

Chapter 1

The Economy in the Shadow of COVID-19

- The COVID-19 pandemic shook up the entire world, including Israel. Beyond the serious morbidity and mortality rates that it caused, the measures taken by governments to restrain the pandemic and behavioral changes by individuals led to a massive impact to the economy, well-being, and all ways of life.
- In Israel, the government imposed serious restrictions on activity, which peaked during three lockdowns. These restrictions focused on creating physical distance, so their impact was concentrated in industries and activity that involve physical proximity. The impact to rest of the economy was limited. The fluctuations in the strictness of the restrictions were reflected in sharp fluctuations in the level of economic activity over the course of the year, particularly during the first lockdown.
- GDP in Israel declined by 2.5 percent in 2020. The impact was led by an anomalous decline of 9.5 percent in private consumption. The intensity of this decline first and foremost reflects the impact of social distancing restrictions, and was also reflected in a steep increase in the savings rate.
- The impact to employment was much sharper than the impact to GDP. Many employees were furloughed, and broad unemployment jumped to an average of 15.7 percent over the course of the year. The impact to employment of low-wage earners was particularly harsh because many such workers are employed in the industries that absorbed most of the impact to activity. The impact in such industries also led to a broad impact to the self-employed and small businesses. These businesses found it difficult to raise credit particularly before the activation of the state-backed funds.
- Exports played an important role in moderating the impact of the crisis in the economy, mainly thanks to the continued rapid growth of advanced services exports. Export performance, alongside the sharp decline in imports, led to a significant expansion of the current account surplus.
- Fiscal policy responded vigorously, mainly through transfer payments intended to assist households and businesses. This policy increased private disposable income and mitigated the decline in GDP. The government also provided guarantees for the provision of loans to businesses. The budgetary deficit reached 11.6 percent, and the public debt to GDP ratio climbed from 60 percent to 72.6 percent.
- Monetary policy also reacted strongly. At the beginning of the crisis, it focused on stabilizing the financial markets. Later, it used a variety of tools to ease financing terms. The most prominent of these in terms of volume was the purchase of government bonds in the secondary market. The Bank of Israel also used additional tools, including the purchase of corporate bonds, and monetary loans to assist small businesses. In addition, the Bank of Israel lowered the interest rate by 0.15 percentage points to 0.1 percent, and purchased a significant volume of foreign exchange.
- The inflation rate in 2020 was -0.7 percent, significantly lower than in recent years. The impact of the crisis on domestic economic activity and on global fuel and food prices, as well as the appreciation of the shekel, were contributory factors to the decline in inflation. Rent prices increased by only a moderate amount during the year.
- The marked variance across segments of the economy and of society, both in terms of the extent of the economic impact, and in terms of the impact to other aspects of well-being, was due to the nature of the crisis. However, it highlighted the weaknesses of the socioeconomic safety net, as well as existing gaps between segments of the economy and society.
- Passing the state budget for 2021 is essential in order to determine priorities and implement programs to accelerate growth, particularly in the areas of human capital and investment in public transit, communications, energy and environmental quality infrastructure.

1. THE GENERAL PICTURE

The COVID-19 crisis that gripped the world in 2020 was unique in its intensity, its characteristics, and its multi-dimensional ramifications. The fundamental cause of the crisis, as well as the key to its conclusion, is not economic. Beyond the serious morbidity and mortality that it is causing, the crisis has had a serious impact not only on economic activity, but also on many levels of society and well-being. The impact to economic activity and well-being was due to both the measures taken by governments to restrain the spread of the pandemic and voluntary behavioral changes by the public in view of concern of contagion.

The challenges that the crisis posed for policy makers around the world also set it apart from other crises. Policy makers worked through two channels in parallel: health—restrictions on activity intended to reduce serious morbidity and mortality; and economic—a broad fiscal and monetary response that aimed to reduce the economic impact. Both channels were intended to ease the impact and to gain time until the fundamental solution to the crisis could be found. As opposed to other crises, they were not intended to advance a solution, which had to come in the form of finding a vaccine or a cure.

A main component of the policy to restrain the pandemic in many countries has been the imposition of restrictions on the public in order to create physical distancing. These restrictions peaked with the imposition of full or partial lockdowns that paralyzed a significant share of activity and greatly restricted the public's freedom of movement. Their impact on economic activity and well-being was a focus of deep disagreement around the world regarding this policy and the appropriate balance between saving lives and the attendant harm to the economy and well-being. The dispute also related to the distribution of the burden of the impact of the restrictions among various groups in society. The increased physical distancing, whether due to the restrictions or to voluntary behavior, is what dictated the nature of the impact to economic activity and well-being, particularly its differential nature.

When the crisis hit, Israel was in a good economic state in many respects. Even so, the impact to the economy was very serious. GDP declined by 2.5 percent, and private consumption declined by 9.5 percent. Broad unemployment¹ jumped to 15.7 percent, and the gap between the impact to GDP and the more serious impact to employment was prominent. The intensity of the impact to GDP was more moderate than the concerns that were prevalent during some stages of the crisis. This was partly due to the response of fiscal and monetary policy, and because the impact was focused on the domestic services industries that were directly affected by the government restrictions and changes in public behavior, and which generally have relatively low productivity. The waves of infection that characterized the pandemic were also

GDP declined by 2.5 percent in 2020, and private consumption declined by 9.5 percent. Broad unemployment jumped to 15.7 percent.

¹ This definition includes the unemployed (under the normal definition), temporary absentees for reasons having to do with COVID-19 (mainly furloughed employees), and those who are not participating in the labor force due to COVID-19. This definition relates only to 2020 data. The unemployment rate in previous years relates only to the unemployed, as normal.

reflected in fluctuations in the strictness of the restrictions, which peaked during three lockdowns, and also in the sharp fluctuations in the level of economic activity during the year, particularly during the first lockdown.

Fiscal and monetary policy responded vigorously, and focused on helping households and businesses get through the crisis, both directly and by easing financing terms. Fiscal policy worked mainly through transfer payments and providing guarantees for loans. These payments were the main factor in increasing the public debt to GDP ratio from 60 percent to 72.6 percent. In addition, the budget of the health system was increased. Fiscal policy was conducted under a continuation budget, which is restraining by its nature, and utilized anomalous arrangements in order to enable the increase of expenditures to deal with the pandemic. Monetary policy focused first on stabilizing the financial markets, and later used a variety of tools to ease financing terms. The most prominent of these in terms of volume was the purchase of government bonds in the secondary market. The Bank of Israel also used tools focused on specific sectors, some for the first time in Israel, such as the purchase of corporate bonds and monetary loans to help small businesses. Toward the end of the year, the Bank even announced that it would provide such loans to the banks for this purpose at negative interest (-0.1 percent). In addition, the Bank of Israel purchased significant volumes of foreign exchange in order to moderate the appreciation of the shekel and its adverse effect on economic activity.

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Beyond the economic damage, the crisis had a serious impact on the well-being of individuals in a variety of areas. These included impacts to the freedom of movement; leisure activity; social contacts; and mental and emotional well-being. The crisis even led to declines in health that were not due to infection from the virus and that may also be reflected in increased future mortality (for instance due to avoidance of receiving treatment or early diagnosis of illnesses); worsening domestic violence; and harm to children due to the shutdown of the education system. Some of the aspects of the impact to well-being are detailed in Chapter 7 of this Report. These effects deepened the dispute regarding social distancing restrictions. There was also an added sectoral element to the disputes, which concerned the extent of compliance with and enforcement of the restrictions, and which gave rise to issues of social cohesion.

The crisis's impact on various segments of the economy and society was not uniform. This variance was reflected both in terms of the economy and in terms of other aspects of well-being.

The variance in the economic impact was, to a large extent, due to the nature of the industries that absorbed the brunt of the impact. These industries feature a large number of low-wage earners, and the impact to employment among these workers was therefore particularly sharp. The impact in these industries also led to a broad impact on small businesses and the self-employed. The impact to household income and employment was particularly serious in the middle deciles, and not in the lower deciles, both due to universal grants issued during the year, and due to the characteristics of the impact to employment.

The broad assistance programs implemented by the government made it easier for households and businesses. However, the crisis emphasized the importance of establishing an economic safety net that can be deployed rapidly when needed and that enables the rapid provision of assistance that is focused on those hit by the crisis.

The impact to noneconomic well-being was also not uniform. For instance, social distancing had a prominent effect on the social interactions of the elderly. Additional characteristics of low-income households, such as overcrowding and less availability of computers, contributed to an increased impact on their well-being. These characteristics increased their vulnerability, for instance by making it more difficult for parents to work from home or for children to learn online, or to deal with prolonged stays at home.

The crisis led to a jump in the use of online technologies for remote activity in a variety of areas, including work, study, supply of commercial and public services, shopping, and social connections. This reduced the impact of the crisis on the economy and well-being, and accelerated processes that had begun earlier such as the expansion of work from home, expanded the circle of users of such technologies, and provided a lot of experience in their use. However, the expansion of online activity emphasized the significant gaps—by income, education, industry, profession, age, and population sector—in people’s ability to participate in it and to enjoy its benefits (“digital divide”). Some of these gaps reflect skill gaps in working in a digital environment and gaps in the availability of equipment and infrastructure (such as computers and communications). The expansion of online activity may worsen existing socioeconomic differences and have implications for the necessary forward-looking policy.

The intensity of the crisis has made it necessary for policy makers to focus on its immediate handling, as part of which measures of an unusual scale were taken in order to assist businesses and households. Safety net considerations were naturally emphasized, even at the cost of potentially distorting incentives. When the economy begins to recover from the crisis, it will be important to adjust the scale and characteristics of the assistance programs so that they don’t have an adverse effect on incentives to accelerate activity, and in order to reduce their costs. At the aggregate level, it will be necessary for fiscal policy to lead to a downward path of public debt, and adjustment of the scale of the monetary tools used during the crisis will also be required. It is important to prepare for dealing both with the prolonged implications of the crisis, such as persistent unemployment, structural changes in the economy, and the cumulative adverse effect on the scholastic achievements of some pupils, and with the long-term fundamental problems in the economy, chiefly low productivity, disparities in productivity between segments of the population and sectors of the economy, and inequality, some of which were exacerbated by the crisis. Passing the state budget for 2021 instead of operating according to a continuation budget is an essential step for dealing with these challenges.

2. ECONOMIC DEVELOPMENTS

a. Real economic activity

The outbreak of the pandemic in Israel, the health measures taken by the government to deal with it, and the changes in public behavior, shook up the economy. GDP declined by 2.5 percent, per capita GDP declined by 4.2 percent, and broad unemployment skyrocketed to its highest level in at least 50 years.² Despite the intensity of the crisis, its impact was focused on certain industries and did not spread into a downward spiral of the entire economy. Despite the panic that took hold of the financial markets at its outset, the real crisis did not develop into a financial crisis, partly thanks to the monetary policy tools activated at that time.

Due to a number of factors, the aggregate impact to the economy was moderate relative to the intensity of the shock, and even relative to the situation in many other advanced economies (Figure 2.1 in Chapter 2). The economy was at a good starting point prior to the crisis, with prolonged growth, a high level of activity, a particularly low unemployment rate in a full employment environment, a prolonged current account surplus, and a very high level of foreign exchange reserves. The public debt to GDP ratio enabled fiscal policy to respond to an unprecedented extent. Monetary policy also reacted with tremendous strength. Economic policy thereby contributed to reducing the impact on the economy, although this contribution was not unique to Israel. Structural characteristics that worked to benefit the economy include the low weight of the tourism industry and the high weight of advanced services export industries, particularly the specialization in services for which global demand increased in view of the crisis. The economy also benefited from technological developments that enabled working from home on a large scale, particularly in those export industries, and from a decline in global oil prices, although those factors were not unique to Israel. In contrast, political instability made it difficult to cope.

Prior to the crisis, the economy was at a good starting point.

The response to the pandemic—as reflected first and foremost in the restrictions imposed by the government—is the basis for the clear separation created between industries that involve physical proximity and were seriously affected and those that were less affected or suffered no impact at all. This difference between industries was also reflected in the crisis's differential effect on uses in the economy, on employees at different wage levels, and on businesses by size. It also had an effect on the significant gap between the impact on GDP and that on employment.

The waves of morbidity and the changes in strictness of the restrictions imposed by the government—which peaked during the three lockdowns—were reflected in sharp fluctuations of activity during the year upon entering or exiting the lockdowns. (See

² As explained above, the broad definition, which includes two components in addition to the unemployed, relates only to 2020 data. The unemployment rate, which includes the unemployed and temporary absentees due to COVID-19 but does not include nonparticipants due to COVID-19, reached 14 percent in 2020, just slightly higher than the peak of 13.4 percent that the regular unemployment rate (only the unemployed) reached in 2003.

Figure 1 in Box 1.1, and greater detail in Chapter 2.) The first lockdown's immediate impact on activity (estimated at a decline of 20 percent in the level of activity) was the strongest, while the later lockdowns had less of an impact (even though the second lockdown was formally stricter than the first), as parts of the economy acclimated to activity under restrictions through working from home, provision of online services, expanded use of deliveries, and more. The extent of compliance with the closures may also have declined. A third lockdown began at the end of the year, on a more lenient footing that became stricter only at the beginning of 2021.

The decline in private consumption was particularly steep, even compared with other countries.

