**BANK OF ISRAEL**
**Reseasrch Department**

August 22, 2018

# Fiscal Policy in the Past Two Years and Projections for Coming Years

- In 2017, the budget deficit was 1.9 percent of GDP, markedly lower than the 2.9 percent target, and the ratio of gross public debt to GDP declined to 60 percent. This was the third straight year in which the deficit was at this level. These developments supported the lowering of the yield on the public debt and figured importantly in the upgrading of Israel's sovereign credit rating by S&P.
- The low deficit in 2017 was achieved due to NIS 12 billion in one-off (net) revenues, excluding which the deficit came to 2.9 percent of GDP.
- In 2018 and 2019, the budget deficit is expected to increase to 2.9 percent of GDP, matching the government's target and similar to the 2017 deficit net of one-off revenues.
- In the 2019 budget, as in previous budgets, the government raised the expenditure and deficit ceilings considerably. Although the increase in expenditure did slightly narrow the gap in the share of civilian spending between Israel and the OECD average, the pressures deriving from Israel's low level of spending were reflected in decisions on further expenditure that have already exhausted the preset increase of the expenditure ceiling for the next few years. They have also led to the adoption of methods of circumventing the spending ceiling.
- The expenditure ceiling and the deficit path have been raised repeatedly in recent years, impairing their effectiveness as anchors for multiyear government planning.
- Recent years have seen growing use of sales of state-owned land by the Israel Land Authority and the issuance of bonds by government companies, with state-funded payback, as ways of funding policy measures. In this manner, these expenditures are excluded from the expenditure and deficit ceilings, impairing the presentation of the budget data and the processes by which priorities are set.

- The "numerator" (the multiyear monitoring mechanism of the budget aggregates) is an important tool that may enhance budget transparency and improve planning in the medium term. Ever since the government introduced it, however, it has been using various accounting and legal circumventions that degrade its utility considerably. Examples are (1) defining programs that are essentially long-term as temporary provisions; (2) establishing sizable across-the-board cuts several years forward without specifying which programs will be abolished; (3) making greater use of land sales to fund off-budget expenditure or recording such expenditure in the budget with a lag.
- The proposal to increase the defense budget commensurate with the GDP growth rate over the next decade is inconsistent with the declining deficit path established in law; government resolutions about the expansion of social services, social programs and infrastructure investments; and the government's aversion to raising tax rates. If such an outline for defense spending is adopted, it should specify stable and transparent sources of funding for the plan and should depict the adjustments that the other aggregates will have to undergo.

## 1. Introduction

The state budget deficit in 2017 was 1.9 percent of Gross Domestic Product (GDP), well below the 2.9 percent deficit target established in the budget, and the debt to GDP ratio declined to approximately 60 percent. The low deficit reflected a level of expenditure resembling that set in the original budget along with revenues that considerably exceeded expectations, mainly due to one-off revenues from earnings distributions by firms that exploited a temporary tax benefit and the taxation of proceeds from the sale of autonomous vehicle technology company Mobileye. On the basis of developments thus far, the 2018 budget is likely to end with a greater deficit—2.9 percent of GDP—matching the target for this year as well as the 2017 deficit net of the aforementioned one-off revenues.

In March 2018, the Knesset approved the 2019 budget, in which, as in previous years, the government raised the deficit target to 2.9 percent and raised the expenditure ceiling considerably.

In early August, the S&P rating agency announced an upgrade of Israel's sovereign credit rating from A+ to AA-, the highest that the country has ever attained. The reasons for the upgrade, S&P explained, include the protracted decline in the debt to GDP ratio in recent years, strong growth, and several years of small budget deficits. S&P's decision confirms borrowers' confidence in Israel's ability to service its debts in a timely fashion. In its statement about the upgrade, the agency referred approvingly to the commitment, demonstrated by various Israeli governments, to

correcting the budget path at times of strong upward trends in the deficit and increases in the debt to GDP ratio.

In this Survey, we examine expected budget trends in coming years in view of the government's fiscal targets and its resolutions about various multiyear programs regarding social services, public services, infrastructure, and defense. In particular, we focus on the relationship between government resolutions and the two fiscal targets that are established in law: the expenditure ceiling and the downward path of the deficit. Expected developments in 2018 and 2019 are reviewed through the lenses of the approved budgets and their accompanying policy measures, and the trajectory in ensuing years is analyzed on the basis of a methodology similar to the process used to monitor the government's medium-term budget (the "numerator"). We find sizable discrepancies between developments foreseen on the basis of government resolutions and the economic environment and on the basis of the fiscal targets. As S&P emphasized, however, the risk of the expected deviations from the deficit targets does not necessarily manifest in the creation of a dangerous dynamic of upturn in the debt to GDP ratio. The danger, instead, is the possibility of returning to the path of procyclical policy changes and the cancellation or postponement of important multiyear programs that the government resolved to carry out.

In Section 2, we review the 2017 budget performance as the background of an analysis of performance in years to come. Section 3 discusses changes introduced in the 2018 budget and analyzes the 2019 budget, which was approved in March 2018. Section 4 discusses the frequent changes in the fiscal rules. Section 5 addresses the "numerator" mechanism and its implications for budget behavior, and Section 6 offers a forecast of the fiscal aggregates after 2019.

## 2. 2017 budget performance, the structural deficit, and decrease in the debt to GDP ratio

The budget deficit in 2017 was 1.9 percent of GDP, well below the 2.9 percent deficit ceiling established in the budget. It was the third straight year of deficits at approximately 2 percent of GDP, helping the debt ratio decline to 60.4 percent of GDP at the end of 2017. The continuing decline in the debt ratio enhances the economy's resilience to future shocks, reduces the government's interest payments, and frees resources for the ongoing attainment of the government's economic, social services, and defense goals.

The small deficit in 2017 derives from large one-off tax revenues occasioned by the extensive and unexpected takeup of a temporary tax benefit that was given for the withdrawal of corporate dividends—some of which were brought forward from ensuing years—and by proceeds from the

sale of Mobileye (Table 1). Net of these two factors, tax revenues and the deficit in 2017 matched the early forecasts. Since the atypical level of one-off revenues became apparent only in the second half of the year, the government decided not to use them to reduce taxes or fund an additional increase in spending. Due to this decision, the deficit ended the year far below the target, helping the debt to GDP ratio to decline.

**Table 1**
**Estimated components of tax deviation relative to the tax-revenue forecast in the original 2017 budget (NIS billions)**

| | |
|---|---|
| Revenue forecast in the budget | 294.5 |
| Actual tax collection[1] | 306.5 |
| Above-forecast revenue | 12.0 |
| Of which: "Dividend Tax" | 11.3 |
| One-off revenues (sales of Mobileye, Keter, and Tamar) | 5.4 |
| Net Family program | -4.7 |
| Of which: Broadening of personal income tax credit points | -1.8 |
| Lowering of tariffs | -0.5 |
| Repeal of Taxation on Third Dwelling Law | -0.9 |
| Remainder | -1.5 |

1. Net of an advance provision to the Property Tax Fund on account of future years and an accounting change in the recording of fees.

The one-off tax revenues offset a notable increase of 1.2 percent of GDP in the ratio of government spending to GDP.[1] The increase reflected a 6.3 percent upturn in net government expenditure (total spending less revenue-contingent expenditure[2]) at the time the budget was approved, all of which was performed and even slightly overshot,[3] far outpacing the 3.7 percent growth of nominal GDP and causing the expenditure ceiling to be overrun considerably.[4] These

[1] The final 2017 budget performance data, which would provide a breakdown of expenditure including revenue-contingent expenditure, had not yet been published by the Accountant General at the time of publication of the Hebrew version of this survey.

