# BANK OF ISRAEL

November 25, 2020

# The Bank of Israel Fiscal Survey: Trends and outlines for fiscal policy in 2021 and for the medium term

- **Israel's economy entered the Covid-19 crisis with a low debt to GDP ratio, but also with a high structural deficit, which has increased consistently since 2015, and that will lead to a prolonged rise in the debt to GDP ratio even after the end of the crisis.**

- **In 2020, the government approved a comprehensive and transitory safety net for businesses and workers; its actual cost in 2021 will be determined by the state of the economy and morbidity.**

- **The uncertainty regarding the evolution of morbidity and its impact on economic activity in the first half of 2021 creates wide variance in estimates of the deficit, debt, and unemployment for the next 2 years, and those also impact considerably the path of the debt ratio in the following years and the desired policy path after 2021.**

- **The fiscal forecast is based on the Research Department's two macroeconomic scenarios that were published in October 2020 with slight adjustments reflecting data revisions since the publication; in particular, adjustments to estimates of third quarter National Accounts data published by the Central Bureau of Statistics. These adjustments brought the growth forecast for 2020 closer to the "control" scenario, but their impact on the forecasts for the coming years are not material.**

- **A return to a declining path of the debt ratio will require fiscal restraint measures of notable scope. If implemented too early, at a time when unemployment rates and the output gap are still high, they will adversely impact the recovery from the crisis.**

- **Against the background of the uncertainty it is recommended to approve the 2021 budget as soon as possible, in order to avoid unplanned fiscal restraint and the limitations and planning difficulties deriving from acting with an interim budget, and to adopt the following principles in the 2021 budget:**

1. **"Regular" expenditures in 2021 will be separated from the direct expenditures deriving from dealing with the Covid-19 crisis. The former will be based on the existing expenditure ceiling, while "Covid-19" expenses will be based on the safety net and aid budgets that have already been approved. Supplements will only be given if the existing safety net needs to be extended due to the unemployment and business activity situation.**

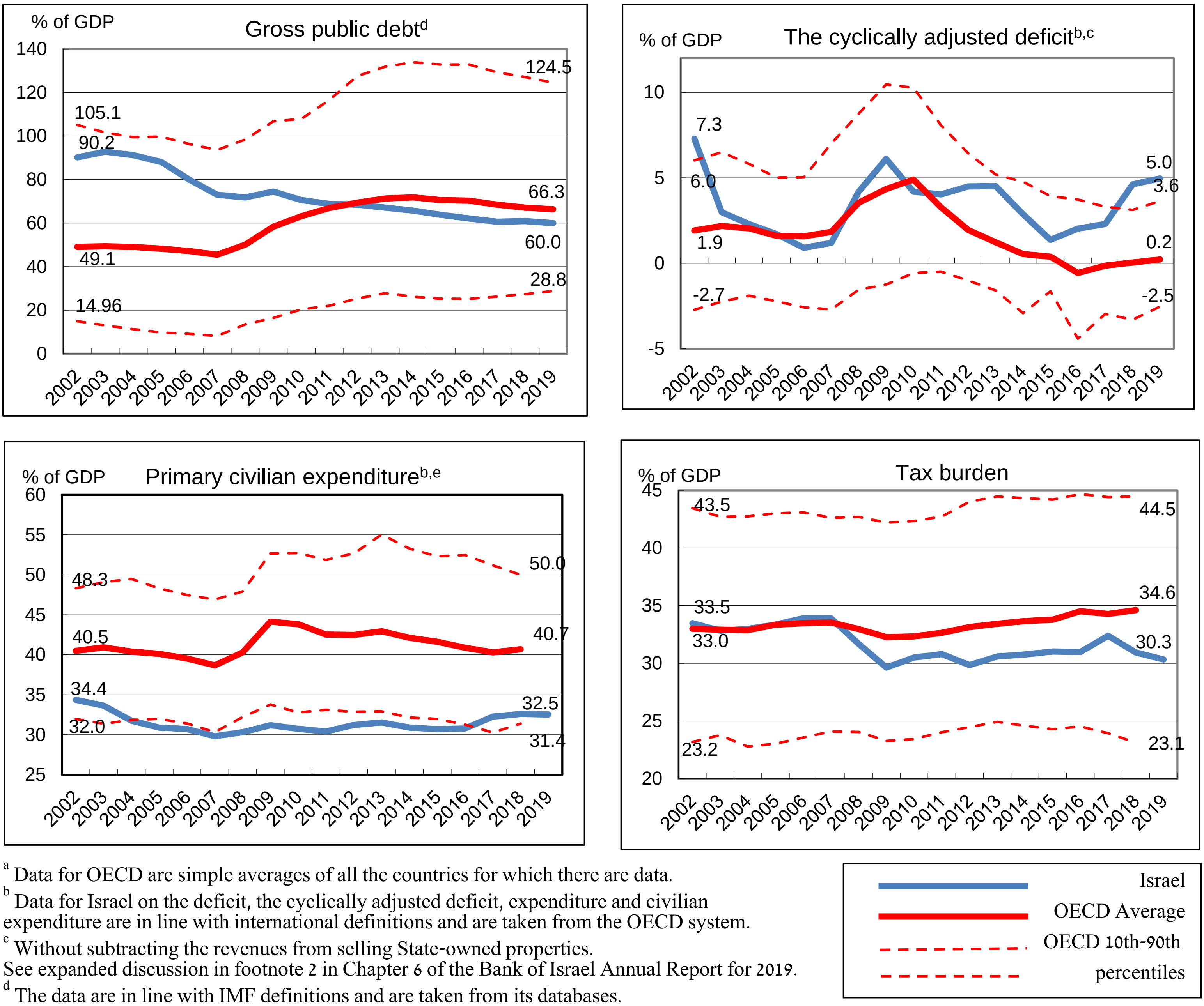
2. **The government will avoid reducing tax rates without a parallel reduction in expenditures. The deficit will be derived from actual expenditures and from revenues that will be realized as a result of the economic situation.**
3. **The government will avoid making adjustments to the budgets for years after 2021 that are required under the "numerator" rule, but will avoid new decisions that increase them.**
4. **The multiyear budget framework for years after 2021 will be determined only when approving the 2022 budget—in the summer of 2021.**
5. **The 2022 budget will anchor an outline for reducing the debt via an "adjusted expenditure" ceiling, which establishes an overall budget for increasing expenditures and for changes in tax rates, and allows substitution between them. This ceiling will replace the existing expenditure ceiling.**

