)

of bond purchase programs (Figure 3.17). In Israel as well, inflation continued to increase until the end of the year, but here, in contrast with many other economies, inflation did not exceed the target range, and remained more moderate than in many other countries.[24]

Figure 3.17
Actual Inflation, Inflation Target, and Change in the Central Bank Interest Rate, Israel and Selected Countries, December 2021 (percent)



Purple lines represent countries that have announced tapering.
SOURCE: Based on data from central banks.

3. THE MONETARY BASE AND MONETARY AGGREGATES

Interest is the price of money—the alternative cost of holding liquidity. As such, changes to it, in addition to changes in economic activity, have an impact on the demand for liquidity. When the nominal interest rate serves as a policy tool, the central bank sets a completely flexible money supply at its declared interest rate, and the monetary base—the total of banknotes and coins in circulation plus the commercial banks' demand deposits with the Bank of Israel[25]—is determined by the demand for liquidity at the central bank's declared interest rate.

[24] The Monetary Committee decided in February 2022 to change the text of its forward guidance: "The Committee's assessment is that in the coming months, conditions will allow for the start of a gradual process of raising the interest rate in line with the path of inflation, the pace of growth and employment."

[25] The banks are obligated to deposit money in demand deposits at the Bank of Israel as part of their liquidity requirements.

a. The monetary base

The monetary base is affected by both flows that are not under the Bank of Israel's control, such as government accounts[26], and flows that are under its control, such as foreign exchange and bond purchases and makam issues. The Bank of Israel absorbs or injects liquidity in order to supply the demand for the monetary base in accordance with the Bank of Israel interest rate. It adjusts the monetary base to the interest rate, taking into account the total of other flows, through interest-bearing deposits that it offers the banks by tender, which are not included in the monetary base, and by issuing *makam*.

During 2021, the monetary base grew by about NIS 27 billion (Table 3.3) an average growth of 12.6 percent compared with the 2020 average (Table 3.4). While this growth was lower than it was in 2020 (25.8 percent growth compared with the 2019 average), it was higher than in previous years. The rapid growth of the monetary base in 2021 may reflect growing demand for liquidity due to the recovery of demand, which is reflected in the public's demand for liquidity (see sub-Section B). It may also reflect developments on the supply side, where, in view of the continued operation of the various programs that were put in place in response to the COVID-19 crisis, the bank of Israel injected a lot of liquidity into the market this year as well. This includes loans to the banks against their loans to small businesses (monetary loans totaling about NIS 20 billion), bond purchases (about NIS 38 billion), and the conversion of foreign exchange to shekels following the purchase of dollars totaling about NIS 110 billion. Government activity absorbed about NIS 33 billion, and the Bank of Israel also absorbed a significant amount through term deposits totaling NIS 87 billion and through makam issuances totaling about NIS 23 billion. However, the volume of the absorptions was lower than the volume of injections. Under normal circumstances, such a development would have been expected to lead to a decline in the interbank interest rate, and the banks would have increased the volume of their deposits at the Bank of Israel. In contrast, under current conditions in which the interest rate is close to zero, the banks may be relatively indifferent to holding excess liquidity, so that any additional injection by the Bank of Israel would increase the monetary base.[27]

[26] Government activity has an effect on the monetary base, since the government's accounts are managed at the Bank of Israel (pursuant to the Bank of Israel Law).

[27] This means that the demand curve for cash/reserves is very elastic. As such, the growth in the monetary base on its own has no significant impact on the economy. The public is prepared to absorb the additional liquidity created by the Bank, and is not trying to get rid of it by purchasing goods and so on.