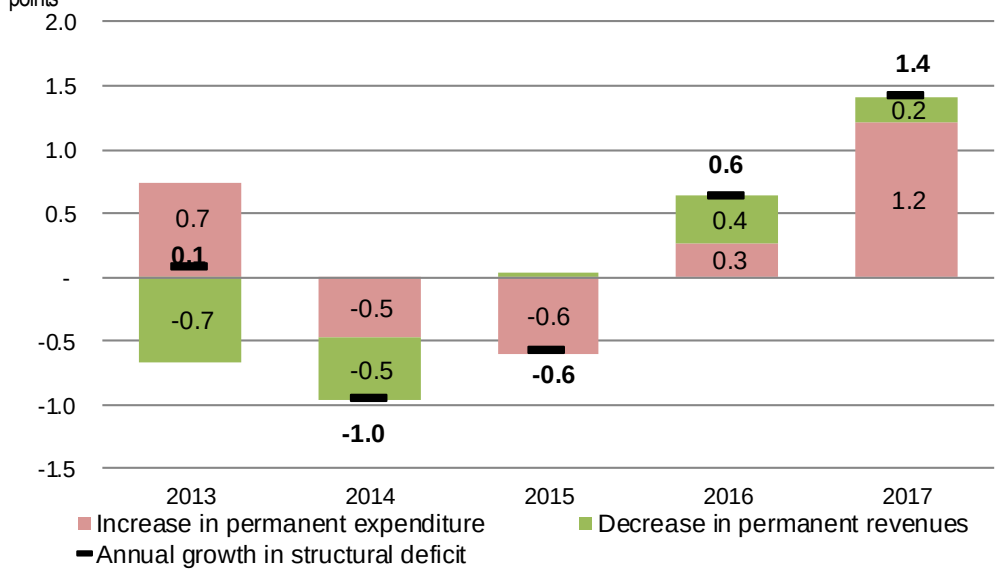
[2] Revenue- contingent expenditure consists of budget operations in which spending is conditioned on receiving specific revenue, usually from an outside entity's participation or from payment by service recipients.

[3] The rate pertains to the net increase in expenditure with a correction for a change in recording defense spending starting in 2017. From that year on, all defense expenditure funded by US military aid is recorded as revenue-contingent expenditure and, therefore, is not subject to the expenditure ceiling. This marks a change from the previous situation, in which $2.4 billion was included in the net budget, which is subject to the ceiling, and only the remaining $700 million was recorded as revenue-contingent expenditure. The meaning of this change, which does not affect the gross defense budget, is that it reduces the sensitivity of the expenditure ceiling to exchange-rate changes. The total expenditure ceiling was lowered commensurate with the changes in recording.

[4] At the time the budget was approved, it was decided to increase the expenditure base by 2.4 percent over the rate determined by the expenditure ceiling. In another decision, the budget cut that was required due to previous years'

developments in 2017 brought on a major increase in the structural deficit—the share of the deficit that derives from a structural discrepancy between the level of expenditure and statutory revenues and deflates the effects of the business cycle and one-off events. Net of the one-off revenues, the 2017 deficit was 2.9 percent of GDP, matching the deficit target in the budget and far surpassing the deficit in the two previous years. In 2017, in the Bank of Israel's estimation, the structural deficit grew by 1.4 percent of GDP over the 2016 level, mainly due to a faster increase in permanent expenditure and, to a lesser extent, due to tax reductions (Figure 1). As detailed below, the 2018 and 2019 budgets maintain the structural deficit at the higher level attained in 2017.

**Figure 1**
**Components of the Annual Growth in the Structural Deficit[a], 2013–17 (percent of GDP)**




[a] The total change is not necessarily equal the sum of its parts due to rounding.
SOURCE: Bank of Israel.

The debt to GDP ratio continued to fall in 2017, to 60.4 percent of GDP—1.6 percentage points less than at the end of 2016 and closely approximating the European Union benchmark. Figure 2, presenting the precipitants of the decrease in recent years, stresses the important contribution of the revaluation of the foreign currency denominated debt due to appreciation of the shekel and the excess issuance of bonds in previous years. These factors together contributed 1.1 percentage points to the decrease of the debt to GDP ratio. Conversely, many factors that had abetted a decrease in the ratio in the past either exhausted their effects or were temporary. In

decreases in the CPI was cancelled. This thwarted a 2.4 percent lowering of the expenditure ceiling, allowing expenditure to grow by 4.8 percent over the rate of increase specified on the basis of the original expenditure rule.

particular, the small budget deficit in 2017 was offset by a moderate nominal increase in GDP due to a downturn in the GDP deflator. Therefore, in contrast to the previous two years, the ratio of the deficit to nominal growth—an important variable in understanding the evolution of the debt to GDP ratio—contributed less to the reduction of the debt to GDP ratio than it had before.[5] The reason is that the faster increase in the GDP deflator than in the Consumer Price Index, which brought this ratio down in the past few years, stopped in 2017, actually causing the debt to GDP ratio to rise slightly.[6]

The data for the beginning of 2018 indicate that the trend of 2017 has continued. In previous years, two additional factors helped to lower the debt to GDP ratio: payback of government-subsidized housing loans to the public[7] and privatization receipts (largely from land sales). Housing-loan payback narrowed the gross debt but not the net debt.[8] The 2017 data show that the effect of this factor, which contributed much to the downward movement of gross debt in recent years, has largely exhausted itself and, according to amortization tables, will disappear within a few years.[9] In recent years, too, privatization revenues (mainly from land sales) are increasingly used to fund off-budget programs instead of funding the deficit (see below); therefore, their contribution to the downsizing of the debt is diminishing.

[5] For example, in the long term and at a 3 percent annual growth rate, the share of the deficit (as defined in the budget) that would cause the debt to GDP ratio to stabilize at 60 percent is 2.4 percent of GDP. This assumes that inflation (and the increase in the GDP deflator) is 2 percent per year. The reason is that about half of the public debt is CPI-indexed and the government does not record indexation differentials on the debt as part of the deficit. Therefore, a deficit of 2.4 percent of GDP plus indexation differentials of 0.6 percent of GDP (30 percent of GDP in CPI-indexed debt multiplied by the 2 percent inflation rate) adds up to a nominal deficit of 3 percent of GDP as against 5 percent nominal GDP growth (3 percent real growth + 2 percent increase in the GDP deflator). Insofar as privatization revenues or payback of the public's debt to the government are expected, the deficit can be raised accordingly without destabilizing the debt to GDP ratio. As stated, however, the effect of these budget items is about to run out.

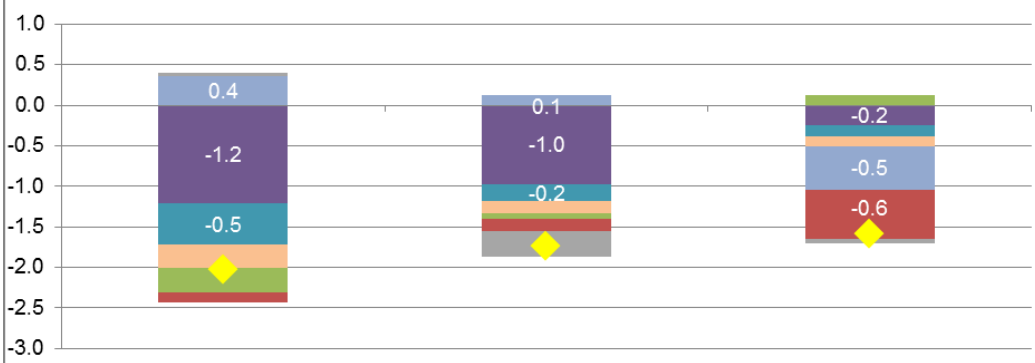
[6] Since about half of the public debt is linked to the Consumer Price Index, any increase in the GDP deflator relative to consumer prices lowers the ratio of gross public debt to GDP. The deflator has risen more quickly than private-consumption prices due to improvement in terms of trade (an increase in the ratio of export prices to import prices). The main factors for this in 2014–16 were a downturn in oil prices and appreciation of the USD. For elaboration, see Bank of Israel, "The GDP Deflator, CPI, and Terms of Trade," *Selected Research and Policy Analysis Notes no. 143*, November 2017.

[7] The loans were given mainly until 2003; today the government uses their payback by the public as a deficit funding source that mitigates the need to issue debt.

[8] The net public debt is the gross debt less outstanding government loans to the public and government deposits with the Bank of Israel.

[9] This narrowing of the spread between gross debt and net debt is unique to Israel relative to the average for the OECD, where governments have accrued net assets in recent years. Some of the spread in the debt to GDP ratio that opened in Israel's favor relative to the other developed countries originates in the same reverse trend. Importantly, gross debt is the more conventional metric for international comparisons due to difficulty in measuring assets and inter-country differences in definitions.

**Figure 2**
**Components of the Change in Gross Public Debt,2015–17 (percent of GDP)**




SOURCE: Bank of Israel.

