



**BANK OF ISRAEL**  
Office of the Spokesperson and Economic Information

**November 16, 2021**

**Fiscal Survey for 2021–2022  
and Expected Developments in Coming Years**

- The state budget for 2021 and 2022 strikes a balance between the wish to avoid a fiscal contraction that may slow the economy's recovery from the coronavirus crisis and the need to avoid an increase in the structural deficit that would burden the management of fiscal policy in the future.
- The expected deficit in 2021 is much smaller than had been expected only a few months ago, due to a rapid increase in tax receipts, mirroring the auspicious macroeconomic picture, the minor economic effect of the fourth wave of COVID-19 morbidity, and anomalous increases in investments in the high-tech sector, consumer goods imports, and home sales.
- Government expenditure on the COVID-19 crisis—NIS 69 billion in 2020—has contracted considerably and now centers on the healthcare system instead of financial support to households and businesses.
- The freezing of public-sector wage accords, as part of the macroeconomic package deal, made it easier to construct the budget for 2021–22. It is important to base future wage agreements on the trust that the parties to the deal established in order to promote reforms that will improve the efficiency of government services, particularly by integrating digital processes into them.
- When the 2022 budget is compared with that of 2019—the last year that had an approved budget and the year preceding the effects of the pandemic—two changes in spending stand out: a decrease in the defense budget as a share of GDP pursuant to the multiyear trend, and a major upturn in the infrastructure investment budget due to the maturation of programs that were advanced in recent years.
- The economic plan approved along with the budget includes important reforms that will support sustainable economic growth, higher productivity, and responses to several structural issues in government activity and budget structure that will enhance the efficiency of government activity and save on budget costs in the long term.
- The five-year plan for Arab society includes a large allocation of resources for the advancement of human capital, employment, infrastructure, and other matters in Arab society. It also contains mechanisms that will help to surmount barriers that impeded similar moves—albeit smaller—in the past.
- The budgeting plan of the Greater Tel Aviv Metro is an important step toward the advancement of this critical infrastructure project. However, the enshrinement in law of the division of funding for this project between the general state budget and dedicated receipts, of which there is acute

uncertainty as to their size and the timing of their arrival, may impede the advancement of the project and the its resulting expected utility.

- The raising of women's retirement age will reduce National Insurance outlays and abet an increase in older women's employment in the long run. The approved path of aid goes further than previous proposals in alleviating the arrangement's influence on many of the weak groups that the arrangement will adversely impact.
- The replacement of earmarked bonds with a guaranteed-yield mechanism for the pension funds is likely to generate considerable budget saving in the long run but also comes with considerable financial risks. It is important to manage these risks cautiously because their nature and magnitude are different from those in the other components of the budget.
- There is a considerable gap between the estimated cost of the government's existing liabilities and the level of expenditure that is allowed by the expenditure rule after 2022. In the past, as in this year, such gaps made it necessary to raise the expenditure ceiling.
- Ahead of the next budget, it is important to examine the contribution of the expenditure ceiling, its level, and its structure in view of the need to promote the permanent investments in infrastructure and human capital that are essential for eliminating the productivity gaps between Israel and the other advanced economies, and in view of the importance of maintaining fiscal space.
- A revision of the historical National Accounts data yielded a more optimistic estimate of the economy's potential growth rate later in this decade and created a wider margin for the shaping of budget policy. Nevertheless, due to the large structural deficit, a major increase in investment while maintaining a stable debt to GDP ratio, and a fortiori a declining one, still requires both restraint of the growth of other spending and a tax increase.

## **A. Introduction**

On November 5, 2021, the Knesset approved the budget and the economic plan for 2021 and 2022. Although the budget is biennial, its main impact on government activity will be seen in 2022 because it was approved only toward the end of 2021. Until the budget was endorsed, the government operated under interim-budget procedures that went into effect at the beginning of 2020. This review describes the situation now that the budget has been launched and elaborates on the structural changes that took place between the 2019 budget—the last to be approved before the coronavirus crisis—and that for 2022. The description is followed by an analysis of several important measures in the economic plan that accompanies the budget and various forecasts and scenarios for fiscal developments in the next few years.

The budget framework and its composition reflect several important macroeconomic considerations. (1) First, the state of the economy must be borne in mind: The budget must not restrain activity before the economy recovers from of the coronavirus crisis; at the same time, it should not increase the structural deficit, which was high even before the crisis, because such an increase might raise the debt-GDP ratio excessively and leave fewer sources available in future budgets to fund the government investments that are needed to improve labor productivity and cope with future crises. (2) The budget needs to address structural matters of importance for long-term growth that were not dealt with under the interim budget. (3) It should restore operational stability to the government ministries' work, which was disrupted by prolonged government activity on the basis of interim budgets and, particularly, activity based on the 2019 budget, which was approved early in 2018 and therefore underwent only limited adjustments for subsequent changes in needs.

The newly approved budget responds to these matters well. The deficit target was set at a level similar to the structural deficit that predated the coronavirus crisis, avoiding fiscal restraint in 2022 and postponing such consolidation until the economy rebounded from the coronavirus crisis. Concurrently, by not raising the structural deficit, the budget stabilizes the debt ratio and facilitates preparations for longer-term fiscal investments in the following budgets. The economic plan that accompanies the budget includes important reforms that will abet faster and sustainable economic growth and treatment of acute social issues, and its frameworks systematize many necessary adjustments of ministries' budgets since the last budget was approved. Thus, the budget creates a foundation for the advancement of another stage in the reforms that are needed for the advancement of the economy in the budgets for 2023 and subsequent years.<sup>1</sup>

## **B. The 2021 budget**

### ***1. The budget framework and its foreseen implementation***

The expenditure ceiling for 2021—NIS 432 billion—is much larger than the NIS 420 billion limit that was set for the interim budget approved in late December 2020. Added to that ceiling was NIS 69 billion in expenditure to cope with the coronavirus crisis, of which NIS 54–55 billion in cash outlays is foreseen. The unused balance will be rolled over in the form of surpluses for coming years in steadily declining amounts (thereof, NIS 7 billion in 2022).<sup>2</sup>

Table 1 presents the budget aggregates in NIS billion and percent of GDP which is based on the Bank of Israel's forecasts. The data show that the leap of the deficit from 3.7 percent of GDP in 2019 to 11.4 percent in 2020 was driven by an unprecedented upturn of government spending, from 30 percent of GDP to 37.5 percent, and by a small decline in revenue relative to GDP. In contrast, the still-high level of spending in 2021 (34 percent of GDP) will be partly offset by a 2.1 percent of GDP increase in tax revenue relative to 2019. Thus, the deficit at year's end is expected to be only 1.6 percent of GDP higher than that in 2019 (5.3 percent as against 3.7 percent).<sup>3</sup>

Most of the increase in revenues traces to an upturn in exports of high-tech services and a large number of equity issuances by Israeli firms abroad, which manifest in tax payments by these companies' employees in Israel and by the companies themselves.<sup>4</sup> The perceptible upturn in imports of consumer goods and the surge in new-home sales relative to 2019 also raised tax receipts, both indirect and direct. The current revenue forecast, of both the Ministry of Finance and the Bank of Israel, has been adjusted upward since the government approved the budget, and the increase in revenues will be used to draw down the actual deficit and stanch the increase in the public debt.

According to the latest estimates of the Bank of Israel, the deficit in 2021 will reach 5.3 percent of GDP, assuming that the ministries' cash outlays will be 98.8 percent of their budgets.<sup>5</sup> The lower or higher the rate of outlays will be, the more it will project on the actual deficit and, to some extent,

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<sup>1</sup> For a discussion of the multiyear reforms that the government can promote in order to support an upturn in productivity, see "Four Recommended Pillars of Strategic Government Action to Accelerate Economic Growth and a Fiscal Framework for Financing Them," Bank of Israel, June 2021.

<sup>2</sup> According to a representative of the Finance Ministry Budget Division at a meeting of the Knesset Finance Committee concerning the State Budget Framework Bill, held on October 25, 2021, NIS 14 billion that was budgeted for pandemic-related expenditure in 2021 will be disbursed in 2022–27. Most of these outlays are contractual payments to suppliers in the fields of healthcare, vocational training, and infrastructure.

<sup>3</sup> The budget deficit will probably be 5–5.5 percent of GDP. The final deficit figure depends largely on government ministries' ability to spend the budgets approved for them at the beginning of November and on administrative decisions that will be made in the last days of the year. Contractual undertakings for which payment will be made in 2022 will narrow the 2021 deficit but will increase it in 2022.

<sup>4</sup> Much of the proceeds from the sale of companies are not recorded in output; therefore, taxes paid on their account raise the ratio of tax receipts to GDP. Increases in high-tech workers' wages also raise the share of taxes in GDP because these workers pay tax at a higher marginal rate than the average tax burden countrywide.

<sup>5</sup> This approximates the rate of the ministries' budget performance in 2015, when, too, the state budget was approved only in November.

on the following year's deficit due to the mechanism of transfer of surpluses. It is important to remember that the macroeconomic data and the tax receipts that follow in their wake have repeatedly given surprises since the beginning of the crisis; they depend heavily on the state of morbidity in Israel and abroad and on the policies invoked to manage the crisis, both of which also vary. Therefore, the short-term revenue and deficit forecasts should be treated more cautiously now than usual.

**Table 1**  
**2019–2022 Budget Aggregates**

	2019 (performance)		2020 (performance)		2021 (estimate)		2022 (forecast)	
	NIS billion	Pct. of GDP	NIS billion	Pct. of GDP	NIS billion	Pct. of GDP	NIS billion	Pct. of GDP <sup>1</sup>
<b>Central govt. and National Insurance revenues</b>	<b>373</b>	<b>26.3</b>	<b>365</b>	<b>26.0</b>	<b>432</b>	<b>28.4</b>	<b>441</b>	<b>27.1</b>
Thereof: Tax revenues	317	22.4	311	22.2	372	24.5	377	23.1
National Insurance contributions from the public	49	3.5	48	3.4	53	3.5	57	3.5
Other revenue from the public <sup>2</sup>	7	0.5	6	0.4	8	0.5	7	0.5
<b>Central govt. and National Insurance expenditure</b>	<b>426</b>	<b>30.0</b>	<b>525</b>	<b>37.5</b>	<b>516</b>	<b>34.0</b>	<b>502</b>	<b>30.8</b>
Thereof: Regular budget <sup>3</sup>	400	28.2	410	29.2	427	28.1	452	27.7
Separate “coronavirus budget”			85	6.1	69	4.5	17	1.0
Underperformance (-) / overperformance (+) of “coronavirus budget”			-16	-1.1	-14	-0.9	-5	-0.3
Net National Insurance expenditure <sup>5</sup>	26	1.8	46	3.3	31	2.0	39	2.4
<b>Budget deficit</b>	<b>53</b>	<b>3.7</b>	<b>160</b>	<b>11.4</b>	<b>80</b>	<b>5.3</b>	<b>61</b>	<b>3.7</b>
<b>Gross public debt</b>		<b>60</b>		<b>72</b>		<b>73</b>		<b>72</b>

<sup>1</sup> According to the October 2021 Research Department staff forecast.

<sup>2</sup> Including royalties on natural resources and royalties and dividends from state-owned enterprises; not including National Insurance surpluses that are transferred to the Treasury and recorded as revenue in the budget; and not including health-tax receipts that are forwarded directly to the HMOs.

<sup>3</sup> The 2021 budget ceiling is NIS 432 billion, but because it was approved in November we assume NIS 5 billion in underperformance—assuming that the government ministries spend their budgets at a 98.8 percent rate, similar to that in 2015, when, too, the budget was approved only in November.