The unusual intensity of the impact to private consumption, which declined by 9.5 percent, meaning a decline of about 11 percent in per capita consumption, is one of the unique characteristics of the current crisis.³ Private consumption is generally less sensitive to business cycles than other uses, and thereby serves to restrain fluctuations in GDP, while this time it was the focus of the shock. This was due to the fact that it was not an impact to income—private disposable income actually increased in 2020—but restrictions imposed on activity that led the decline in private consumption. The sharp decline in private consumption in Israel compared with other countries is consistent with the severity of the restrictions imposed here compared with those countries (Figure 1.1). It was even more prominent considering that the impact to GDP in Israel was less than the OECD average. However, the figure shows that the severity of the restrictions may explain only a small part of the differences among the OECD countries in the intensity of the decline in private consumption. Voluntary changes in individuals' behavior in view of their concerns over infection also contributed to the decline in private consumption around the world.⁴ It is reasonable to assume that these changes had some effect on consumption in Israel as well.⁵

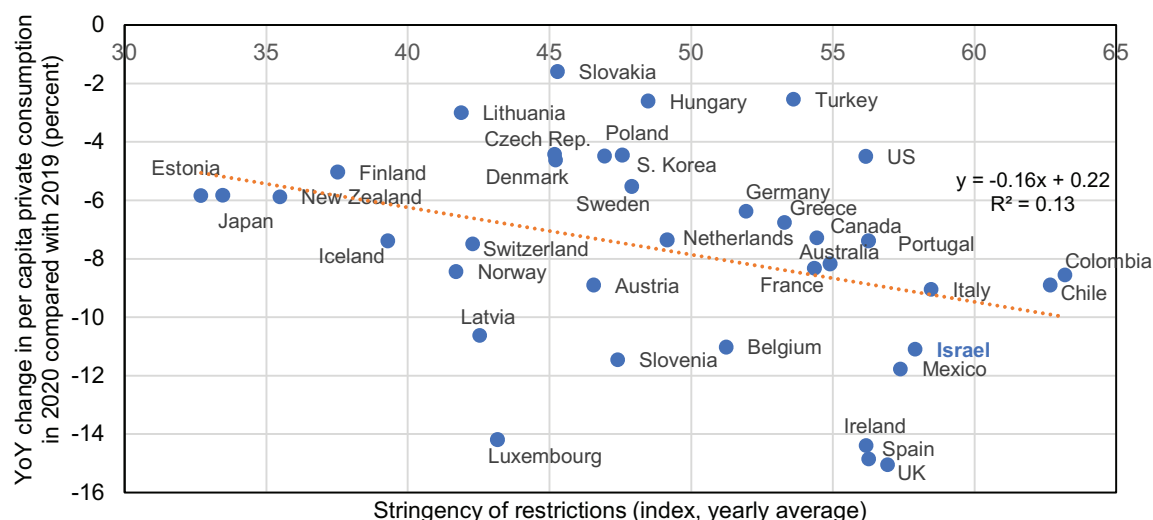
A blow to income is expected to motivate the smoothing of consumption, meaning there will be less of an impact to consumption than to income, afforded by a decline in the savings rate. In contrast, the restrictions work as a kind of forced savings. The decline in consumption of durable goods at a lower rate than that of other consumption, the increase in the rate of private savings, and the fact that households' nonhousing debt narrowed, are consistent with the determination that the restrictions and behavioral changes had a greater effect than the impact on income might have.⁶ Moreover, private disposable income increased in 2020, partly thanks to the increase

³ Since 1965, there has been a yearly decline in per capita consumption 11 times. The decline was greater than 1.7 percent only twice, including 1984 when it declined by about 9 percent.

⁴ Several studies point to voluntary social distancing's contribution to a decline in mobility, particularly in advanced economies. Some of them even show that the effect in these countries was greater than that of the lockdowns. See IMF (2020), *World Economic Outlook*, October, Chapter 2.

⁵ There were behavioral changes by the public in Israel that affected consumption beyond the direct impact of the decline in income, although to a lesser extent, in the 2001–3 crisis as well (Section 4 below).

⁶ The greater uncertainty may also increase precautionary saving. However, such saving would have been expected to affect the consumption of durable goods to a greater extent than other consumption. The decline in nonhousing debt reflects a decline in demand for this debt, since the interest rate on such debt also declined.

Figure 1.1**Restrictions on Activity and Percent Change in Per Capita Private Consumption, OECD Countries**

The stringency index of the restrictions is described in Box 1.1. The figure for each country is the average daily level of the index during the period from January 1 to December 31, 2020.

SOURCE: Based on Oxford COVID-19 Government Response Tracker, OECD, and Central Bureau of Statistics.

in transfer payments. The industry composition of activity that was harmed led to a particularly serious impact to employment among low-wage earners, meaning those with a greater marginal propensity to consume, but the broad government assistance moderated the impact to their income, and therefore to aggregate consumption. The decline in consumption was focused on services produced by the economy, which should have increased the impact to GDP. However, an important part of the decline in private consumption was due to the sharp decline in Israelis' travel abroad, which mainly reduced imports and not GDP.

Exports played a key role in softening the crisis's impact on the economy. Despite the sharp decline in world trade and in OECD imports (Figure 2.8) and the paralysis of incoming tourism, Israel's exports (excluding diamonds and startups) increased by 1.9 percent in 2020. Israel's export performance was also particularly good when compared to other advanced economies, and mainly reflected the continued rapid growth of the export of advanced services, which account for a high proportion of Israel's exports. These exports enjoyed global demand that remained strong, particularly in a number of fields in which Israel specializes, such as computer communications and information security, for which demand increased in view of increased online activity during the crisis. At the same time, the impact of the health restrictions on the functioning of these export industries was slight compared with other industries, partly because of their abilities to rely on working from home to a large extent, and because policy worked as

Exports played a central role in moderating the impact to the economy. The continued rapid growth of advanced services exports was key.

much as possible to prevent the restrictions from affecting their operations during the lockdowns. The high productivity and value added of advanced exports accentuated their contribution to GDP and to the difference between the impact to GDP and the impact to the labor market in 2020. However, there was marked variance within the advanced export industries, with some companies suffering a greater impact, lowering salaries, and reducing their work force (Box 2.2).

The effect of public consumption and investment on changes in aggregate activity this year was slight. Public consumption increased by only a moderate amount in 2020, and did not reflect the intensity of the fiscal response to dealing with the crisis—which was focused on transfer payments and other tools as detailed below. Fixed capital formation (excluding ships and aircraft) declined by 3.6 percent. Only part of this decline (such as the decline in the volume of residential construction) has to do with the crisis, while the rest is explained by other factors (such as the completion of development of the Leviathan natural gas field). An important part of the decline in investment (in the fields of energy and transport vehicles) was reflected in a decline in imported inputs, such that its effect on GDP was slight. In other industries, investment continued to grow this year as well.

The government-imposed restrictions on economic activity focused the impact of the crisis on industries whose activity involves physical proximity.

The government-imposed restrictions on activity, and the changes in public behavior, focused the impact of the crisis on industries whose activity involves physical proximity, such as hospitality and food, some personal services, transportation, and part of the retail industry. There was a particular impact to industries where activity involves gatherings and a high number of participants, such as the art, recreation, and leisure industry, since the restrictions on their activity remained relatively strict throughout the entire period—even during the easements between the lockdowns. Some of these industries were also seriously impacted by the paralysis of incoming tourism. (A description of the characteristics of the industries that were particularly hard hit appears in Box 2.1 of this Report.) In contrast, certain industries, not only the advanced export industries, were only slightly hurt, and some even increased their revenue during the crisis relative to the same period in the previous year (Table 5.2 in Chapter 5 of this Report).

The physical-proximity-oriented industries employ many workers, so the impact to those industries led to a sharp increase in the broad unemployment rate. The composition of employees in these industries was reflected in a particularly serious impact to the employment of low-wage earners. The low labor productivity in these industries contributed to the fact that the effect on GDP was smaller than the decline in the number of employees, and therefore to the gap between the decline in GDP and the jump in unemployment. The increase in productivity in 2020 was to a large extent due to this phenomenon and not to a real increase in productivity among those who remained employed. Some of these industries are characterized by a large number of small businesses and self-employed. This explains the particularly harsh impact absorbed by these businesses during the crisis, and the focus of some of the policy

measures on helping them, as described below. Box 4.2 of this Report illustrates how small and micro businesses were harder hit than larger businesses.

b. The labor market

The uniqueness of the current crisis is also reflected in the labor market, both in the intensity of the impact to employment and through other phenomena derived from the nature of the industries that were affected, chiefly the differential impact on workers and the gap between GDP and employment, which are discussed above.

Unemployment, which in 2019 reached its lowest level in decades, jumped to an average of 15.7 percent (in its broad definition) in 2020—a jump of about 12 percentage points that is unprecedented in Israel.

The government-imposed restrictions on activity led to a strong and immediate reaction in the labor market. In contrast with the normal business cycle and previous crises, in which the labor market reacts with some lag to a slowdown in demand in the economy, the market reacted directly to the restrictions, particularly those having directly to do with the closure of businesses and traveling to work places. Accordingly, there were sharp fluctuations during the year in the broad unemployment rate, which peaked during the first lockdown with the number of unemployed reaching about one million.

Another unique characteristic of the crisis is the volume of the use of furloughs—a mechanism that existed even before the crisis, but was utilized until then only sparingly. Almost the entire change in unemployment in 2020 was due to the furloughing of employees (as opposed to dismissals), which made it necessary to relate to the broad unemployment rate, which includes these employees.⁷ The government took additional measures beyond enabling the broad use of furloughs, such as relaxing the conditions for receiving unemployment benefits and extending the eligibility period for them to June 2021. These measures made it easier for the unemployed, helped reduce the impact to their income and their uncertainty, and thereby helped maintain demand in the economy. Alongside this, measures were taken during the year that were intended to encourage their return to employment and reduce the concern that these measures would have too great an impact on employees' incentives to look for work and on employers' incentives to employ them. For more on the advantages and disadvantages of the furlough model (including compared to models used abroad) and regarding all of the measures taken by the government in the labor market, see Chapter 5.

As stated, due to the nature of the industries that were affected, the impact to employment was particularly sharp among workers with low wages and low education levels. This also led to an increase in the average wage that does not reflect an increase in the wage of the persistently employed. However, the crisis also affected employees who are stronger than those who are prone to unemployment during normal times.

Almost all of the increase in unemployment in 2020 was due to employees being furloughed. The government eased the conditions for receiving unemployment benefits, and extended the period of eligibility for them until June 2021.

The impact to employment was particularly sharp among workers earning low wages and those with little education.

⁷ As stated, this rate also includes individuals who left the labor force due to the crisis.

Their socioeconomic characteristics, as well as their employment connection with the labor market, were stronger than those of the people who were unemployed prior to the crisis. This is not necessarily unique to the current crisis, and it is likely related to the significant growth in the number of unemployed.

The impact to the employment of young workers was greater than the impact to the employment of other workers, which was observed in previous crises in Israel as well. The impact to the employment of older workers (aged 55–65) was smaller than to the employment of those younger than them. However, the impact to the employment of older workers relative to that of young workers (25–34) was stronger than in previous crises. The nature of the current crisis may be a contributory factor in this due to the increased risk of infection to older workers or due to their lower ability to work from home.

Table 1.1
Main Developments, 2015–20

	2015	2016	2017	2018	2019	2020
Population (yearly average, million)	8.4	8.5	8.7	8.9	9.1	9.2
Nominal GDP (NIS billion, current prices)	1,167	1,224	1,269	1,330	1,407	1,384
Per capita GDP (NIS thousand, current prices)	139.3	143.2	145.8	149.8	155.4	150.1
Private consumption (NIS billion, current prices)	634.3	670.9	694.6	728.6	762.2	688.8
Gross domestic investment (NIS billion, current prices)	232.4	258.5	273.1	288.8	300.4	301.3
Public consumption (NIS billion, current prices)	261.4	273.4	286.5	304.1	317.8	333.6
Goods and services exports (NIS billion, current prices) ^a	337.6	332.4	335.6	363.5	384.2	372.9
Goods and services imports (NIS billion, current prices) ^b	292.7	307.4	319.1	353.0	357.4	310.2
GDP (percent rate of change)	2.2	3.8	3.6	3.5	3.4	-2.5
Private consumption (percent rate of change)	4.1	6.4	3.3	3.6	3.8	-9.5
Gross domestic investment (percent rate of change)	0.9	10.4	6.0	2.5	3.5	-1.6
Public consumption (percent rate of change)	2.8	4.2	3.5	3.9	2.8	2.7
Goods and services exports (percent rate of change) ^a	-0.6	-0.8	5.5	6.0	5.5	1.9
Goods and services imports (percent rate of change) ^b	2.1	9.2	6.8	5.1	5.0	-8.0
Current account of the balance of payments (surplus, \$ billion)	16.3	11.8	10.3	9.9	13.4	20.1
Overall government deficit (percent of GDP)	1.6	2.0	2.1	4.3	4.5	11.9
Public debt (percent of GDP)	63.8	62.1	60.6	60.9	60.0	72.6
Employed Israelis (thousand) ^c	3,643.8	3,736.9	3,824.8	3,905.1	3,966.9	3,913.4
Real wage per employee post (yearly average, percent rate of change)	2.9	2.8	2.8	2.7	2.0	7.8
Unemployment rate, aged 15 and up (yearly average, percent) ^d	5.3	4.8	4.2	4.0	3.8	15.7
Inflation (December compared to the previous December, percent)	-1.0	-0.2	0.4	0.8	0.6	-0.7
Bank of Israel interest rate (yearly average, percent)	0.1	0.1	0.1	0.1	0.3	0.1
Real one-year interest rate (yearly average, percent)	-0.5	-0.1	-0.1	-0.8	-0.8	0.1
Nominal yield on 10-year government bonds (yearly average, percent)	2.18	2.00	2.11	2.16	1.59	0.82
Real yield on 10-year government bonds (yearly average, percent)	0.50	0.43	0.57	0.51	-0.01	-0.50
Real effective exchange rate (yearly average, percent rate of change)	0.4	-1.5	-4.4	2.1	-2.5	-3.1
NIS/\$ exchange rate (yearly average)	3.89	3.84	3.60	3.59	3.56	3.44
Tel Aviv 125 index ^e	2.0	-2.5	6.4	-2.3	21.3	-3.0
World trade (percent rate of change)	2.8	2.3	5.7	3.6	1.0	-9.6

^a Excluding diamonds and startups.

^b Excluding defense imports, ships, aircraft, and diamonds.

^c The number of employed persons in 2020 includes temporary absentees for reasons having to do with COVID-19.

^d The figure for 2020 relates to broad unemployment, which includes the unemployed (normal definition), temporary absentees for reasons having to do with COVID-19, and nonparticipants due to COVID-19.

^e Nominal rate of change - the last day of December compared to the last day of the previous December.

SOURCE: Based on Central Bureau of Statistics and International Monetary Fund.

Table 1.2
Economic indicators: International comparison^a, 2011–20

	2011-2018 average				2019				2020			
	Israel	US	Eurozone	OECD	Israel	US	Eurozone	OECD	Israel	US	Eurozone	OECD
GDP growth rate (percent)	3.6	2.3	1.3	2.1	3.4	2.2	1.3	1.6	-2.5	-3.5	-6.6	-5.5
Per capita GDP growth rate (percent)	1.6	1.6	1.1	1.4	1.5	1.7	1.0	1.1	-4.2	-4.0	-6.9	-6.0
Per capita GDP (\$ thousand, current prices)	36.9	55.9	41.7	37.3	43.6	65.3	50.7	39.5	43.7	63.1	-	-
Population growth rate (percent)	1.9	0.7	0.3	0.6	1.9	0.5	0.3	0.5	1.8	0.5	0.3	0.5
Civilian labor force participation rate, ages 25–64	79.3	77.2	79.0	77.1	80.4	78.2	80.6	78.4	79.2	-	-	-
Inflation rate (during the year)	0.9	1.8	1.3	1.9	0.8	1.8	1.2	2.1	-0.6	1.2	0.3	1.4
Exports (percent of GDP) ^b	29.5	12.9	45.2	28.8	28.1	11.7	48.3	29.8	27.1	-	45.4	-
Gross investment (percent of GDP)	20.9	20.4	20.6	22.3	21.4	21.0	22.3	23.3	21.8	20.3	21.3	22.4
National savings (percent of GDP)	23.9	19.0	23.5	23.3	24.7	18.6	25.2	24.5	26.8	17.7	23.7	23.4
Current account (percent of GDP)	3.0	-2.3	2.9	0.0	3.4	-2.2	3.1	0.3	5.0	-3.4	3.0	-0.2
Public expenditure (percent of GDP) ^c	39.6	36.1	48.2	43.9	39.8	35.7	-	42.6	46.9	47.2	-	49.4
Tax revenue (percent of GDP) ^d	30.9	25.5	37.2	35.4	30.3	25.3	37.7	35.9	29.9	25.8	36.6	34.9
Gross public debt (percent of GDP) ^e	64.7	104.6	89.8	84.4	60.0	108.7	84.0	82.5	72.6	131.2	-	-

^a Figures for the eurozone and OECD countries are weighted averages of the data for the countries in each group, as published in the OECD Economic Outlook.