## 3. Adjustments to the 2018 budget and the approval of the 2019 budget

### *a. The 2018 budget*

When the government approved the 2018 budget in the summer of 2016, it included an NIS 3.5 billion reserve for adjustments in order to deal with the difficulty of predicting the 2018 economic variables and foreseeing new needs that would surface after the approval of the budget. In retrospect, the economic developments did not necessitate meaningful budget adjustments. However, government policy decisions against the backdrop of strong revenues did create the need for additional funding of the budget. Since the reserve did not suffice to accommodate all the upward pressure on spending, a sizable across-the-board cut was needed as well in response to the cost of the programs that the government had approved.

After NIS 0.3 billion from the reserve was earmarked for miscellaneous spending items during 2017, NIS 3.2 billion remained available for use at year's end. The allocation of this sum was approved together with the 2019 budget in a government resolution in January and by the Knesset in March. The uses of the reserve include the subsidization of afternoon childcare facilities that are part of the education system (NIS 950 million), an increase in benefits for persons with disabilities (NIS 1.25 billion),[10] earlier payout of the seniority-bonus component of old-age benefits (NIS 400 million), shortening school vacations in grades 1–3 (NIS 300 million), security measures for preschools, larger allowances for Holocaust survivors, and wider police activity in eastern Jerusalem (NIS 300 million). In addition to these programs, the government approved an NIS 2

[10] An additional NIS 600 million had been budgeted for this purpose ab initio.

billion across-the-board cut in order to fund other budget commitments that it made after the budget was approved and as the apportionment of the reserve was debated. Thus, the previously approved budget framework, reflecting a 4.6 percent nominal net increase in spending, was not breached.[11]

The revenue forecast in the 2018 budget was essentially unchanged relative to the original budget. The government did carry out NIS 3 billion (about 0.25 percent of GDP) in tax cuts in the course of 2017, but growth in 2017 and developments in 2018 to date suggest that growth was somewhat stronger than had been expected when the budget was approved. The unexpected vigor of wage growth is also supportive of increases in tax revenues and National Insurance Institute surpluses (which are forwarded to the government). For this reason, no substantial discrepancy between the original revenue forecast in the budget and actual revenues is foreseen. The ratio of revenues to GDP is expected to resemble that in 2017, net of the exceptional one-off receipts. As GDP and the expenditure ceiling established in the budget increased at similar rates, the structural deficit will probably remain at roughly the 2017 level. Consequently, given that no meaningful one-off revenues are expected in 2018 (thus far), the deficit is likely to approximate the target, 2.9 percent of GDP, bringing the ratio of gross public debt to GDP to around 61 percent.[12]

### *b. The 2019 budget*

The 2019 budget, approved by the government in January 2018, raises the expenditure ceiling (net budget expenditure) by 5.5 percent (nominal), surpassing the 2.7 percent increase in the spending limit.[13] The additional 3 percent increase in the expenditure-ceiling base (more than NIS 11 billion) was necessary because the government faced an accretion of previous years' commitments to spending increases in 2019 despite the large permanent supplements that were already inserted into previous budgets. According to current forecasts of economic growth and the GDP deflator, the

[11] The rate of increase is composed of 2.75 percent according to the expenditure rule, 1.4 percent on account of the price increase forecast that was produced as the budget was being prepared, and another 0.4 percent raising of the ceiling under a resolution that the government adopted as the 2017–2018 budget was being approved. Since the budget was approved at the end of 2016 together with the 2017 budget, no correction to the budget framework on account of discrepancies between the price forecast in the 2017 budget and actual inflation was needed.

[12] As stated above, the debt to GDP ratio is affected by many parameters, of which the deficit is not dominant in the short term. These parameters include exchange-rate developments, the GDP deflator, payback of housing loans extended to the public, and decisions of the Accountant General on managing deficit funding flows between bond issues and drawing down the government's deposits with the Bank of Israel.

[13] According to the law, the expenditure ceiling is adjusted commensurate with the average change in the Consumer Price Index in the three most recent years for which the index is known (2015–2017 in the case of the 2019 budget). At issue in the 2019 budget is a 0.3 percent reduction of the budget base. According to the latest forecast of the Bank of Israel Research Department, the average CPI in 2019 is projected at 1.4 percent, bringing the real increase in the expenditure ceiling in 2019 to 4.1 percent. In the short term, however, the relation between the CPI and government spending is limited (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 139*, June 2015). This led to the adoption of the current method of calculation, which replaced indexation to the forecast of prices in the budget year as was practiced until 2017, which required ex post corrections of the expenditure ceiling in the year following.

budget increase will probably allow the share of public expenditure in GDP in 2019 to remain at approximately its 2017 level. Due to its early approval, the 2019 budget includes a reserve for adjustments, but its sum is only NIS 1.5 billion as against NIS 3.5 billion in the 2018 budget.

Table 2 presents 2019 budget supplements in several important lines and specifies, in accordance with *Main Provisions of the Budget*, the programs for which they were given. The table underscores the emphasis that the incumbent government places on expanding activity in social services, which had eroded in the previous decade, and on investing more in transport infrastructure. This increase became possible due to the planned decrease in the share of defense spending and interest expenditure.

**Table 2**
**Nominal increase in selected items,[1] 2019 budget (net) as against original 2018 budget[14]**

| | Increase in NIS billions | Annual percentage increase | Purpose of increase |
|---|---|---|---|
| National Insurance | 4.1 | 9.7 | Natural increase in the eligible population, enlargement of disability benefits and nursing-care hours, earlier implementation of seniority bonus in old-age public pensions |
| Ministry of Education[2] | 4.1 | 7.2 | Natural growth in school enrollment, afternoon care facilities, shortening of school vacations, technological education, transportation, informal education in peripheral areas, increased budget hours for underperforming schools, reduction of class size at primary school level, and construction of more classrooms |
| Defense[3] | 2.8 | 4.3 | Personnel (retirement arrangements for career soldiers, abbreviation of conscript service for men), relocation of IDF to the Negev, home-front defense |
| Ministry of Health[4] | 2.5 | 7.0 | Adding technologies and services to National Health Insurance coverage, expanding services provided by the Ministry of Health directly, strengthening psychiatric hospitals, dental care for the elderly, etc. |
| Ministry of Transport[5] | 2.2 | 11.9 | Establishment of metropolitan transport authority, fast lanes, and HOV lanes |
| Expenditure ceiling | 20.7 | 5.5 | |

Source: Ministry of Finance, *Main Provisions of the Budget 2019*, and processing by the Bank of Israel

1. All items include both the regular budget and the investment budget.
2. In addition to new programs, several parallel ticks in wage accords with teachers' organizations are expected in 2019, raising teachers' pay at the post-primary level in particular and increasing expenditure in this item by 11 percent over 2018.

[14] The increases are shown after the reduction occasioned by the government-approved across the board cuts.

3. We increased the defense items (not including internal security) that were presented in the Budget Book in order to account for the upturn in defense spending occasioned by the projects listed under the Government Housing line (no. 51), such as vacating land and moving IDF facilities to the Negev. The 2019 budget did not include this proposed increase in the defense budget. Our working assumption is that NIS 1.5 billion will be spent on account of this proposal in 2019, approximating the size of the reserve for adjustments.
4. A recording change was made in the Ministry of Health budget in regard to the budgeting of psychiatric hospitals. This line was transferred from the Ministry's regular budget (no. 24) to a new line under Business Enterprises (no. 93). As a result, NIS 1 billion that was recorded as revenue-dependent expenditure for the Ministry of Health budget was moved to the Business Enterprises budget. The change has no effect on the data appearing here because they reflect each ministry's changes in net terms.
5. According to the multiyear budget program, government expenditure on transport development will increase considerably in ensuing years but is unlikely to surpass actual 2017 expenditure until 2020 due to several years of contraction in the share of transport investment in GDP.

The latest Ministry of Finance revenue forecast for 2019 (June 2018) expects slightly higher tax revenues than those in the original budget forecast.[15] The current Bank of Israel forecast, based on the Research Department's tax model and macroeconomic forecast (July 2018) is slightly higher than that of the Ministry of Finance, largely because it expects wages and the price level to rise more vigorously than the Ministry predicts. Thus, the Bank of Israel projects the 2019 deficit at 2.8 percent of GDP as against 2.9 percent in the estimation of the Ministry of Finance[16]—a difference that is qualitatively immaterial. The meaning of both forecasts is that, for the time being, the 2019 deficit target seems attainable without budget adjustments, even though the budget leaves no room for tax cuts or further spending increases. In 2019, the debt to GDP ratio is expected to increase moderately, to 61 percent.