- **Growth acceleration in the medium and long term requires marked investments in infrastructure and in human capital, alongside reforms in regulation and in the public sector. The current increase in the debt ratio highlights the need to fund a considerable part of the plan's cost by reducing other expenditures, raising tax rates, and cancelling tax benefits.**

## 1. Fiscal background conditions: A low debt to GDP ratio and a high structural deficit

Before the negative impact of the coronavirus, Israel's GDP grew in line with its potential, unemployment was low, as were the public debt to GDP ratio and the interest on government debt. However, in contrast, since 2015, the government has increased public expenditure and reduced tax rates in a manner that led to a marked increase in the structural deficit, which reached a high level by international comparison, and in addition approved plans that were expected to increase the deficit even further in the coming years. Despite the increase in public expenditure, the level of primary civilian expenditure in Israel is still among the lowest in the OECD, alongside a tax burden that is lower than the organization's average (Figure 1). The deficit in the government budget for 2019 was 3.7 percent of GDP and the deficit of the general government—per the international generally accepted definitions—was 4.6 percent of GDP. Continuing at such levels means prolonged growth in the public debt ratio, and therefore fiscal consolidation measures were required even if the macroeconomic environment would not have changed so drastically.

**Figure 1**
**Fiscal Aggregates in Israel Compared With OECD[a] Average, 2002–19**




[a] Data for OECD are simple averages of all the countries for which there are data.
[b] Data for Israel on the deficit, the cyclically adjusted deficit, expenditure and civilian expenditure are in line with international definitions and are taken from the OECD system.
[c] Without subtracting the revenues from selling State-owned properties.
See expanded discussion in footnote 2 in Chapter 6 of the Bank of Israel Annual Report for 2019.
[d] The data are in line with IMF definitions and are taken from its databases.
[e] OECD data for 2019 are not yet available, and for some countries data are not yet available for 2018 (Australia, Chile, Japan, South Korea, Latvia, Mexico, New Zealand ad Turkey). In such cases we assumed that the scope pf defense expenditures in 2018 were the same as their scope in 2017.
SOURCE: Based on OECD and Central Bureau of Statistics data, OECD Revenue Statistics 2019, and the International Monetary Fund.

## 2. The interim budget and the government's aid plan in the Covid-19 crisis

Israel went into the Covid-19 crisis without a budget approved for 2020, and with a transitional government that was subject to limitations regarding its economic and budgetary activity. This was due to political processes that led to holding 3 elections in a short period of time without a new government being established. Such a government was only set up in May 2020 and in the coalition agreement signed with its establishment it was determined that the Knesset was to approve a biennial budget for 2020 and 2021 by August 25. On August 24, the Basic Law: The Knesset was amended and the date for approving the budget was extended to December 23. In the meantime, the government is operating with an interim budget derived from the 2019 budget (which was legislated in March 2018).

The interim budget is restrictive, as it is only intended to provide a solution for a short transition period until a government is established that will approve a full budget. Therefore it only increases in line with inflation and does not provide a response to the growth of the population and to other policy goals, which are generally dealt with in the process of forming the budget. Thus, the conduct via the interim budget since the beginning of 2020 allowed near-zero growth in ministries' "regular" expenditure (which is not for dealing with the coronavirus) and served as a restraining factor on economic activity. It was only in September that the Knesset approved special legislation that allowed the increase in the expenditure framework by NIS 10.8 billion and thus in October the "regular" expenditures by ministries accelerated, and if they are fully realized, by the end of the year they will be approximately 3 percent higher than in 2019.

The Covid-19 crisis forced the government to act via repeated changes to the Basic Laws that set the budget during a transitional government period. To date, exceptional budgets of NIS 84 billion and NIS 52 billion have been approved for 2020 and 2021, respectively. Most of those sums are designated for supporting businesses and workers adversely impacted by the crisis, for financing health expenditures, and grants for households. Out of the sums that were budgeted for 2020, about two-thirds were spent by October (Table 1). In addition, the government assistance plan also includes non-budgetary steps: paying unemployment benefits financed by National Insurance Institute to workers who were placed on furlough, expanding the supply of credit to businesses via state-guaranteed funds, and other cash flow steps such as deferring mandatory payments.

**Table 1**
**The government's 2020 economic assistance plan for the Covid-19 crisis**

| | The plan approved by 10/31 | Performance + agreements, 10/31 | Performance as percent of original plan |
|---|---|---|---|
| Public consumption and investments | 19.2 | 15.0 | 78 |
| Supports and grants | 65.6 | 40.2 | 61 |
| Unemployment payment from the National Insurance Institute budget (nonbudgetary) | 12.0 | 8.3 | 69 |
| Financing and cash flows (nonbudgetary) | 41.8 | 25.8 | 62 |
| **Total** | **138.6** | **89.2** | **64** |