^b For Israel—exports excluding diamonds.

^c Deficit and expenditure data for Israel are adjusted to the accepted international definition.

^d Data for the eurozone and OECD countries are the simple averages of the data for the countries in each group. Data for the eurozone do not include Latvia, Malta or Cyprus.

SOURCE: Based on International Monetary Fund and OECD.

c. The current account and national savings

The current account surplus increased greatly. Imports dropped sharply, chiefly due to the decline in Israelis traveling abroad.

The economy has been running a current account surplus for years, and the crisis contributed to the marked increase in that surplus in 2020. While exports grew at a lower rate than in previous years, imports dropped sharply. The crisis's contribution to the decline in imports was due first and foremost to the sharp decline in Israelis traveling abroad (which more than offset the impact to foreign exchange receipts from incoming tourism), as well as the declines in global oil prices and in fuel consumption due to the decline in domestic travel. These temporary factors, alongside other, sometimes long-term ones, created appreciatory pressure on the shekel. The prolonged success of advanced exports has contributed over time to the current account surplus, and this contribution became more pronounced in 2020.

There was anomalous growth in the national savings rate this year.

The expansion of the current account surplus in 2020 reflects an anomalous growth in the national savings rate, both compared with recent years (alongside the small increase in investment) and compared with other countries (Table 1.2). It is due to an even more significant increase in private savings, which more than offset the decline in public savings. This shows that other than the potential effect of considerations of consumption smoothing and Ricardian considerations⁸, private savings were apparently affected to a great extent in 2020 by the characteristics of the crisis that acted to lower private consumption and increase these savings (forced savings or precautionary savings), as described above.

d. Inflation and the exchange rate

Inflation

The inflation rate was lower this year than in previous years.

The COVID-19 crisis has also had a marked effect on the development of inflation. The inflation rate in 2020 was -0.7 percent, significantly lower than the rate in 2019, and the lowest since 2016. While the decline of the inflation environment began in the months prior to the onset of the crisis, it intensified in the first months of the crisis, and stabilized at a low level later in the year. Price declines were recorded in most CPI components, which is consistent with the broad impact of the crisis on private consumption as described above.

An important part of the crisis's impact on inflation is due to its effect on the global economy. The declines in global energy and food prices, mainly at the beginning of the crisis, made a significant contribution to the decline in inflation in Israel. The accelerated appreciation of the shekel, which was only partly due to the crisis, also contributed to the decline of inflation. The inflation rate also declined in other OECD countries at the beginning of the crisis, although the decline in Israel was steeper (for more information, see Chapter 3).

⁸ Ricardian considerations are those that are expected to lead individuals to increase private savings in view of the decline in public savings, knowing that in the future they will be asked to finance the repayment of the increased public debt.

Rent prices increased only moderately, in contrast with their relatively rapid increase in recent years, when they made prominent contributions to inflation. It seems that the change reflects the crisis's effect on the housing market, partly due to the unique impact on the employment of young people and low-wage earners, who generally have high rental rates, to students returning to live with their parents, and possibly also to a decline in demand for rental apartments on the part of tourists. The significant moderation in the increase of rent prices is prominent in view of the accelerated increase in home prices (which are not included in the Consumer Price Index) in 2020, which may be further evidence of the crisis's excessive impact on the weaker layers of society. Home buyers generally have a relatively high income, and the increase in home prices, alongside the continued accelerated growth of housing debt, is consistent with a relatively low impact on demand for home ownership (as opposed to demand for housing services) on the part of this population group that suffered less of an impact from the crisis.⁹

The exchange rate

Following a short and sharp depreciation in March that had to do with the dollar liquidity crunch in the financial markets at the beginning of the crisis (as described below), the shekel appreciated later in the year, with the appreciation accelerating toward the end of the year. In terms of the nominal effective exchange rate, the shekel appreciated by a total of 5.5 percent during the year. The contributory factors to this appreciation included the continued surplus in the current account of the balance of payments, which was augmented this year by the crisis's effect on its expansion, as described above; foreign direct investments in Israel, particularly in the advanced export industries, which continued at an increased pace in 2020; temporary capital flows that are not necessarily connected with the crisis or changes in the fundamental factors of the economy; and the weakness of the dollar globally. The Bank of Israel acted to moderate the pace of the appreciation by increasing its foreign exchange purchases.

The temporary capital flows that caused appreciatory pressure included foreign exchange sales by the institutional investors as part of adjustments they made to their asset portfolios in view of the increase in the value of their assets abroad. Even though the direction of these adjustments is temporary in nature, their large volume reflects a fundamental factor in the economy: a prolonged increase in the surplus of assets vis-à-vis abroad, including the increase in investments abroad by institutional investors. Israel's accession to the WGBI Global Bond Index, which increased foreign investment in Israel government bonds, also contributed to the appreciatory pressures in 2020.

Following a short and sharp depreciation in March, the shekel continued to appreciate during the rest of the year.

⁹ The reduction of the purchase tax rate for those purchasing a second home or more (investors), and the decline in the interest rate on mortgages also supported demand for homes.

e. Financing of the business sector

At the beginning of the crisis, there was a shakeup of the financial markets in Israel and abroad. The rapid intervention by the Bank of Israel and other central banks, and broad and prolonged programs, led to the stabilization of the markets in Israel and abroad respectively. The government and the Bank of Israel used broad programs to ease the terms of credit, thanks to which—in part—the crisis had only a moderate impact on the volume and cost of financing.

The volume of total business sector debt was almost identical to that of the previous year, and the cost of financing the debt also remained virtually unchanged.

Total business sector debt remained almost identical to its volume in the previous year. The cost of financing, despite the differences between the various components and fluctuations during the year also remained virtually unchanged. It therefore seems that the various forces affecting demand for credit and its supply offset each other to a large extent. The decline in activity and in demand for investments in view of the crisis acted to reduce demand. In contrast, the distress of many businesses increased demand for credit for liquidity and survival purposes. The increase in the risk level acted to lower the supply of credit and make it more expensive, while the intervention by the government and the Bank of Israel served to expand it.

Small businesses had difficulty obtaining bank credit at the outset of the crisis, with credit largely being provided through State-guaranteed funds. The Bank of Israel implemented programs to ease financing terms for such businesses.

Even though over the course of the year the bank debt of both large businesses and small businesses increased at a low rate, its development during the year reflected important differences in the difficulties posed by the crisis and the effect of the policy measures that were adopted. Large businesses generally managed to use bank credit to deal with the crisis, utilizing existing lines of credit to a large extent at the beginning of the crisis, with the balance declining later on. In contrast, small businesses that were hard hit by the crisis had difficulty obtaining bank credit initially, and such credit was generally given as part of the State-guaranteed funds. The activity of these funds was expanded, although too slowly. The Bank of Israel also implemented programs to ease financing terms for these businesses, mainly through the provision of loans to the banks at very low, and then negative, interest rates, as detailed in the following section. The banks' interest rates to large businesses remained similar to what it was in the previous year, while the rates to small businesses declined slightly, evidence of the effect of the State-guaranteed funds and the programs run by the Bank of Israel in relation to these businesses.

Alongside the monetary policy steps detailed below, the Bank of Israel acted through the Banking Supervision Department to increase the volume of bank credit through regulatory leniencies for the banks. Furthermore, as part of the loan repayment deferral outlines initiated by the Bank of Israel, a significant volume of payments were deferred, mainly in respect of housing loans but also in respect of loans to small and micro businesses. Later in the year, most such businesses resumed their loan repayments that had been deferred at the beginning of the crisis.

3. ECONOMIC POLICY

a. Fiscal policy¹⁰

Scope of response and the fiscal aggregates

The good state of the economy prior to the crisis, and particularly the low level of the public debt to GDP ratio (even though the structural deficit was high) enabled the government to adopt a powerful and unprecedented fiscal expansion in order to deal with the economic ramifications of the crisis. This response also reflected the assessment that this crisis would be limited in time despite the uncertainty regarding its precise duration, and that it is not due to a structural problem in the economy. The response focused on increasing government expenditures, mainly transfer payments. The government also acted to provide State-guaranteed loans to businesses, the immediate budgetary cost of which is slight.¹¹ The increase in expenditures, alongside the smaller impact of the decline in government revenue and the decline in GDP spiked the budget deficit from 3.7 to 11.6 percent of GDP, and the public debt to GDP ratio from 60 percent to 72.6 percent.

The main characteristics of the fiscal policy response in Israel—a marked increase in expenditure and the deficit, focus on safety nets for employees and businesses through transfer payments, State guarantees for loans, and an increase in healthcare expenditure—were similar to the characteristics in other advanced economies. The increase in the public debt to GDP ratio was slightly lower than the average increase in the OECD countries.

In the absence of an approved State budget, fiscal policy was conducted with a continuation budget that prevents the growth of expenditure. The government adopted arrangements that enabled it to increase the budget in order to deal with the crisis (“COVID boxes”). The use of these boxes helped the government clarify that these were one-off expenses in view of the crisis. However, the lack of an approved budget for such a long period impairs the ability to budget many items and determine clear priorities. This places extra emphasis on the need to approve a budget for 2021 and to maintain the institutionalized frameworks that are essential for managing fiscal policy and establishing its credibility over time.

Despite the marked increase in debt, yields on the debt did not increase, and Israel’s credit rating remained in place. Factors that preceded the crisis, including the strong fundamental state of the economy and the continued decline in the public debt to GDP ratio, contributed to this, as did developments during the crisis such as the Bank of Israel’s intervention in the secondary government bond market (and the intervention of other central banks in global markets, which contributed to the low interest rate environment in the advanced economies), investors’ perceptions regarding the

The government adopted an intensive fiscal expansion program. The public debt to GDP ratio increased to 72.6 percent.

Despite the marked increase in public debt, yields on that debt did not increase, and Israel’s credit rating remained in place.

¹⁰ The government’s policy in the health channel to lower infection is broadly outlined in Box 1.1.

¹¹ The State’s role as insurer makes it possible to leverage the provision of loans by the banks through a relatively small budgetary cost, as long as the risks are not realized to a significant extent.

temporary and necessary nature of the fiscal expansion, and the fact that the increase in the debt was not anomalous compared with other advanced economies.

Characteristics and constraints of the intervention

The leading considerations in the design of government expenditure during the crisis were assistance and compensation, and not increasing demand in the economy.

In contrast with bust periods or other crises in which the increase in expenditure (or reduction of taxes) is mostly intended to support aggregate demand, the nature of this crisis dictated that the leading considerations in the design of expenditures were assistance (safety net) and compensation, and not increasing demand. These characteristics are linked to supply restrictions, the government's role in imposing them, the understanding that the rehabilitation of economic activity depends on a solution to the exogenous shock, and the assumption from an early stage of the crisis that such a solution—vaccination—would be found in the near future, which would make the crisis one of limited duration. In view of these considerations, the increase in expenditure focused on transfer payments and not on public consumption or investment. However, the budget of the healthcare system was greatly increased in order to deal with the pandemic.

The low weight given to encouraging demand was due to its small benefit in view of the government-imposed restrictions on business activity and the changes in public behavior, as well as the tension between encouraging economic activity and the desire to avoid the concomitant increase in morbidity. Moreover, in contrast with other crises in which the exogenous factor is what ignites the crisis but encouraging demand can gradually rehabilitate activity, the chance of this happening in the current crisis is low as long as the pandemic is not eradicated or at least restrained.

The assistance to businesses was largely intended to help them survive the crisis. The issue of survival was central for a number of reasons: The intensity of the impact to businesses made it difficult for even the strongest businesses to survive; the restrictions on activity greatly lessened the government's ability to indirectly assist businesses, as it did in other cases, by encouraging demand; and maintaining the businesses would enable them to renew their activity rapidly when the time comes and would reduce the costs and delays involved in re-establishing the businesses.

Survival was also a prominent consideration in the need to help many households get through the period in view of the serious impact to their income—workers that were dismissed or furloughed, as well as self-employed and business owners whose activity was shut down or seriously affected. The need for special assistance was acute for the self-employed, since they are not entitled to unemployment benefits.

The direct and clear role that the government played in harming employment and businesses through the restrictions it imposed on activity increased its public obligation to compensate those harmed by its decisions.

The balance of considerations was reflected in the design of the measures taken. The measures relating to unemployment and furlough payments, the grants to the self-employed, and the direct assistance to businesses (such as easing municipal taxes and a grant for fixed expenses) focused on those who were directly impacted by the restrictions on activity. In contrast, there were only a few measures taken,

mainly toward the end of the year, to increase the income of those with low incomes who generally have a high marginal propensity to consume (such as bringing the 2021 earned income tax credit forward). The industry composition of the assistance (for instance to the transport and tourism industries) also reflects the survival and compensation considerations. In contrast, public investments were not significantly expanded as a means of increasing demand.¹² During the crisis, a number of broad assistance packages were put in place (grants to all civilians), which were not efficient for focusing assistance on those harmed by the crisis.

The design of the assistance measures for businesses and households involved an inherent tension between contrasting considerations. This tension and the balance that was chosen were influenced by the nature of the crisis and were reflected in a number of characteristics of the measures:

Broad or focused assistance: Broad eligibility based on a few simple criteria makes it possible to extend large-scale and rapid assistance, but impairs its focus. More complex criteria (such as the extent of impact to a business) make it possible to focus the resources on the target population but require individual information, involve complexity, slow the implementation, and may have an adverse effect on take-up rates. Problems of this type were reflected when implementing some of the assistance measures. Due to the nature of the crisis and the lack of proper data infrastructure, a relatively large weight was given to the broad assistance, particularly at the earlier stages.