Table 3.3
Source of change in the monetary base, 2017–21

(NIS billion)

						2021			
	2017	2018	2019	2020	2021	Q1	Q2	Q3	Q4
1. Injections from the government and the Jewish Agency	-3.86	1.81	7.17	21.39	-6.54	-23.22	-10.24	1.00	25.92
of which : the government	-3.86	1.81	7.17	21.39	-6.54	-23.22	-10.24	1.00	25.92
2. Foreign exchange conversions[a]	24.09	11.69	13.67	72.13	112.14	44.44	37.21	10.14	20.34
of which: Bank of Israel	24.03	11.67	13.68	72.14	112.14	44.44	37.21	10.15	20.35
3. Total (1+2)	20.22	13.49	20.84	93.53	105.59	21.22	26.97	11.14	46.26
4. Bank of Israel injections	-7.82	-8.69	-16.33	-66.14	-78.22	-7.51	-17.92	-14.70	-38.09
of which : Monetary loan	0.00	0.00	0.00	19.56	20.44	8.56	9.11	2.77	0.00
Makam	13.13	-15.77	-11.63	33.08	-27.97	-4.00	-9.99	-3.99	-9.99
Swap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bank term deposits	-22.00	6.00	-6.00	-171.00	-109.00	-24.00	-27.00	-22.00	-36.00
Interest[b]	0.17	0.21	0.44	0.36	0.41	0.09	0.10	0.11	0.11
Bond purchases	0.00	0.00	0.00	49.53	38.51	12.63	9.67	8.23	7.98
Repo	0.00	0.00	0.00	1.50	-1.40	-1.01	0.00	0.00	-0.39
5. Total change in the monetary base	12.18	4.93	4.78	26.92	27.36	13.59	9.21	-3.56	8.12

[a] This item includes, among other things, receipts (payments) in foreign exchange that the Bank of Israel and the government receive from (transfer to) the private sector, for instance income tax. These payments do not change the monetary base. They appear in the section on government injections, and in this section with the opposite sign.
[b] Excluding *makam.*

SOURCE: Bank of Israel.

Table 3.4
Rate of change in the monetary aggregates, 2017–21

	0	1	2	1+2=3	4	5	6	3+4+5+6=7
	Monetary base[a]	**Cash held by the public**	**Demand deposits**	**M1[b]**	**Term deposits up to 3 months**	**Term deposits up to one year**	**SRO[c]**	**M2[d]**
	(Average in December compared to average the previous December)							
2017	6.4	6.5	14.2	12.6	-2.0	-2.8	16.2	8.4
2018	6.0	6.6	13.6	12.2	-15.6	-4.3	1.1	2.0
2019	2.9	1.8	5.8	5.1	-4.0	33.2	7.0	6.3
2020	25.8	23.3	30.7	29.4	24.7	12.2	25.9	26.0
2021	12.6	6.9	25.2	22.0	-3.6	12.6	23.8	17.5
	(Quarterly average compared with the average of the previous quarter)							
2021								
Q1	4.0	3.2	7.2	6.5	2.0	0.2	7.7	5.5
Q2	4.8	3.9	5.8	5.5	-1.5	-0.2	3.9	3.5
Q3	3.4	2.3	7.3	6.4	-1.5	3.3	4.8	4.6
Q4	1.0	-0.5	3.0	2.4	-0.7	6.8	4.0	2.8

[a] Total banknotes and coins in circulation and current deposits by the commercial banks with the Bank of Israel.

[b] M1 = cash and demand deposits.

[c] Self-renewing overnight deposit - a liquid daily deposit.

[d] M2 = M1+SRO+unindexed deposits of up to one year.

SOURCE: Bank of Israel and Central Bureau of Statstics data.

b. The monetary aggregates

The M1 monetary aggregate—the amount of money—includes cash held by the public and the public's demand deposits at the banks. The M1 aggregate increased by 17.2 percent in 2021—less than the 29.4 percent increase in 2020 when the increase in demand for liquidity was anomalous due to the COVID-19 crisis, but more than in the years preceding the crisis (Table 3.4). An analysis of the causes for the increase in M1 shows that the rapid growth was the main factor. The recovery of demand following the low point of the COVID-19 crisis, particularly demand for private consumption, increased the demand for liquidity.[28] Table 3.4 also shows that the moderation of the increase in M1 was mainly due to moderation in the cash component, after its very exceptional increase in 2020 due to the crisis.

BOX 3.1: ANCHORING OF INFLATION EXPECTATIONS DERIVED FROM THE CAPITAL MARKET IN ISRAEL

- The public's inflation expectations are known to have a significant effect on the economy and on monetary policy. One of the main challenges for monetary policy is to anchor the public's medium- and long-term expectations within the target range.
- The anchoring of inflation expectations reflects the public's trust in the central bank's ability to achieve price stability in the medium-to-long term, and attests to the bank's ability to maintain expectations within the target range.
- An examination of the anchoring of inflation expectations derived from the capital market in Israel during the sample period from January 2003 to November 2021 shows that long-term (5–10 year) expectations during the sample period were almost completely anchored, and that medium-term (3–5 years) expectations were completely anchored, during most of the period.