## 4. Frequent revision of fiscal rules

As noted above, the deficit path was raised in the approved 2019 budget and the expenditure ceiling was elevated by 3 percent beyond the increase allowed by the fiscal rule.[17] These changes were made in order to fund liabilities that the government had assumed in previous years even though the spending limit was known and established in legislation back then as well. Furthermore, the expenditure ceiling for 2020 has already been raised by 0.7 percent over the spending limit rule. Recent years' breaches of spending limits reflect the discrepancy between the cost of attaining the government's welfare, social, and defense objectives and the level of spending set by the rule, which, even though it was raised, is not high by international or historical standards.

[15] All the revenue forecasts mentioned below take account of the government resolution to forward to 2017 the provision for the Property Tax Fund on account of collection in 2019 (which reduces tax receipts in the budget). The resolution contributes NIS 1.9 billion to the revenue forecast.

[16] According to trends thus far, government expenditure in the current year appears to be consistent with the budget, with the exception of recording discrepancies in regard to the defense budget between the presentation in the original budget, which excludes some expenditure on vacating land by the defense system, and reporting on budget performance by the Division of the Accountant General at the Ministry of Finance, in which this spending is included.

[17] Of this increase, 2 percent was established back when the 2017–2018 budget was approved; the additional percent, equivalent to NIS 3.4 billion, was determined upon approval of the 2019 budget.

Raising expenditure and deficit ceilings when the budget is approved has long become a matter of routine.[18] Since it was first legislated in 2004, the expenditure ceiling has been upped by more than what the rule allows in every budget apart from that of 2014 (Figure 3).[19] At first, the increases were nonrecurrent and did not enlarge the expenditure base. In recent years, however, they have been added to the base, thus boosting expenditure not only in the year of the increase but in ensuing years as well. Also, the downward path of the deficit established in the Deficit Reduction and Limitation of Budget Expenditure Law, 5752-1992 (the "Frameworks Law") has been adjusted repeatedly since this statute was first adopted in 1992. In the 2019 budget, it was raised again, from 2.5 percent of GDP to 2.9 percent, in order to allow the government to spend more without raising tax rates.

The many changes in the fiscal rules attest to the government's ongoing difficulty in attaining its own targets. The changes in the expenditure ceiling are particularly indicative because, in contrast to the deficit targets, the direct effect of economic activity on expenditure is negligible.[20] Just the same, a pattern of government decisions in favor of increasing expenditure in response to cyclical growth in revenues has been established, particularly in the past few years. Since the government concurrently and protractedly lowered tax rates whenever its revenues grew, it raised the deficit target—and this year, evidently, the actual deficit as well—commensurably, at times of strong economic growth.[21] This raises the concern that the government will have to restrain expenditure or raise tax rates precisely when growth is slowing down. This would contradict the purpose of the expenditure rule, which prescribes restraint in spending increases at times of brisk growth in order to forestall cuts in recessionary times, when public expenditure helps to prop up economic activity.

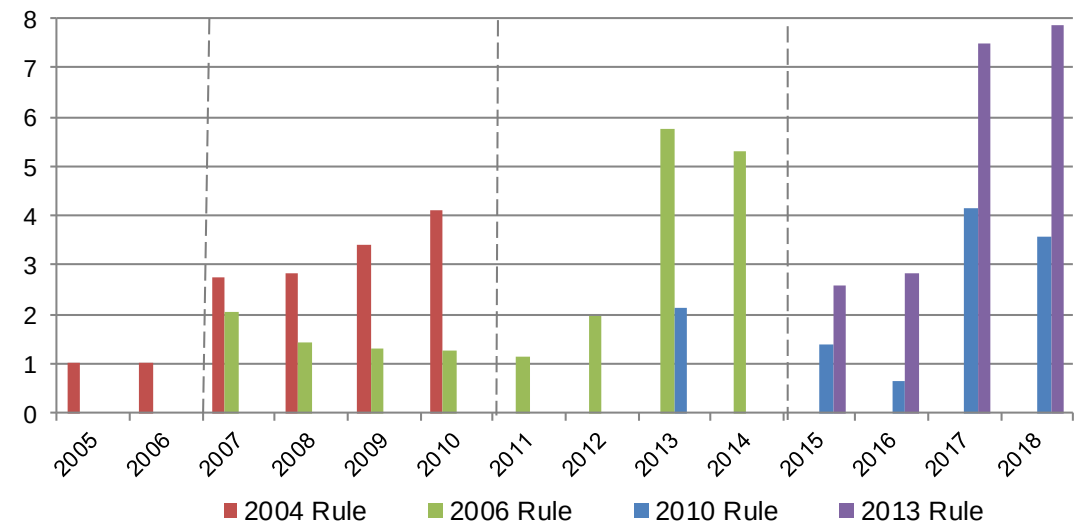
[18] For elaboration on the effectiveness and impact of the fiscal rules, see A. Brender, "Fiscal Policy: The Campaign to Lower the Debt to GDP Ratio and Government Size," in *Lights and Shadows in Market Economics—the Israeli Economy 1995–2015* (Falk Institute, forthcoming).

[19] The rules at issue are not those that were revised as the budget was being approved; in those cases, the ceilings were adjusted in advance to the planned budget, which overshot the expenditure ceiling that had been in effect until the change.

[20] Deficit targets are structurally exposed to cyclical changes due to the strong correlation between tax revenues and economic activity: Unexpected strong growth leads the deficit almost immediately to fall below the target due to high tax revenues. In contrast, the expenditures that are directly affected by economic activity are mainly unemployment and income-assurance benefits. The effect of changes in these elements on total expenditure is minor.

[21] Fiscal expansion in the form of lower tax rates or increased expenditure does help to stimulate economic activity in the short run. The estimates in the economic literature, however, show that such expansion is far from large enough to cover the deficit increase that it caused in the first place. For elaboration, see A. Brender and E. Politzer, "The Impact of Changes in Tax Rates on Tax Collection In Israel," *Economic Quarterly* [Hebrew], May–June 2018, pp. 87–129.

**Figure 3**
**Percentage deviation of total expenditure in government budget from the spending level set by the expenditure rule[a] (perecent of total expenditure in budget)**




[a] The rule legislated in 2004 and in force from the 2005 budget: Annual expenditure growth permitted is 1 percent.
The rule legislated in 2006 and in force from the 2007 budget: Annual expenditure growth permitted is 1.7 percent.
The rule legislated in 2010 and in force from the 2011–12 budget: Annual expenditure growth permitted is the growth environment (average growth rate of GDP in the 10 years preceding the year in which the budget is approved, multiplied by (60%/debt to GDP ratio).
The rule legislated in 2013 and in force from the 2015–16 budget: Annual expenditure growth permitted is the population growth rate + (50%/debt to GDP ratio).
SOURCE: Bank of Israel.

An important reason for the difficulty that policymakers in Israel have in staying within the expenditure limit (an increase of less than 1 percent per capita per year, according to the current rule) is the small share of civilian expenditure in GDP in Israel relative to almost all other advanced economies—as mirrored in the scope of social services and policies. This has been especially conspicuous since 2012, when the government began to try to narrow the gaps relative to these countries in services and infrastructure quality and the coverage of the welfare system. Today, the promotion of new programs has run into a barrier because most of the spending increase that the rule allows is used up by natural increase in expenditure on account of population growth and upturns in real wages. To evade the problem, the government has been budgeting programs for years beyond the current budget. When it comes time to implement the programs, however, pressure to breach the rule builds up (purple bars in Figure 3). This process undermines the credibility of the rule, its contribution as an anchor for long-term budget planning, and the efficient performance of government programs that are repeatedly postponed, suboptimally deployed, and sometimes even canceled as part of a budget consolidation process. A stable expenditure rule that provides a more transparent and candid reflection of the government's preferences in raising or

lowering expenditure, while holding the deficit to a credible and sustainable level, would improve budget behavior considerably.