<sup>4</sup> In addition to the surpluses that are expected to be forwarded from 2021, an NIS 10 billion “coronavirus budget” was approved for 2022. Of that sum, NIS 5 billion may be used for pandemic-related programs and the remaining NIS 5 billion may be spent if a state of emergency on account of the coronavirus is declared and the Prime Minister and the ministers of Health and Finance serve the Knesset Finance Committee with notice to this effect. In the baseline scenario

and in accordance with the assumptions that the Bank of Israel Research Department used in formulating its macro forecast, we assume that this will not be needed.

<sup>5</sup> Net of transfers, payments of principal, and payments of interest from the state budget.

SOURCE: Ministry of Finance and processing by Bank of Israel.

## 2. The 2021 “coronavirus budget”

The “coronavirus budget” for 2021 was originally set at NIS 52.3 billion and was increased to NIS 68.3 billion at the beginning of the year as surpluses from 2020 were carried forward. Cash expenditure, according to the Ministry of Finance, will be NIS 54–NIS 55 billion, and the rest of the expenditure is expected to take place in coming years at a steadily declining pace.<sup>6</sup> Most current expenditure originates in contractual outlays in the fields of infrastructure, healthcare, and vocational training. Even though these expenditures are classified as nonrecurring and meant to cope with the coronavirus crisis, their spending over many years after the health crisis, until 2027 in some cases, indicates that at least some of them are structural expenditures that do not necessarily originate in the crisis.

**Table 2**

**The “Coronavirus Budget” and Its Performance as of October 31, 2021**

NIS billion	Cash expenditure, 2020	2021 budget	Cash expenditure thus far, 2021	Cash expenditure and commit- ments thus far, 2021
<b>Direct pandemic-related expenditure (health)</b>	10.0	16.8	7.4	10.3
<b>Pandemic-related expenditure by other government ministries</b>	4.1	4.6	2.7	3.6
<b>Aid from the budget for businesses</b>	17.7	16.4	12.5	13.0
<b>Preserving and promoting employment</b>	2.2	0.4	0.3	0.3
<b>Growth acceleration programs</b>	2.4	5.6	0.8	4.0
<b>Support for households</b>	42.9	28.0	25.6	25.8
<b>Total state budget (“coronavirus budget”)<sup>1</sup></b>	68.6	68.3	47.6	55.4
<b>Total state budget + National Insurance + provisional revenue measures<sup>2</sup></b>	79.3	71.9	49.3	57.1

<sup>1</sup> The sum in 2020 is composed of NIS 84.8 billion in budgeting less NIS 16.2 billion unspent. This resembles the sum budgeted in 2021, of which, as stated, around NIS 55 billion in actual expenditure is foreseen.

<sup>2</sup> The government indemnified the National Insurance Institute for some of the latter’s outlays that were caused by the pandemic crisis. The data in the table offset this redundancy and relate only to government and the National Insurance expenditures vis-à-vis the public. The provisional revenue measures include, mainly, accelerated depreciation in corporate tax.

SOURCE: Ministry of Finance and processing by Bank of Israel.

<sup>6</sup> Remarks by a representative of the Budget Division at a meeting of the Knesset Finance Committee concerning the State Budget Framework Bill, October 25, 2021.

Due to the termination of household relief programs at the end of June 2021 and the government resolution to reinforce the healthcare system during the fourth wave of infections instead of imposing a lockdown, healthcare expenditure within the “coronavirus budget” increased in 2021 relative to 2020 and spending for support of households and assistance to businesses declined (Table 2). Apart from the increase in the regular budget of the Ministry of Health, NIS 17 billion (40 percent of the healthcare budget in an “ordinary” year) was allocated to pandemic-related measures in 2021. Most of the increase was used to reinforce medical staff in COVID-19 departments, manage large-scale testing systems, procure and administer vaccines, and reinforce primary healthcare in response to the COVID-19 caseload.

### **3. *Government revenues***

Government revenues increased rapidly during the year, reflecting macroeconomic developments and the economy’s rapid exit from the deep hole that the coronavirus crisis caused in 2020. The two main components of government revenues—tax receipts and collection of National Insurance contributions and health tax—responded powerfully at the beginning of the crisis to extraordinary changes in the economic environment that were mirrored in acute volatility of revenue. From a quarterly perspective, tax receipts slumped in the first two quarters of 2020 to an extent that far exceeded the decrement explained by standard models, but also increased steeply in the third quarter (beyond the effect of the resetting of tax payment deadlines). In annual terms, however, tax revenues in 2020 fell by 2 percent relative to 2019, approximating the rate of decrease in product.

In contrast to the development of annual collection in 2020, tax revenues in 2021 are expected to grow by NIS 60 billion—a 19 percent upturn that surpasses the GDP growth rate by far. Even in comparison with 2019, the last pre-pandemic year, this is a 17 percent increase, vigorously outpacing GDP growth. Much of the upturn in tax revenues, as stated, is explained by auspicious developments in the domestic and global capital markets and rapid growth of high-tech activity and transactions. An analysis based on the Bank of Israel tax model also reveals important contributions from the increase in imports of consumer goods, up by more than 15 percent over 2019, and the surge in new-home sales, by 50 percent relative to 2019 and by 25 percent relative to 2020.

When the development of the macroeconomic variables is taken into account and the data are examined from an annual perspective, tax revenues in the past year largely comport with the forecast of the model, that is, with the long-term connections between the macroeconomic variables included in the model and tax receipts. Importantly, however, actual tax receipts were much larger than those predicted earlier in the year, even if the model performed well in explaining developments ex-post. Examination of the main reasons for the excess of revenues relative to the forecasts yielded by the model shows that the original forecast did not take into account the continued anomalous increases in imports of consumer goods and new-home sales that were observed at the beginning of the year, and assumed gentler developments in the capital market. In addition, the major revision of the Central Bureau of Statistics’ estimates of GDP in the first quarter of the year—which also affected the forecast of receipts farther into the year—contributed to an NIS 10 billion underestimate of annual revenue in the forecasts that were conducted until August.

Collection of National Insurance contributions and health tax from employees and the self-employed increased since the beginning of 2021 by 11 percent relative to the corresponding period in 2020 and by 6 percent relative to the corresponding period in 2019. (The data for employees alone are only slightly smaller.) While the rapid upturn relative to 2020 is not surprising given the swift rebound of employment and small-business activity after the activity-crippling lockdowns in 2020, the increase relative to 2019 is more surprising. Average employment since the beginning of the year was smaller than in 2019, even though the labor force had grown since then.<sup>7</sup> The data show that

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<sup>7</sup> The number of persons employed was roughly the same in the third quarter of 2021 as in the corresponding quarter of 2019.

despite the increase in unemployment, the wages of those who continued to work grew enough to compensate for the loss of collection from those who stopped working and boosted National Insurance contributions by another 6 percent.<sup>8</sup> This process, of course, helped to lower the deficit.

#### 4. *The structural deficit*

The structural deficit is an unobserved economic variable, in which changes are conventionally used to analyze the extent of looseness or tightness of fiscal policy in a way that neutralizes transient factors that affect the deficit, such as business cycles or nonrecurring expenditures or revenues. It also constitutes a benchmark for the expected deficit over time, as long as the government does not take policy measures that would affect its spending or increase its revenues permanently. One approach that the Bank of Israel uses to estimate the structural deficit is to examine changes in statutory tax rates each year and compare them with changes in structural expenditure, which is calculated as the ratio of public expenditure to potential output.<sup>9</sup> In 2020–21, it became quite difficult to estimate the structural deficit due to the unusually acute shock to economic activity brought about by health developments, the massive government expenditure that came in its wake, and the challenge of identifying the level of output that would have been attained had the government not supported the economy as it did.

Since the government left tax rates unchanged in 2020 and 2021, apart from lowering the purchase tax on real-estate investments from August 2020 onward, one may infer that much of the increase in receipts in 2021 relative to 2019 originates in the macroeconomic factors described above. Against this background, the revenue forecast for 2022 expects a “reversion to norm” i.e., to the long-term trend in the relationship of tax collection and product in the pre-pandemic years (see below).

Figure 1 disaggregates the changes in the deficit relative to 2019. The increase in spending in 2020–2022, shown in orange, is a direct outcome of the government policy of supporting the economy during the crisis. The increase in the rates of 5.1 percent of GDP, 3.1 percent of product, and 0.4 percent of GDP (respectively) relative to 2019 represents, mainly, the share of the “coronavirus budgets” that were meant to cope with the state of emergency. The portion of these budgets that was earmarked for programs of acceleration of growth and reinforcement of healthcare infrastructures is viewed as structural expenditures that, while included in the coronavirus budget, actually represent, in our perception, moving up of expenditure that would have appeared in the budget base in any case and will probably require continued budgeting in future years as well.

Overall, the structural deficit in 2020–22 remains, in our estimation, at a level similar to that of 2019—high by international and historical standards.<sup>10</sup> The transient factors are expected to wane gradually in 2022, so that the budget deficit that year will again largely reflect the structural deficit that prevailed on the eve of the crisis, apart from a small surplus in transitory revenue that will probably be offset by a surplus in temporary expenditure. Notably, the government’s structural deficit, presented here on the basis of the budget definitions, does not reflect the costs of some of the government’s housing-relief programs, real-estate projects funded by the sale of land, and discounts on prices of state land that was sold, which are not recorded in the budget.<sup>11</sup>

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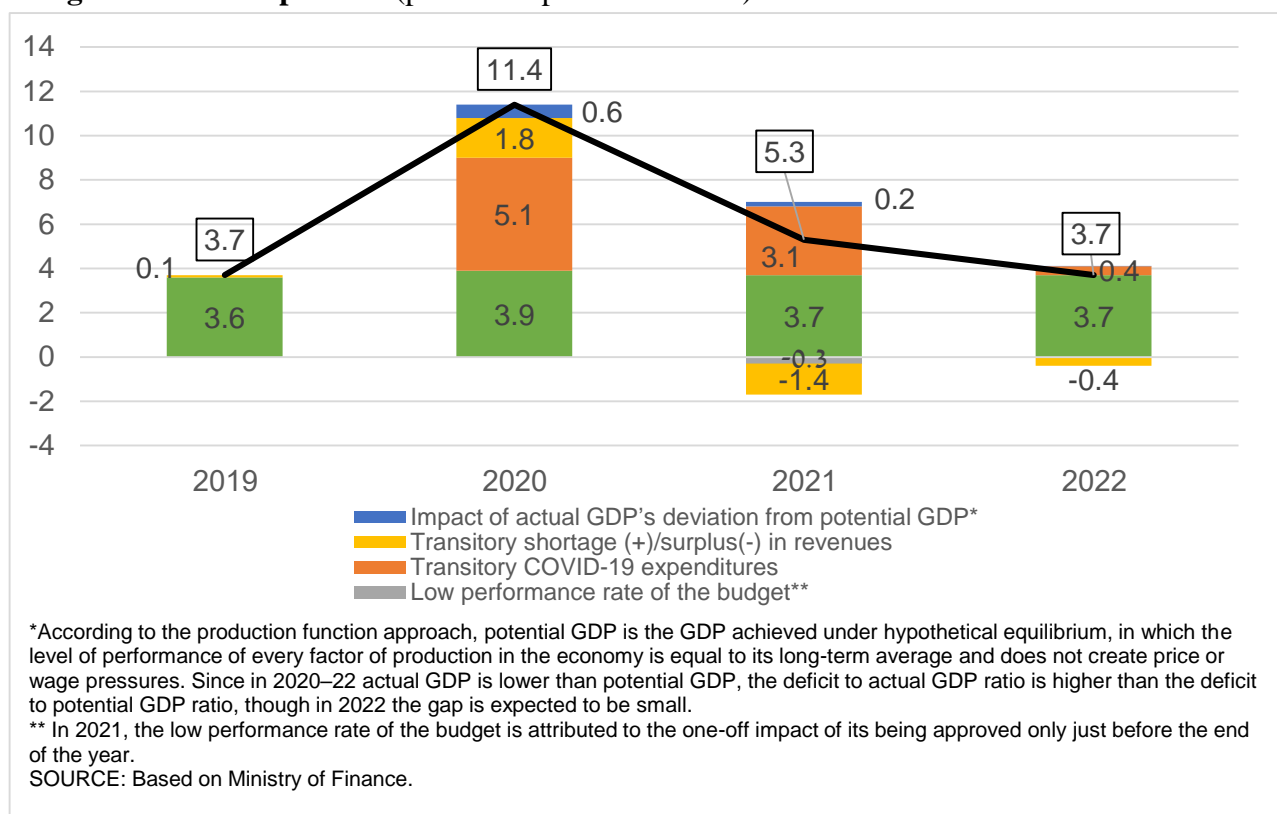
<sup>8</sup> Jobless persons and others not employed are liable to lower health tax and National Insurance contributions than are working persons; furthermore, employers’ National Insurance contributions are not collected on their account (including persons on unpaid leave).