Are inflation expectations in Israel anchored?

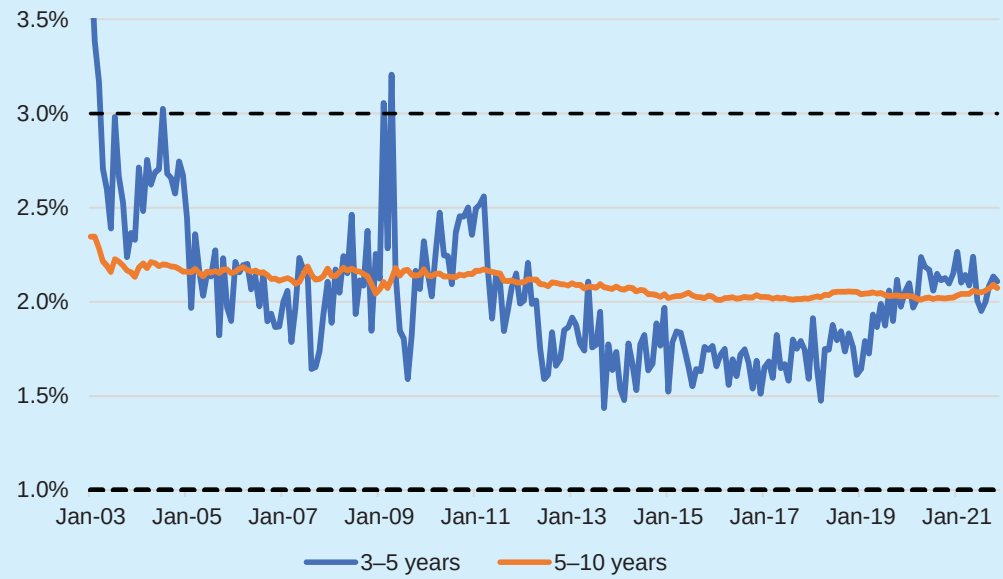
Following the beginning of the COVID-19 crisis in 2020, there was renewed discussion in Israel and abroad on the question of whether the public's medium-to-long-term inflation expectations were anchored within the inflation target range. The extent to which expectations are anchored reflects the extent of the public's trust in the central bank's ability to achieve price stability. Anchored expectations can be weakly defined as expectations that are within the inflation target range (1–3 percent). A stronger definition is expectations that are constantly at the midpoint of the range (2 percent), such that they basically do not react to any information, including information that is relevant to the short-term development of the economy. We examine the extent to which forward inflation expectations (net of the

[28] Based on a regression of the M1 variable as a function of a variety of explanatory variables, including the Bank of Israel interest rate and the GDP level.

risk premium[1]) derived from the capital market in Israel are affected by the development of the inflation environment, which includes inflation in the past year and expectations of inflation one-year forward, and whether the intensity of the effect has changed in recent years. The manner and method of the examination are to a great extent in line with the work of Dash et al. (2020), who examined the extent to which long-term inflation expectations in the United States are anchored, and that of Łyziak and Paloviita (2017), who examined this in Europe.

Figure 1 shows the development of forward expectations for the medium and long terms during the sample—from January 2003 to November 2021. It shows that long-term expectations ranged, throughout the entire period, close to the midpoint of the target range, but were not exactly at 2 percent, and that in recent years they were relatively stable around 2 percent. Medium-term expectations are generally more volatile, but they were also within the target range for the vast majority of the period. We seek to examine the extent to which these expectations are affected by developments, both concurrent and expected, since if there is full anchoring, short-term factors such as historical inflation and inflation expectations for one year forward should have no effect on them.