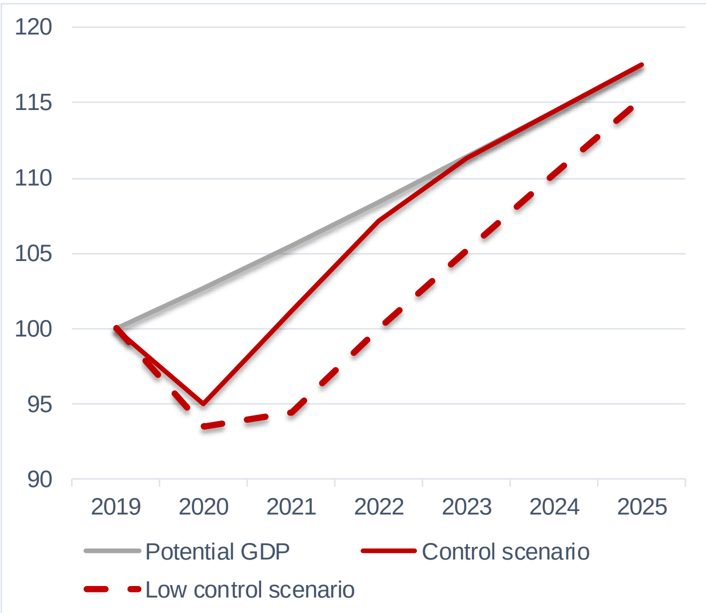
### 3. The Research Department's scenarios

The fiscal forecast is based on the Research Department's 2 macroeconomic scenarios that were published in October 2020, with slight adjustments reflecting data revisions since the publication, and in particular the adjustment to third-quarter National Accounts data published by the Central Bureau of Statistics. These adjustments brought the growth forecast for 2020 closer to the "pandemic control" scenario, but their impact on the forecasts for the coming years is not material. The two forecasts assess that there has been a marked decline in activity in the beginning of the fourth quarter, as a result of the lockdown that was imposed in the middle of September, and are based on a working assumption that in the middle of 2021 a vaccine or pharmaceutical treatment will be found for the coronavirus, which will make it possible to return to a routine without limitations on economic activity. This, obviously, is not an epidemiological forecast, but a working assumption for compiling the forecast.

In the **pandemic control scenario**, we assume that the evolution of morbidity will allow a relatively rapid exit from the lockdown during the fourth quarter and that afterwards, morbidity will stabilize at a level that will allow relatively broad activity, until the middle of 2021. Due to the moderate negative impact, we assume that under this scenario the continued negative impact to the economy will be limited and that the negative GDP gap will close by 2023.

Under the **low pandemic control scenario**, the morbidity situation is not stable, and economic activity is limited alternatingly (as a government directive or as a result of the public's voluntary avoidance). Therefore, until a vaccine is found there will be several waves of infection that will be reflected in a contraction of economic activity. GDP growth in 2022–25, after the direct effect of the coronavirus ends in 2021, is expected to be high, but due to the initial higher unemployment and the more severe adverse impact on businesses, there will be a more prolonged negative impact on the economy, which will only return to the potential GDP level in 2026 (see Figure 2).

**Figure 2**
**Real GDP Compared With Potential GDP under the Macroeconomic Scenarios (2019=100)**




## 4. The 2021 budget and fiscal policy for the coming years

### a. Policy principles

The development of the fiscal aggregates and the state of the economy and of the morbidity in 2020 present a tough challenge to the design of budget policy in the coming years. The adverse impact of the coronavirus on businesses, the high unemployment and the need for public expenditures to finance the health system and other crisis related costs, require a high level of public expenditure. Currently, it is imperative to encourage economic activity and to support businesses' survival. Therefore, it is also not desirable to finance those expenditures via tax increases. Yet, the high deficits and the increase in the debt ratio raise the financing costs for the coming years and are liable to risk the markets' willingness to continue financing the deficits, particularly if there is no reliable framework for reducing the high deficits and the debt ratio in the coming years. In Israel, this issue is particularly important due to the high structural deficit (approximately the deficit prevailing at the beginning of the crisis), the level of which does not allow a decrease in the debt ratio even when GDP will return to its potential level.

Israel's fiscal rules establish numerical targets for 3 aggregates with which the government has to comply when approving the budget. The first is the deficit target for the coming year - 2.3 percent of GDP; second is the expenditure ceiling for the coming year—about NIS 426 billion; and third, non-deviation from the budget targets in the 3 years following the budget year being approved, while making immediate adjustments required to correct expected deviations.

In view of the considerable uncertainty regarding the pace of the economy's exit from the crisis and the extent of the long-term negative impact that it will cause (Figure 2), and because compliance with the current deficit targets and the expenditure ceiling in 2021 does not appear plausible at this time (when taking into account the expenditures related to the crisis), the government will apparently have to amend the fiscal targets for this year. Therefore, it is desirable to adjust the fiscal strategy as detailed below.

**b. The 2021 budget**

**I. Approve a 2021 budget as soon as possible, for 4 main reasons:**

1. **Prevent the fiscal restraint that stems from an interim budget:** According to the law, as long as a new budget has not been approved, the government will operate from the beginning of 2021 via the interim budget based on the last budget approved—the 2019 budget, which was approved at the beginning of 2018—plus indexation to the CPI. This is a budget that is lower in real terms by about 5.5 percent compared to the situation in which budgets were approved according to the expenditure ceiling, the annual growth of which is intended to provide a response to population growth and the improvement in various services.
2. **Adjust the budget composition for changes in needs since the 2019 budget was approved:** An interim budget restricts the shift of budget resources across various goals and programs of the government; in a period of 3 years—from the beginning of 2018, when the budget was approved, through 2021—there were quite a few changes that require reallocation of the budget.
3. **Enable ministries to act with a budget-based work plan:** The interim budget limits not only total expenditure, but also its composition—even within a given ministry. The lack of a budget limits the work plans of ministries, which are required to turn to Exceptions Committees regarding routine activities, and all the more so new activities, with uncertainty regarding their actual approval and the timing of such approval.
4. **Enable entities that work with and vis-à-vis the government to plan their activities:** A notable portion of government activities is carried out via public and social entities that are not directly budgeted, but rely on the government's budget and collaborations to finance a large share of their activities. Alongside this, there are also business entities that sell services to

the government. In the absence of an approved budget, these reduce their activities, build up debts, lay off employees, and the services received by the public are adversely impacted.