<sup>9</sup> For an explanation of these terms and the method of calculation, see Yuval Mazar (2014), *Development of the Structural Deficit in Israel, 2000–2012* (Hebrew), Bank of Israel, Occasional Paper 2014.02.

<sup>10</sup> Relative to the years following the economic crisis in the early 2000s.

<sup>11</sup> For a broader discussion of the question of using proceeds of land sales to fund extra-budgetary programs, see Bank of Israel, “Fiscal Policy in the Past Two Years and Fiscal Projection for 2019–2022,” August 2018.

**Figure 1**  
**Budget Deficit Components (percent of potential GDP\*)**



## C. The 2022 budget

### 1. The budget ceiling

The 2022 budget ceiling is NIS 452 billion plus surpluses from the “coronavirus budget” for 2021 and the “Coronavirus budget” for 2022 (see below). The forecasted aggregates for 2022 represent a reversion to norm: of revenues to the long-term trend and an environment similar to that in 2019, and of the public-expenditure (including National Insurance contributions and net of the “coronavirus budget”) to its structural level.

In October, ahead of the discussions in the Knesset, the Bank of Israel’s macroeconomic forecasts (growth rate, inflation rate, imports, and transactions in the housing market) for 2021–2022 were adjusted upward<sup>12</sup> and its revenue forecast was raised accordingly. Concurrently, the Ministry of Finance also pushed up its tax revenue forecast—by NIS 10 billion—and the government decided to increase the 2022 budget by a similar amount, as specified in the notes to Table 1. The use of the NIS 5 billion remainder of this sum, as noted above, will be contingent on the declaration of a state of emergency on account of the pandemic.<sup>13</sup> In accordance with these rules and to remain consistent with the assumptions in the Bank of Israel forecasts for “living with the coronavirus” (i.e., with no additional waves of morbidity that would have a perceptible effect on economic activity), we assume in the baseline scenario that only half of the 2022 coronavirus budget will be used. Thus, the deficit will stand at 3.7 percent of GDP, slightly below the statutory deficit target. Insofar as a more pessimistic scenario that forces the government to use the additional NIS 5 billion comes to pass, it

<sup>12</sup> Bank of Israel (2021), “Research Department Staff Forecast,” October 7, 2021.

<sup>13</sup> State Budget Frameworks Bill (Special Provisions for 2021 and 2022), Legislative Amendments and Ad Hoc Provision, 5782-2021, submitted to the Knesset plenum on November 2, 2021.

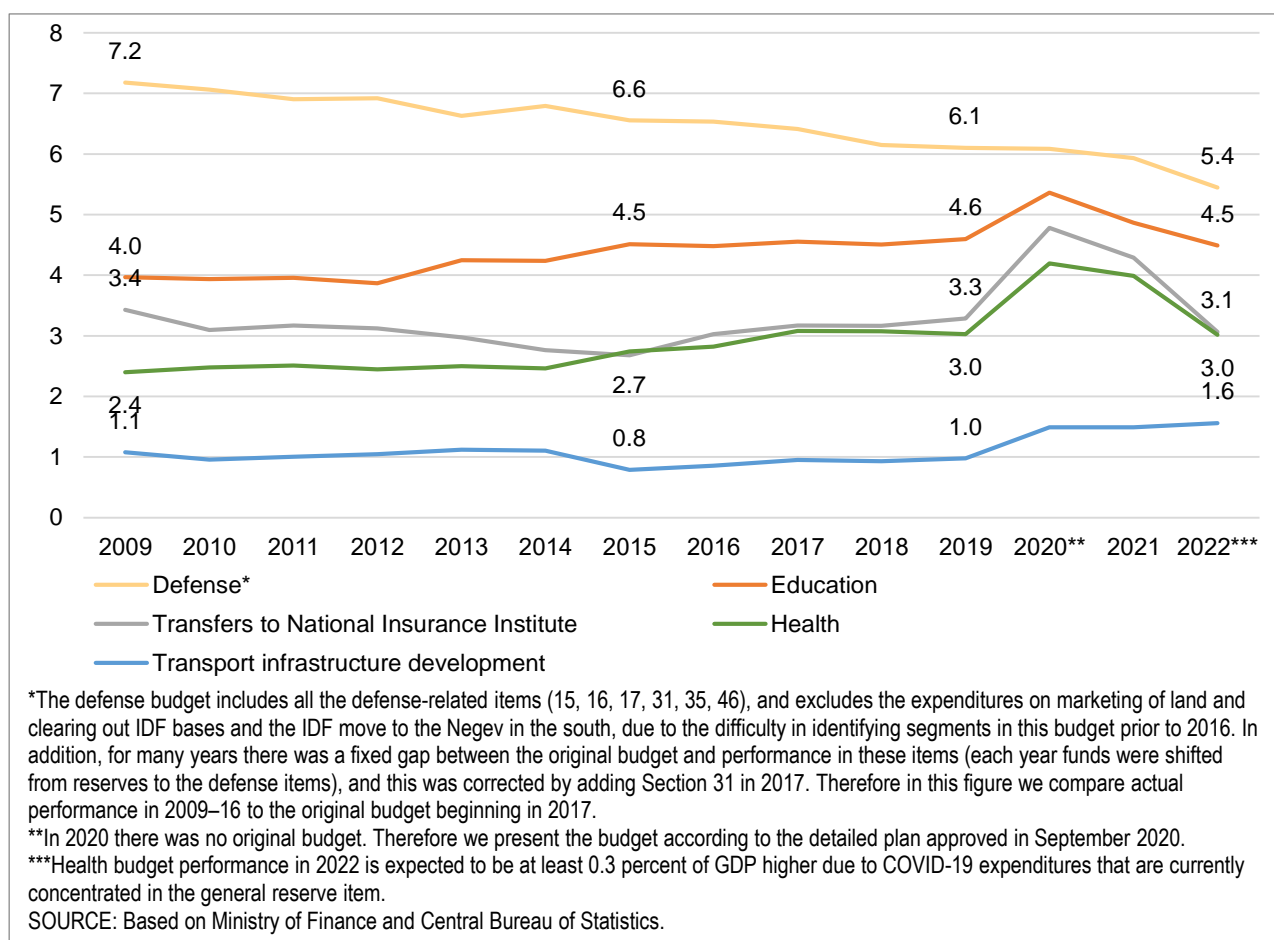
is likely that the macroeconomic data will also be less auspicious than in the current forecast and that the actual deficit will exceed the statutory limit. Under these circumstances, the deficit increase will reflect not a structural change but a temporary expansion meant to cope with the pandemic.<sup>14</sup>

## 2. Composition of the budget

The approved budget reflects a change in the government’s priorities relative to the 2019 budget: contraction of defense expenditure by 0.7 percent of GDP relative to the original 2019 budget,<sup>15</sup> countered by a 0.6 percent of GDP increase in transport infrastructure investment budget.<sup>16</sup> Apart from these two budget items, the budgets of other large ministries such as health and education, along with transfers to National Insurance, are expected in 2022 to remain largely unchanged in GDP terms from 2019, after two years in which they received exceptional temporary funding increases in order to cope with the pandemic (Figure 2). The stabilization of education and health expenditure became possible largely due to the freezing of wage accords in 2020–22, but the wage costs for doctors are liable to grow due to the escalating shortage of specialist physicians and in certain geographical areas and continued repercussions of the pandemic that are causing difficulties in delivering some services.

**Figure 2**

**The Gross Budget (including Revenue-Contingent Expenditures) in the Main Budget Items (percent of GDP)**



<sup>14</sup> The foregoing calculation, on which our basic scenario is grounded, is different from the budget forecast, in which the entire “coronavirus budget” in 2022 is included in the expenditure forecast for that year.

<sup>15</sup> Relative to actual expenditure in 2019, the decrease is 0.5 percent of GDP, of which 0.1 percent of GDP is due to reduction in the value of the US defense grant in NIS terms due to NIS appreciation against the USD since 2019.

<sup>16</sup> Relative to performance in 2019, the increase is 0.4 percent of GDP. In addition, current subsidies for public-transport operators (budget line number 7955) increased by 0.3 percent of GDP between 2019 and 2022.

### 3. *State revenues*

With the perceptible impact of powerful developments in 2021 in the capital markets, the high-tech sector, the housing market, and imports on tax receipts in the background, the 2022 revenue forecast is based on the moderation of these processes, but not on an abrupt turnaround.<sup>17</sup> As a result, the expected growth of tax receipts in 2022—1.3 percent—is milder than the expected growth in nominal output and will find expression in a 1.4 percent of GDP decrease in the tax burden. Even after this downturn, however, the tax burden in 2022 is projected to be 0.7 percent of GDP higher than in 2019, far exceeding the estimated impact of legislative changes in recent years.<sup>18</sup> Collection of National Insurance contributions from the public is expected to continue growing at a pace similar to that of GDP, much like the trend in recent years, and in accordance with the macro forecast that expects the economy to continue converging back to full employment.

The Bank of Israel's tax forecast is NIS 5 billion smaller than the latest forecast of the Ministry of Finance. Given the large and unexpected changes in the macroeconomic environment in the past two years—and in view of the powerful impact on revenues of hard-to-predict and volatile variables, such as developments in the domestic and global capital markets, the real-estate market, and consumer goods imports—such a large gap between economic models is unsurprising and is also small relative to the changes that occurred in many forecasts of economic institutions in the course of the year.

### 4. *The economic plan and its main reforms*

The 2021–22 budget that the Knesset approved was accompanied by a far-reaching economic plan that may contribute much to economic growth, labor productivity, and narrowing disparities among different population groups. Important parts of the program are in line with recommendations that the Bank of Israel presented to the government when it was formed.<sup>19</sup> There is considerable benefit in promoting such reforms in regular legislation in the course of the year, but the difficulty of advancing structural economic moves in recent years has caused a cumulative gap to build up. Therefore, it is important to have approved the economic program at this time as a work plan for the current government and a roadmap for the Israeli economy. Concurrently, the discussion of additional reforms, deferred thus far, should be launched presently, and not postponed until the next budget.