Figure 1
Medium- and Long-Range Forward Expectations (Premium Adjusted), January 2003–November 2021

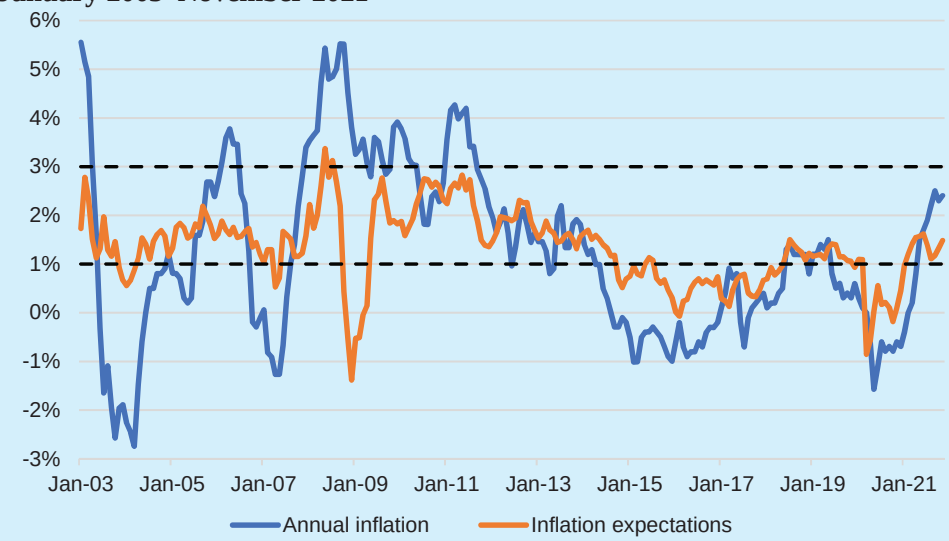


SOURCE: Bank of Israel calculations.

[1] Based on the model of Nathan (2011). The results in this box rely on the assumption that the estimations of premia are good, which leads to the proper derivation of inflation expectations. We relate in this box to "forward expectations" as expectations net of the risk premium.

Figure 2 shows the development of annual inflation and of one-year inflation expectations derived from the capital market.[2] These factors may affect expectations if they are not completely anchored within the target range. The Figure shows that for some periods, actual inflation deviated from the target range for a prolonged time. The longest deviation was between 2014 and 2021, and most of the deviations were downward. One-year forward inflation expectations also deviated downward during this period, after having been within the target range during most of the previous period.

Figure 2
Development of Annual Inflation and One-Year Inflation Expectations, January 2003–November 2021



SOURCE: Bank of Israel calculations.

Methodology

In order to examine the extent to which expectations are anchored, we estimate the following equation:

$$\pi^{e}_{t|T1-T2} - \pi^{tar} = \alpha + \beta_1\left(\pi_{t-1,t-12} - \pi^{tar}\right) + \beta_2\left(\pi^{e}_{t,t+12} - \pi^{tar}\right) + \epsilon_t \qquad (1)$$

The dependent variable in the equation is the deviation of forward inflation expectations derived from the capital market between *T1* and *T2* years from the midpoint of the target range (2 percent). We examine the medium-range (3–5 years) and long-range (5–10 years) forward expectations.

The explanatory variables in Equation (1) are the deviation of annual inflation from the midpoint of the target range (with a one-month lag), and the deviation of one-year forward inflation expectations derived from the capital market from the midpoint of the target range (net of the risk premium). These variables

[2] These expectations as well are adjusted for the risk premium.

show the short-term inflation environment at time *t*, which is affected by short-term economic shocks but is not expected to affect inflation in the long term.

Expectations are well anchored if each of the estimated parameters of all the explanatory variables equal zero (or are very close to zero). A positive coefficient shows that developments in the present and in the short-term affect medium- and long-term expectations, meaning that expectations are only partially anchored. (It is difficult to attribute economic importance to a negative coefficient.) Following the approach of Dash et al. (2020), to examine a lack of full anchoring of expectations, we examine the sum of the parameters $\beta_1 + \beta_2$ and its statistical significance.