Assistance to businesses in view of declines in efficiency. In general, it is preferable during a crisis to designate assistance to businesses that have strong foundations and whose distress is temporary and due to the crisis. Nonselective assistance may support the existence of inefficient businesses. The state of the economy prior to the crisis increased the probability of the existence of such businesses, and crises are perceived as an opportunity to increase productivity in the economy in that they lead to their replacement with more efficient firms (“creative destruction”). The extreme circumstances of the current crisis, and the impact to businesses as a result of the restrictions imposed by the government itself, made it very difficult to distinguish between efficient and inefficient businesses, made this consideration less important, and supported the establishment of more lenient criteria for assisting businesses.

Generous assistance to the unemployed against a disincentive to work: Relaxing the conditions for receiving unemployment benefits, increasing their generosity, the commitment to provide them until June 2021, and the broad implementation of a furlough mechanism provided important assistance to the unemployed, helped reduce their uncertainty regarding their income, and were all the more important in view of the government’s difficulty in reducing unemployment by increasing demand. The assistance thereby also contributed to maintaining demand in the economy. Under normal conditions, these considerations are balanced by concern that generous

¹² This is despite the fact that even in the first package of measures, amounts were budgeted for this. While the execution of a number of infrastructure initiatives, mainly train lines and public transit lanes, was accelerated, in this context the operational consideration of exploiting the decline in traffic in view of the restrictions and lockdowns was prominent.

assistance will impair the incentive to work. However, in the current crisis, reducing the number of people working at their workplaces was consistent with the objective of the restrictions imposed by the government and with the efforts to reduce infection in the economy. Nonetheless, during the year, concerns were raised that the measures as designed may have too much of an effect on the incentive of some workers to return to their jobs or to search for alternative work, as well as on the willingness of employers to maintain employment when the restrictions were tightened or return employees to work when they were loosened. In view of these concerns, the government adopted a number of measures to encourage the maintenance of employment and the recall of workers, and to encourage employees to return to work (in particular when the unemployment rate would drop), as detailed in Chapter 5.

In view of the serious impact to the retail and services industries, which are characterized by many small businesses and self-employed, a variety of measures were adopted to help them.

The particularly harsh impact on the retail and services industries, which are characterized by a large number of medium and small businesses, focused a lot of attention on assistance to such businesses. This was reflected in the government's assistance programs (grants and State-guaranteed loans through designated funds), and even in the measures taken by the Bank of Israel, as outlined below. The impact to these industries also explains the extent of the harm to the self-employed, and accordingly the precedents in assisting them set during the crisis.

Heavy emphasis was placed on assistance to small businesses through loans that were partly guaranteed by the government, but the provision of assistance in this channel was slow and limited at the outset of the crisis. The volume of the fund was increased a number of times during the year, and the rate of the guarantee was increased through the fund for high-risk small businesses. The funds' contribution to easing financing terms for small businesses is outlined above and discussed in greater detail in Chapter 4. This assistance mechanism shifts some of the risk to the government, but its impact on the volume of government expenditures is low as long as the risk is not realized to a significant extent.

The policy response in terms of both making and implementing decisions at times had difficulty keeping pace with developments in the economy. The development of the response during the year partly reflected the development of the crisis, the uncertainty regarding its duration, the experience gleaned from implementing the measures, and the effort to focus the assistance on the target population. The slowness of the response and the difficulty in focusing it on the target groups were partly due to the lack of the proper data infrastructure necessary for the efficient and rapid design of focused assistance programs. The lack of a built-in institutional infrastructure for the rapid and automatic deployment of a broad socioeconomic safety net was also prominent. This disadvantage was felt, for instance, in view of the need to assist the self-employed and the need to greatly expand the assistance to small businesses. Even though the assistance to the unemployed was provided rapidly, it was based on a furlough mechanism that was not initially intended to deal with crises of this type. A built-in institutional infrastructure will also make it possible to define in advance the conditions under which the assistance will be scaled back, for instance the extent of the decline in the unemployment rate. (For more discussion see chapters 5 and 6.)

b. Monetary policy and its intervention in the financial markets

Monetary policy was focused at the outset of the crisis on stabilizing the financial markets, and later on easing financing terms. Similar to fiscal policy's emphasis on survival as outlined above, the emphasis on easing financing terms reflects the need to assist businesses and households in getting through the crisis period. In order to achieve these targets, monetary policy made use during the year of a variety of unconventional tools, some of which had no precedent in the economy.

In addition to these tools, the Bank of Israel lowered the monetary interest rate one time, by 0.15 percentage points to 0.1 percent. That rate was maintained through the end of the year. The Bank also persisted with its foreign exchange intervention policy in order to prevent an excessive appreciation. As part of this, the Bank purchased \$21 billion in foreign exchange—a much larger volume than the purchases in each of the years since the Bank resumed its foreign exchange market interventions in 2008 (with the exception of 2009, during the Global Financial Crisis, when foreign exchange purchases were only slightly lower, at about \$19 billion).¹³

The extensive use of these tools stood out against the background of the single reduction of the interest rate. This mix reflected a number of considerations. The monetary interest rate's proximity to zero limited, but did not rule out, the maneuvering space for this tool. These tools were more in line with the unique policy needs derived from the crisis, as described below. The experience gained both in Israel and abroad in the use of quantitative and unconventional tools since the 2008 crisis, as well as the fact that in this crisis as well, leading central banks made widespread use of them, made it easier for the Bank of Israel to use them during the current crisis.

Stabilizing the markets and ensuring their proper functioning

The rapid spread of the pandemic at the beginning of the crisis generated panic in the financial markets both in Israel and abroad. The widespread withdrawals from the mutual funds created a shekel liquidity difficulty, and declines abroad, which spiked institutional investors' demand for dollars, created a dollar liquidity problem that was worsened due to the dollar liquidity problem abroad. These developments led both the mutual funds and the institutional investors to sell off a significant volume of government bonds, to the point of impairing the proper functioning of the market, and created strong downward pressure on the shekel. In mid-March, the Bank of Israel acted to stabilize the markets and ease the two liquidity problems. It announced that it would purchase government bonds in the secondary market, and that it would carry out swap transactions with the financial institutions using government bonds as collateral. It also announced that it would make dollar/shekel swap transactions with the banks, up to a total of \$15 billion. These measures contributed to calming the financial markets, as detailed in Chapter 3. The calming was also reflected in

At the outset of the crisis, monetary policy focused on stabilizing the financial markets. Later on it focused on easing the terms of finance.

The Bank of Israel lowered the interest rate by 0.15 percentage points and purchased significant amounts of foreign exchange.

¹³ On January 14, 2021, beyond the period reviewed in this Report, the Bank of Israel announced that it would purchase \$30 billion during 2021.

the exchange rate, and was assisted by the launch of swap programs between the large central banks at that time.

Easing financing terms

The Bank of Israel announced a program to purchase government bonds in the secondary market, as part of which it made significant purchases.

Later in the crisis, monetary policy focused on reducing the costs of finance and expanding the supply of credit in the economy. For this purpose, the Bank of Israel announced a program to buy NIS 50 billion in government bonds in the secondary market. The program was intended to impact longer-term yields, thereby reducing the costs of finance for those terms. Later on, the program was expanded by an additional NIS 35 billion. The actual purchases during the year totaled about NIS 46 billion. The Bank of Israel's use of this tool was not unprecedented, since it made purchases of this type in 2009 during the previous crisis, although the volume of purchases during the current crisis was much greater, and its March announcement of the large volume contributed immediately and significantly to lowering the yields on government bonds.¹⁴

During the crisis, for the first time in Israel, the Bank of Israel used two additional tools to ease financing terms. Their uniqueness is in the attempt to harness monetary tools to ease financing terms for defined segments of the business sector, as opposed to the generally broad nature of monetary policy.

The Bank of Israel operated a program of assistance to small businesses by providing loans to the banks at very low interest.

One tool focused on small businesses in view of the crisis's unique impact on them. The Bank of Israel announced the provision of long-term loans to the banks at a very low interest rate (0.1 percent), on condition that the banks would provide credit to small and micro businesses. The Bank of Israel also acted to expand the variety of assets that the banks could provide as collateral against credit as part of this program, to include mortgage portfolios (in addition to highly liquid assets such as government bonds). The program was later expanded, and its terms were tightened to make sure that the lower interest rate would be passed on to the businesses: The interest rate at which the Bank of Israel would provide the long-term loans was lowered to a negative rate (-0.1%), and the interest that the banks could collect from the businesses under this program was capped.¹⁵ At the end of the year, the Bank of Israel announced an additional channel of assistance to small and micro businesses, which would be activated at the beginning of 2021: swap transactions with supervised nonbank credit providers subject to the credit that they would provide to such businesses.

The Bank of Israel launched a program to purchase corporate bonds in the secondary market.

The second tool is a program that the Bank of Israel launched to purchase up to NIS 15 billion in corporate bonds in the secondary market. It is intended mainly to assist in lowering the costs of financing to large businesses that raise credit in the capital market. A detailed analysis shows that the intervention did lead to a reduction in the yield spreads on these bonds.¹⁶

¹⁴ For more information regarding central banks' interventions in the government bond markets, see Box 3.1.

¹⁵ The ceiling was set at a lower rate than the one set in the State-guaranteed funds. This program complemented access to credit through the fund for small businesses, and in particular it enabled access to credit for firms in industries that had difficulty raising credit (see Chapter 4).

¹⁶ See Chapter 3 of this Report, and in greater detail the Financial Stability Report for the second half of 2020.

box 1.1**THE PANDEMIC IN ISRAEL AND EPIDEMIOLOGICAL POLICY TO DEAL WITH IT**

This box reviews the development of the pandemic and the health measures adopted by the government in order to deal with it. This is due to their decisive importance to understanding the economic developments during the year reviewed in this Report.

a. The development and nature of the pandemic

The COVID-19 pandemic was first identified in China toward the end of 2019, broke out strongly there in January 2020, and spread rapidly around the world. The initial cases in Israel were identified at the end of February, and the number of cases began to climb rapidly in March. The volume of infections during the year fluctuated through three waves (see Figure 2 in Box 7.1). By the end of the year, about 426,000 Israelis had been diagnosed with the virus, and about 3,300 people had died from it, representing about 0.8 percent of the total number of confirmed cases. Infection and mortality jumped considerably in January-February 2021, with the number of deaths from the disease during those two months reaching almost 70 percent of the mortality level for all of 2020. On December 20, Israel began a widespread campaign to vaccinate the population, which began showing results a short time later.

Several of the virus's features, regarding both the nature of infection and the nature of the illness that it generates, are central to understanding the development of the pandemic and of the policy to contain it, as well as to understanding the policy dilemmas and issues concerning the behavior of both individuals and the public, and to linking them with the economic damage of the pandemic.

Infection takes place mainly during physical proximity between people. Therefore, the main way to reduce it (other than wearing masks and maintaining proper hygiene) is through the creation of distance between them. Those who are asymptomatic may also infect others, which greatly increases the spread of the disease and makes it more difficult for a containment policy to work. The pace of infection is influenced by individuals' personal behavior, a large part of which cannot be enforced but depends on the individual's good will. When the infection coefficient (the number of people that each infected person is expected to infect) is greater than 1, the number of infected people may increase exponentially, and the pandemic may grow out of control. Infection and morbidity rates differed significantly between population segments in Israel, apparently due in part to differences in the public's behavior and the extent of its compliance with guidelines. (For an analysis of sectoral morbidity patterns, see Box 7.1 of this Report.)

The health risk from the pandemic (serious morbidity and mortality) as perceived in 2020 was mainly to the elderly population and those in other risk groups, while the rest of the population was at much lower risk. The chances of the seriously ill surviving the disease are influenced by the quality of medical care they receive at the hospitals. This quality depends partly on the number of seriously ill patients at any given time relative to the hospital system's capacity. Since the illness develops gradually, the volume of serious morbidity at any time reflects infection that took place a few days to a few weeks beforehand. This makes it very important to prevent an increase in the number of those infected at any given time beyond a certain level ("flattening the curve").

At the beginning of the crisis, there was tremendous uncertainty regarding the extent of the danger from the virus. Assessments in this regard changed as more information was obtained in Israel and abroad, and with the experience gained from treating the seriously ill.¹ The significance of the number of COVID-19 deaths for assessing the danger of the disease was also subject to dispute. For instance, assessing excess mortality requires a sufficiently long time period to analyze the data. There are those who argue that the particularly high mortality rates from the disease among the elderly and those with serious background conditions may cause an upward bias in the mortality attributed to the virus. In contrast, some of the deaths caused by the disease around the world may not have been identified as such.

b. Government measures to reduce infection

Epidemiological policy focused on efforts to reduce the scope of infection, and particularly on attempting to prevent its increase beyond a certain level at any point in time. These can be grouped into four types of measures:

- Restrictions on economic and other activity—prohibitions on holding activities or guidelines for holding them under restrictions.
- Instructions for individual conduct—wearing masks, maintaining distancing, and recommendations for maintaining proper hygiene.
- Measures for the focused truncation of the infection chains—quarantine requirements, diagnostic examinations, and epidemiological investigations to identify people who have come in contact with a confirmed patient (contact tracing).
- Public information efforts to encourage behavior that reduces the chances of infection.

Activity restrictions

Most of epidemiological policy's effect on the economy involves the imposition of restrictions on economic and other activity and on the freedom of movement.² These restrictions can be divided into two types:

1. Prohibitions on conducting activity (such as closing business that receive the public, prohibiting flights, prohibiting certain activities by businesses such as seated attendance at restaurants, closing workplaces, closing the education system in whole or in part, restricting travel distances from home, or prohibiting activity that involves gatherings);

2. Guidelines for conducting activities under restrictions (such as restricting density and conduct at stores, shopping malls, businesses, and other workplaces, "Purple Badge" rules, capsules in the education system, and "Green Islands" for domestic tourism).