The economic plan includes several macro reforms that are important for labor productivity and accelerated economic growth in the long term. The largest programs of this type include a plan for the construction of the Greater Tel Aviv Metro, a five-year plan for Arab society, eliminating import barriers, improving government regulation, and measures to expand the use of digital media in government services. Even if some of these reforms will have to be adjusted over time, the steps adopted now are likely to promote investments and greater efficiency in the business sector, accelerate the economy's rebound from the coronavirus crisis, and improve the standard of living sustainably. Despite these important structural programs, gaps in human capital investment remain and the current program gives them limited attention. It is important to deal with these matters within the framework of future budgets because they concern long-term processes that offer much benefit for long-term growth in Israel. However, some of Israel's weaknesses in education should be countered not only by increasing budget funding but also by making structural and pedagogical changes that will generate more output from the sources allocated to this area of activity. Further

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<sup>17</sup> For example, we expect consumer imports to grow by 3 percent in real terms beyond the upturn in 2021.

<sup>18</sup> Structural revenues in 2019 were probably higher because 0.2 percent of GDP was subtracted from tax revenues that year on account of refunds to taxpayers who overpaid their taxes in 2017, as part of an arrangement for the release of "trapped profits." For discussions of the potential reasons for the earlier execution of payments under this arrangement, see Bank of Israel, *Annual Report for 2017*, chapter 6.

<sup>19</sup> For elaboration, see "Four Recommended Pillars of Strategic Government Action to Accelerate Economic Growth and a Fiscal Framework for Financing Them." Bank of Israel, June 2021.

provisions of the economic program that will help to free up budget sources over time include raising women's retirement age, which promises additional macroeconomic benefits,<sup>20</sup> and ceasing to issue earmarked bonds to the pension funds. In the following sections, we examine several meaningful provisions of the economic program, focusing on their direct budget impact in the medium and long terms.

### *The path to raising women's retirement age*

According to the legislative change, women's statutory retirement age will be raised gradually from sixty-two to sixty-five in the course of the coming decade. Table 3 plots the trajectory of the reform and presents its implications for eligibility for senior-citizen benefits and their cost to National Insurance. In the budget path, it is borne in mind that some women who will lose their eligibility for senior-citizen benefits will receive alternative benefits in their stead (survivors, income maintenance, and disability) when the retirement age is raised.<sup>21</sup> The estimate of the number of women who will lose benefit eligibility due to the reform is based on the Central Bureau of Statistics population forecast and the assumption that the employment rate of women in this age group without the reform would remain unchanged relative to recent years (45 percent) and that the rate of eligibility for senior-citizen benefits would remain at 64 percent.<sup>22</sup>

To alleviate the negative impact on women aged 62–64 whose eligibility will be deferred for senior-citizen and other benefits due to their being defined as senior citizens, it was decided to augment the legislation with a package of complementary measures. These include extending the maximum term of eligibility for unemployment compensation from 175 days to 300 days for women over the age of sixty, and, under more stringent conditions, for women aged 57–60; giving an adjustment grant for several months for women before retirement age who lose their jobs and are not eligible for unemployment compensation; expanding the income maintenance benefit for women from age sixty-two to the new retirement age in each period of time<sup>23</sup>; raising the income threshold above which the senior-citizen benefit is reduced for working women who are between retirement age and the age of full entitlement to the benefit<sup>24</sup>; broadening the income bracket that entitles women age 60–67 to an Earned Income Tax Credit (EITC) and increasing the size of the EITC for those eligible; and budgeting vocational training for older adults with preference for training women. The total cost of the measures approved, if the eligible women take up the benefits, is about NIS 1 billion per year. Thus, the path will increase government expenditure in its first years due to relatively small savings on benefits as against large expenditure on complementary measures because the complementary measures will be offered during this time to a much larger group than that of women whose actual retirement age will be raised. Some of the programs approved, however, were budgeted as ad hoc provisions; therefore, while the savings gained by reducing eligibility for senior-citizen

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<sup>20</sup> According to experience gained from previous increases in retirement age, the employment rate among the relevant age group will probably rise after its statutory retirement age is raised. It was found in an analysis by the Bank of Israel that when women's retirement age was raised from sixty to sixty-two, the employment rate of women aged 60–61 went up by 9 percentage points (Bank of Israel, 2011, "The Effect of Change in the Retirement Age Law on Participation of the Older Population in the Labor Force," Bank of Israel, *Annual Report for 2010*, Chapter 5, Box 5.1, pp. 198–199). Tracking specific cohorts, it was found that after the retirement age was raised, women with secondary education or less continued to work for another two and a half years on average, and women with post-secondary education remained on the job for another year and a half on average (Bank of Israel, 2019, "The Effective Retirement Age a Decade after Raising the Official Retirement Age," *Annual Report for 2018*, Chapter 8, "Welfare and Social Policy Issues," pp. 229–239).

<sup>21</sup> Nineteen percent of women in the 60–61 age group are eligible for disability, survivors, and income maintenance benefits, and it is assumed that they will continue to receive these benefits in years when they were supposed to receive a senior-citizen benefit according to the old retirement age as well as after they reach the new retirement age. *Report of the Public Commission for the Examination of Women's Retirement Age*, September 2016 (Hebrew), pp. 39–40.

<sup>22</sup> *Ibid.*, p. 37.

<sup>23</sup> For those born in 1960–1964 only.

<sup>24</sup> From age seventy up, senior citizens—women and men—are entitled to the benefit irrespective of a meanstest.

benefits will be permanent, the cost of some of the complementary measures will be temporary.<sup>25</sup> At full maturity, the change is expected to create net saving of NIS 1.2 billion in 2032 (Table 3).<sup>26</sup>

**Table 3**  
**Incremental Raising of Women's Retirement Age**

Year	Retirement age from January on	Total women losing senior citizen benefit eligibility and that do not qualify for alternative benefit <sup>1</sup>	Annual savings on senior citizen benefits less increase in alternative benefits <sup>2</sup>	Cost of complementary measures <sup>3</sup>	Net savings <sup>4</sup>
		Thousands	NIS billion, 2022 prices		
2021	62				
2022	62 + 4 months	6.2	0.2	0.9	<b>-0.7</b>
2023	62 + 8 months	12.0	0.4	1.0	<b>-0.6</b>
2024	63	18.2	0.6	1.0	<b>-0.4</b>
2025	63 + 3 months	22.6	0.7	1.0	<b>-0.3</b>
2026	63 + 6 months	27.5	0.9	1.0	<b>-0.1</b>
2027	63 + 9 months	32.8	1.0	0.9	<b>0.1</b>
2028	64	38.1	1.2	0.9	<b>0.3</b>
2029	64 + 3 months	42.8	1.3	0.9	<b>0.4</b>
2030	64 + 6 months	48.5	1.5	0.9	<b>0.7</b>
2031	64 + 9 months	55.1	1.7	0.9	<b>0.9</b>
2032	65	63.1	2.0	0.8	<b>1.2</b>

<sup>1</sup> The population of women between the original retirement age (62) and the new retirement age in the same year who are eligible for old-age benefits and not for an alternative benefit (disability, survivors, income maintenance). It is assumed that the share of women in the 62–64 age group who are entitled to an old-age benefit would have remained at 64 percent were it not for the change, and that 19 percent of them would be eligible for an alternative benefit (*Report of the Public Commission for the Examination of Women's Retirement Age*, September 2016, Hebrew, p. 37).

<sup>2</sup> Calculated by multiplying the number of women who lose eligibility for the average old-age benefit (without an increase in income maintenance) in 2021 each year under the National Insurance Law (NIS 2,614 per month). This calculation assumes that the share of women who reach retirement age and need income maintenance will steadily decline in the coming decades due to higher rates of employment and pension saving among women younger than the ones who receive old-age benefits today. The calculation also assumes that the average alternative benefit is identical to the average senior-citizen benefit and that both remain constant in real terms. A more reasonable assumption is that the average

<sup>25</sup> Thereof, NIS 200 million was allocated for fixed periods of five to nine years, commensurate with the relevant dispensations. For example, the budget increase for vocational training is assured by law only up to 2031 and the benefits under the Senior Citizens Law for women aged sixty-two and up who are not eligible for senior-citizen benefits will be preserved until 2026.

<sup>26</sup> Underlying the calculation is a strong assumption that the senior-citizen benefit will remain constant in real terms. If the old-age benefit as a share of the average wage remains constant in the long term (either by formal indexation to the wage or via occasional increases), the net saving in 2032 is projected at NIS 1.4–1.6 billion.

benefit will grow in a manner similar to the average wage in the long term. In this case, the net saving will increase by NIS 200–NIS 400 million in 2032.

<sup>3</sup> Based on Ministry of Finance estimates. Some of the complementary measures are temporary (ad hoc provisions); others are relevant for certain cohorts only.

<sup>4</sup> The saving in benefit payout as a result of raising the retirement age, less the cost of the complementary measures. At the beginning of the period, the cost of the complementary measures exceeds the saving on benefits.

SOURCE: Economic Program Law (Legislative Amendments to implement the Economic Policy for the 2021 and 2022 Budget Years), 5782-2021, Central Bureau of Statistics, and processing by the Bank of Israel.

### *Replacing earmarked bonds with a guaranteed-yield mechanism*

In recent years, the spread between the interest rate the government pays on earmarked bonds that it issues to the pension funds and the cost of funding the government debt by means of tradable bonds has been widening steadily.<sup>27</sup> In accordance with the Arrangements Law, in July 2022 (unless postponed by the Minister of Finance), this instrument will no longer be issued and will be replaced by a guaranteed yield mechanism: The funds will manage the sums that they would have had to allocate for the purchase of earmarked bonds in a separate account, and the government will make up the real average annual yield to a level of 5.15 percent.<sup>28</sup> If a given fund attains an average return of more than 5.15 percent, the surplus is transferred to a dedicated government account that will help to fill in the return in less auspicious times, or for other funds that have returns below the target.

The changeover to the new mechanism is based on the estimation—backed by experience in Israel and abroad—that the long-term yield in the capital market exceeds the interest rate that the government pays on its debt. It is true that by repealing the compulsory purchase of earmarked bonds by the pension funds, the government will have to raise alternative funding in the capital market. However, the pension funds will invest in the capital market the amounts that they will no longer be forwarding to the government. The more their return exceeds the government's issuing opportunity cost, the greater the budget saving will be.<sup>29</sup> Although the pension funds' returns in the capital market are of course not assured, historically over the long term as in the case at hand (five years), this was the outcome in a large majority of cases. Therefore, considering the balance between the expected return and the relevant risk, the government chose to exercise the full potential saving that this move offers. Column 1 in Table 4 presents a simulation of the expected savings on interest payments due to the issue of tradable bonds instead of the nontradable earmarked bonds:<sup>30</sup> a steady increase to NIS 10 billion in 2030 (relative to the counterfactual—a continued issuance of earmarked bonds). Conversely, Columns 2 and 3 present the budget provision that the was legislated in order to prepare

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<sup>27</sup> Pension funds must invest 30 percent of assets managed in fifteen-year earmarked government bonds that earn 4.86 percent annual interest indexed to the CPI. A broader discussion of the history and the reasons for the issuance of these bonds, their utility, and the damage they cause beyond their budgetary cost is beyond the purview of this report, which focuses on the budget implications.

<sup>28</sup> The difference between 4.86 percent and 5.15 percent compensates the funds for the costs of managing and investing these sums.