Although the fiscal rules have been subjected to recurrent procyclical revisions, their very existence may have restrained expenditure and tax cuts because any deviation from them required justification and a legislative process that enhanced transparency. Such a claim, of course, is hard to prove or disprove in the absence of the ability to test the counterfactual. Repeated failure to comply with fiscal rules, however, impairs the efficacy of the government's behavior and calls for the formulation of new fiscal rules that will endure over time and allow for more efficient multiyear planning. A discussion for this purpose might be based on earlier proposals that combine the two rules, expenditure and deficit, in a manner that takes account of the desired structural deficit, i.e., a balancing rule that would require the government to align tax rates with changes in expenditure and vice versa.[22]

## 5. The "numerator" and budget management

The "numerator" is a fiscal management tool that requires the government to balance its commitments against the expenditure ceiling and the deficit target in the three years following the year of the most recent approved budget. Thus, the numerator presented in June 2018, after the 2019 budget was approved, pertains to 2020–2022. The numerator was introduced in order to stop the government from making spending and tax-cut decisions in years after those of the current budget. Such decisions clashed with multiyear budget targets and caused them to be revised upward again and again, along with repealing, revising, or redeploying many government decisions long after they were made in the process of converging the budget to the (enlarged) limit ultimately approved. The need to specify budget sources for any measure that overruns the fiscal targets obliges policymakers to discuss priorities at the time the decision is made and not several years later when it comes time to implement the decision and the policy options are much more limited.

Alongside its advantages, when full enforcement of the numerator began—in 2017—sundry circumventions to dilute its effect were devised immediately. They included the approval of major government programs on the basis of temporary provisions and the announcement of future "across-the-board cuts" in response to budget discrepancies. Later on, accounting procedures were used that allowed public expenditure to be recorded in budget years after the fact, or to be recorded off-budget, in order to skirt the fiscal targets. Each of these circumventions has different

[22] For elaboration, see Chapter 6 in the Bank of Israel *Annual Report* for 2014 and A. Brender, "The Story of Israel's New Fiscal Rule: Theoretical Design Meets Politics," in Banca d'Italia, *Rules and Institutions for Sound Fiscal Policy after the Crisis* (2012), pp. 611–629.

implications for the budget, but when viewed in their totality they illustrate the challenge that the enforcement of the new mechanism presents.

In the course of 2017, the government decided to make various tax cuts and approved them as temporary provisions through the end of 2018. They included tax benefits for parents of young children and lowering of tariffs and purchase taxes under the "Net Family" program, the cost of which was estimated at NIS 2.4 billion per year.[23] Several spending programs for 2018 were approved as well, including subsidization of afternoon child care, shortening school vacations for grades 1–3, expanding the "Buyer's Price" scheme, and honoring sundry coalition agreements, at a total cost of more than NIS 1 billion. The decision to approve these programs as temporary provisions for 2018 allowed the government to activate them that year on the basis of the adjustments reserve without indicating how they would be funded in ensuing years, even though all are permanent in nature. At the beginning of 2018, several programs were again extended as temporary provisions—this time to the end of 2019 (Government Resolution 3393, January 11, 2018)—and expansion of the earned income tax credit was added to the list. Concurrently, the tax benefit for parents was made permanent.[24] This brought the total annual cost of temporary provisions to NIS 3.5 billion–NIS 4 billion.[25] Since these programs—at least in greater part—are not meant to deal with a temporary crisis or a one-off necessity, and since their cancellation once activated would reflect the epitome of inefficiency, most will probably be extended or made permanent in the next budget. By presenting them as temporary provisions, the government can, at this stage, avoid having to find sources to pay for them in the budgets for years after 2019, as the multiyear budgeting rules require,[26] and in the meantime it may make other budget commitments for these years. It is exactly this behavior that the "numerator" is meant to prevent.

**Future across-the-board budget cuts:** Apart from the use of temporary provisions, the need to stay within the spending limit in future budgets has led to the extensive and repeated use of across-the-board cuts. Along with the 2019 budget, the government approved a 3.9 percent across-the-board reduction of the budget base in 2019, another 2.5 percent in 2020, and yet another 7.0 percent in 2021 (Table 3). Cumulatively, these reflect a decision to pare the budget by NIS 7 billion in 2021 relative to the 2019 budget, in order to stay under the spending ceiling for the latter year.[27]

[23] Ministry of Finance, *Update of the Multiyear Budget Plan for 2019–2021* (Hebrew) (November 2017).
[24] As stated in the Economic Arrangements Law for 2019, the Income Tax Ordinance will be amended for 2019 and subsequent years to include a permanent increase in credit points for parents of young children.
[25] Source of data: Ministry of Finance, *Main Provisions of the 2019 Budget.*
[26] See below for discussion of the implications of these programs for the multiannual budget path.
[27] The cut is applied to the budget base, meaning that it accumulates from year to year. Table 3 shows the marginal reduction each year; to determine the cumulative cut for a given year, the cuts for that year are added to those of preceding years.

Although the future across the board budget cuts bring the numerator into balance at the present time, those for 2020 and 2021 amount to an undertaking to abolish existing programs without specifying which. Absent such a specification, no real preparations for spending cuts are being made. As in the case of the temporary provisions, the discussion is deferred to the approval of future budgets—an outcome that the numerator is meant to prevent. Similarly, across the board budget-cutting is applied to only some items,[28] which account for 21 percent of the net budget. As some ministries have less items to which the government is contractually committed than do others, their budgets are more susceptible to across the board cuts. While it is reasonable to focus on such budget items for reasons of applicability when across the board reductions are needed immediately, it is harder to justify when it involves budget adjustments to be implemented three or four years down the road, for which adequate time to plan and deploy is available.

Table 3 shows how the budget reduction is apportioned as a share of each item. The presentation makes it clear that an across the board cut has a much greater effect on transport and water infrastructure items, in which much of the budget goes for procurements, and investment, than on education and health, in which wage payments, which are exempt from across the board cuts, are dominant. Absent specific decisions and real prioritization (for instance, the government plans to increase infrastructure and transport budgets significantly in the coming years), the massive use of future across the board cuts impairs the efficiency of infrastructure and investment planning. The State Comptroller, in his 2005 report, termed this standard across the board budget-cutting "one of the main reasons for missing deadlines in completing government projects" and wrote that it is responsible for indirect costs that are not taken into account when the cutback resolution is made.[29] The "Governance Committee" (2013) also recommended avoiding across the board cuts for the funding of revisions of budget priorities.[30] In recent years, the ministries of Finance and Transport have stated repeatedly that the impediment to infrastructure development is not "lack of budget" but rather "planning problems" among the government ministries and authorities tasked with performance. A process that leaves the size of the available budget unknown

[28] From Government Resolution 3409 (January 11, 2018): "Cuts shall not be made in regulations concerning the implementation of legislation that specifies sums or rates of the budget that shall be allocated for the implementation thereof; in regulations enacted for the purpose of discharging a governmental contractual obligation to make an expenditure, including wage and other accords and excepting an obligation to make an expenditure at rates established in law and regulations, where a cutback would cause said regulation to deviate from its budget. In regard to all remaining regulations from which said reduction can be carried out, the cutback shall be at the same rate of each regulation, so that the total reduction shall be equal to the total sum of the reduction as is established with respect to each ministry."

[29] When roadbuilding projects are postponed, for example, more traffic accidents occur and more time is spent in traffic jams.

[30] Eliezer Schwartz, *Explanation of Budget Concepts* (in Hebrew), the Knesset, Information and Research Center, February 2018.

until the fiscal year is about to begin, for long-term projects that entail lengthy, expensive planning, has the combined outcome of a budget constraint that creates planning problems as well.

**Table 3**
**Share of across the board cuts in selected budget items**

| Share of cut in total foreseen gross expenditure in each item (%) | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| **Defense** | 0.6 | 0.9 | 0.6 | 1.6 |
| **Education** | 0.3 | 0.4 | 0.3 | 0.7 |
| **Health** | 0.3 | 0.3 | 0.2 | 0.6 |
| **Transport and water infrastructure** | 2.8 | 3.1 | 2.6 | 4.9 |
| **Other** | 1.0 | 1.2 | 0.7 | 1.9 |
| **Across the board cuts in budget base as share of budget items subject to cut (%)** | **2.9** | **3.9** | **2.5** | **7.0** |
| **In NIS billion** | 2.1 | 2.8 | 1.9 | 5.1 |

Source: Government Resolution 3409, January 11, 2018, concerning "Prioritization of Government Ministries' Expenditure, for 2019 Budget Discussions and Meeting of Total Government Undertakings for 2018," processed by the Bank of Israel.