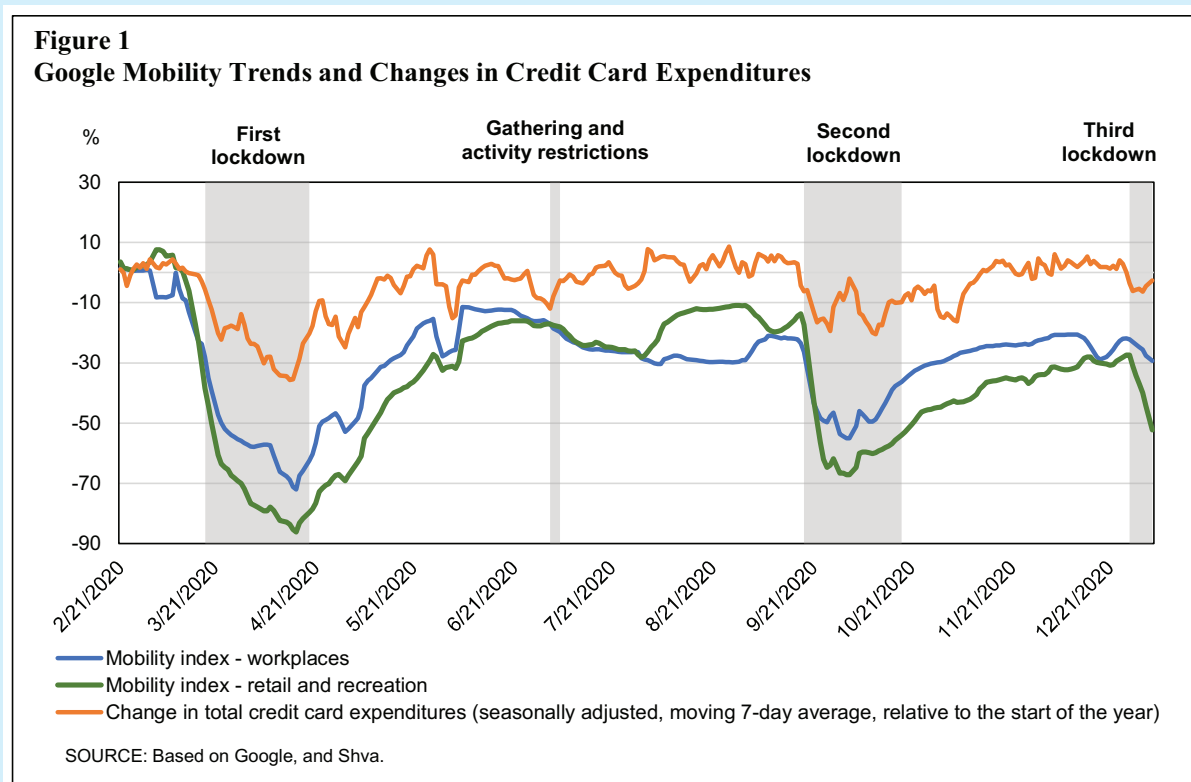
The reliance on prohibiting activity as a central policy tool was dominant at the beginning of the crisis. These prohibitions were rapidly expanded, reaching a peak during the first lockdown. This partly reflected the pace of events, uncertainty, and the difficulty in designing and rapidly implementing some of the other tools. Once the first lockdown was over, the guidelines meant to enable a broader scope of activity while

¹ The danger can also change due to variations in the virus. For instance, a more infectious mutation that does not increase the chances of a patient's death can also increase the overall mortality from the virus.

² There were also many restrictions imposed on noneconomic activity, which had tremendous impacts on well-being. However, this discussion focuses on the economic aspects.

reducing the risk of infection (COVID routine) took on greater importance. Since then, there have been ups and downs in the strictness and applicability of the restrictions, which reached two further peaks during the second lockdown that began with the Rosh Hashana holiday and the third lockdown that began at the end of December and became stricter in early January 2021. The restrictions' effect on activity is reflected in the sharp declines in mobility and consumption during the first two lockdowns (Figure 1). Following the sharp decline in mobility at the beginning of the second lockdown, it increased later during the lockdown, which is not unique to Israel.³

The timing of the changes in the strictness of the restrictions reflected the government's choice at each given time between epidemiological considerations and those concerning the economy and other aspects of well-being. Due to the time it takes from when restrictions are tightened until they are felt in the number of infected patients, it is proper to tighten restrictions relatively early from a purely epidemiological standpoint, even if morbidity rates are still low. However, the impact to the economy and to wellbeing, and the fact that morbidity rates at that time are not necessarily high, may tip the scales in favor of delaying the tightening of restrictions, or make it difficult to garner public support for the restrictions. These factors also served to accelerate the easing of restrictions relative to what would be derived from purely epidemiological considerations, as was clearly shown in exiting from the first lockdown. The first two lockdowns were imposed during holiday seasons, partly due to the desire to minimize their impact on the



³ See IMF (2020), pp 68–69.

economy, since there is less economic activity during those times in any case. The difficulty in securing public compliance with a partial lockdown and in enforcing it stood out at the beginning of the third lockdown.

The decisions on restrictions were sometimes characterized by numerous and frequent changes and by short notice between the decision and when it took effect, and even suffered from lack of clarity or excessive complexity in their details. These reinforced the uncertainty and confusion, worsened the impact to the economy, and apparently also had an adverse impact on the public's compliance.

Adjusting the strictness of the restrictions in a locality to the state of morbidity there could greatly reduce the overall impact to the economy and to well-being. This logic was behind the "traffic light program" through which a method was developed to classify localities according to their epidemiological status. This kind of differential approach was implemented during the year (for instance in the imposition of lockdowns and stricter restrictions on red localities), but only to a limited extent. Its widespread implementation for an extended period of time in Israel and its ability to generate a better balance between health and economy were therefore not put to a real test.

Even though the prevailing assessment was that the healthcare response to the pandemic (vaccination or medication) would be found in the foreseeable future, there was tremendous uncertainty regarding the duration that would be necessary until such a solution would be found. This uncertainty may have contributed to the difficulty in making decisions that would accelerate the creation of mechanisms for prolonged handling of the pandemic (such as expanding the epidemiological investigations, improving the ability to enforce the restrictions that were imposed, legislative changes, and adjustments in the education system). These mechanisms could have served as a partial alternative to restrictions on activity or laid a more orderly foundation for making the restrictions stricter or more lenient in accordance with the worsening or easing of the pandemic.

Measures for truncating the infection chains

In contrast with the restrictions discussed above, which are broad by nature and therefore have a large impact on activity, the measures to truncate the infection chains focus on identifying individuals with a greater chance of infecting others (those who have been infected or those exposed to an infected individual) and isolating them. Other than their direct contribution to containing the pandemic, such measures may be an alternative to some of the restrictions on activity. Following some delays at the beginning of the crisis, the examination system, which had to be established from scratch, was greatly expanded, with the number of examinations reaching about 100,000 a day by the end of December. The contact tracing system was expanded more slowly. Its efficiency and effectiveness also depend on the extent of the public's cooperation, and decline when the number of infected people is very large. The criteria for putting people into quarantine, and for the duration of that quarantine, affect the balance of its contribution to containing the pandemic against its harm to economic activity and well-being, as well as the extent of compliance with quarantine requirements. These rules also changed during the crisis and were subject to public dispute.

c. The population's behavior

The extent to which individuals keep to the health guidelines (such as wearing masks and maintaining distance) and the extent of compliance with the restrictions, chiefly restrictions on gatherings, have a tremendous impact on the infection rate. A high level of meticulousness could even enable the restrictions to be eased, thereby reducing the impact to the economy. One fundamental problem is that an individual may choose to comply less than the level desired for all of society. Less compliance increases the chance that that individual will infect others—an externality that he doesn't necessarily internalize. In addition, the extent of compliance by an individual or sector may also influence the compliance level of others.

The common solution to problems of externalities is enforcement and economic incentives, but the ability to apply those to the day-to-day behavior of the broad public is very limited. Under such circumstances general norms regarding compliance with guidelines and social solidarity are even more important. Solidarity should motivate individuals to keep to guidelines in order to lower the risk to others. It also influences individuals' preparedness to absorb economic and other impacts in order to reduce that risk. It therefore touches not only on compliance, but also on the dispute over the desired scope of the restrictions (see below). The question of solidarity also arose in the context of differences between sectors in compliance and enforcement and the concern over mutual negative effects on the level of compliance, as well as in the context of preparedness to accept differential restrictions in accordance with the local infection situation. A negative impact to solidarity may have future implications for economic and social policy.

Bearing the economic cost of quarantine of employees who needed it serves as an example of an externality, and presents an exceptional case in the current context in which an economic incentive for compliance can be provided. Quarantine is not intended to protect the person being quarantined, it is expected to protect others. However, the mechanism set out at the beginning of the crisis—financing quarantine days through the employee's sick days—put the entire economic burden on the employee and his employer. Compensating the employer (for instance as legislated in November) or the employee could provide an incentive for compliance.⁴

d. The dispute over the restrictions and lockdowns policy

The activity restrictions, chiefly the lockdowns imposed in Israel and many other countries, involve a serious impact to economic activity and other aspects of well-being. They therefore aroused major debate on the proper balance between economic and other considerations and health considerations, and posed significant dilemmas to policy-makers. The dispute influenced the decision-making process regarding the restrictions, and was reflected more than once in frequent changes to those decisions, which increased uncertainty in the economy.

⁴ In a survey conducted in Israel at the end of February 2020, 94 percent of respondents said that they would comply with quarantine regulations if they received monetary compensation, but just 57 percent said they would comply if they did not receive compensation (Bodas and Peleg, 2020). Andersen et al. (2020) found that payment for sick days in respect of quarantine (and other reasons connected with the pandemic) as implemented in the US during the crisis lowered the rate of those going to work.

The dispute surrounded the assessment of the restrictions' costs and benefits and the balance between them, and questions of principle regarding the limits of the economic (and other) price that should be paid in order to save human lives.

The dispute regarding the benefit: the lockdowns' contribution to reducing infection

Lockdowns were implemented in many countries as a means of halting the spread of the pandemic, and there is much evidence that they contributed to reducing mobility and infection.⁵ However, there is no unanimity in the research on this matter, and various factors make it difficult to refine the extent to which the lockdowns contributed to a decline in infection.⁶ For instance, since the lockdowns were generally imposed around times of sharp increases in infection, the public may have been extra cautious at that time, which would also have contributed to a decline in infection. It is also possible that the ebbing of the infection waves had to do with the natural progression of the pandemic.⁷

The dispute regarding the economic cost of the lockdowns

The difficulty in estimating the effect of the lockdowns, and the disputes regarding those estimates, also include the economic costs. A number of studies around the world have found that the lockdowns had a marked impact on economic activity, and that countries that implemented more stringent lockdowns experienced a steeper decline in growth rates.⁸ The immediate economic cost of the first lockdown in Israel was very high, but the cost was lower in the following lockdowns.

It is important to take the limitations of the estimations into account. First, estimations of the cost of the lockdown in terms of activity, which declined during the lockdown, do not reflect the impact to activity that would have been caused due to a worsening of the pandemic (and its impact on individuals' behavior) had there not been a lockdown.⁹ In the case of Israel, we must also consider this possibility while taking the public's compliance with the guidelines, the difficulty discovered in enforcing softer restrictions, the limited implementation of differential lockdowns, and other factors into account. In addition, some of the decline in economic activity during the lockdown—similar to the decline in infection—may not be due to the lockdown itself, but due to changes in individuals' behavior in view of the intensity of the pandemic at that time.¹⁰ In addition, the estimations do not take the full indirect and cumulative costs of the lockdowns into account.

⁵ For a survey of studies on this topic, see IMF (2020).

⁶ For instance, studies (Bjornskov (2020) and Bendavid et al. (2021)) found that the lockdowns had no statistically significant effect on mortality or on the growth rate of the number of infected people.

⁷ For documentation of this natural process, see Atkeson et al. (2020).

⁸ IMF (2020).

⁹ For a discussion of the findings that support the argument that removing the lockdown would make a limited contribution to increasing mobility and economic activity if the infection level had not declined, see IMF (2020).

¹⁰ Similarly, it can be argued that the health benefits of the lockdown are lower, since behavioral changes reduce the volume of infection.

The dispute over questions of principle: the desired balance between health and economic considerations

The issues of principle and values that focus on this part of the dispute are not unique to lockdowns, but arise in many policy questions. They have been brought into very sharp relief during the crisis in view of the magnitude of the economic and other costs and the loss of human life put in the balance. There are those who argue that the price Israeli society has paid for saving human life during the current crisis is excessive. The dispute was also heightened due to the separation between those bearing the economic (those whose livelihood was impaired) and other burdens and those deriving most the healthcare benefit from containing the pandemic (the elderly and other at-risk population groups). Accordingly, the aforementioned question of social solidarity was also brought into sharper relief. The harsh impact of the lockdowns and other restrictions to individual well-being, beyond the economic impact, played an important role in the dispute. This impact was also highly differential (Chapter 7).

The decisions that were made indicate the balance point that policy-makers chose in practice and the differences in the weight given to health considerations in different countries. In this context, particularly in relation to the beginning of the crisis and the decision on the first lockdown in Israel, it is worth remembering the need to act quickly under the conditions of great uncertainty that were prevailing at the time regarding the seriousness of the pandemic, when other tools to contain it such as epidemiological investigations and tests to verify infections were largely unavailable. These considerations all had an impact on risk management as perceived in real time. The pace of developments, the decisive importance of rapid responses, and the extreme uncertainty, indicate similarities with the 2008 financial crisis and the circumstances under which policy makers at the time had to make decisions, and differences with economic crises that originate from the real economy and generally develop more slowly. Similar to the 2008 crisis, it is important to judge policy not only according to the seriousness of the crisis in retrospect, but also taking into account how the situation was perceived in real time and the result that could have been obtained had the chosen policy not been adopted.

The tension between economic and health considerations also accompanied the decisions on restrictions and lockdowns later in the year, but in certain respects, the balance between them was different. In terms of the health considerations, there was less uncertainty regarding the seriousness of the pandemic, other tools for containing it were improved, and the healthcare system was better able to treat seriously ill patients. The price paid by certain countries that tried to avoid lockdowns or delayed imposing them had also become clear. In terms of the cost of the lockdowns, there was less of an impact to economic activity in Israel later in the year (thanks in part to greater adjustment to working from home and to online shopping), and the mechanisms for economic assistance to those affected by the crisis became more sophisticated. However, the cumulative impact to industries and businesses that remained closed or kept closing and opening worsened, as did other effects on well-being. It seems that for these reasons as well, the disputes regarding the lockdown policy did not subside and even worsened during the year.

The dispute over closing the education system emphasized many dimensions of the general dispute. The closure was intended to contain infection, but disputes arose regarding its effectiveness in doing so. The direct economic cost was due to parents' impaired ability to go to work and the efficiency of working from home. Its economic impact was also not uniform due to differences between industries, occupations, and education levels in terms of the ability to work from home. The closure of the education system

emphasized the nonmonetary impact on children's well-being and education, and the greater impact on weaker population segments, for instance due to gaps in the availability of computers and Internet access, which are essential for remote learning. It may also affect students' long-term achievements and increase gaps between them (Chapter 7). Remote learning reflects efforts to minimize the impact caused by health restrictions, but also emphasizes the difficulty in ensuring that it will help everyone to the same extent. The attempt to soften the restrictions through capsules in the schools was also difficult to implement. Compliance gaps between population groups and partial enforcement were prominent in relation to closing the education system, mainly in the *Haredi* (ultra-Orthodox) sector, and contributed to the general dispute.