<sup>29</sup> For example, if the pension funds attain a 3.15 percent return and the insured sum is NIS 100 billion, then the government will pay NIS 2 billion each year on account of the defined benefit (the difference between 3.15 percent and 5.15 percent multiplied by NIS 100 billion)—instead of NIS 4.86 billion under the earmarked-bond arrangement (in which the interest rate was 4.86 percent). The interest on the bonds that the government will issue in the market should be offset from the NIS 2.86 billion saved. For example, if the real fifteen-year interest rate is 1 percent, then the savings will contract by NIS 1 billion and come to NIS 1.86 billion per year. If the pension funds' return is only 2.15 percent per year, the total annual budget saving will be only NIS 0.86 billion.

<sup>30</sup> The government's estimated issuing cost is based on assumptions and estimates by the Bank of Israel as to the multiannual trajectory of domestic interest rates. They do not include an estimate of the impact of the new arrangement on the government's issuing costs in the markets and the interaction between it and the returns on the pension funds' investments.

for a plausible situation in which the returns on the pension funds' investments are lower than 5.15 percent per annum on average for a lengthy period of time, and in the event of temporary shocks that would necessitate an allocation of budget sources to finance the guaranteed yield. Columns 4 and 5 present the total expected budget savings (under the many working assumptions that are used in making this calculation), which add up, for example, to NIS 3.1 billion, 0.2 percent of GDP, in 2026. Even larger savings are probable in subsequent years. Notwithstanding its potential saving, the guaranteed yield mechanism exposes the government budget to the volatility of the capital market. In Simulations of extreme scenarios, the Bank of Israel found that in exceptional downturns in the capital market, the government may have to inject tens of billions of shekels to institutional investors within a short time. This is in addition to the likelihood that in such a situation, typical of economic crises, the "regular" state budget will also run a large deficit and the government's revalued liabilities for coming years on account of the guaranteed yield arrangement will increase. Although these are anomalous situations, of course, even milder scenarios would force the government to make sizable budget allocations and raise financial sources on short notice. This risk brings two concerns to the fore:

1. **When faced with a crisis, the government may find itself under pressure to repudiate the liability built into the arrangement.** This concern is addressed by means of the detailed legislation and by the nature of the liability: not a general one but a commitment pertaining to specific sums determined on a specific date for each pension fund separately;
2. **The government may encounter financing hardships at a time of steep declines in the markets.** It is to cope with this difficulty that the aforementioned provision to the extrabudgetary fund was set forth. This, however, averts only the need to adjust the budget framework at the time of a crisis. It offers no answer to the need for funding when the risks come to pass as long as the provision is not used to create an actual source of funds on which the government may call. Since no statutory undertaking of this kind was established, the Accountant General will manage the risk as part of the government's risk management and will report to the Knesset the methods used to cope with the challenge each year. It is important to remember in this context that the risks associated with this arrangement are of totally different magnitudes than those typical of ordinary budget management; therefore, it is important to devise appropriate tools and allocate adequate resources to account for the risk involved.

**Table 4**  
**Effect of the Discontinuation of Earmarked-Bond Issuance on Interest Payments**

Year	(1) Annual saving in interest payments (NIS billion)	(2) Share of minimum allocation to extra-budgetary fund (%) out of insured amount	(3) Amount of annual allocation to extra-budgetary fund <sup>1</sup> (NIS billion)	(4) Net budget savings <sup>2</sup> (NIS billion)	(5) Net budget savings (percent of GDP)
2022	0.1	3.15	0.1		
2023	0.9	3.15	1.0	0.4	0.0
2024	2.2	3.15	1.9	1.3	0.1
2025	3.4	3.15	2.7	2.0	0.1
2026	4.6	2.65	3.0	3.1	0.2
2027	5.8	2.65	3.9	3.9	0.2
2028	7.2	2.15	4.1	5.1	0.2

2029	8.6	1.95	4.7	6.3	0.3
2030	10.0	1.95	5.7	7.1	0.3

<sup>1</sup> The simulation is based on the working assumption that the investment of the insured funds will yield a 3.2 percent real annual return, so that the budget provision will suffice to cover the differentials of the defined benefit that the arrangement prescribes.

<sup>2</sup> The difference between Column 1 and half of the sum that appears in Column 3 reflects a working assumption, for the purpose of the simulation, that the Accountant General will allocate half of the cost of the provision to the dedicated fund as part of his or her risk-management strategy.

SOURCE: Economic Efficiency (Legislative Changes for the Attainment of the 2021 and 2022 Budget Targets) Law, 5782-2021, and calculations by the Bank of Israel.

### *Five-Year Plan for Arab Society*

The new five-year plan for Arab society is meant to narrow disparities between the Israeli Arabs and the population at large and to promote their social and economic integration. The total allocation for the program is projected at NIS 30 billion, some reallocated from government ministries' performance budgets and the rest in an increase from the Ministry of Finance (Table 5). The program relates to areas such as making more resources available to the Arab education system in order to narrow disparities in achievement by encouraging differential budgeting in the education system, establishing education infrastructures, etc.; investing in transport infrastructure and access to public transport; promoting employment in Arab society and improving human capital; coping with housing distress in Arab society by large-scale planning in Arab localities; improving local governance and its efficiency; enhancing access to financial services; and so on.

The willingness to narrow gaps between Arab society and the population by allocating resources on a large scale is significant. No less important, however, as experience shows, are the processes of implementation and control that will accompany the program to make sure that the budgets are indeed used to attain the hoped-for results. The detailed program that the government formulated, the working processes that it established vis-à-vis multiple ministries, the control mechanisms that it inserted into its work to monitor implementation, and flexibility in reassigning resources unused in a given year to different components of the program make it more likely that this program will be more successful than were its predecessors. Previous programs stumbled for reasons including insufficient experience and willingness on the part of government offices and local authorities and inadequate interfaces among them. If the program is implemented successfully, it will contribute not only to the standard of living and the welfare of Arab society but also to growth of the economy at large. In particular, the investment in eliminating human-capital and employment disparities between Arabs and Jews—to which the lion's share of total expenditure in the program is addressed—may give labor productivity countrywide a strong forward push, narrowing standard-of-living disparities between Israel and the other advanced economies.<sup>31</sup>

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<sup>31</sup> It is found, for example, that 70 percent of the wage differential between Arabs and Jews traces to disparities in skills. Bank of Israel, "Fiscal Survey and Selected Research Analyses", August 2016, pp. 16–20.

**Table 5****Budget for the Five-Year Plan for Arab Society, Parsed by Ministry Budgets and Budget Increases**

	<b>Ministry budget</b>	<b>Added budget</b>	<b>Total</b>
	<b>NIS billion</b>		
<b>Education</b>	5.2	4.4	9.5
<b>Housing and planning</b>	0.7	2.3	3.0
<b>Transport</b>	1.9	0.7	2.6
<b>Local authorities</b>	0.3	1.6	1.9
<b>Employment</b>	0.7	0.8	1.5
<b>Infrastructure and energy</b>	0.9	0.5	1.4
<b>Culture and sport</b>	0.5	0.5	1.0
<b>Industry and trade</b>	0.4	0.5	0.9
<b>Health</b>	0.3	0.4	0.7
<b>Negev and Galilee</b>	0.4	0.2	0.6
<b>Social services</b>	0.2	0.4	0.6
<b>Environmental protection</b>	0.3	0.3	0.6
<b>Science, innovation, and high-tech</b>	0.2	0.3	0.5
<b>Other</b>	0.4	0.6	1.1
<b>Reserve for allocation</b>	2.5	1.9	4.5
<b>Total</b>	<b>14.9</b>	<b>15.4</b>	<b>30.3</b>

SOURCE: Based on Ministry of Finance, Authority of Arab Society Economic Development.

*Budgeting the Metro*

Some of the legislation needed to activate the Metro program—a network of subways in metropolitan Tel Aviv—has been promoted within the framework of the budget laws, in response to Israel’s large cumulative gap in public-transport infrastructure relative to other advanced economies. Other legislative provisions will be discussed by the Knesset in the months to come. The legislation already promoted deals with creating an institutional infrastructure to advance the Metro and sketching its funding contours and modalities. Since the statutory infrastructure of the process is a *sine qua non* for its continuation, it is important for the government to move ahead with it even though one expects new needs to come into view as specific planning and performance processes progress and the project’s management company is chosen and goes into action, making adjustments of the plans necessary.

The government’s current estimate of the total cost of the project—including eminent domain, financing, and unforeseen outlays—is NIS 150 billion. The financing framework proposed under the Arrangements Law includes an array of earmarked revenue sources that are expected to cover half of this cost: (1) a “Metro betterment tax,” imposed on the increase in the value of properties in areas affected by the development of the Metro; (2) revenues from the development of land that will be used for Metro depots or stations; (3) revenues from the allocation of state land in the vicinity of Metro stations and depots; (4) state revenues from the metropolitan Tel Aviv congestion charge, beyond the NIS 700 million per year that will be earmarked for other uses<sup>32</sup>; and (5) a budget transfer to central government from municipal authorities to which the Metro program applies.

These funding measures include taxation applying mainly to residents of the localities and to the businesses that will benefit from the Metro once it is completed, along with realization of the potential

<sup>32</sup> The congestion charge will go into effect in 2025 and the ministers of finance and transport are authorized to postpone this for another year.

betterment of state-owned properties in the area. The decision on apportioning the burden reflects social considerations, of course, but it is important to make sure that if the taxation will not reach levels that will impede or impair business development in the area on the basis of the utilities that the Metro will allow. In particular, it is worth asking whether a 75 percent betterment levy may be so high as to constitute such a barrier, especially if the extent and timing of the utilities of the Metro are in doubt.

The draft legislation also sets total spending on the project at no more than NIS 150 billion and stipulates that any increment beyond that will require separate discussion by the government and the subordination of decisions to fiscal priorities and limits. This is a reasonable measure because the cost of the project may diverge without such a limit and, conversely, because the law gives the government enough flexibility to adjust the budget on the basis of information that will accumulate as construction proceeds. In contrast, the provision of the law that divides the funding equally between earmarked revenues and the general state budget is problematic and may cause difficulties and delays in performing the project and may impair the quality of the Metro once it is activated—possibly also hindering the business sector’s preparations to utilize the benefits of the Metro.

The problem of dividing the funding between earmarked sources and the general budget by law is that the earmarked sources are largely new and there is much uncertainty about their size and, *a fortiori*, when they will be collected—like in the case of deferring the implementation of the congestion charge. Under reasonable scenarios, much of these revenues will arrive only after the Metro goes into service and no one can know how large they will be while the Metro is under construction. For this reason, the funding should be based mainly on transfers from the state budget for many years, with future reimbursement by means of the earmarked revenues. The creation of a link between ongoing budget funding and earmarked revenues may set back the construction of the Metro in many ways—particularly if the project is based on separate contracting for various stages of performance as the process continues.<sup>33</sup> In this situation, potential investors in the areas to be impacted by the Metro will probably hesitate to take action, resulting in a cycle in which uncertainty postpones or reduces receipts of earmarked revenues, causing performance to slow even more, and so on.<sup>34</sup> Therefore, in completing the legislation it would be preferable to determine that the government will fund the expenditure needed for each year’s progress in the sum that will be needed to complement the earmarked revenues, even as the earmarked revenues are collected and costs are kept within their total limit.<sup>35</sup> Expenditure from the state budget for that stage of development will end once the Metro begins to operate, of course, but the earmarked revenues will continue to arrive for many years and it is hoped that they will cover their share as planned, if not more.