**Off-budget expenditure and bond issuance on the basis of future government payback:** One of the tools allowing the government to expand its activity without formally straying from the fiscal rules is the use of accounting practices that leave some activities and their financing outside the budget framework. In recent years, the government has been running several housing and construction projects on the basis of funding derived directly from the proceeds of sales of state land by the Israel Land Authority (ILA), and are therefore excluded from the spending and deficit ceilings. In other projects, sales of state land, a government asset, are presented in the budget as revenue instead of realization of assets, as had been the practice until recent years and as the generally accepted international accounting principles require. Expenditures are made against this "revenue," either directly by the ILA (according to the government's guidance) or as "revenue-contingent expenditure" in the budget, which is not subject to the spending limit. Since the sums at issue add up to several billion shekels per year, they may have a material effect on the presentation of budget expenditure and the deficit, nonetheless, the loss of proceeds does find expression in the public debt.[31]

[31] Proceeds of land sales are recorded as a funding item that reduces the government's financial debt (meaning that the sale of land, a nonfinancial asset, is used to lower the debt). When such proceeds are used for public expenditure, they do not lower the public debt (and the government ceases to be the owner of the land).

The abovementioned programs include discounts on land under the Buyer's Price scheme (approximately NIS 2 billion per year[32]), incentivizing municipal authorities to build more and faster by means of "umbrella agreements,"[33] subsidizing the Project Renewal fund, funding interchanges as part of the "Netiv la-Dira" program, and removing army camps from state land and moving the Israel Defense Forces to the Negev (Project Shoham 3).[34] In addition, it has been proposed to fund programs such as the expansion of public housing, reinforcing structures in the north against earthquakes, and improving the healthcare system in a similar manner. Even if most of these projects are worthy, this mode of funding introduces inefficiency in the budgeting process by allocating proceeds of land sales to specific programs that can use them and not by routing them through the general budget priorities and cost-benefit analyses, and by giving government entities that hold government land an advantage over other government offices. It also blurs the total budget picture when it comes time to manage the rest of the budget.

Another funding method that has become an end-around for the expenditure limit is bond issuance by government-owned companies, with the state undertaking, directly or indirectly, to fund payment of interest and principal in full. Two recent examples are an NIS 1 billion bond issue by Israel Railways in March 2015, for final payback in 2020, and another issue of similar size by Amidar in March 2018, with payback to be completed in 2028 and the government undertaking to reimburse Amidar in full. Although the flow of government undertakings to these firms does appear in the numerator for the next few years, the cost of the investment and the deficit are reflected not in real time but over several years. Thus the burden of payback is passed on to the budgets of years beyond the term of the numerator. This method also results in higher issuing costs.

The growing use of these accounting processes mirrors the government's difficulty in attaining its housing and infrastructure goals within the expenditure and deficit ceilings that it has established, especially in view of its low level of civilian expenditure by international standards and its aversion—declared and evident—to raising tax rates. In this context, the need to give transport infrastructure, particularly in public transport, a major upgrade in the next few decades in order to support economic growth, quality of life, and the environment, and in diversifying housing

[32] The exact sum each year is a function of the size and geographic location of tenders issued.

[33] An accurate breakdown of the total expected annual flow in coming years on account of these agreements is unavailable and depends largely on the pace of progress in planning and building. At the end of 2017, ILA liabilities under umbrella agreements exceeded NIS 7 billion, not including development expenses that the ILA budget had always included as part of business operations (physical treatment of sold parcels).

[34] Essentially, this is the only program that is reported today as part of budget expenditure. Even here, however, some spending (for example, NIS 2.8 billion in the 2017 budget, NIS 2.1 billion in 2018, and NIS 1.3 billion in 2019) is reported as specific-revenue-contingent expenditure—which is not subject to the expenditure ceiling—with the "revenue" composed of proceeds of land sales. The 2019 budget also charges NIS 5.7 billion in "spending authorization" to this item.

possibilities, has been a prominent topic of discussion in recent times. One of the options being mulled is much broader use of the private finance initiative (PFI) mechanism to fund projects against multiyear government commitments to pay developers. Some projects of this kind have many advantages, but private funding is not one of them.[35] In view of decisions made in recent years, it is important to base the examination of project performance on operational considerations and not only on the ability to defer budget expenditure on their account.

Recent years' increases in civilian public expenditure have narrowed the gap in per-capita primary civilian expenditure (net of interest) between Israel and other OECD member states that spend more, as well as the difference in the share of civilian expenditure in GDP.[36] To maintain and raise the level of services and to increase welfare expenditure as the government has resolved, and to improve national infrastructures in a serious manner, the increase in public spending should be based on stable sources of funding. Recent experience shows that many multiyear government programs in social services and infrastructure have been downsized or cancelled when business cycles turn around or when defense needs grew. This happened for two main reasons: (1) the existing rules for the budget framework do not take account of the cyclical nature of economic activity and tax revenues; (2) until the numerator was introduced, the fit of the government's multiyear spending programs to the limits established by the fiscal rules beyond the current budget were not subjected to obligatory scrutiny. Below we estimate the extent to which the cost of government decisions to increase public expenditure in the coming years, considering the accounting practices described above, corresponds to the spending limit and the deficit targets that the government established.

## 6. Fiscal-aggregate trends in the coming years

Recent years' experience shows that the development of the fiscal aggregates depends more on policymakers' decisions in each period than on rules set forth in previous years. These decisions, however, are heavily influenced by the need to contend with multiyear programs from the past that boost spending in various fields or lower tax rates, and by economic developments and their effect on tax collection. For this reason, it is important to analyze the expected paths of government expenditure and revenue in order to estimate the fiscal effort that will be needed to attain the multiyear budget targets; it is also necessary to set forth, as soon as possible, detailed plans with which to correct deviations. The reason is that the alternatives—deferring decisions or announcing

[35] See Bank of Israel *Annual Report* for 2016, Chapter 6, Box 2, "PPP (Public-Private Partnership) Infrastructure Investments in Israel."
[36] See Bank of Israel *Annual Report* for 2017, Chapter 6.

"across-the-board cuts"—defeat effective budgeting and planning and make the targets even harder to attain.

### *a. The analysis framework*

Despite its weaknesses, the government's numerator does much to enhance the transparency of fiscal trajectories and gives the public and the policymakers a better understanding of the long-term budget significance of government decisions. As a government document, the numerator is of course linked to the government's formal decisions, particularly where expenditure is concerned. In this Survey, in contrast, we expand the test to policy alternatives that are different from the formal targets and the exact phrasing of government resolutions. The differences center on two dimensions: (1) the macroeconomic environment's ramifications on the budget aggregates (based on a growth and inflation environment similar to the one presented in the numerator document) and (2) the way the government implements its multiyear fiscal decisions.

In reference to the macroeconomic environment, both the numerator and our scenarios below assume that the economy will grow at its potential rate (approximately 3 percent per year on average) in 2018–22 and that unemployment rates will remain low. Such growth is likely to increase tax receipts,[37] particularly when it is accompanied by wage growth, which has been accelerating in the past two years.[38] The persistence of an environment of full employment and wage growth, however, will also affect the path of wages in the general government,[39] particularly over such a long period in which, among other things, collective agreements for the entire general-government sector and an accord with the Israel Medical Association (in view of the growing shortage of physicians) are expected to be signed. For this reason, it is assumed in the policy scenarios that follow that general-government wages will rise in tandem with business wages, a stronger increase than that derived from the numerator data. Additionally, the scenarios relate to the possibility that the interest on government debt (the long-term domestic interest rate) will climb more quickly over the years than the capital market is implying at the present writing, given the long-term growth rate that the scenarios presume.[40] The analysis shows that interest rates will

[37] The 2019–2022 growth forecast, however, assumes that the expansion of Intel's plant and the onset of natural-gas production from the Leviathan and Karish-Tanin fields will have major effects. Both events involve increases in activity that are taxed at rates far below the average rate of tax in GDP. (Gas fields are taxed only after several years of activity.)

[38] Our revenue forecast is slightly higher than that of the Ministry of Finance because it predicts faster wage growth.

[39] Yuval Mazar (2015), "Development of General-Government Wage and Its Connection to Private-Sector Wage," *Bank of Israel Survey 88* (Hebrew).