The uncertainty regarding the duration of the crisis, particularly in its early stages, made it difficult to decide between creating mechanisms for the education system to deal with the pandemic over a long duration (for instance, remote learning and capsules) and shutting down studies while waiting for the rapid end of the crisis and adding school days at the expense of future vacations. Following the sweeping shutdown of frontal teaching in the education system that was prevalent worldwide at the beginning of the crisis, many countries acted later on to resume frontal teaching on a large scale. In contrast, Israel was prominent in its low volume of frontal teaching days since the opening of the school year in September 2020, relative to the other OECD countries. (For more information, see Chapter 7 of this Report.)

e. The pandemic and epidemiological policy from an international perspective

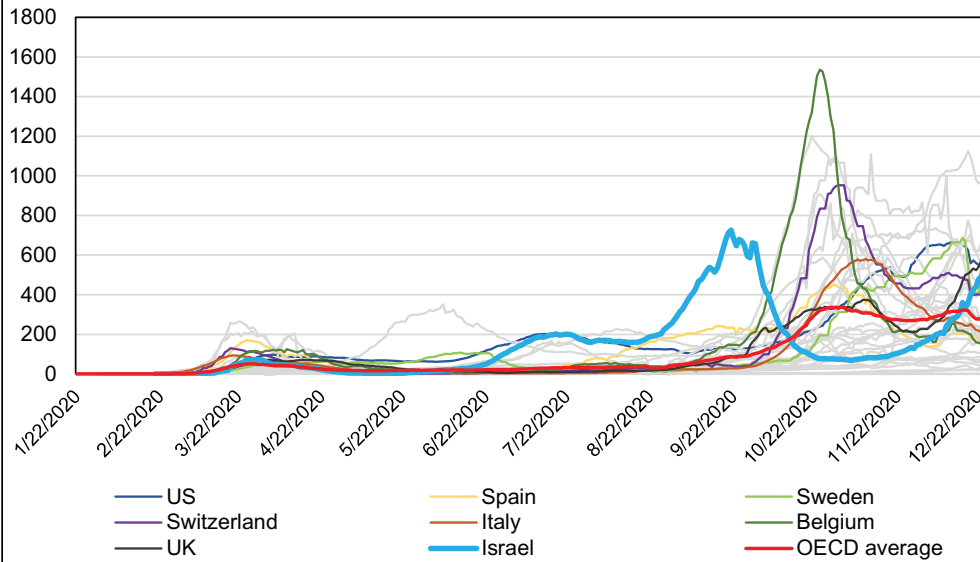
Figure 2 shows the great similarity among countries in the development of the pandemic. The pandemic spread rapidly and was typified by two major waves during the year.¹¹ However, there are significant differences between countries in the volume of infection during and between the waves, and some differences in the timing and duration of the waves. This variance partly reflects differences in policy and in the population's behavior. By international comparison, Israel did well coming out of the first wave in terms of the volume of infection, but this achievement dissipated rapidly. Within a short time, the volume of infection in Israel became one of the highest among advanced economies, and Israel entered the second wave (and exited from it) early. At the end of 2020 and the beginning of 2021, Israel entered a third wave. The morbidity situation worsened considerably in Israel, as well as in many other countries. As stated, the data presented here relate only to 2020, the period reviewed in this Report.

The low percentage of elderly among Israel's population contributed to a lower number of COVID-19 deaths relative to the size of the population, but the mortality rate in Israel taking the age composition of the population into account was not low by comparison with advanced economies. (See Figure 1 in Box 7.1 of this Report.) However, differences in the elderly share of the population explain only a small part of the variance in mortality rates between the advanced economies (Figure 3).¹² The different mortality rates

¹¹ The Figure shows the number of verified cases. Similar results are obtained if we examine verified cases as a share of tests. The differences in the number of verified cases over time and between countries at any point in time are also influenced by the volume of tests.

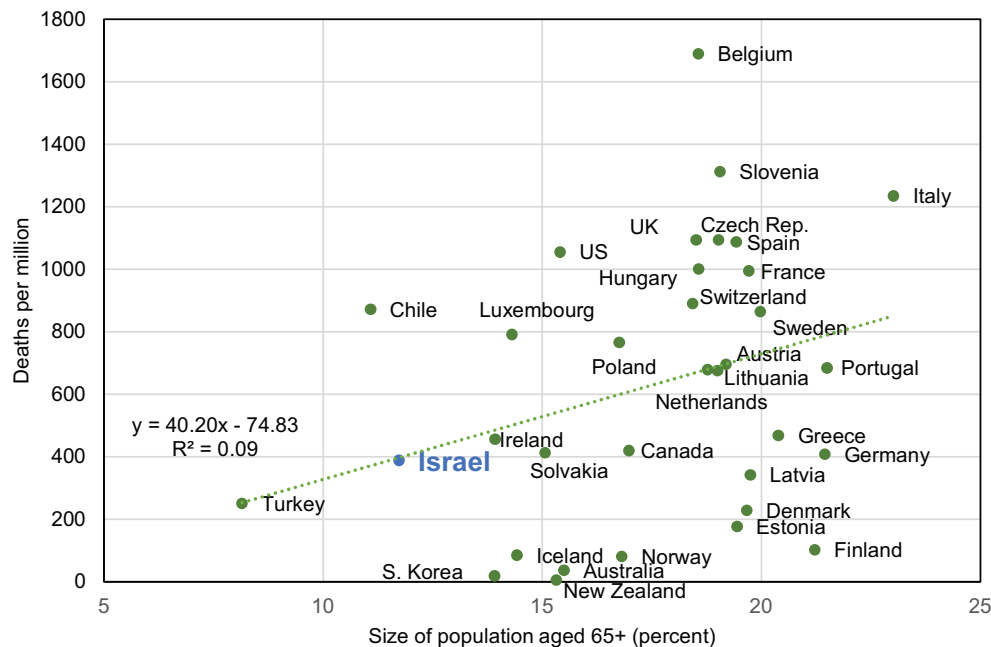
¹² Three outlier countries were omitted from the Figure: Colombia and Mexico, in which the elderly share of the population is particularly low but the rate of COVID-19 mortality was high, and Japan, in which the rate of COVID-19 mortality was near zero despite the particularly high rate of the elderly among the population. Including these three countries would completely eliminate the explanatory capacity of the elderly population rate in this Figure ($R^2=0.002$). The mortality rates in the Figure relate only to 2020. Including the number of deaths until mid-February 2021 worsens Israel's position on the scale (due to the marked increase in mortality in Israel at the beginning of 2021), and changes the location of other countries as well. However, the correlation between the share of the population aged 65 and over and the mortality rate per million population remains weak.

Figure 2
Number of Infected Patients per Million Population, OECD Countries^a



^a Moving 7-day average.
 SOURCE: Based on *Our World in Data*.

Figure 3
Deaths per Million in 2020, Compared with Population Aged 65+, OECD Countries^a



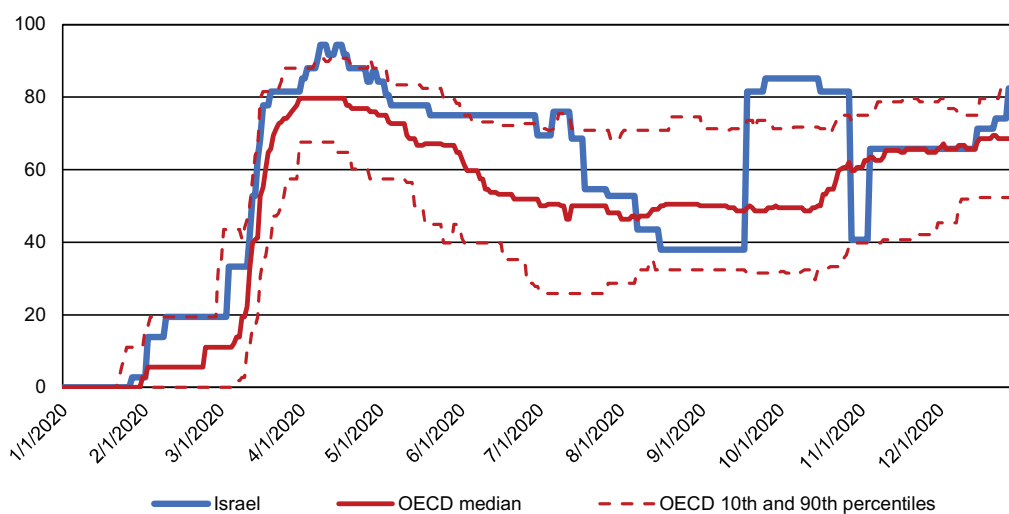
^a Excluding Japan, Mexico, and Colombia.
 SOURCE: Based on *Our World in Data*.

between countries may also be due to differences in government-imposed restrictions, the population's behavior, the capacity of the healthcare system and the quality of medical treatment, the distribution of morbidity over time (which affects the number of serious ill patients relative to the capacity of the healthcare system), differences in mutations and in attribution of the cause of death, and more.

Most countries imposed restrictions and lockdowns in an effort to contain the pandemic, but the strictness of those measures differed markedly between countries (Figure 4). In most countries, similar to Israel, the scope and strictness of the restrictions changed during the year, and the timing correlation between stricter measures and the pandemic waves is clear.¹³ At the end of the year and the beginning of 2021, many countries tightened or extended their lockdowns.

The lockdown in Israel during the first wave was among the most strict, and was among the earliest imposed. During the summer, the restrictions in Israel were less strict than in other countries. The second lockdown in Israel was also sudden and particularly strict, while the strictness of the restrictions following it (other than at the end of the year) were not anomalous by international comparison. Looking at the year as a whole, the restrictions in Israel were, on average, among the strictest imposed by OECD countries (Figure 1.1), and their possible contribution to the intensity of the decline in private consumption

Figure 4
Stringency of Activity Restrictions in Israel and the OECD (index)



SOURCE: Oxford COVID-19 Government Response Tracker.

¹³ The stringency index of the restrictions relates to 9 areas, including: the closure of workplaces, the closure of schools, restrictions on gatherings, the shutdown of public transit, restrictions on movement within the country, restrictions on travel to and from the country, and restrictions on leaving home. The strictness of the restrictions in each area at each point in time is classified into one of a number of ranks, and takes into account whether they were imposed in the entire country or only in part of it. The index presented in the Figure sums up the strictness of the restrictions in all areas. It reflects the restrictions that were imposed, but not the extent of enforcement or compliance. For further details see <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker#data>.

is discussed above. It should be noted that the index relates to the legal state of the restrictions, but not to the extent of enforcement or compliance. It is possible that in some countries, voluntary changes in the public's behavior constituted a partial alternative to tightening legal restrictions.¹⁴

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¹⁴ See footnote 4 in the Chapter regarding the importance of voluntary behavior in other countries.

4. THE COVID-19 CRISIS AND THE TWO CRISES THAT PRECEDED IT

During the past two decades, Israel has been hit by three powerful economic crises. This section compares the COVID-19 crisis to the two previous ones—the 2001–2003 crisis and the 2008–2009 crisis. The comparison provides a scale for the magnitude and nature of the current crisis, and indicates a number of insights concerning how to deal with crises. In particular, it highlights the effect of policy in the years prior to the crisis on the economy's ability to deal with it.

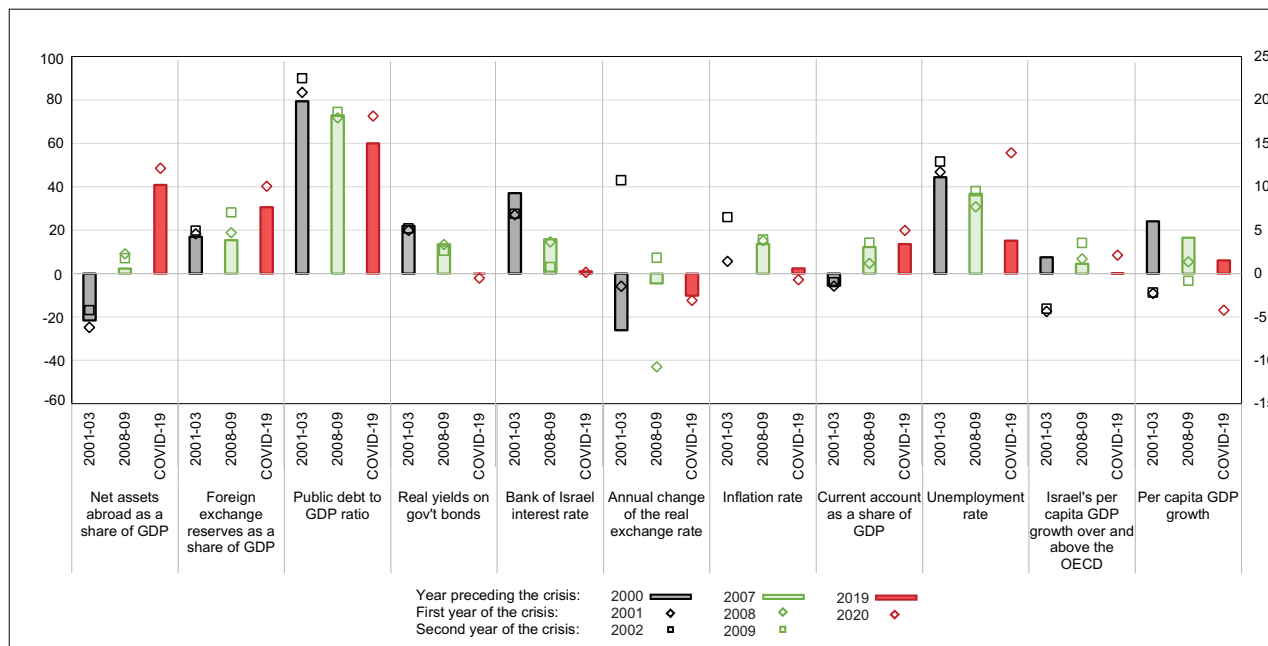
The starting point

From almost any possible aspect, Israel's situation prior to the COVID-19 crisis was better than it was prior to the two previous crises, and its situation prior to the 2001–2003 crisis was the worst (Figure 1.2).¹⁷ The differences in the fiscal situation, which are reflected partly in the debt to GDP ratio and in the yield on debt prior to the crisis, greatly affected the maneuvering space for fiscal policy's response. The foreign exchange reserves were particularly high prior to the most recent crisis, as a result of the Bank of Israel's sizeable purchases since 2008. Israel's transition from a deficit to

The state of the economy prior to the crisis was better than it was prior to the two previous crises.

¹⁷ The economy's performance in 2000 was anomalous and did not reflect the fundamental state of the economy. Per capita GDP increased by 1.7 percent in 1998 and by 0.9 percent in 1999. The public debt to GDP ratio, as measured at that time, was significantly higher than the data known today regarding that period. In this respect, the real-time fiscal situation was perceived as more serious than it appears in retrospect.

Figure 1.2
State of the Economy Prior to and During the Crisis: COVID-19 Crisis, 2008–09 Crisis, and 2001–03 Crisis^{1,2,3,4} (percent)



¹ Net assets, public debt, and foreign exchange reserves as a percentage of GDP - left scale. Other variables - right scale.