According to the current assessments, the expected expenditure level in 2021—excluding special expenditures in respect of dealing with the Covid-19 crisis, and assuming that the public sector wage agreements are deferred to at least the end of 2021—does not markedly deviate from the expenditure ceiling. This is due to, among other things, the assumption that part of the expected expenditures in the 2021 budget will be deferred to 2022 alongside accounting transfers that will be carried out from the 2021 budget to 2020. Maintaining this level of expenditure, together with the separate designated one-off budget for dealing with the Covid-19 crisis (see below), will provide the opportunity to clarify that the government is not taking advantage of the crisis in order to increase its "regular" expenditures, and at the same time to allow the necessary expenditures for dealing with the crisis.

**II. Separate in the 2021 budget the direct expenditures deriving from dealing with the Covid-19 crisis**

The government has already approved an expenditure supplement of NIS 52 billion for 2021, for specific goals related to dealing with the crisis. These mainly include the existing "safety net" for businesses and the unemployed (including the job retention plan that was implemented in September and October), and expenditures that will be required for the health system and other entities in order to provide a response to the unique needs of the health crisis.

These expenditures will be included in a separate designated budget, and will be defined as a one-off expenditure that is not part of the budget base for coming years. The actual expenditure of these amounts depends on the development of morbidity and the limitations on economic activity, and it appears that these will only be exhausted in the more severe scenario of low control over morbidity. In the scenario in which there is more control over morbidity, the expenditure will be markedly lower than budgeted, and therefore, the deficit is expected to be lower ex-post.

An issue that will require a separate decision is the budget of several investment and job creation projects that were designed by the ministries, the National Economic Council and the Bank of Israel. These initiatives have the potential to accelerate the economy's exit from the economic recession and to reduce unemployment and the long-term adverse impact on the economy more quickly. However, their budgetary cost will require an additional one-off increase in the budget. The decision of whether to break the budget frameworks that have already been approved or to give up on carrying out these projects in 2021 is not simple, and it depends to a great extent on the assessment of whether it is possible to focus the expenditure supplement exclusively on these activities.

**III. The actual deficit will reflect the realization of the expenses and income due to the economic situation**

Complying with the statutory deficit target is not possible in a reasonable scenario. In addition, there is great uncertainty about tax revenues in the coming year, due to the uncertainty regarding the growth of GDP, so that any other target that is set will be exposed to large deviations. In addition, the actual deficit in a year in which sharp fluctuations in the economy are expected is not a reliable indicator of the fiscal effort or the government's ability to converge to a low debt to GDP ratio in the coming years. Therefore, **our third recommendation is to allow the actual deficit in 2021 to be determined by the realization of expenditures as defined above,** and to suffice with establishing that the government will not increase tax rates this year, and if it does so it will offset the loss of revenues with a parallel reduction in expenditure, and vice versa.

### c. The policy framework for years after 2021

Israel's accumulated experience with medium-term deficit targets and expenditure ceilings teaches that they have been changed repetitively unless they have been backed by setting upfront specific multiyear policy measures that bring the budget into targets (such measure have been adopted, for example, in 2003 and 2004). For the most part, when the time came to approve the budget and it became clear that the cost of the expenditure plans that the government approved in the past, or the loss of income in respect of previous tax rate reductions, requires significant adjustments or changes of the targets—the governments have chosen to change the targets, and in recent years, used various budgetary bypasses as well.

Estimates by the Ministry of Finance and the Bank of Israel indicate that the government's expected expenditures and deficit after 2021 are higher than the statutory targets. Based on the existing rules, the government already has to implement the required adjustments in the budget—the reduction of specific expenditures and/or the raising of tax rates. Such a process will indeed indicate the government's commitment to reducing the debt level after the crisis, but also will restrain current activity, to the extent that households and firms that will be adversely impacted by the expected decisions will limit their activity. In addition, setting medium-term deficit targets is exposed to marked deviations during this period due to the sharp fluctuations expected in the economy in the coming years, and the uncertainty regarding the pace of recovery from the crisis and the extent of the continuing negative impact that will be caused by it.

In order to avoid such difficulties, given the economic crisis and in view of the great benefit in a rapid approval of the 2021 budget, it is recommended to change the numerator rule in the following manner:

**I. When approving the 2021 budget, avoid making adjustments to the budgets for years after 2021, as required by the "numerator rule", but "block" new decisions that increase those budgets.**

The government will change the law requiring an immediate adjustment of the budgets for 2022—24, but will avoid increasing expenditures or reducing tax rates for those years without offsetting steps. This is in line with the "numerator" rule that establishes such conduct when a deviation from the expenditure ceiling and the deficit is expected.

**II. The multiyear budgetary framework for years after 2021 will be established when approving the 2022 budget—in the summer of 2021.**

Assuming that in the spring or summer of 2021 there will be a notable reduction in the uncertainty surrounding the Covid-19 crisis, it will be a suitable opportunity to present a multiyear budget framework that will characterize the path of exit from the crisis, the path of convergence to multiyear fiscal frameworks that will include a gradual reduction of the debt to GDP ratio, and the steps that will allow the implementation of such a reduction.

### III. Anchoring the debt reduction framework via the "adjusted expenditure" ceiling

In order to make a prolonged reduction of the debt ratio possible, a reduction in the structural deficit to levels markedly lower than those reached in the years preceding the crisis is required. Past experience in Israel and worldwide teaches that relying on deficit targets does not serve the goal of debt reduction, as the actual deficit is very volatile and is affected by the business cycles. Therefore, it is preferable to establish an "adjusted expenditure" ceiling or "budget for policy measures" that will include the amount permitted for increasing expenditures and reducing tax **rates** each year, and will allow substitution between the two.[1] The actual amount, or its rate of change, will be established so that it will be in in line with the desired debt reduction target: the more ambitious the target is, the slower the growth of the ceiling and, accordingly, the government will have to converge to a lower structural deficit. This ceiling will replace the existing expenditure limitation, and will provide the government with flexibility in decisions on the structure of the budget. If it will want to increase its expenditures by more than what is allowed by the ceiling, it can do so by a parallel increase in tax rates, and if it will want to reduce tax rates, it will be able to do so in parallel to reducing expenditures. Linking to tax rates—and not to actual tax revenues—will prevent a situation in which expenditures are broadened or tax rates are reduced based on a cyclical increase in tax revenues.