It should be noted that one-year-forward inflation expectations include developments that are expected in the short term only (up to one year), so in a situation that we have defined as full anchoring, they should not affect expectations for the medium-to-long term.[3] Moreover, even if most of the shocks in the economy during the sample period were supply-side shocks to inflation (cost-push shocks), which would have created a trade-off in achieving the Bank's objectives and thereby slowed inflation's return to the target range, it is unlikely that the return would have taken more than three years. This is true even if we take inflationary inertia and a high serial correlation in the cost-push shock into account. All this, obviously, is assuming that the bank is not constrained by an effective interest rate bound.[4] According to the Bank of Israel Law and bank of Israel statements, monetary policy works to return inflation to its target range within two years.

The results of the estimation in Figure 3 present an examination of the extent to which expectations are anchored by estimating Equation 1 using a rolling window of 5 years, between January 2003 and November 2021. The Figure shows the sum of the parameters $\beta_1 + \beta_2$ with a confidence interval[5], and the two parameters are estimated separately.

Figure 3 shows that expectations for 3–5 years were fully anchored for most of the sample period, although between 2009 and 2014 there is some (statistically significant) weakening of the anchor to the midpoint of the target range, which is attributed to both actual inflation and expected inflation (both parameters are positive).[6]

We must remember that the parameters estimated at each point in time reflect the previous five years. Therefore, a weakening of the anchor between 2009 and 2014 is reflected in the parameters for 2014, as shown in Figure 3. We can also see some weakness of the anchor between 2014 and 2019, which is reflected in the parameters in 2019. The weakness of the anchor is moderate, as the sum of the parameters estimated in Equation 1 is not high—0.3 at most—and in recent years, including the COVID-19 crisis, medium-term expectations (and even long-term expectations) drew closer to the midpoint of the range, and their anchor strengthened (Figure 3).

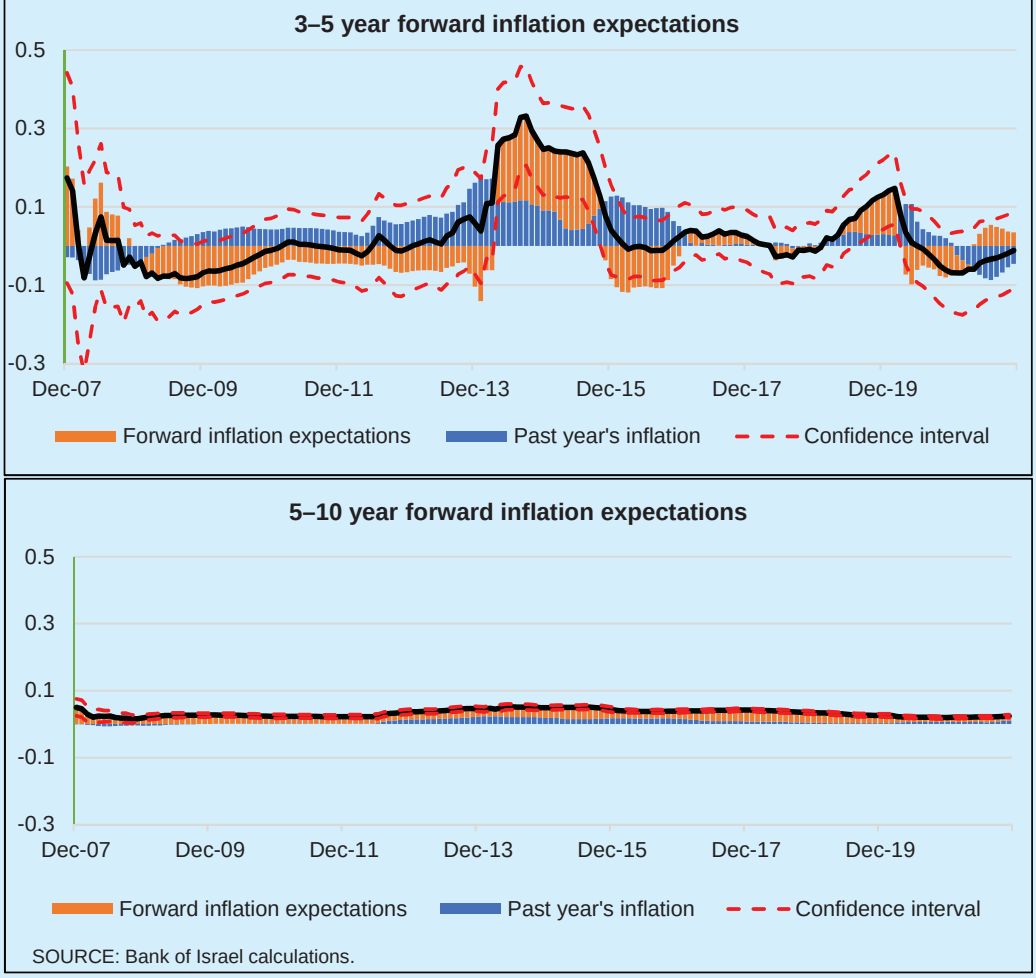
[3] We do not examine the anchoring of one-year expectations. These are expected to be affected by actual inflation or other developments in the economy.