² The unemployment rate in 2020: The rate of unemployed plus temporary absentees for reasons having to do with the COVID-19 pandemic. Other years: The normal definition of unemployed (the percentage of those unemployed).

³ Net assets abroad: For 2000, the figure for 1998 is shown because of the temporarily anomalous level of this figure for 1999 and 2000.

⁴ The comparison with the OECD countries relates to the average of the 27 countries that belonged to the organization in 1999. The gap is in percentage points.

SOURCE: Based on Central Bureau of Statistics and OECD.

a significant surplus of assets over liabilities vis-à-vis abroad is prominent. However, the three crises were not balance of payments crises, and the state of the current account was reasonable even during the first crisis (despite the sharp depreciation of the shekel).

The intensity of the crisis

The COVID-19 crisis is the most intense of the three crises. The contraction of GDP in 2020 was greater than in any similar time frame during the previous crises, and the negative quarterly growth rates recorded in 2020 were unprecedented. The cumulative damage from the first year of the COVID-19 crisis (5 percent of GDP) is four times larger than the damage of the entire 2008–2009 crisis, and similar to the cumulative damage of two years during the 2001–2003 crisis (Table 1.3). Since the COVID-19 crisis has not yet come to an end and the pace of recovery from it remains unknown, it is too early to determine whether the cumulative damage from it will be greater or

Table 1.3
The cumulative damage during crises (percent of GDP)

	Cumulative output gap in the first year of the crisis	Cumulative output gap in the first two years of the crisis	Cumulative output gap during the entire crisis
2001–2003 crisis	-2.4	-6.2	-12.1
2008–2009 crisis	-0.9	-1.3 ^a	-1.3
COVID-19 crisis	-5.3	n/a	n/a

Damage is defined as the differences between potential GDP each quarter and actual GDP. The cumulative damage is the total quarterly damage. The damage is attributed to the crisis only when the difference is negative, and is therefore accumulated with some lag—not from the time growth slows due to the crisis, but only from the time actual GDP is lower than potential GDP. In the same way, the crisis's damage accumulates when the growth rate increases during the exit from the crisis, as long as actual GDP is lower than potential.

^a The cumulative gap at the end of 7 quarters. In the eighth quarter, the gap was positive.

SOURCE: Bank of Israel.

less than what was caused by the prolonged crisis from 2001–2003 (12 percent of GDP). Even though the 2008–2009 crisis seems relatively slight in retrospect, at the time it was taking place there was concern that it would develop into a much worse crisis. Its lesser severity in retrospect was due to a large extent to the policy measures that were adopted.

The nature of the shock and its impact on the economy

The 2001–2003 crisis broke out as a result of the combination of a factor unique to Israel (the Second Intifadah) and a global economic factor (the slowdown focused on the crisis in the global high-tech industry).¹⁸ The 2008–2009 crisis was entirely due to a factor external to Israel—the Global Financial Crisis. The current crisis combines both the effect of the pandemic inside Israel and the effect of the global crisis generated by the pandemic. This difference in the root of the shock helps explain why the impact in Israel relative to abroad was the most serious during the first crisis and the most moderate during the second. The variance in the relative impact also contributed to differences in how the exchange rate developed, which had an effect on monetary policy.

The two previous crises were mainly crises of demand. The first was due to the impact to global demand for advanced exports and the impact of the Second Intifadah on domestic demand (consumption, tourism). The second was due to the impact on global demand for Israeli exports and lower private consumption at the outset of the crisis. In both crises, the impact to supply (reduction in Palestinian laborers and financing difficulties in the business sector in view of the financial crisis) was smaller than the decline in demand. The COVID-19 crisis is unique in terms of the combination of the impacts to demand and to supply, which is due to the government-imposed restrictions. This created dilemmas that had not arisen during the previous crises, regarding the adoption of policies to encourage demand.

The two previous crises were mainly crises of demand, while the COVID-19 crisis was a combination of impacts to demand and to supply, which was due to the restrictions imposed by the government.

¹⁸ The Second Gulf War (which began in March 2003) and the uncertainty in the months preceding it, added a further impact to the economy.

Similar to the current crisis, although obviously not to the same intensity, the 2001–2003 crisis featured a reduction of activity in the public space (due to the concern over terrorist attacks), which hampered private consumption and the retail industry above and beyond the decline due to the impact on income. The direct impact to activity was even more prominent in the incoming tourism field, which was seriously hampered due to the Second Intifadah and the September 11 attacks, and was almost completely shut down during the COVID-19 crisis.

The three crises emphasized the key role of exports in transmitting the effect of the global shock to the domestic economy, but the nature of this effect has not been uniform. The high weight of the advanced export industries worked to intensify the impact to the economy during the 2001–2003 crisis, and to reduce it during the COVID-19 crisis. The global slowdown in 2001 was focused on those industries, while Israeli advanced exports performed particularly well during the current crisis. The impact to exports during the 2008 crisis led the impact to the economy at the time, but this was due to the sharp decline in world trade rather than to the composition of Israeli exports.

The three crises also differed in terms of the labor market's response, which was also due to the nature of government intervention. During the first crisis, the labor market reacted with a sharp decline in real wages and an increase in unemployment. The government did not act to cushion the blow. On the contrary, during the crisis (although not at the beginning), it significantly lowered transfer payments, including unemployment benefits. During the second crisis, the elasticity of the labor market was prominent, helping to moderate the increase in unemployment: The number of work hours per employee was reduced, which made dismissals less necessary, and skilled workers were diverted to other industries.¹⁹ Government intervention in the labor market was miniscule, and the conditions for receiving unemployment benefits remained virtually unchanged during that crisis. The intensity and suddenness of the COVID-19 crisis led to an unprecedented increase in the broad unemployment rate. This increase, particularly the government's part in causing it through the restrictions it imposed, led the government to take unprecedented measures such as the decision to ensure unemployment benefits until June 2021. The high level of human capital helped to moderate the impact to employment during the last two crises. In 2008, it was the high level of mobility of skilled workers between industries that helped, and during the COVID-19 crisis it was their ability to work from home.

¹⁹ The crisis's impact on the advanced export industries, which are the most flexible in the labor market (Bank of Israel Annual Report for 2009, Chapter 5), contributed to this. The fact that the employment status of employees in the export industries is more stable than that of other business sector employees is evidence of this flexibility (not just specifically during a crisis), although employment is more volatile in these industries. This distinction is also valid if we take into account that the education levels of employees in these industries is higher (Bank of Israel Annual Report for 2013, Chapter 5).

The policy response

A comparison of the response of monetary and fiscal policies during the three crises shows how important the state of the economy and the policies adopted in the years prior to the crisis are for the ability to use policy tools to deal with it. The comparison also indicates additional factors that influence the weight of monetary policy compared with fiscal policy in the overall policy mix, as well as the importance of accumulated experience, which was prominent in monetary policy.

The state of the economy prior to the 2001–2003 crisis was the most unfavorable both in terms of the fiscal situation and because the central bank’s credibility had not yet been sufficiently built up and therefore limited its ability to lower the interest rate during the crisis. These impaired the ability to conduct a countercyclical policy, and at the height of that crisis, the Bank of Israel raised the interest rate and the government increased the tax burden and cut back on its expenditures. (The broad cut in transfer payment was also due to other considerations.) In the two following crises, the economy’s starting point was much more favorable, and enabled a vigorous policy response. However, the difference between them in the policy mix—the weights of monetary and fiscal policy—stood out.

The part of monetary policy stood out in the response to the second crisis—both in its intensity and in the type of tools used. This was due to the nature of the crisis, which first and foremost demanded action in the financial markets, which was also made possible due to the high level of credibility accumulated by the Bank of Israel in the years preceding the crisis, and because central banks around the world adopted similar policies. The use of fiscal tools was very limited, partly because of the lack of an approved State budget.

During the COVID-19 crisis, due to the nature of the real shock, fiscal policy’s weight in the policy response increased dramatically, as described above. Monetary policy also reacted strongly through a variety of tools, but the maneuvering space for lowering the interest rate was much narrower than in 2008 due to its proximity to zero. In view of the success of the monetary measures adopted to stabilize the financial markets at the beginning of the crisis, no further action was necessary in this area, in which monetary rather than fiscal policy plays a major role.

Monetary policy’s use of quantitative tools, which began with the 2008 crisis, continued during the COVID-19 crisis as well, at greater volumes, and the Bank of Israel even used additional quantitative tools. The sizeable foreign exchange purchases during both crises were due to the need to deal with appreciatory pressures, in contrast with the sharp depreciation during the 2001–2003 crisis.

During the first crisis, the procyclical nature of fiscal policy was prominent. In the second crisis, fiscal policy responded passively. The automatic stabilizers worked to lower tax revenue, but the government did not act to increase its expenditures. During the current crisis, there was a clear active and powerful response, which focused on increasing transfer payments and not on increasing public consumption or investment.

Comparing the crises emphasizes how important the state of the economy and the policy adopted in the years prior to the crisis were to the ability to adopt policy to deal with it.

5. WORKING FROM HOME DURING THE COVID-19 PERIOD AND ITS RAMIFICATIONS

Social distancing constraints caused an immense jump in remote activity in many fields, including learning, service provision, medicine, and shopping. This development helped deal with the crisis by lowering the chances of infection while also maintaining these activities, and it is expected to have broad implications even after the crisis is over. The significant increase in the volume of work from home is prominent in this context.

Global findings

The volume of working from home in many countries jumped during the crisis.

As technological possibilities have developed, working from home has expanded in recent years, and had reached considerable proportions in some countries even before the COVID-19 crisis.²⁰ The volume of working from home jumped during the crisis, with marked variance between the advanced economies, reaching 50–60 percent of employed persons in some of them.²¹ About half of salaried employees in European Union countries worked from home at least part of the time during the pandemic, and about one-third of them worked only from home. By way of comparison, in 2018, less than 5 percent of salaried employees in the European Union worked from home on a regular basis, and less than 10 percent worked from home every so often.²² The rate of those working from home in the US in April–May was estimated at 50 percent, compared with 15 percent before the crisis, and the rate of those working only from home in May was estimated at 35 percent, compared with 8 percent prior to the crisis.²³

The increase in work from home reduced the crisis’s impact on economic activity and employment, and was perceived as an important means of lowering the chances of infection both at the work place and when using public transit in order to go to work. However, it also contributed to the increased variance in the intensity of the crisis’s effect across industries and between types of workers, due to their differences in the ability to work from home. A number of studies regarding the US and Europe show that those with jobs that can be done less from home generally have lower education

²⁰ The volumes and characteristics of remote work in OECD countries in recent years are discussed in OECD (2020), “Productivity Gains from Teleworking in the Post COVID-19 Era: How Can Public Policies Make it Happen?”

²¹ V. Galasso and M. Foucault (2020). “Working During COVID-19: Cross-Country Evidence from Real-Time Survey Data”, OECD Social, Employment, and Migration Working Papers, No. 246.

²² The rate of those working from home during the crisis, based on a survey conducted between May and July in 27 EU countries: Eurofund (2020). Living, Working, and COVID-19.

²³ E. Brynjolfsson, J. Horton, A. Ozimek, D. Rock, G. Sharma, and H. TuYe (2020). “COVID-19 and Remote Work: An Early Look at US Data”, NBER Working Paper 27344; A. Bick, A. Blandin, and K. Mertens (2020). “Work From Home After the COVID-19 Outbreak”, Federal Reserve Bank of Dallas Working Paper No. 2017.

levels and lower incomes.²⁴ The rate of those working from home among those with low education and wage levels was indeed lower during the crisis, and such workers suffered from a greater decline in employment, work hours, and income.²⁵ The fact that certain industries that were particularly hard-hit by social distancing restrictions (such as hospitality and food, and other services) are oriented toward workers with low education levels increased the impact on this group of workers. The relatively high housing density that is characteristic of those with lower education levels may also have had an impact on their ability to work from home.²⁶ The higher rates of working from home among young people served to reduce the impact on this age group.²⁷

Findings from Israel

In Israel as well the rate of those working from home due to the crisis jumped. In the last four months of the year, on average, about 22 percent of salaried employees worked from home. The rate was higher in October (26 percent), due to the second lockdown.²⁸

The volume of working from home during the crisis varies greatly across industries (Chapter 5, Table 5.2) and occupations²⁹, and is consistent with the differences in the volume of such work by education and income levels as described above. The increase in the rate of unemployed was greater in occupations where there is less possibility of working from home.³⁰ The public sector also transitioned to largely working from home during the crisis, but not during the first lockdown, when many public sector workers were required to take (paid) vacation.

Business surveys conducted by the Central Bureau of Statistics during the crisis illustrate the attitude toward working from home from the employers' viewpoint.

Employers' attitudes toward working from home vary widely across industries.

²⁴ J. Dingel and B. Neiman (2020). "How Many Jobs Can be Done At Home?" White Paper, BFI, University of Chicago; S. Mongey, L. Pilossoph, and A. Weinberg (2020). "Which Workers Bear the Burden of Social Distancing Policies?" NBER Working Paper 27085.

²⁵ See Dingel and Neiman (2020); Mongey et al. (2020); Bick et al. (2020); A. Adams-Prassl, T. Boneva, M. Golin, and C. Rauh (2020), "Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys", IZA Discussion Paper 13183. Mongey et al. (2020) find that the decline in employment among those without academic education in the US was 4 percentage points higher than among those with academic education. According to the Eurofund (2020) survey, 75 percent of those with academic education in the European Union worked from home in April, compared with 34 percent of those with high school education and 14 percent of those with lower education levels.

²⁶ Residential density had an impact on the rate of those working from home among those with lower education levels in Canada during the crisis. P. Baylis et al. (2020). "The Distribution of COVID-19 Related Risks", NBER Working Paper 27881.