## 5. Projections of expenditures in the medium term

### a. Forecast of "regular" expenditures

An estimate of government expenditures for the coming years depends to a great degree on the macroeconomic forecast. Thus, for example, **in the pandemic control scenario**, we assume that the wage agreements with doctors and the teachers that were intended to be signed in 2020 will be signed in 2022, and will increase wage expenses in the education and health systems beyond the regular increase of the average wage in the economy beginning in 2023. In contrast, **under the low control scenario**, we assume that the wage agreements will be more moderate, against the background of the high unemployment rates, and will lead to a more significant increase in teachers' wage only after closing the output gap—that is, beginning in 2026. Under the low control scenario, lower tax revenues, National Insurance Institute payments, and health tax receipts are also expected. Thus, revenues will be lower as well until the economy returns to full employment.

In addition to growth in expenditures according to current policy, the two scenarios are based on several specific policy assumptions:

1. The grants worth NIS 1 billion paid to people with disabilities in 2020 will remain in the budget base, which will be increased by an additional NIS 0.7 billion. This supplement will be the final tranche in the reform of disability allowances legislated in 2018. Beginning from 2022, disability allowances

[1] An estimate of the size of the impact of tax rate changes on tax revenues, and the amount of time until the effect stabilizes, appears in: Brender, A. and E. Politzer, "The Effect of Changes in Tax Rates on Tax Revenues in Israel", Economic Quarterly vol. 62, May-June 2018, pp. 87–128 (in Hebrew).

will be linked to the average wage in the economy, with full reimbursement of the National Insurance Institute by the Ministry of Finance.
2. The security budget base will be increased by NIS 2 billion (out of the NIS 3 billion supplement that was approved as part of the supplement to the 2020 interim budget), and its real per-annum increase in 2021 and onward will be about 1 percent.
3. The “healthcare services basket” will be increased by NIS 1 billion in lieu of the support tests that finance the HMOs’ deficits, which are signed every few years in return for steps to enhance efficiency, and therefore are regarded as one-off payments that are not included in the numerator.
4. In calculating the expected expenditure in the 2022 and 2023 budgets, we are not taking into account the cost of programs that will be deferred from 2021, due to delays in preparations that derived from the handling of the crisis.

In taking into account demographic variables, the cost of providing public services (wages and purchases), interest payments on the government debt, and assumptions regarding specific programs, the average annual nominal increase of expenditure in the budget expected in 2019–25 is 4.5 percent under the pandemic control scenario, while nominal GDP is expected to grow by 4.3 percent on average. That is, this path of expenditures is not a particularly expansionary path and is expected to increase the rate of budgetary expenditure in GDP terms by only a few tenths of a percentage point over the medium term, less than what had been expected before the crisis. This, of course, is with the condition that throughout the period the government does not make new decisions that increase its expenditures without a parallel reduction in other expenditures.

### b. Covid-19 exceptional budget

Following the Covid-19 exceptional budget allocations approved for 2020–21, we assume that the economic safety net that the government decided upon will be extended beyond June 2021 in accordance with macroeconomic developments. **Under the control scenario**, we assume that in 2022 unemployment allowances will be reduced by about 70 percent and that businesses will no longer receive government aid. In contrast, **under the low control scenario** we assume continued aid to businesses (or alternate steps to deal with the ramifications of the adverse impact on businesses) worth NIS 15 billion in 2022 and NIS 7.5 billion in 2023, and an annual decline of about 33 percent in unemployment payments until the output gap is closed at the end of 2025. This is of course a working assumption, and not necessarily a policy recommendation for those years.

### c. The statutory situation: the expenditure rule and the deficit ceiling

As noted above, the budget frameworks for regular years (not under an interim budget) are dictated by two numerical rules. The first, the deficit ceiling, establishes the maximum deficit to which the state budget should converge when legislated. The second rule, the government expenditure rule, defines the budget framework for the coming years as a sum of 3 variables: the average annual growth of the population in the past 3 years, the distance of the debt to GDP ratio from 50 percent[2] (the restraint coefficient) and the average annual change in the CPI in the past 3 years (the price adjustment mechanism). The population growth rate produces an annual growth of 1.9

[2] One percent times 50 percent divided by the debt to GDP ratio.

percent in government expenditure, and the restraint coefficient, an additional 0.7 percent (reflecting the sharp rise in the debt ratio due to the crisis).

In a stable situation, with stable inflation, the implementation of the rule would lead to real annual growth of about 2.6 percent in government expenditure, a pace that would have moderately reduced the rate of government expenditure relative to GDP. However, in 2021–25 the price adjustment component is very low or negative, while we assume that inflation will increase gradually to 2 percent by the end of the period. This means an erosion of 0.8 percent by the average inflation, and a real increase in permitted expenditure of only 1.8 percent per year, on average, through 2025. That is, sticking to the expenditure ceiling means a contraction of the share of public expenditure in GDP by about 2 percentage points in 5 years. Given the low level of civilian expenditure in Israel compared to other advanced economies, it will pose a tough challenge for the government if it will decide to act in this way.

## 6. Forecast of fiscal aggregates

Figure 3 presents the fiscal aggregates in each of the 2 scenarios described in Section 3 and in line with two policy paths: complying with the expenditure ceiling in the pandemic control scenario (the solid green line) and in the low pandemic control scenario (the dashed green line) and current policy path which means not taking any convergence measures, in the control scenario (the solid black line) and the low control scenario (the dashed black line). All the scenarios assume that tax rates will not be changed.