[4] Gali (2015) shows through an NK model that when the serial correlation between shocks and inflation is high, 0.8, the economy returns to its previous state after about 3 years, assuming the bank is free to set the interest rate and does not encounter an effective bound.

[5] A structured confidence interval with a statistical significance level of 5 percent.

[6] The annual inflation parameter is positive and statistically significant for most of these years, while the expected inflation parameter on its own is positive but is not statistically significant separately for most of the period.

Figure 3
Effect of Actual and Expected Deviation from the Inflation Target on the Deviation of Long-Term Expectations from the Target, January 2008–November 2021 (rolling 5-year sample)



SOURCE: Bank of Israel calculations.

A possible explanation for the weakness of the anchor between 2009 and 2014 is that the public believed that the Bank of Israel was giving greater weight to stabilizing real activity at the expense of stabilizing inflation, following the Global Financial Crisis in 2008–9 and the European crisis of 2010–11. Support for this can be found in the fact that even though annual inflation between 2008 and 2011 was above the upper bound of the target range, the bank of Israel adopted an accommodative policy to support real activity, similar to other central banks. The second period, from 2014 to 2019, was unique. For most of that period, the Bank of Israel interest rate was near its effective bound, while annual inflation deviated downward from the target range for a prolonged period. This was in view of factors acting to

lower inflation throughout most of the period, including the appreciation of the shekel, the decline in global oil and commodity prices, and increasing competition in the domestic market. The combination of an effective bound and forces pushing inflation down apparently weakened the public's confidence in the central bank's ability to stabilize inflation within a reasonable time, which weakened the extent of the anchor of medium-term expectations.

Regarding long-term expectations, Figure 3 shows that they were close to fully anchored throughout the entire sample period, and the effect of the inflation environment was around just 0.05. However, the effect was statistically significant[7] and stable, and this is mainly attributed to one-year expectations. There was a slight increase between 2014 and 2019, apparently due to the low inflation environment and the Bank of Israel interest rate being near its effective bound. Despite the (statistically significant) sensitivity of long-term expectations to the inflation environment (in the case of full anchoring, we would not have expected any effect at all), the effect was quantitatively very small.[8]

The intercept in Equation (1) represents the difference between the average deviation of long-term expectations from the midpoint of the target range and the average contribution of deviations of the short-term inflation environment from the midpoint.[9]

An examination of the intercept for the medium-term expectations shows that from the beginning of the sample until 2014, the intercept was positive but not statistically significant for most of the period. From 2015 until the end of the sample—a period in which the interest rate was near its effective bound and inflation was lower than the target (Figure 2)—the estimated intercept was negative and statistically significant (declining to a low of -0.3 but then drawing close to zero). This means that the decline in medium-term expectations from the midpoint of the target range during that period was slightly greater than what would be explained by the negative contribution of inflation's deviation from the target. This may reflect a nonlinear effect of the short-term inflation environment on medium-term expectations, or uncertainty regarding how long the Bank of Israel interest rate would remain at the effective lower bound. An examination of the intercept for long-term expectations shows that at the beginning of the sample period, it was positive at about 0.2 percent (and statistically significant), but over the years there has been a constant downward trend, so that at the end of the period, the estimated intercept was close to zero. This result is in line with the proximity of long-term expectations to the midpoint of the target range (Figure 1), and indicates a strengthening of the anchor.

[7] The contributions of each of the components—annual inflation and expected inflation—are also statistically significant separately.

[8] To illustrate: In order for long-term expectations to exceed the bounds of the target range, one-year expectations must deviate from the midpoint of the range by at least 20 percent based on the estimated elasticity.