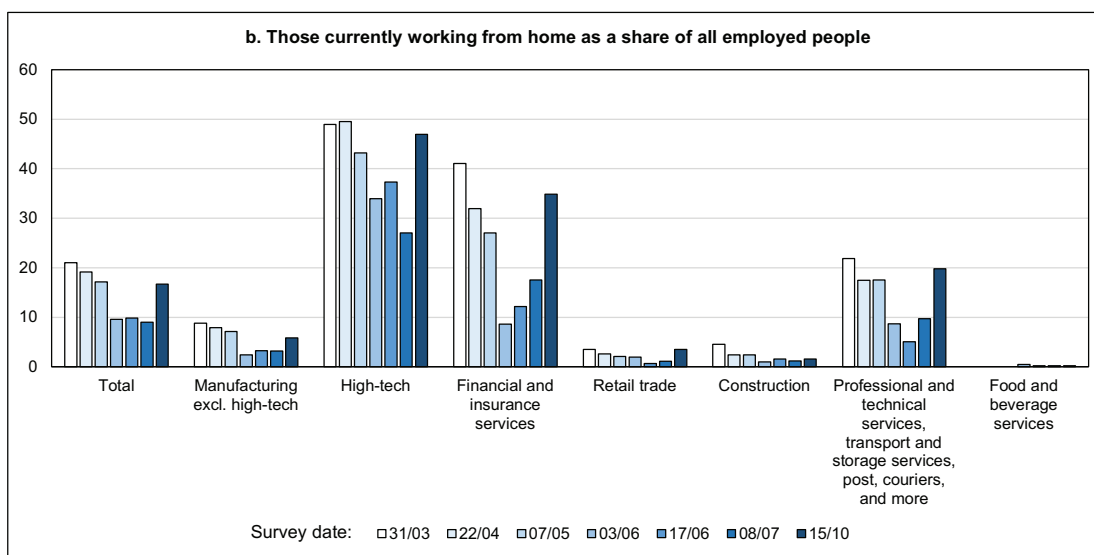
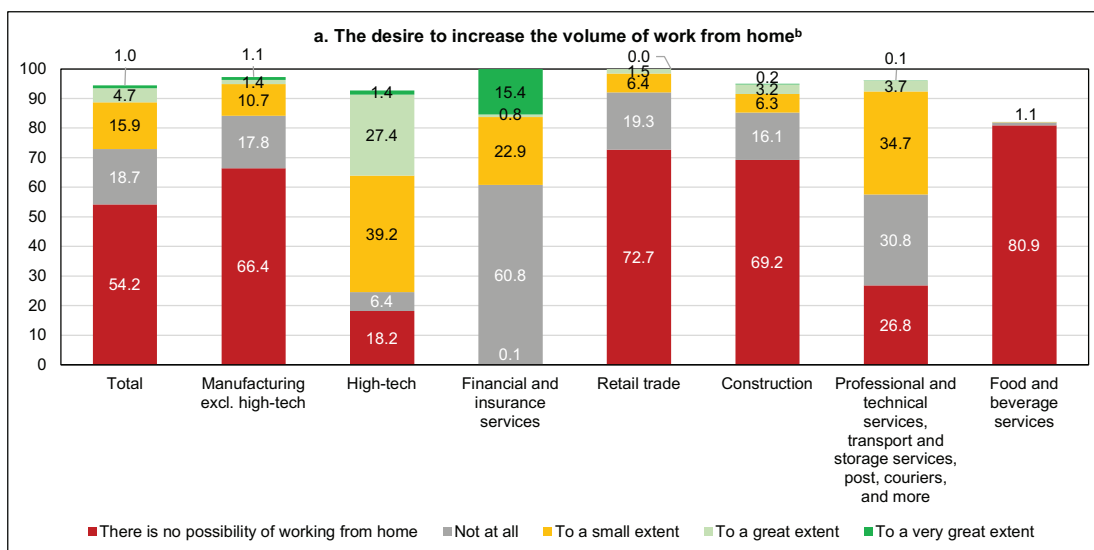
²⁷ Brynjolfsson et al. (2020); Eurofund (2020).

²⁸ The data are from the Central Bureau of Statistics monthly Labor Force Surveys. These surveys do not contain data on this rate prior to September.

²⁹ To illustrate: Forty-three percent of those with an academic occupation, 18 percent of general clerks and office workers, 6.5 percent of sales and service workers, and 2.3 percent of professional workers in manufacturing and construction worked from home in November.

³⁰ Bank of Israel (2020). "The COVID-19 Crisis and the Labor Market in Israel", *Selected Research and Policy Analysis Notes*.

Figure 1.3
Work-from-Home Rates and Employers' Attitudes Regarding Increasing Them^a



^a The survey included only business with five or more employee posts.

^b The text of the survey question: To what extent does your company want to increase the volume of work from home once the crisis is over compared with the situation prior to the crisis? The survey was conducted in January 2021. The percentages do not add up to 100 because some employers did not answer the question.

SOURCE: Central Bureau of Statistics, Survey of the State of Business During the Spread of the COVID-19 Pandemic.

About 57 percent of businesses noted that it is impossible for them to provide the option to work from home, and there is marked variance across industries (Figure 1.3a). Employers' responses regarding their desire to increase the scope of working from home following the crisis compared to the situation before the crisis show that at least some of such work during the crisis was perceived as a constraint that impaired the firm's activity. Once the crisis is over, they are expected to lower the amount of

work from home, but it will remain greater than it was before the crisis.³¹ In this matter as well, there is marked variance across industries. The high-tech industry has a prominently high rate of employers who intend to increase the volume of work from home following the crisis. This is consistent with the intensity of the industry's use of information technology, the characteristics of those working in the industry, and the industry's high level of performance during the crisis. However, even in this industry, only about one-third of employers think they will increase the volume of work from home to a large extent. The decline in the rate of work from home in the various industries during the summer (Figure 1.3b), when it was possible due to the easing of movement restrictions, may also hint at what is expected following the crisis. The high rate of those working from home in the financial services industries together with the sharp decline of this rate during the summer, is consistent with the employers' sweeping answers that working from home is possible together with the paucity of employers who intend to increase its volume following the crisis.

Working from home—a forward look to after the crisis

Alongside the advantages of working from home in dealing with the pandemic, the balance of its advantages and disadvantages in other aspects—from the standpoint of both the employee and the employer—will become clearer only in the future, and will influence the volume of work from home once the crisis is over.³² First, it is not clear that productivity when working from home is the same as it is at the workplace. The factors that may influence this include the effect of reduced commuting on the employee's performance, managers' ability to monitor the employee's performance at home, and the value of face-to-face interaction among employees. Working from home during the crisis still relies on social connections and other influences that were developed when the employees were at their workplaces, and these may deteriorate over time. In contrast, the acclimation to working from home and the accumulation of experience with it, on the part of both the employee and the employer, as well as technological improvements, may increase its productivity over time.

Other factors may influence the extent of support for working from home once the crisis is over, and employees' general satisfaction with this arrangement may change over time. For instance, going to the workplace may satisfy additional needs such as social interactions. Working from home may also have conflicting influences on the balance between work and leisure, and therefore on satisfaction with it. In a European survey conducted during the crisis, more than 75 percent of respondents noted that they would prefer to work from home at least occasionally even after the pandemic is over. Employees who worked only from home tended less to feel that they are doing

³¹ This question was asked in a survey conducted in January 2021. Therefore, the answers reflect the cumulative experience of employers with working from home over a relatively long period of the crisis.

³² For further discussion of the advantages and disadvantages of working from home, see: Knesset Research and Information Center (2020), "Working from Home in the Public and Private Sectors in view of the COVID-19 Crisis—The Situation in Israel and a Comparative View" (in Hebrew).

meaningful work, and tended more to feel isolated. Those working from home tended more to work at the expense of their free time, particularly if they have children at home.³³

Many parents in Israel worked from home for a significant part of the COVID-19 period while their children were home due to the closure of the education system or quarantine. This will require attention when inferring from this period in regard to working from home once the crisis is over, when the education system functions normally. While it has made it easier for parents to supervise their younger children in the absence of other frameworks, thereby apparently contributing to their willingness to work from home, the children's presence has made it difficult for parents to concentrate on their work. A survey conducted in Israel during the crisis showed that the rate of those reporting that they managed to work from home with the same efficiency as at their workplace was lower among parents, particularly those with young children.³⁴ In another survey, many parents noted that it is difficult to work from home when the children are present.³⁵

The volume of working from home once the crisis is over is expected to be greater than it was before the crisis, but smaller than during the crisis.

In view of the foregoing, it is reasonable to assume that the volume of work from home will increase significantly once the crisis is over, relative to the preceding period, although at least in the near future, it will be lower than the volume during the pandemic. It is also reasonable to assume that many employees will combine work from home with going to the workplace. The significant growth in the volume of work from home may have important implications for the economy and for the desired policy. Some of these implications, mainly concerning infrastructure, education, and the labor market, are discussed below.

Working from home should decrease commuting and thereby help lower transit congestion and the accompanying air pollution and greenhouse gas emissions. Since individuals do not internalize the contribution of reduced commuting to achieving these benefits (externalities), there will be room to consider government policies to rationally incentivize working from home.³⁶

The expansion of work from home, like online activity in other spheres, emphasizes the need for the government to act, whether through regulation or through the allocation of resources in appropriate cases, to ensure the proper level of communications infrastructure that is essential for this. In contrast, the reduction of commuting may support some adjustments to investment in transport infrastructure.

The expansion of work from home, emphasizes the importance of skills in working in a digital environment. It may even further widen the gaps between employees

³³ Eurofund (2020).

³⁴ Israel Democracy Institute (2020). "The COVID-19 Crisis: Working from Home" <https://www.idi.org.il/blogs/special-economic-survey/march-april-2020/31797> (in Hebrew).

³⁵ Bank of Israel (2020). "The School Vacation Structure in Israel and its Ramifications on the Labor Market", *Selected Research and Policy Analysis Notes*.

³⁶ See, for instance, Israel Association of Ecology and Environmental Science, in conjunction with the Ministry of Environmental Protection and the Ministry of Transportation, "Implementation of a Remote Work Policy in Israel—Conclusion and Insights of the Expert Committee", April 2020.

with higher and lower education levels, and there are those who view this as yet another stage in the contribution of technological changes of recent decades to the widening of such gaps. The crisis may exacerbate these processes by emphasizing the importance of information technology in maintaining business activity³⁷, and therefore may accelerate the adoption of such technologies, as well as the requirement for appropriate skills on the part of employees. It should be noted that the ability to work from home is also influenced by employees' personal qualities.

These insights have policy implications regarding the working-age population and regarding the education system. They emphasize the need to improve skills among employees through appropriate training programs, even more so since Israeli workers' skills in problem solving in a digital environment are low compared to other OECD countries, which impairs their productivity.³⁸ The expansion of working from home may also have a detrimental effect on the relative state of older workers, who tend less toward such work, and for whom it is especially important to provide appropriate training regarding skills in a digital environment. This also emphasizes the importance of narrowing the achievement gaps between students in Israel in general, and of strengthening digital environment skills and narrowing gaps in these skills in particular.

Remote working may help narrow the gaps between the center and periphery and improve access to high-income jobs in the center for residents of the periphery. This emphasizes the importance of high-quality communications infrastructure in the periphery, which may require more government involvement.

There are those who believe that expanded work from home may encourage suburbanization and negatively affect the major cities in the long term by reducing the advantage of living close to employment centers or the location of businesses there. It also may affect urban planning and moderate the demand for office space, and thereby also affect the municipal tax base of the local authorities.

The development of remote work may greatly expand Israelis' ability to work from home in Israel for foreign employers, and the ability of companies located in Israel to directly employ people living abroad. These developments may provide a new dimension to the globalization of labor markets, particularly affect highly educated and skilled workers, and increase the exposure of additional segments of the labor market to international competition.

The expansion of working from home emphasizes the importance of skills in working in a digital environment.

³⁷ During the crisis, employment in the United States suffered less of an impact in areas where firms used information technology at greater intensity. However, these technologies' role in maintaining activity was due not only to their contribution to remote work, but also to their contribution to online shopping and more. The increased adoption of such technologies by firms lowered the impact to employment of all types of workers other than those with low education levels, which shows the role of such technologies in widening gaps between types of workers. See N. Pierri and Y. Timmer (2020), "IT Shields: Technology Adoption and Economic Resilience During the COVID-19 Pandemic", IMF Working Paper WP/20/208.

³⁸ Bank of Israel (2016). "Basic Skills of Workers in Israel and Industrial Productivity", *Fiscal Survey and Selected Research Analyses* (August).

6. CHALLENGES UPON EMERGING FROM THE CRISIS

Significantly restraining the pandemic in Israel, which depends on the vaccination rate in the population and on the vaccination withstanding the mutations of the virus, will enable the economy to recover. Insofar as the pandemic is brought under control around the world, the global economy will also be able to recover, which will further accelerate economic activity in Israel.

As Israel emerges from the crisis, fiscal policy will need to be adjusted in order to ensure that the public debt to GDP crisis is on a downward path.

As Israel emerges from the crisis, fiscal policy will need to make significant adjustments to ensure that the public debt to GDP ratio is on a downward path over time. The contraction of the special expenditures having to do with the crisis will not suffice. The large and expanding structural deficit prior to the crisis shows that additional adjustments will be necessary. In view of the relatively low level of civilian public expenditure (excluding interest) and the reductions in tax rates in the years preceding the crisis, as well as for the purpose of financing the debt that ballooned during the crisis, it may become necessary in the future to increase tax rates. Moreover, there must be a return to conducting fiscal policy within formalized frameworks and in accordance with long-term fiscal rules in order to maintain its credibility over time and support the processes of setting priorities. Monetary policy will also need to adjust the volume of the special tools it is using during the crisis and maintain the trust in its ability to achieve its targets.

Many of the programs that were operated during the crisis gave preference to assistance and compensation considerations over efficiency and incentives. When exiting the crisis, it will be important to halt these programs or reduce their scope and to adjust their characteristics so that they don't hamper the incentive to work and so that they don't perpetuate the existence of inefficient businesses. It is important to adjust the pace of rolling back the programs to the pace of the recovery due to the damage involved in speeding up or delaying the roll-back. Mechanisms of this type have already been embedded in some of the programs, such as conditioning unemployment benefits on the unemployment rate and conditioning assistance to businesses on the rate of decline in their revenue. There is also a need for adjustments to policy measures intended to ease financing terms.

The unemployment rate is expected to drop as the economy recovers, but it may remain much higher than what it was prior to the crisis. The factors that may contribute to this include the streamlining of businesses during the crisis, changes in the structure of the economy, and the difficulties of those unemployed for a long period of time in reintegrating into the labor market. Policies to improve human capital and adjust it to changes in the economy will help in dealing with these ramifications.

The crisis emphasized the lack of a broad economic safety net that can be activated rapidly in a crisis, and the lack of a proper data infrastructure necessary for the efficient design of focused assistance programs. Dealing with these weaknesses is important for improving preparedness for a future crisis.

Once the crisis is over, it will again become necessary to focus on the fundamental problems in the economy, chiefly low productivity, disparities in productivity between segments of the population and sectors of the economy, and inequality. Some of these problems were exacerbated during the crisis—for instance due to the differential effect on more highly educated workers and those with lower education and wage levels, and in view of the importance of education and skills for online activity, particularly work from home. These all underscore the importance of improving the education system and reducing educational gaps. Increasing investment in the economy, particularly in infrastructure, and chiefly in public transit infrastructure, is also necessary in order to increase productivity in Israel. The crisis has also emphasized the importance of communications infrastructure. To all this, we must add the continuing challenge of maintaining a pace of building starts that is in line with the needs of the population over time.

Once the crisis is over, it will again become necessary to focus on the fundamental problems of the economy, chiefly low productivity, disparities in productivity between segments of the population and sectors of the economy, and inequality.