### a. Primary civilian expenditure

Figure 3a presents the path of primary civilian expenditure for each of the 4 scenarios mentioned above, net of the one-off coronavirus supplements. It can be discerned that under the low control scenario, public expenditure in terms of GDP increases notably due to the loss of potential output in 2020-21, but this effect decreases, based on the working assumption, through 2026.

As noted, complying with the expenditure ceiling beginning from 2021, leads, under the control scenario, to a decline of 1.7 percent in the share of primary civilian expenditure in GDP by 2025, due to the inherent restraint in this ceiling and given the price adjustments due to the low inflation rate in previous years. The rule is even more restrictive in the low control scenario (a decline of 2.1 percent in the share of expenditure in GDP) due to the negative inflation at the peak of the crisis and due to the higher interest burden deriving from the higher level of debt expected in that scenario. This is in contrast to the scenarios of complying with the expenditure ceiling, on the path of spending according to existing commitments and current policy, and assuming that the government does not decide on new programs without adopting balancing measures to counter them. The primary civilian expenditure increases in the control scenario by 0.3 percent of GDP, from 2019 to 2025. Under the low control scenario, the path of wages and inflation is lower and primary civilian expenditure decreases by 0.1 percent of GDP.

### b. The budget deficit

In these scenarios, we assume that the tax revenue elasticity changes in accordance with the output gap: in 2022 it is 1.2 and it becomes unitary in 2023 under the control scenario, and in 2024 under the low control scenario. Tax revenues reach the potential level in 2023 under the control scenario and in 2026 under the low control scenario. An additional component that varies between the two macro scenarios is the National Insurance Institute (NII) balance. Under the low control scenario, unemployment benefits paid are higher over time and contributions from the public are lower. Therefore, the surpluses transferred by the NII to the Ministry of Finance (and recorded as income in the government budget) become smaller and cause an increase in the government deficit as compared to the control scenario. Finally, the gap of 2 percent of GDP in 2025 between the black lines and the green ones in each of the macroeconomic scenarios derives from the gap in percent in GDP of public expenditure described in Section 6a. In contrast to Figure 3a, the expenditure for calculating the deficit is the total budget expenditure (civilian, interest, security, and Covid-19 boxes) and we assume that under the low control scenario that one-off expenditures are added to the ceiling in 2022 and 2023, in order to budget for the extending of the safety net described in Section 5b above. As noted, the same reduction in the deficit totaling 2 percent of GDP can be achieved through increasing tax rates as well.