#### **D. The expected fiscal picture in the next two years and beyond**

We continue the review by examining the expected development of fiscal aggregates in view of the statutory fiscal rules relating to total expenditure and the deficit ceiling. Presented first are the current rules and an analysis of their meaning, followed by the economic and budgetary factors that are expected to affect government expenditure and revenues and changes they underwent recently. Concluding, we present several policy scenarios and their impact on the deficit and the debt to GDP ratio in the medium and long terms.

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<sup>33</sup> As possible examples of this, the lack of a current budget allocation may cause performance to be stretched over a longer time, signing on the next stage of performance may be delayed, and the project may be downsized at the expense of future expansion work that would take place after the Metro begins service, to the detriment of service.

<sup>34</sup> Most improvement duties will be collected only when the improvement actually occurs, i.e., when the property is expanded or sold.

<sup>35</sup> An example of such a mechanism is the set of healthcare services covered by national health insurance: The government determines its cost and makes up the difference between it and health-tax receipts.

## Revision of the fiscal rules

### Total expenditure

As the Ministry of Finance noted in the multiannual budget plan that it presented to the government in July 2021, and as the Bank of Israel warned previously,<sup>36</sup> the previous statutory expenditure ceiling could not have accommodated the government's regular liabilities (excluding pandemic-related expenditure) for 2021 and 2022. This is so despite the freezing of public sector wage agreements in 2020–2022 and despite the limits on government ministries' commitments that were imposed as the term of the government's operation as a transition government became increasingly longer.

The expenditure rule determines that the nominal expenditure ceiling will increase each year at the rate of population increase plus 1 percent, offset by a correction coefficient that reflects the distance of the debt to GDP ratio from 50 percent (a rate that adds up to around 2.7 percent per year). Added to this is a price adjustment that reflects the average inflation rate in the three years preceding the year before the onset of the budget.<sup>37</sup> Since inflation has been very low in recent years and because the real growth forecast for the coming years exceeds 2.7 percent per year, the expenditure rule established a mild rate of increase of budget expenditure that would reduce its share in GDP terms (Table 6).

**Table 6**  
**Adjustments of the Expenditure Ceiling (NIS billions)<sup>1</sup>**

	2020	2021	2022	2023
<b>Ceiling under the old rule</b>	412.3	426.3	438.6	452.4
Nominal pct. change		3.4	2.9	3.1
of which: price-adjustment component		0.6	0.3	0.5
<b>Ceiling under the new rule</b>	412.3	432.3	452.5	466.7
Nominal pct. change		4.8	4.7	3.1
of which: price-adjustment component		2.0	2.0	0.5
<b>Government commitments<sup>2</sup></b>		432.3	452.5	482.6
Nominal pct. Change			4.7	6.7
<b>Nominal GDP</b>	1,387	1,474	1,564	1,645
Nominal pct. Change		6.3	6.1	5.2
of which: changes in output prices		1.2	1.4	1.7

<sup>1</sup>The data are based on the Ministry of Finance forecast that appeared in the draft budget presented to the Knesset for first reading. For details, see Ministry of Finance (2021), *The State Budget: Proposal for Fiscal Years 2021–2022, Main Provisions of the Budget and Multiannual Budget Plan* (Hebrew), p. 219. The GDP forecast has been updated since then due to adjustment of the GDP data by the Central Bureau of Statistics and an upward adjustment of the growth forecasts.

<sup>2</sup>The government's commitments as shown in the multiannual budget plan (the numerator) include, by statute, expenditure originating in legislation, government resolutions, court rulings, and agreements to which the state is bound. Expenditures that are binding on the government are reported on the assumption that no policy changes will be made in the course of the relevant fiscal years. For details, see Ministry of Finance, *ibid.*, pp. 92–104. The Bank of Israel's expenditure forecast includes, in addition to the Bank's estimates of the cost of the official liabilities, programs being performed at the present time under ad hoc provisions but likely to continue in the coming years as well, and assumptions about the future rate of increase of certain budgets (e.g., infrastructure investment) beyond existing concrete programs. In 2023, the commitments in the Bank of Israel's forecast resemble those presented in the Finance Ministry's multiannual budget plan from August 2021, but by 2025 they are already NIS 13 billion larger.

SOURCE: Ministry of Finance processed by the Bank of Israel.

<sup>36</sup> See Bank of Israel, "Fiscal Policy in the Past Two Years and Fiscal Projection for 2019–2022," August 2018.

<sup>37</sup> In the 2021 budget, for example, the price adjustment accords with average CPI inflation in 2017–2019, and in the 2022 budget the years in question are 2018–2020 even though the budgets were approved concurrently in 2021.

In view of the government's decision to avoid fiscal tightening in the current budget in order to help the economy rebound to full employment, and in consideration of the weak connection between the Consumer Price Index and government expenditure in the short term,<sup>38</sup> the component of price adjustments was revised temporarily for 2021–22, allowing the expenditure ceiling to rise by 2 percent in each of these years instead of by 0.6 percent and 0.3 percent, respectively, beyond real growth (Table 6). This revision of the expenditure rule followed years of increases of the expenditure ceiling in almost every budget approved, be it by confining the adjustments to a nonrecurrent “capsule” or by revising various parameters of the rule. The implication of this year's revision of the price-adjustment rule is that expenditure level will grow in 2023 and onward even if its rate of increase (slope) reverts from 2023 onward to that preceding the amendment of the price-adjustment rule. In addition, consistent with the decision to hold off on narrowing of the structural deficit until the economy recovers, the numerator rule that requires the government to act to reduce its expected expenditure in 2023–25 if its liabilities overshoot the expenditure ceiling, has been suspended.

The current raising of the expenditure ceiling and the frequent changes the ceiling since it went into effect seventeen years ago show that this rule is not, and has never been, an effective anchor for fiscal policy.<sup>39</sup> In recent years, the government also adopted the numerator mechanism, by which it intended to make the multiannual budget implications of its decisions more transparent. The mechanism did introduce greater transparency in government decisions despite circumventions in several cases; ex-post, however, it did not prevent the creation of commitments and the need to change the ceiling. As noted in previous Bank of Israel reports, some of the difficulty in staying within the expenditure limit evidently traces to excessive restrictiveness in view of the political echelon's preferences and the low rate of civilian expenditure in Israel. This matter is especially important when one considers the massive multiannual expenditure associated with greatly needed programs for infrastructure investment, improvement of education, and narrowing disparities between Arab society and the population at large. Most outlays for the Greater Tel Aviv Metro project, for example, are not yet reflected in the numerator because most construction and procurement will take place after 2025. It is important for the government to consider how the current expenditure rule will accommodate all of these or, alternatively, to adjust the rule—if it decides to preserve it—and to raise the requisite sources by means of tax increases. This topic will probably figure importantly in the budget discussions for 2023 and subsequent years in shaping fiscal policy for the post-coronavirus era.

### *Deficit targets*

The multiannual deficit targets, like the expenditure ceiling, have been revised in almost every budget since such targets were first legislated in 1992.<sup>40</sup> Such is the case this year as well (Table 7). Despite expectations of rapid growth in 2021–2022,<sup>41</sup> a rebound to full employment—at the rates that prevailed in 2019—is not yet foreseen. The output gap, too<sup>42</sup>, will narrow gradually but actual GDP is expected to remain below its potential level. Therefore, it was appropriate of the government to adopt a policy that supports the recovery of economic activity and not to try to reduce the structural deficit during these years, particularly in view of uncertainty about epidemiological developments in Israel and abroad. Towards the 2023 budget, the fiscal rules should be rethought in order to adjust

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<sup>38</sup> For details, see Bank of Israel, “Fiscal Survey: The Situation ahead of the Preparation of the State Budget for 2015 and 2016, and Fiscal Trends Expected over the Remainder of the Decade,” *Recent Economic Developments*, no. 139, June 2015.

<sup>39</sup> See Adi Brender, “Fiscal Policy: The Journey to a Low Debt to Product Ratio and Smaller Government,” in *The Israeli Economy 1995–2017: Light and Shadow in a Market Economy*, ed. A. Ben-Bassat, R. Gronau, and A. Zussman (Cambridge: Cambridge University Press, 2021), Figure 10.

<sup>40</sup> Brender, *ibid.*, note 8.

<sup>41</sup> According to the Research Department staff forecast in October 2021, growth in 2021 and 2022 is projected at 7 percent and 5.5 percent, respectively.

<sup>42</sup> See note to Figure 1 in this survey.

them to the government’s long-term targets in human and physical capital investment, public-transport infrastructure, optimizing Israeli business environment, and streamlining and digitalizing government services.<sup>43</sup> Concurrently, fiscal credibility and sustainability should be maintained as manifested, at the very least, in stabilizing the debt-to-GDP ratio and safeguarding Israel’s solid status in the capital markets. These issues are discussed below.

**Table 7**  
**Evolution of Multiannual Deficit Targets (percent of GDP)**

	2021	2022	2023	2024	2025
2015–2016 budget	1.5	1.5	1.5	1.5	1.5
2017–2018 budget <sup>1</sup>	2.0	1.75	1.5	1.5	1.5
2019 budget <sup>2</sup>	2.25	2.0	1.75	1.5	1.5
2021–2022 budget <sup>3</sup>	6.8	3.9	3.0	2.4	1.8

<sup>1</sup> Reduction of Deficit and Limitation of Budget Expenditure Law (Amendment 16), 5777-2016.

<sup>2</sup> Reduction of Deficit and Limitation of Budget Expenditure Law (Amendment 17), 5778-2018.

<sup>3</sup> Framework of the State Budget Law (Special Provisions for 2021 and 2022) (Legislative Amendments and Ad Hoc Provision), 5782-2021.

## 2. *Assumptions in the forecast*

### *Pace of economic recovery from the crisis and potential output*

The Research Department staff forecast published in October 2021 expects real growth rates of 7 percent and 5.5 percent in 2021 and 2022, respectively. This will narrow the negative output gap that opened up in 2020 and will close it in 2023. Once GDP reverts to its long-term trend, average annual growth will probably converge to its potential rate. The latter was adjusted last August as a result of a revision by the Central Bureau of Statistics of the GDP data for 1995–2020, indicating that the real growth rate in the past ten years was 0.5 percentage points higher than previously reported. Conversely, the adjustment also slowed the increase in output prices<sup>44</sup>; thus, the average GDP growth rate in current prices went up by only 0.2 percentage points beyond that presented before the revision. On the basis of this new information, the potential growth forecast in the medium-term was adjusted upward (Table 8).

The Research Department staff forecast pertains to the next two years only. Thus, we assume that CPI inflation will gradually converge to 2 percent by 2026 and that output prices will rise by 0.3 percentage point more each year, bringing the rate to 2.3 percent in 2026. Since the foreseen real growth rate is higher than this at the present time, the result is a higher nominal growth rate than that appearing in previous fiscal analyses unless the rates of change in output prices fall steeply.

Uncertainty remains acute at the present writing, even though the surprises have been favorable so far. In the months since the Research Department released its forecast in April, creating the basis for the fiscal analyses that appeared in the strategic plan that the Bank of Israel published in June, the historical macroeconomic data as well as those for the first half of 2021 were updated, as stated above. In addition, new policy decisions that may have implications for future budgets were made in the course of the budget discussions. All of these helped to update the fiscal picture. The rapid

<sup>43</sup> For a detailed presentation of the Bank of Israel’s recommendations, see “Four Recommended Pillars of Strategic Government Action to Accelerate Economic Growth and a Fiscal Framework for Financing Them,” Bank of Israel, June 2021.