[9] It may also represent an error in the assessment of the inflation risk premium during the sample period, since we neutralize the expected premium from the expectations.

The effect of the duration of the deviation of annual inflation from the target on the anchoring of expectations

An analysis of Figure 1 shows that during periods when there was a prolonged deviation of inflation from its target, there was some weakness in the anchoring of expectations. This may reflect the public's "learning" the extent to which inflation was a temporary phenomenon or a phenomenon that was expected to last for a long time. If so, the public revises its long-term expectations depending on the duration of the deviation. In order to formally test this hypothesis, the following equation was estimated on the entire sample from January 2003 to May 2021.

$$\pi^{e}_{t|T1-T2} - \pi^{tar} = \alpha + \beta_1\left(\pi_{t-1,t-12} - \pi^{tar}\right) + \beta_2\left(\pi^{e}_{t,t+12} - \pi^{tar}\right) + \beta_3 \cdot months \cdot \left(\pi_{t-1,t-12} - \pi^{tar}\right) + \epsilon_t \qquad (2)$$

The effect of the interaction between the deviation of inflation from its target and the months variable, which measures the number of consecutive months in which inflation deviated from the target range[10] is added to Equation (1). According to Equation (2), the elasticity of long-term expectations relative to the deviation of inflation from its target range depends on the duration of that deviation, $\beta_1 + \beta_3 \cdot months$. The longer the deviation, the greater its sensitivity (elasticity) (assuming that β_3 is positive), which weakens the anchor.

The estimation's results regarding medium-term expectations (3–5 years) show that the value of β_3 is 0.008 and statistically significant. (The parameters β_1 and β_2 are close to zero and not statistically significant.) This means that a temporary deviation of inflation from its target has a small impact on medium-term expectations, but the longer the deviation persists, the stronger its effect becomes. In particular, a parameter of 0.008 means that, for instance, if inflation deviates from the target for 3 months, the effect would be 0.024, but if the deviation lasts for 12 consecutive months, the effect would be 0.096.

Regarding long-term expectations (5–10 years), the elasticity is just β_3 0.001 (and statistically significant). Similar to the results in Equation 1, the elasticity of long-term expectations is very low, attesting to significant anchoring even in periods when the deviation of inflation from its target is prolonged.

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[10] The variable *months* is zeroed when annual inflation returns to within the target range.

BOX 3.2: REDEFINITION OF MONETARY POLICY OBJECTIVES IN THE US, EUROPE, AND CANADA

The inflation target has provided a framework for monetary policy in many countries for about three decades. In recent years, in view of the very low inflation environment and interest rates, there has been renewed discussion of the preferable specification and definition of the inflation target.[1] In particular, there has been discussion of whether, given the decline in the inflation environment and the resulting monetary policy constraint, there is room to raise the inflation target.[2] There are those who argue that the target needs to be even lower, and even zero or negative.[3] As part of the discussion, questions were also raised regarding other parameters of policy, for instance whether to define the inflation target as a particular number or as a range, and whether the response to a deviation from the target should be symmetric or asymmetric.[4] The COVID-19 crisis and the acceleration of actual inflation in many countries, following a long period of very low inflation, emphasize the need to discuss these issues with a broad, long-term view. This box provides a brief survey of the changes recently made in the US, Europe, and Canada.[5]

In the US, the Federal Reserve conducted a broad examination of its policy framework since 2019, with public involvement in order to increase transparency in the process. In August 2020, Fed Chairman Jerome Powell presented the consensus announcement of the Federal Open Market Committee regarding the monetary framework (Federal Reserve Board, 2020). This announcement was essentially an update of the 2012 announcement based on which the Fed had been conducting monetary policy until then, adjusting it to the current period that is characterized, both in the US and around the world, by a low real interest rate environment. The low real rate reduced the Fed's maneuvering room in lowering the monetary interest rate during recessions before it would hit the effective lower bound. In a situation where the interest rate cannot always decline sufficiently to prevent inflation from declining, inflation will tend to be lower than the target on average over time. The decline in inflation may become more severe as the public internalizes these developments, which would lead to a decline in inflation expectations, and in turn to lower actual inflation.