[40] The interest-expenditure forecast in the numerator is predicated on interest expectations derived from the capital market.

indeed present the risk of an upturn in foreseen expenditure but will not be a dominant precipitant of changes in the expected policy path in the next few years.

On the policy side, the analysis that follows leaves out several factors that may increase expenditure considerably. They include government aid for investments in Intel's plant, the demand by police and prison workers for a wage increase on account of occupational insecurity, and three rulings by the High Court of Justice: improving prisoners' living conditions, the Center for the Blind, and providers of nursing-care services.[41] Additionally, the government has announced its intention of expediting transport and public-transport infrastructure investments,[42] entailing a major increase in budget expenditure relative to the current outline. With no specific outline in our possession, we excluded these potential spending increases from our scenarios. We also assume that between now and the end of 2022 the government will make no further decisions that will increase net expenditure or lower tax rates. Thus, even the most expansionary scenario does not cover all existing risks to the budget, although some of these risks are very likely to eventuate at a cost of several billion NIS.

As for the defense budget, the existing defense budget outline ends in 2020 and the assumption in the numerator, which was approved by the government, is that a new multiyear outline, starting in 2021, will hold nominal defense expenditure to roughly its current level despite the rising national wage level and potential pressure to increase spending due to the contraction of allowable uses of American defense assistance funds for domestic procurement.[43] We, instead, examine two alternative outlines: (1) one that matches the approach in the numerator but allows a slightly larger increase than that presented in the numerator, given the forecast of growth in wages and its expected effect on security forces wages (Outlines 1 and 2 below); (2) one consistent with the Prime Minister's statement about the intention of setting the share of defense spending in GDP slightly higher by 2030 than the level established in the 2019 budget (Outlines 3 and 4 below). This outline has a major effect on the almost uninterrupted downward course of the share of defense spending in GDP since 1985 and of the declining share of defense spending in public expenditure.

[41] Ministry of Finance, *Update of Multiyear Budget Program for 2020–2022* (Hebrew) (June 2018).
[42] See Government Resolution 1838, August 11, 2016, "Multiyear Program for Development of Public Transport in Metropolitan Areas." As part of the resolution, it was also decided to prepare a multiannual plan for infrastructure development. The latter document was published about a year later by the Prime Minister's Office: https://www.gov.il/he/Departments/news/spoketashit310817#. The total cost of the plan is NIS 116 billion in 2017–2021, with 42 percent publicly funded and another 14 percent in mixed (public and private) funding.
[43] The current outline includes a sizable increase in the defense budget in the base year and zero nominal growth the rest of the time.

### *b. Policy outlines*

As stated, each policy outline tested below assumes that the economy will continue to grow at its potential rate and that no exceptional defense-related events will occur. *A fortiori*, any adverse (auspicious) event will affect the change in the deficit and the ratio of gross public debt to GDP for the worse (for the better). Below we present four possible policy outlines, the policy measures that are needed to implement them, and their effect on the fiscal aggregates.

(1) **Compliance with the statutory expenditure ceiling and deficit trajectory:** In this outline, it is assumed that the government will keep expenditure in 2020–22 in line with the statutory spending limit and will either raise tax rates or abolish tax exemptions so as not to overrun the deficit target. It is also assumed that defense expenditures will not be increased as envisaged in the outline that the Prime Minister presented. To stay on this path, the government will have to make all the across the board cuts from the budget base that it has announced—NIS 7 billion—from the base for the budget for 2022 compared with the budget for 2019, and will have to cancel after 2019 the temporary provisions (subsidized afternoon childcare, shortening vacations, expanding the earned income tax credit and coalition agreements totaling NIS 3 billion) or slash other items instead. Also, permanent spending cuts of around NIS 4 billion in 2021 and NIS 3 billion in 2022 will be needed in order to stay within the spending limit. All of this, as stated, assumes that none of the aforementioned risks to the budget will eventuate and that the government will make no decision that would increase net expenditure in the next four years. In this scenario, to attain the statutory deficit target by 2022, tariffs and purchase taxes that were reduced by a temporary provision will have to be raised (NIS 0.8 billion per year) and NIS 1 billion–NIS 2.5 billion in additional tax increases will be needed starting in 2020.[44]

This outline is shown in the purple lines in Figures 4–7. Figure 4 presents the deficit outlook in accordance with the statutory path, which reflects a mild decrease in the debt to GDP ratio from 2021 onward (Figure 5). The main contributor to the deficit decline in accordance with the target is a decrease of more than 1 percentage point in public expenditure in GDP by 2022 (Figure 6), including a 0.7 percentage-point downturn in civilian expenditure (Figure 7). This decline mirrors the sluggish real increase of the expenditure limit in 2020–22 on account of adjustment of prices to the low CPI readings of

[44] Since the tax-receipt forecast is sensitive to macroeconomic developments, it is possible that the tax increases envisaged in this scenario will not be needed.

previous years[45]—a challenging move in view of Israel's low share of public expenditure and the infrastructure, welfare services, and defense needs that the government has pointed out but has not yet budgeted.

(2) **Compliance with the statutory spending limit only, no adjustment of tax rates** (the blue lines in Figures 4 and 5): The rate of increase in spending slows in accordance with the existing expenditure rule, in keeping with the points specified in Outline 1. This will allow the deficit to decline gradually but, according to the forecast based on these assumptions, it will overshoot the target by NIS 1 billion–NIS 2.5 billion each year between 2020 and 2022.[46] As a result, the debt to GDP ratio will level off at around 62 percent after 2019.

(3) **Increasing the defense budget in line with GDP growth, leaving tax rates unchanged, and raising the expenditure ceiling in accordance with existing government resolutions to as much as 3 percent of GDP:** As described in Outline 1, a major fiscal effort will be needed to make the 2021 and 2022 budgets converge to the statutory spending limit due to existing government decisions and major unresolved budget issues. Experience shows that in such situations, the government tends to adjust the spending limit to accommodate accrued commitments from previous years. Therefore, in this outline we test the implications of a policy path in which the government adjusts the spending limit to existing spending programs, implements only some of the across-the-board cuts, and refrains from raising tax rates. We also assume that once the Prime Minister's proposal to raise the defense budget commensurate with GDP growth is applied, the defense budget will grow by NIS 1.5 billion in 2019 and will continue to increase in 2020 and ensuing years in tandem with GDP growth. Along with these upturns, it is also assumed that the government will restrain the increase in civilian expenditure so as to set the deficit at 3 percent of GDP in the medium term (the green line in Outline 4), as in previous years. This outline, shown in the green lines in Figures 4–7, is reflected in a mild decrease in the ratio of total expenditure to GDP in 2020 and stability afterward (Figure 6), a protracted decline in the rate of primary civilian expenditure (Figure 7), and a gradual increase in gross public debt to 64 percent of GDP by 2022 (Figure 5) with additional increases afterward. The difference between this outline and Outline 1 shows that if the government wishes to hold civilian expenditure (as a

[45] The price adjustment in each budget is commensurate with the average rate of increase in the Consumer Price Index in the three years preceding the year in which the budget is approved. It is assumed that the rate of price increases will converge to 2 percent in 2021–22. If prices (and the GDP deflator) advance more slowly, the erosion of the expenditure limit relative to GDP will slow; concurrently, however, tax receipts will decline.