<sup>44</sup> Induced by the adjustment of prices of imports and exports of services and diamonds.

increase in real expected output in the coming two years, the strong growth potential afterwards, and the expected increase in state revenues as a result of both (Table 8) yield a more optimistic picture than that shown in similar analyses by the Bank of Israel since the beginning of the crisis.

**Table 8**  
**Comparison of Baseline Scenarios, June versus November 2021**

		2021	2022	2025	2030	2035	2040
Real growth (%) <sup>1</sup>	June	6.3	5.0	2.8	2.6	2.5	2.4
	November	7.0	5.5	3.3	3.1	2.8	2.4
State revenues <sup>2</sup> (NIS billion, 2022 prices)	June	364	384	452	559	685	832
	November	401	403	461	587	733	902
Resulting deficit <sup>3</sup> (% of GDP)	June	8.2	3.6	3.9	4.0	4.5	5.0
	November	5.3	3.7	3.5	3.4	4.0	4.3
Gross public debt <sup>3</sup> (% of GDP)	June	77	77	79	84	90	99
	November	73	72	74	74	76	82
Deficit that stabilizes the debt to GDP ratio <sup>4</sup> (% of GDP)	June	4.8	4.1	2.9	2.9	3.1	3.2
	November	5.2	4.4	3.2	3.2	3.0	3.0

<sup>1</sup> The growth rates in June were based on Eyal Argov and Shay Tsur (2019), “A Long-Run Growth Model for Israel,” Bank of Israel Discussion Paper 2019.04. The growth rates in the current survey (November) are based on an adjustment of the growth trajectory to a higher potential rate due to the adjustment of the historical GDP data, so that the growth rate converges by 2040 to the path that appeared in the original model.

<sup>2</sup> Assuming that the elasticity of taxes to GDP is unitary from 2024 onward and that the National Insurance surpluses will narrow gradually until they disappear in 2040 (for elaboration on the National Insurance surplus forecast, see Adi Finkelstein, “A Long-Term Forecast for Israel’s National Insurance System,” in *Selected Research and Policy Analysis Notes*, Bank of Israel, October 2019.

<sup>3</sup> In a scenario where the government does not revise tax rates, does not decide on expenditure beyond its existing commitments, and does not cancel existing programs.

<sup>4</sup> The deficit that is needed to stabilize the debt at the level that it attained that year, assuming that half of the debt inventory is indexed to the CPI. To lower the debt to GDP ratio in the long run, a lower deficit target will be needed.

SOURCE: the Bank of Israel.

### *The general-government wage path*

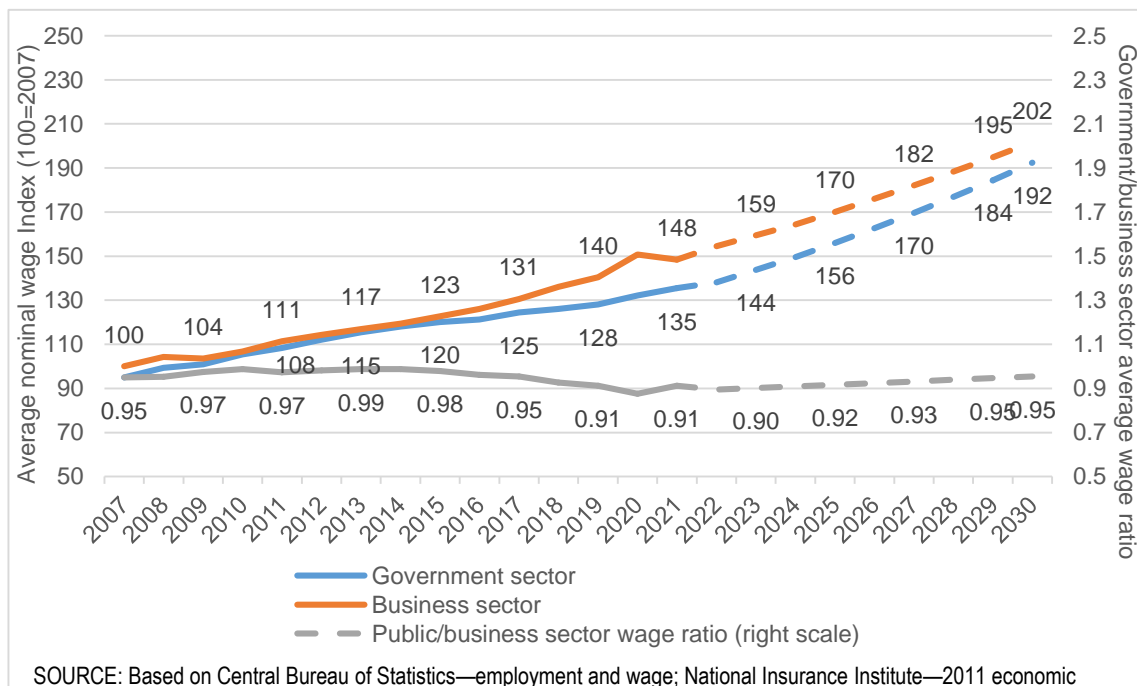
Examining the dynamic of the average wage per employee post in general government compared to that of the business sector in 2007–2021 (Figure 3), we find that business-sector wages have been accelerating relative to government wages since 2014, lowering the average wage in general government to 91 percent of that in the business sector in 2019 as against 99 percent in 2013.<sup>45</sup> According to a study by the Bank of Israel, wages in general government and the business sector have been changing at similar rates over long horizons and changes in one sector trigger similar

<sup>45</sup> In addition to the general-government and business sectors, there were some 530,000 employee posts in households and private nongovernmental organizations (14 percent of all employee posts countrywide) in 2019. We do not relate to the larger disparity that appears in the 2020 data because the increase in average business sector wage that year was chiefly a reflection of changes in the composition of labor; namely, employees who were placed on unpaid leave or were dismissed had lower wages before the crisis than did those who continued working during the lockdowns. This effect has waned at the present writing as the employment rate draws closer to its pre-crisis level. Even though analysis of the national average wage during the coronavirus period is complex due to acute changes in the size and composition of employment during that time, there are indications that the average wage of business-sector workers who were employed throughout that time continued to rise. That it did so more than did the average wage in general government; however, is not clear.

changes in the other rather quickly.<sup>46</sup> For this reason, one may expect the gaps to narrow in the next few years, after the economy recovers from the crisis and the suspension of the general-government wage agreements ends. Since the disparity that came about between the two sectors probably reflects differences in labor productivity and the nature of employee posts that affect wage, the government will be challenged to make sure that, insofar as this process takes place, it will be accompanied by improvements in service and in the efficiency of government activity, particularly by digitalizing its work and that of the public services. In addition, the shortage of several kinds of specialist physicians in different parts of the country, and the lengthy time that has passed since the last collective agreement with those in this profession, are expected to push for wage increases in the healthcare system in the medium term. The transfer of responsibility for early-childhood education to the Ministry of Education is also likely to make this service costlier over time, given the wish to broaden pedagogical content in child-care settings.

The acceleration of wage increases in the business sector relative to general government and the growing demand for labor in healthcare and education will be in the background of the negotiations over new wage accords in general government that have been postponed to 2023. For the purposes of the analysis that follows, it is our working hypothesis that (1) the nominal wage in the business sector will revert to its long-term trend before the crisis and will continue to rise from 2023 onward at a rate similar to that of per-worker output (3.4 percent per year) and (2) the wage accords will gradually cause the ratio of average wage in general government to that in the business sector to revert to the 2017 level (95 percent) by 2030.<sup>47</sup> The meaning of such a convergence is an annual average wage increase of 4.2 percent in the general-government sector.

**Figure 3**  
**Average Nominal Wage Index in the Business vs. Government Sectors, 2007–21, and the Assumptions Regarding Their Development in 2022–30**  
 (100=Average wage in the business sector in 2007)



<sup>46</sup> Yuval Mazar (2014), “The Development of Wages in the Public Sector and Their Connection with Wages in the Private Sector,” Bank of Israel Working Paper 2014.03.

<sup>47</sup> The choice of this ratio is also based on examination of the relation of wages in the public services to that in the business sector, which has been around 95 percent since 2000. The data in Figure 3, parsed by general-government and business sector, exist only from 2007 onward.

### *Defense and interest expenditure*

The share of the defense budget in GDP has been trending downward in the past few decades (Figure 2). Between 2009 and 2019, it declined from around 7 percent to 6 percent of gross budget performance and from 6 percent to 5 percent in net budget performance, and the decline has continued in the 2019–2022 period.<sup>48</sup> To predict future expenditure, we assume that gross defense spending will continue to grow by 2 percent per year in real terms, resembling the rate of increase typical of the past decade (because the US defense aid has already risen to the new level set forth in the multiannual accord<sup>49</sup>).

The interest-payments line in the budget underwent several important changes during the coronavirus period. The increase in debt that was used to cover government expenditure during the crisis (12 percent of GDP) is already raising interest payments in the medium term, but the effect is mild because the cost of funding debt issuance during the crisis (the yield) was low for reasons including the intervention of central banks—in Israel and abroad—in the bond markets. In accordance with the macroeconomic recovery that we foresee, we assume a gradual increase in the real interest rate on long-term bonds over the coming decade; this will have an upward effect on debt that will be raised during that time. Furthermore, the decision to stop issuing earmarked bonds for pension funds (as discussed in detail above) will probably reduce the government’s interest payments over time.

### **3. Policy scenarios and their medium- and long-term effect on the deficit and the debt to GDP ratio**

In view of the aforementioned changes in the development of the Bank of Israel’s forecast of government revenues and expenditure, we present two analyses of the effect of possible policy scenarios on the deficit and debt path in the medium and long terms. The first part focuses on the medium term (up to 2026), examining policy alternatives relating to the deficit target, including fiscal rules that are enshrined in statute today. The second part turns the focus to the long term (up to 2040), presenting an update of a previous analysis by the Bank of Israel that concerned the mix of funding of long-term government investment in physical and human capital.

#### *Medium-term fiscal-policy scenarios*

The medium-term analysis (Figure 4) shows that, in order to comply with the existing expenditure ceiling, the government will have to cut its spending (the space between the orange and the blue lines in the figure) and make no decisions to adopt new programs without abolishing existing ones. In addition, according to the current revenue forecast, even if the government keeps its spending within the ceiling, it will be unable to meet the multiannual deficit target without raising taxes (the space between the blue and the green lines). This analysis also indicates that the fiscal effort needed to attain the statutory deficit targets will allow the debt to GDP ratio to fall to 70 percent of GDP by 2026, whereas continued activity on the basis of existing expenditure commitments (as stated, without making any decision about a further increase in spending unless it is offset by a cutback in other spending) without raising taxes will manifest in an increase in the debt to GDP ratio by about 1 percentage point relative to its expected level at the end of 2021.

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<sup>48</sup> The gross defense budget is composed of net expenditure and revenue-conditioned expenditure, most of which is contingent on the American aid, which is indexed to the U.S. dollar. To avoid volatility in the net budget (the budget that is subject to the fiscal rules) due to differences between the forecast of the USD–NIS exchange rate and the actual outcome, a recording reduction of the net budget was performed in 2017. Thus, \$2.4 billion per year that had appeared in the net budget until then became arevenue-conditioned expenditure, which does not need to pass the test of the fiscal rules. Therefore, the comparison of net defense expenditure in 2009 with that in 2019 yields an underestimate of the average annual increase.