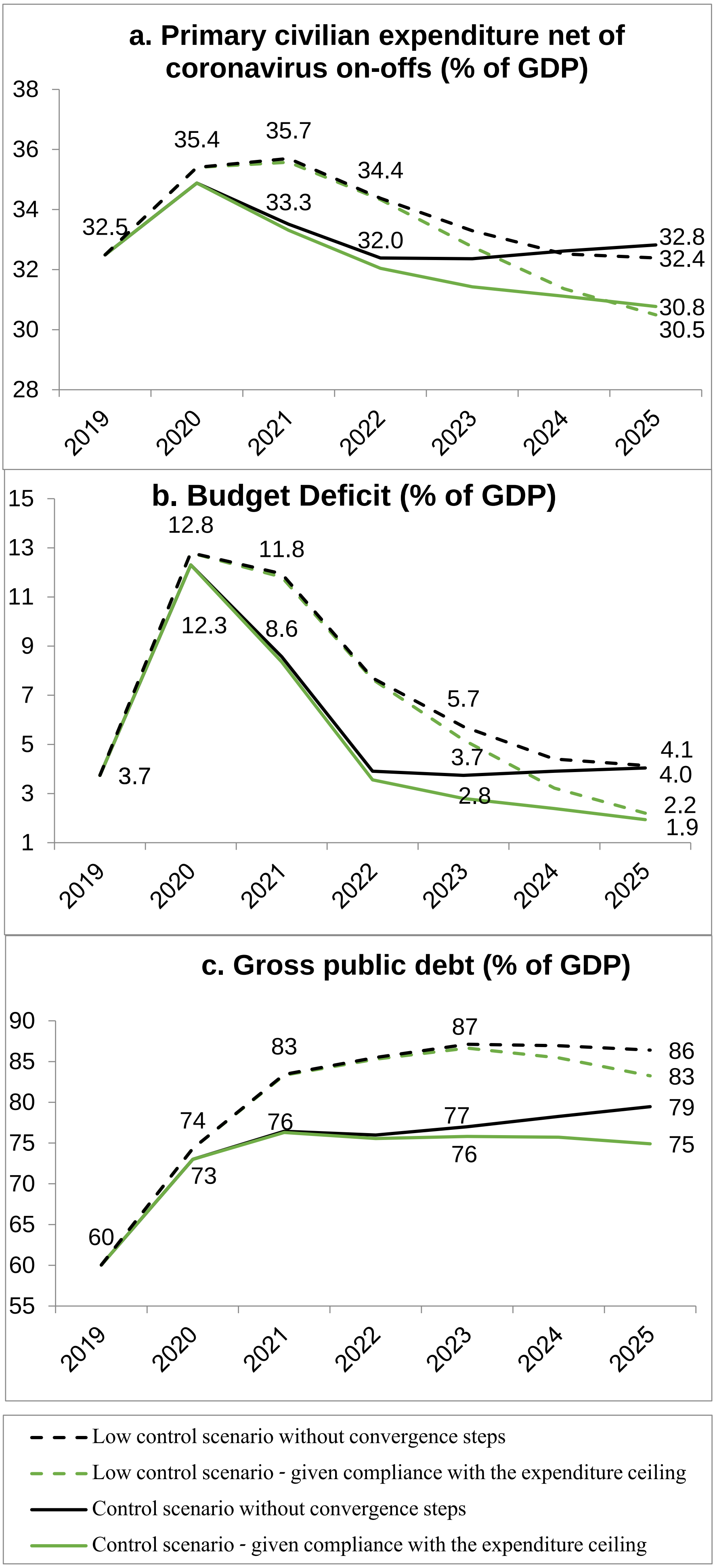
### c. The public debt

The dynamic of the debt to GDP ratio is made up of 2 main components: the deficit (net of accounting allowances to non-budgeted funds) and the level of the nominal GDP.[3] In 2020, in which GDP is expected to contract and the deficit to be about 12-13 percent of GDP, those two main components are expected to contribute about 14-15 percentage points to the increase in the debt ratio. In the following years, the rapid increase of GDP in the process of converging to full employment will contribute to a decrease in the debt ratio while the deficits will continue to contribute to its increase, but at a diminishing rate. This trend is similar to the forecast in most advanced economies that are spending unprecedented amounts to support their economies during the Covid-19 crisis and are expected to return to the structural deficit that prevailed in 2019 with their return to full employment. However, even in 2025, in all countries except for Germany, debt projections are higher than their 2019 levels: total debt of the advanced economies is expected to be higher by20 percent of GDP (led by the UK and the US) and for the Eurozone—higher by 10 percent of GDP.[4]

While the level of the debt ratio depends to a great degree on the macroeconomic scenario that materializes, its trend after 2021 depends on the policy chosen: the gradual reduction of the structural deficit beginning from 2022—via the expenditure rule (including the Covid-19 exceptional budget) or equivalent tax increases—is expected to stabilize the debt ratio by 2023 and to reduce it moderately afterwards (the green lines in Figure 3c, and see also Section 7 below). This is because the expenditure ceiling in its current version is very restrictive in 2022–25, and will lead to a rapid reduction of the structural deficit. Thus, complying with the "adjusted expenditure" rule through 2030 makes it possible to reach a debt to GDP ratio of 77 percent in the low control scenario and 69 percent in the control scenario. Yet in contrast, a policy of expenditure according to existing commitments (the black lines in Figure 3) without increasing the tax rates, means essentially maintaining the high structural deficit at its current level, and will be reflected in a rising path of the debt ratio.

[3] There are also other factors whose effect on the debt to GDP ratio can be seen, such as inflation that erodes the debt that is not indexed to the CPI, changes in the exchange rate that impact on the value of the debt denominated in foreign currency, and repayments of loans that the government extended to the public.
[4] International Monetary Fund, *Fiscal Monitor: Policies for Recovery* (Chapter 1), October 2020.

**Figure 3**
**Fiscal Aggregate Forecasts (percent of GDP)**



## 7. Reducing the debt ratio in the long term[5] via various policy paths

Maintaining the "adjusted expenditure" ceiling will bring the structural deficit to a level of about 2 percent of GDP in 2025, or 2026 (depending on the scenario), and to 1.5 percent of GDP slightly afterwards. However, this policy will also have a restrictive effect on activity during the period. In order to understand the effect on the debt ratio, we check what the expected debt level is in the coming two decades if the government will halt the reduction of the structural deficit at one of three different levels—1.5, 2, or 2.5 percent of GDP. Clearly, the analysis presented for such a period of time encapsulates a vast amount of uncertainty and should be viewed as an illustration intended to present qualitatively the trend of the chosen policy's impact.

In the low control scenario (Figure 4a), these targets are expected to reduce the debt to GDP ratio by 2030 to 77, 79, and 81 percent of GDP, respectively. In 2040, the debt will reach 68, 74, and 80 percent of GDP, respectively. Under the high-control scenario (Figure 4b)—in which the debt ratio is expected to be lower by 10 percentage points in 2025—the abovementioned targets are expected to reduce the debt ratio by 2030 to 69, 71, and 73 percent of GDP, respectively. In 2040, the debt will reach 62, 68, and 74 percent of GDP, respectively.

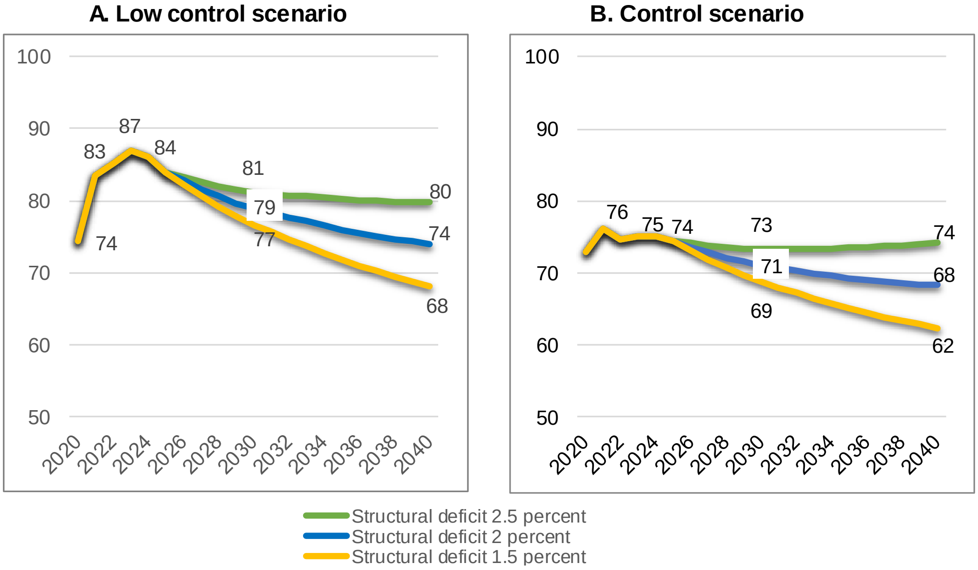
This simulation illustrates the significant fiscal effort required in order to reduce the public debt ratio to the level at which it was before the crisis, and the length of the adjustment. It also clarifies that basing fiscal policy at the current time on a quantitative target for the debt ratio in the medium term—before it has become clear if the economy is on a path of control of the pandemic or on the low control path—is liable to lead to policy that is not in line with the targets. In view of the anomalous uncertainty in the current period, it is therefore preferable to suspend the design of the policy of fiscal convergence until the government's approval of the 2022 budget. The scenarios also indicate that even in the high-control scenario, and even if an "adjusted expenditure" ceiling is adopted that will lead to a structural deficit of 1.5 percent of GDP in 2026, a return to debt at 60 percent of GDP is not expected in less than 2 decades.[6]