The basic nature of the updated policy framework remained in place: maintaining price stability, which is defined as an increase of 2 percent in the long term, and maximal employment. The main change in the new policy is the transition to average inflation targeting (AIT). According to this target, following a prolonged period in which inflation is below the target, the Fed will aim to achieve inflation that is higher than the target, such that on average over time, inflation will be 2 percent. Thus, the restriction that the

[1] For further discussion of the inflation targeting regime and of the accumulated experience globally, see Box 3.1 of the Bank of Israel *Annual Report* for 2019.

[2] See, for instance, the proposal by Blanchard et al. (2020).

[3] A survey of the articles discussing the optimal inflation target appears in Diercks (2019).

[4] For instance, Bianchi et al. (2020) argue that a more moderate response to upward deviations from the inflation target will help reduce the risk of spillover into a deflationary spiral.

[5] As part of the Bank of Israel's strategic plan from 2019, the Bank is re-evaluating the inflation target in order to examine whether to keep the existing target or to recommend to the government to decide on a different target, with a long-range view of the policy that is necessary in view of the changes that have taken place in the economic environment since the formulation of the current policy in 2003.

lower bound of the interest rate poses for the central bank will not interfere with the bank's ability to achieve the inflation target on average over time. This policy should improve the anchoring of the public's inflation expectations around the central bank's inflation target, which should in turn prevent too sharp of a decline in inflation in response to moderating economic developments. The period for which the average inflation will be calculated remains vague, in order to allow for policy flexibility.

Another change in the policy framework is in the Fed's response to developments in the labor market. According to the new framework, the Fed will respond strongly to weakness in the labor market, but not to a tight labor market. The motivation for this change is the flattening of the "Phillips Curve", according to which inflation is less sensitive to the level of economic activity. The Fed's updated position is therefore that the labor market can remain strong without necessarily leading to a substantial increase in inflation (Powell, 2020; Caldara et al., 2020). The Fed intends to continue examining the policy framework and to revise it as needed every five years.

The European Central Bank also re-examined its monetary strategy, for the first time since 2003 (European Central Bank, 2021). The process kept price stability as the main objective, and support for economic activity and for financial stability as secondary objectives. The main change in the new framework instituted by the ECB is the transition to a symmetrical inflation target around 2 percent, compared with the previous target that was formulated as "close to, but slightly below, 2 percent".[6] Like with the Federal Reserve, here too the motivation for the change was the understanding that in the current economic environment, and particularly with the interest rate's proximity to the lower bound, there are significant risks from the direction of inflation that is too low, and that a possible way of dealing with such a situation is greater tolerance of higher inflation. Thus, the Bank emphasized that if necessary, it would enable a temporary upward deviation of inflation from the target.[7] The rethinking of the ECB's strategy was conducted in conjunction with the European public, and the Bank intends to make policy accessible to the broad public as much as possible. The strategy will be re-examined again in 2025 (European Central Bank, 2021).

At the end of 2021, the Bank of Canada, together with the Canadian government, conducted a reassessment and revision of the current policy framework, five years after the previous revision. This reassessment came in view of challenges similar to those facing the Federal Reserve and the ECB when they revised their policy frameworks. The Bank of Canada examined a number of alternatives to the current policy, which is a flexible inflation target regime, as part of which it aims to achieve inflation of 2 percent and enables deviations of 1 percentage point in either direction. The alternatives that it examined were an average inflation target (similar to the Fed's new framework); a dual mandate that aims for concurrent inflation and employment targets; a nominal GDP target (targets for GDP level and GDP growth); and a price level target. In the end, it was decided that the best policy framework would be the current one, since its flexibility allows it to reflect the positive elements of the other two prominent

[6] See the ECB discussion paper, ECB (2021), written as part of the recently conducted re-examination process, which relates to the considerations for and against the asymmetric formulation of the target that was set in 2003.

[7] A new aspect discussed by the ECB in examining its policy is climate. The ECB noted that this issue is relevant for monetary policy due to its potential effects on the economy through the potential implications of natural disasters on production capacity and through the implications of changes in environmental regulation on production ability.

approaches—the average inflation target and the dual mandate—and to avoid their deficiencies. The policy framework will be re-examined by the end of 2026.

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