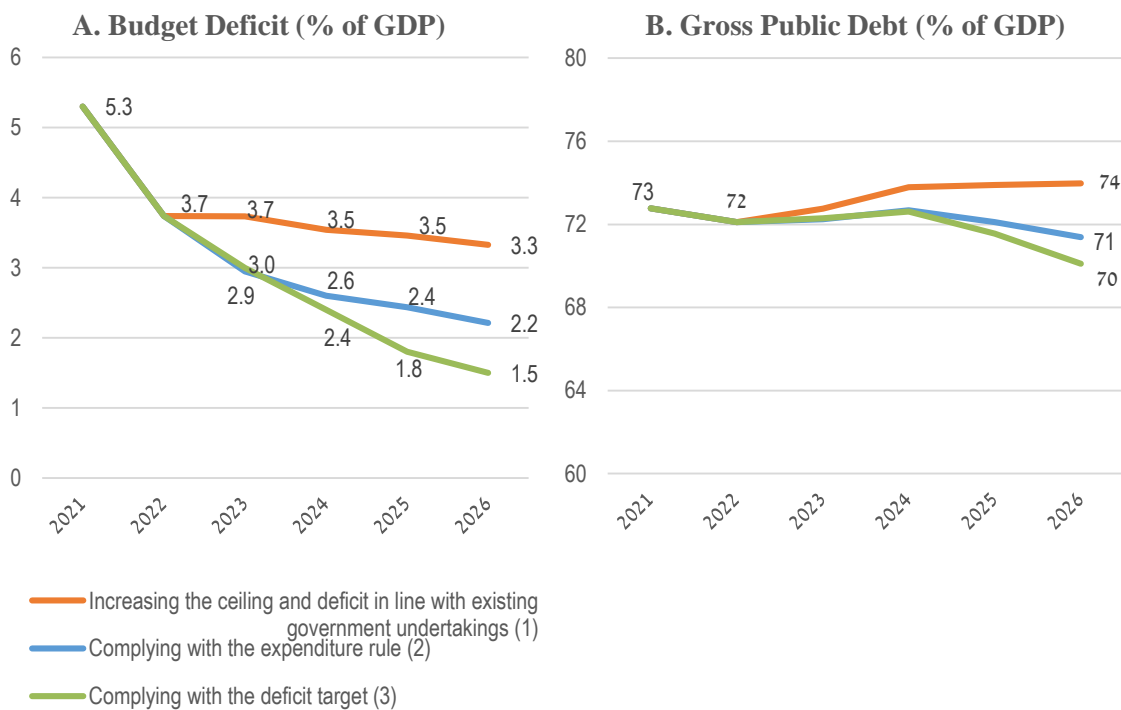
<sup>49</sup> A new aid agreement with the US Government, in which the defense assistance grant was raised from \$3.1 billion per year to \$3.8 billion, went into effect in 2019.

**1) Raising the expenditure ceiling in accordance with existing government commitments with no adjustment on the tax side**

In this scenario, the share of general-government expenditure in GDP is likely to decline between 2023 and 2026 by around 0.5 percent of GDP. The most important contributors to this trend are the erosion of defense and interest spending relative to GDP, on the basis of the assumptions set forth above. This policy will lead to a deficit of 3.7 percent of GDP in 2023 and gradual contraction in subsequent years to 3.3 percent of GDP in 2026. In this scenario, the debt to GDP ratio will rise in the first few years and then level off at around 74 percent.

In the past, cutbacks in defense and interest expenditure were accompanied by tax cuts with no parallel increase in civilian spending. This caused total general-government expenditure to fall without reducing the structural deficit. In the years immediately preceding the pandemic crisis, civilian expenditure in GDP increased slightly but still remained low by international standards. In this scenario, we assume that the cutback in defense and interest spending relative to GDP will be partly offset by an increase in general-government investment due to the maturation of multiple transport projects in coming years and the activation of the five-year program for Arab society. However, the scenario does not include the full costs of the Metro, most of which will be incurred after 2026, and additional important investments that do not appear in the economic plan that was approved along with the 2021–22 budget.

**Figure 4  
Medium-term Fiscal Policy Scenarios**



SOURCE: Bank of Israel.

**2) Complying with the expenditure ceiling with no adjustment of tax rates**

Even though the expenditure ceiling was raised for 2021 and subsequent years, a steadily escalating fiscal effort will be needed as early as 2023 in order to stay within the new limits. In 2023, the government will have to carry out an NIS 15 billion adjustment and incrementally lower the budget

base by NIS 5 billion in each of the years 2024–2026. This adds up to a cumulative adjustment of NIS 30 billion (1.5 percent of GDP) to stay within the spending limit in 2026.<sup>50</sup>

Experience shows that when the government's cumulative spending commitments overshoot the expenditure ceiling for coming years, much of the adjustment takes place by raising the ceiling and not by reducing the commitments. If the existing limit remains in effect, the government will find it very hard to allocate the budgets that are needed for the infrastructure and human-capital investment programs that Israel must carry out to narrow its productivity gap vis-à-vis the other advanced economies, particularly in consideration of Israel's low level of civilian expenditure relative to those countries. The choice of this alternative is likely to cause the debt to GDP ratio to decrease from 2025 onward and come to 71 percent of GDP in 2026.

### 3) Attaining the multiannual deficit targets

To meet the deficit targets in the medium term, the government will have to raise taxes from 2024 onward in addition to converging toward the expenditure ceiling as discussed above. To follow this path, it will have to make a permanent tax increase of 0.2 percent of GDP (NIS 3 billion) in 2024, another 0.4 percent of GDP in 2025, and a further 0.1 percent of GDP in 2026. If this alternative is chosen, the debt to GDP ratio is likely to fall from 2025 onward so as to reach 70 percent in 2026. Alternatives 2 and 3 have the advantage of widening the fiscal space by lowering the debt to GDP ratio over time. The consistent decrease in this ratio in the decade preceding the pandemic served Israel well in those years while many advanced economies amassed more and more debt. It helped to bring down the issuing costs of the government and the business sector and gave the government latitude in coping with the crisis.

*Fiscal-policy scenarios in the long-term: increasing investment in accordance with the strategic plan*

Figure 5 presents simulations that test the implications of a permanent increase in general-government investment (including in human capital) by 3 percent of GDP beyond the amount budgeted in 2022 (gradually up to 2030) for the budget deficit, the debt to GDP ratio, and potential output. The results show that relatively small differences in the size of the structural deficit in the medium term may lead to different long-term trends in the debt to GDP ratio unless adjustments to prevent this divergence are made. The high growth rates that accompany the economy's exit from the pandemic crisis are allowing the government, for the time being, to maintain a high structural deficit with no major increase in the debt to GDP ratio (beyond the level to which it rose on account of the crisis).<sup>51</sup> However, the more vigorously the government moves to increase public investment in infrastructure and human capital in order to narrow the productivity gaps relative to the other advanced economies, the more it will have to choose the right combination of making general-government expenditure more efficient, increasing the debt, and raising taxes in order to finance the investments—because the debt to GDP ratio will not level off even though the investments will afford a faster rate of GDP growth.

In the strategic plan that it presented to the current government when it was established, the Bank of Israel recommended a gradual increase in investment in infrastructure and human capital by 3 percent of GDP per year in order to boost labor productivity and, as a result, the domestic standard of living.<sup>52</sup> These measures are likely to boost growth considerably in the medium term and increase

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<sup>50</sup> The deficit gap between the blue line and the orange line also represents the effect of the fiscal restraint on growth rates in the scenario of convergence to the expenditure ceiling. As a result of this cutback, the growth rate slows in the short term and so, in turn, does the increase in tax revenues. Thus, some of the spending cut is offset by a downturn in revenues (relative to the scenario of honoring existing commitments). This offset narrows the gap between the deficits in the two scenarios from 1.5 percent of GDP to 1.1 percent in 2026.

<sup>51</sup> This is because the more the GDP growth rate exceeds the interest rate paid on the debt, the more quickly the existing debt inventory relative to GDP erodes.

<sup>52</sup> For elaboration, see "Four Recommended Pillars of Strategic Government Action to Accelerate Economic Growth and a Fiscal Framework for Financing Them," Bank of Israel, June 2021.

potential output by 20 percent in the long term. In the scenario represented by the red line in Figure 5, it is assumed that up until 2030 the government will carry out the investment program gradually and in the structure and the magnitudes that the Bank of Israel proposed, without changing the existing structural deficit in the rest of its operations. Thus, primary civilian expenditure will slant upward from 2023 onward and level off from 2030 onward at 3 percent of GDP higher than existing commitments.<sup>53</sup> The same scenario without the increase in investment is represented by the orange line in Figure 5 (which plots the long-term trend of the orange line in Figure 4).

Because the increase in civilian expenditure without raising taxes will trigger a major upturn in the debt to GDP ratio in the long term, it will probably make debt issues costlier.<sup>54</sup> This increase and the upturn in the level of debt will probably enlarge interest payments and, over time, the deficit, beyond the increase originating in the investment itself. In this scenario, the deficit and the debt to GDP ratio will follow an unsustainable trend of divergence and impair economic growth in the long run. A similar path based on increasing expenditure in a way that does not support growth significantly, or on tax cuts, will lead to an even more rapid and more acute divergence.

An alternative scenario is represented by the gray line in Figure 5. In this alternative, the government does increase public investment along the path described but funds all of it by making spending cuts elsewhere and raising taxes, leaving the structural deficit where it is in the reform-free scenario. This scenario is preferred over the one with no reforms (in orange) because it spurs output growth and allows the debt to GDP ratio to stabilize over time while lowering interest payments and freeing budget resources for other expenditure. In terms of growth, however, the fiscal restraint in this scenario offsets some of the benefits of the public investment and yields a slightly lower growth rate than under the more expansionary funding alternatives.<sup>55</sup> In addition, when simulations of this scenario were performed in the Bank of Israel strategic program in June 2021<sup>56</sup>, the debt to GDP ratio went up in the long term but the more optimistic baseline growth forecast that exists today, along with the expected long-term savings in interest payments, have improved the picture.

The purple line in Figure 5 shows an in-between alternative that includes the funding combination of an increase in the structural deficit (raising debt), a tax hike, and a cutback in other expenditure (one-third in each of these elements) so that the debt to GDP ratio climbs to around 87 percent at the end of the period shown. Even though there is no consensus among economists in Israel and abroad about the optimal level of debt, the coronavirus crisis demonstrated the advantages of a low debt to GDP ratio to the resilience of the economy. Israel, like most advanced economies, raised its deficit and debt to GDP ratio considerably and used the increment to support the business and household sectors and cover the costs of health needs. An important consideration that will determine the desired mix of funding of investment is the balance between the risk adhering to the level of the debt and the desired standard of living over time. It is important for the government to make a decision on this matter in its preparations for the next budget as a preliminary step toward setting budget targets for the years to come.

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<sup>53</sup> The working hypothesis in this scenario is that the 3 percent of GDP increase in investment will take place in a linear manner during the eight years at issue.

<sup>54</sup> This is the case even though we assume that costs go up less when the increase in debt is meant to expand investments than when the debt is raised to boost current government spending. For an estimate of the effect of an increase in the government debt on yields, see Adi Brender and Sigal Ribon, “The Effect of Fiscal Policy, Monetary Policy and the Global Economy on Real Yields of Israeli Government Bonds” (Hebrew), February 2015.

<sup>55</sup> For an extensive discussion of the effect of the tax burden on long-term growth, see “Four Recommended Pillars of Strategic Government Action to Accelerate Economic Growth and a Fiscal Framework for Financing Them,” Bank of Israel, June 2021, p. 114–119.

<sup>56</sup> *Ibid.*, Figure 32, p. 119.

**Figure 5**  
**Simulations of the Long-term Effects of the Mix of Public Investment Funding**