[5] The working assumptions at the base of the forecast in Sections 7 and 8:

1. Inflation stabilizes at 2 percent per year beginning from 2025, as well as the GDP deflator.
2. The exchange rate vs. the dollar will increase gradually through 2023 and will be entrenched at that level for the following years.
   In the baseline scenario, real growth rates beginning form 2026 are taken from the long-term growth model (Argov and Tsur, 2019) and decline slowly from 2.6 percent at the beginning of the period to 2.1 percent at the end due to the slowdown in working ages population growth, changes in the composition of the population and the moderation of the growth rate of the human capital (expressed by effective years of schooling) for the workforce compared to the high rate of previous decades.

[6] In 2006, Israel's debt was at a level of 80 percent of GDP and it declined to 60 percent by 2019, but only half of the decline derived from growth of GDP and the cumulative deficits (see Adi Brender, "Fiscal Policy: The Journey to Reduce the Public Debt to GDP Ratio and the Size of the Government", in "Lights and Shadows in the Market Economy: The Israeli Economy, 1995-2017", edited by A. Ben Bassat, R. Gronau, and A. Zussman, *Am Oved* publishers, 2020). The rest of the decline derived from uncontrollable factors that may not repeat themselves. Moreover, the potential growth rate in those years was higher than in recent decades.

**Figure 4**
**Possible Paths of Convergence for the Debt to GDP Ratio**




## 8. The fiscal aspects of increasing labor productivity in Israel

The Bank of Israel's Productivity Report (2019) presented a multiyear framework of steps to equalize labor productivity in Israel with its level in other advanced economies. The cost of these steps is high: it is estimated at about 3 percent of GDP per year. However, the addition to GDP in the long term vis-à-vis this cost is notable: about 20 percent. The high return justifies the investment in the proposed reforms, but the marked increase in the debt ratio due to the crisis highlights the question of whether it is possible to carry out these steps without raising taxes or reducing other costs, and without the debt ratio reaching a level that jeopardizes the economy's financing ability.

We examine the suggested framework via a simulation of the debt to GDP ratio through 2065 in various financing scenarios. The starting point for this exercise is the low control scenario in which the public debt reaches 84 percent of GDP in 2025 and the assumption is that beginning in 2026 the structural deficit (before the investment in increasing productivity) is 2 percent.[7] We assume, for this demonstration, that the implementation of the steps to increase productivity takes place gradually in 2022–25 and the full cost will only be reflected in the budget starting from 2026, but the effect of the reforms on GDP in those first years will be very small.[8] These steps are expected to gradually increase the level of GDP (mainly at the end of the next decade, when the investment in infrastructures and human capital will be fully reflected) so that the long-term growth rate will increase by 0.5 percent on average.

### a. Financing the steps to raise labor productivity through taxes

Adopting all the steps to increase productivity, and financing them through increasing taxes at an average cost of 2.9 percent of GDP[9], meaning a change in the composition of the deficit and not its level, will make it possible to reduce the debt ratio to about 66 percent by 2040 (the red line in Figure 5a), as opposed to 74 percent on a path without investment in labor productivity (the blue line in Figure 4a). This is under the

[7] The scenario of control of infection, if it materializes, will be a more convenient starting point and will require more lenient fiscal adjustments in order to converge to the same debt levels.
[8] This assumes that GDP has already reached its potential and given that projects to improve infrastructure and investments in education will not come to fruition yet.
[9] We assume that out of costs equal to 3.3 percent of GDP, 2.3 percent of them are permanent and another 1 percent (NIS 15 billion) are the fixed shekel amount in the coming 20 years. Through 2040, the total cost of the steps is about 2.9 percent of GDP on average.

assumption that raising the tax burden offsets about 0.15 percent per year from GDP growth (see the discussion in the Productivity Report). In an additional scenario (the yellow line in Figure 5a) we present the ramifications of the framework in which tax rates are raised less and will finance only part of the total cost of the steps to increase productivity so that the structural deficit target will be set at 2.7 percent of GDP (instead of 2 percent). In such a framework the debt ratio will reach 74 percent by 2040, like in the scenario without investment in productivity, but at a higher level of GDP, which means a higher standard of living.

**b. Financing the increase in productivity by raising the structural deficit**

The alternative policy scenario examines the ramifications of increasing the structural deficit from 2 percent to 4.9 percent for the benefit of the same investment projects. Recall that the current structural deficit is estimated at about 4 percent of GDP and therefore, before the proposed increase for raising productivity, there will have to be a convergence by decreasing the other components of the deficit. This scenario is expected to increase the debt ratio to high levels, running nearly unrestrained for a prolonged period of time, despite the marked growth in the level of GDP in the long term (the blue line in Figure 5a). Additionally, the marked increase in interest expenses in this scenario will require a significant cut in primary government expenditures in order not to deviate from the already high deficit target.

The reason for the rise in the debt ratio despite the rapid growth is that the contribution of GDP growth to the erosion of the debt ratio is smaller than the effect of the increase in the debt that derives from the high structural deficit. This is because all the expenditures come from the government budget, but the benefit reaches the entire population. Under such a path, it is possible to increase the tax burden, and, with the appropriate redistribution, the public will still enjoy a larger increase in welfare due to the increased productivity. In addition, despite the low cost of the debt, it is not zero, and the higher debt level increases the government's interest payments and reduces the ability to finance government services given a fixed structural deficit target (Figure 5b).

**Figure 5**
**Financing the Reforms to Increase Labor Productivity**
**Long term debt and interest payments under various policy scenarios (percent of GDP)**