[46] The gap is slightly narrower than that stated in the Ministry of Finance's numerator because we predict a larger increase in wages that has a positive effect on tax receipts. This forecast, as stated, also boosts the growth of the government's wage expenses.

share of GDP) to its current level and to keep the deficit decreasing as established in law (to 2 percent of GDP in 2022 and 1.5 percent in 2024) while stabilizing the debt to GDP ratio, gradual tax increases (or elimination of exemptions) will be needed at the cumulative rate of as much as 1 percent of GDP (around NIS 15 billion) in 2022.[47]

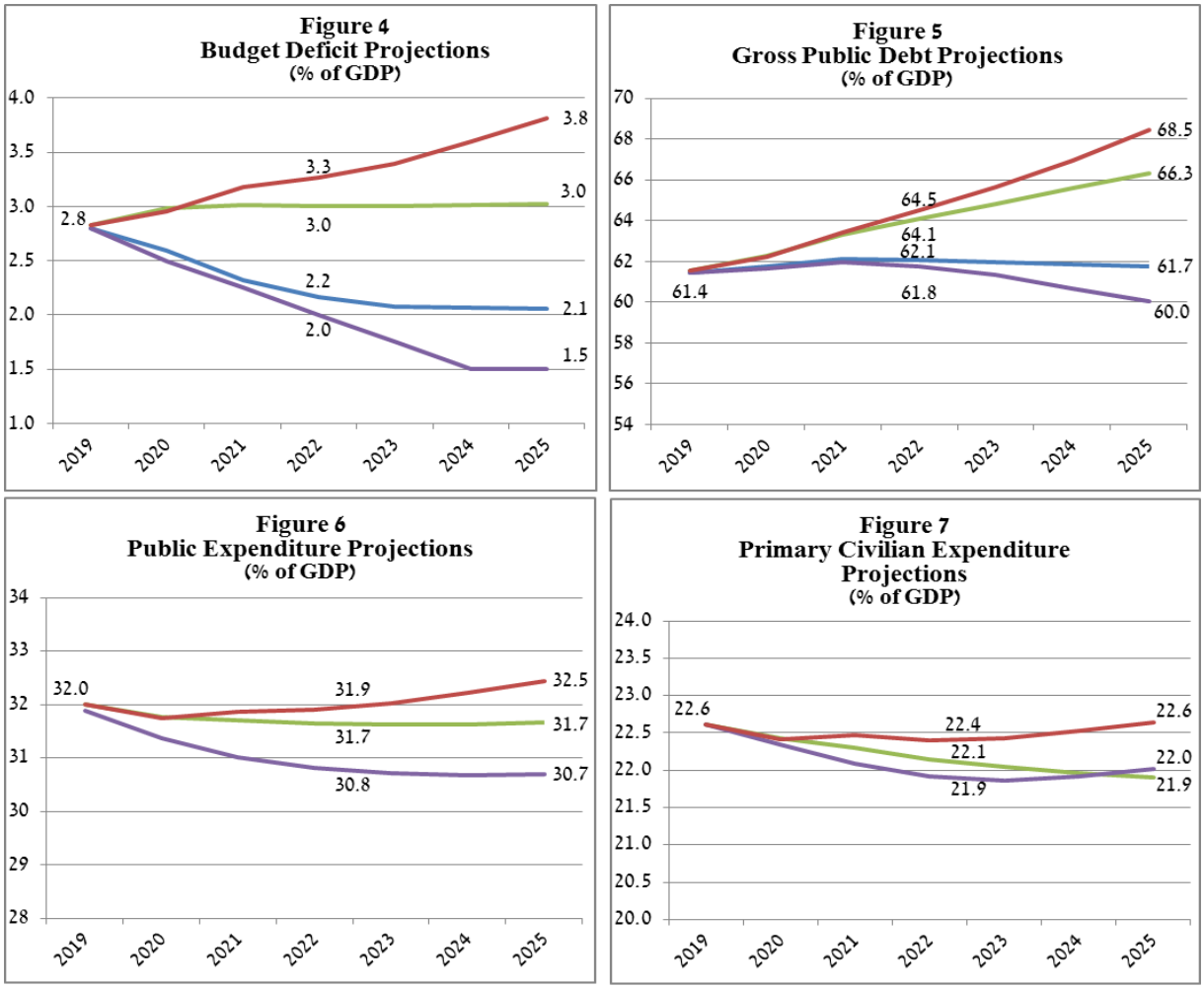
(4) **Raising the expenditure ceiling in accordance with existing government resolutions and allowing natural increase in civilian expenditure,[48] expanding the defense budget commensurate with GDP growth, and leaving tax rates unchanged:** This outline resembles Outline 3 in most of its assumptions but does not assume that the government will restrain the upward movement of civilian expenditure by offsetting some of its existing decisions. This manifests in holding the current rate of civilian expenditure in GDP constant, meaning that the budget deficit will grow considerably (the red line in Figure 4). This path will cause the debt to GDP ratio to rise more rapidly (the red line in Figure 5)—a direct result of raising the share of public expenditure in GDP (Figure 6) without a commensurate increase in government revenues. The ratio of primary civilian expenditure to GDP stays where it is (Figure 7) but at the cost of higher deficits and debt. This outline represents an extreme scenario in a certain sense because the government has refrained from expanding the planned deficit to more than 3 percent of GDP in recent years (except by means of off-budget expenditure). However, it reflects the immensity of the challenge of also staying within the fixed deficit target of 3 percent of GDP in view of the government's decisions and programs.

In addition to the proposed increase in defense spending, another factor that inhibits the accommodation of the increase in civilian expenditure within the spending limit is the change in the trend of interest payments. The government's interest bill has contracted by 1.5 percent of GDP since 2007 due to declines in the debt to GDP ratio and domestic and foreign interest rates. In the next few years, however, the share of interest in GDP is expected to stop falling and may even rise gently as the debt to GDP ratio stops heading down and interest rates begin to move upward. This development is different from the 2007–17 period, when downturns in interest and defense

[47] The percentages of GDP that appear here relate to the GDP estimates that are known today. If these estimates are revised in the future (e.g., raised due to a change in defense depreciation), the forecasts may change. Often, however, the revisions do not attest to a new tax base but merely present an accounting change of an already known activity.

[48] What we mean by "natural increase" is the expected change in spending occasioned by foreseen demographic developments, in accordance with the Central Bureau of Statistics' population forecasts, of the number of service recipients—mainly in the education, healthcare, and pension systems—combined with increases in the prices of these services relative to the Consumer Price Index, in keeping with trends in cost-of-living indices and recent years' collective wage accords. This outline takes account of trends in the past decade; if they continue, the expenditure ceilings according to the current expenditure rule will be fully exhausted.

expenditure allowed the share of civilian expenditure in GDP to rise by more than 2 percentage points with no increase in the ratio of total spending to GDP.



### *c. Change in the business cycle*

The policy outlines presented above are predicated on a macroeconomic scenario of continued steady growth in accordance with the economy's potential. However, the risk of a change in the direction of the business cycle must not be overlooked, particularly in view of the high level of the structural deficit. The Israeli economy has experienced three such changes since 2000; in each, the deficit grew rapidly after a period of low deficits that reflected brisk cyclical revenues. At the beginning of the previous decade, the budget deficit jumped from 0.5 percent of GDP in 2000 to 4.8 percent in 2003 (Figure 8) as the result of an economic shock occasioned, *inter alia*, by the dot.com crisis and the Second Intifada, against the backdrop of fiscal expansion in 2000 that hid behind cyclical growth. A similar phenomenon occurred in the 2008–09 crisis: the deficit climbed from zero in 2007 to 1.9 percent and 4.8 percent of GDP in 2008 and 2009, respectively, in view of aggressive tax-cutting between 2004 and 2008, which pushed the structural deficit up but was not reflected immediately in the data due to strong growth and high capital-market revenues. At the beginning of the current decade, too, amid a milder turning point in activity and fiscal expansion, the deficit widened to 3.1 percent of GDP in 2011 and 3.9 percent in 2012, and only vigorous measures by the government to lower it kept it from surpassing 5 percent of GDP in 2014.[49]

The sharp upturn in the deficit, especially at the beginning of the previous decade and in 2013, forced the government to implement comprehensive fiscal-consolidation plans that included major tax hikes and a large spending cut in order to knock the deficit back down. These episodes show that tax revenues take an especially severe beating at adverse turning points in activity, as manifested at the end of the previous decade in most advanced economies around the world. The timing and intensity of the changes in the business cycle are not known with certainty, of course, but policymakers should be aware that since the point-of-departure deficit is around 3 percent at the present writing, a turnaround in the business cycle may trigger such a strong upturn in the deficit as to again necessitate budget restraint at a time of slowdown, aggravating the deceleration in activity despite the low debt to GDP ratio. If the upward phase of the cycle is exploited to converge toward a smaller structural deficit, budget policy may be able to mitigate the impairment to activity occasioned by a turn for the worse, thereby softening the blow to growth, employment, and the standard of living.

[49] See Bank of Israel (2013), "The Government's Proposed Budget for 2013–14, from the Perspective of the Fiscal Targets for Coming Years," *Recent Economic Developments 135, October 2012–March 2013*, pp. 8–13. The data for these two years do not reflect the entire increase in the deficit because the government raised tax rates by nearly 1 percent of GDP in late 2012, made additional tax increases later on, and implemented a spending cut in the first half of 2013, thereby keeping the actual increase in the deficit relatively small.

**Figure 8**
**The Budget Deficit (percent of GDP)**