Chapter 6
The Public Sector and its Financing

- The Swords of Iron War had a major impact on government sector activity. In the first quarter of the conflict, there was a marked increase in public expenditure, both defense and civilian, while government revenues contracted sharply. The general government deficit for 2023 was 6.7 percent of GDP, while the deficit in the state budget was 4.1 percent, and the debt to GDP ratio increased from 60.5 percent to 61.9 percent.
- The sharp increase in budgetary needs due to the war required the government to approve new budgets for 2023–24 only six months after they were originally legislated. The updated budget for 2023 primarily reflected an expansion of the budgetary framework to cover the costs of the war. In contrast, alongside the amendment of the 2024 budget the government also presented a plan of fiscal adjustments on both the revenue and expenditure sides, in accordance with expected growth of structural expenditure in coming years.
- Tax revenues have consistently declined since the fourth quarter of 2022 from the exceptionally high levels reached that year. As a result, the tax burden (tax revenue as a percentage of GDP) in the first three quarters of 2023 returned to approximately its level during the corresponding period in 2019, which was characterized by revenues in line with their long-term trend.
- The policies and the fiscal frameworks adopted in 2023 helped to stabilize the macroeconomic environment. Before the war, this was achieved through an acyclical policy stance, primarily by addressing past cost increases without raising demand during a period of inflationary pressures; during the war, it was achieved through expansionary policy, which included an increase in wartime expenditure, assistance programs for households in conflict areas, and assistance for workers and businesses nationwide depending on the extent of the war's impact on them.
- From the perspective of expenditure composition and the economic policy adopted by the government, the contribution of fiscal policy to long-term growth was limited this year: infrastructure development budgets were reduced relative to the previous year, regulatory reforms made only partial progress, and incentives to teach the core curriculum and for employment in the ultra-Orthodox (*Haredi*) community were reduced.
- The events of October 7th reignited public debate on the desired size of the defense budget and the costs it imposes on the economy. A future trajectory of fiscal policy will need to credibly prioritize spending, in order to ensure budgetary certainty for the Ministry of Defense while limiting the impact on the budgets of civilian ministries and on the tax burden borne by the public. Further increases in the defense budget, beyond the existing budgetary decisions, could lead to divergence in the debt-to-GDP ratio if permanent offsetting adjustments in the budget or tax rates are not implemented. Despite the urgent short-term needs, it is crucial for the government to quickly decide on the desired burden of the defense budget, and accordingly, the resources that should be allocated to long-term programs to advance the Israeli economy. The new fiscal challenges are in addition to already existing ones related to the needs of public investment due to Israel's low labor productivity.

1. MAIN DEVELOPMENTS

a. Fiscal Policy

Following the COVID-19 pandemic, the convergence of the economy's macroeconomic indicators back to their long-term trends was accompanied by a similar convergence of the fiscal aggregates.

Prior to the outbreak of the Swords of Iron War, inflation moderated in 2023, and the previously rapid growth in Israel's economy slowed. Israel's macroeconomic indicators following the COVID-19 pandemic returned to their long-term trends. This was accompanied by a similar convergence in fiscal indicators, as reflected by a decrease in the expenditures and revenues in terms of GDP. The Swords of Iron War, which broke out in the last quarter of the year, disrupted this gradual trend of convergence, as state revenues declined sharply due to the slowdown in economic activity, and government expenditure increased in order to cover the costs of the war, including on the home front.

The central economic dilemma during the process of formulating the original 2023–24 budget was the extent to which government spending should be increased in the short term, given the optimistic revenue forecast and, at the same time, the still-prevailing inflationary pressures and high structural deficit. This question was replaced in the last quarter of the year by the issue of how to deal with the short-term national emergency and its long-term impact on the Israeli economy. This included the extent of support to businesses and workers during the war; the means of financing of the war; whether excess debt should be raised, despite its higher cost, as a precautionary measure; and the appropriate timing of measures to balance the structural increase in government expenditures as a result of the war.

From a short-term perspective, the fiscal policy adopted in 2023 helped stabilize the macroeconomic environment.

From a short-term perspective, the fiscal policy adopted in 2023 helped to stabilize the macroeconomic environment. Fiscal restraint prevailed at the beginning of the year due to the interim budget, and subsequently, with inflation high and output above its long-term trend, a budget was approved that reflected an acyclical stance and preservation of the structural deficit. However, from the perspective of supporting long-term growth, the expenditure composition and the policies adopted by the government had a limited impact.

The deficit that was set in the original budget for 2023 and 2024 was 0.9 percent of GDP for both years, even though the deficit ceiling according to law allowed for deficits of 2.75 and 2.25 percent of GDP, respectively (see Table 6.1 for a timeline of relevant dates for the state budget). This budget featured a revenue forecast that was above its long-term trend.[1] This forecast created a temptation for the government to increase the structural deficit (see the definition below) without breaching the statutory deficit ceiling, thus postponing the fiscal effort into the future when revenues would return to their structural level. The choice to set a low deficit target created a fiscal buffer, which helped the economy to cope with the macroeconomic challenges that

[1] For further details on the exceptionally large tax revenues, see the Bank of Israel Annual Report for 2021, Box 6.1—"What Explains the Growth of Tax Receipts in 2021?"; Bank of Israel Annual Report 2022: "The Public Sector and Its Financing."

developed later in the year, and also to curb the inflationary pressures that prevailed in the economy at that time.

To mitigate the built-in restraint of the statutory expenditure fiscal rule, the government amended the Deficit Reduction and Expenditure Limit Law temporarily, thus increasing the budget (not including COVID-19 expenditure) by a rate slightly above the expected growth rate of GDP. Most of the increase in the 2023 budget was intended to address cost increases in the economy, collective wage agreements in the public sector (which included large one-time payments this year) and an increase in the number of government ministries, as well as salary and transfer payment additions approved as part of the "coalition funding". On the tax side, the policy did not change the situation relative to the previous year: although purchase taxes on electric vehicles were increased as part of a multiyear plan, taxes intended to reduce negative externalities—such as excise taxes on sugary drinks and disposable tableware—were canceled, and the gasoline tax was reduced each month in order to stabilize gasoline prices in the face of the shekel's devaluation. During the legislative process for the 2023–24 budget, the government enacted several tax reductions that were meant to take effect in 2024; the most significant of them being the expansion of tax credit points for parents.

Table 6.1
Key Dates in the State Budget Legislative Process

February 23, 2023	Approval by the government of the original budget for the years 2023–24.
May 23, 2023	Approval of the state budget for the years 2023–24 on second and third readings by the Knesset plenum.
November 28, 2023	Approval by the government of the revised budget for 2023 due to the eruption of the Swords of Iron War.
December 14, 2023	Approval of the revised state budget for 2023 on second and third readings by the Knesset plenum.
December 25, 2023	Presentation of the 2024 "Deviations Report" to the Finance Committee.
January 15, 2024	Approval by the government of the revised budget for 2024 due to the eruption of the Swords of Iron War.
March 13, 2024	Approval of the revised state budget for 2024 on second and third readings by the Knesset plenum.

The original budget framework reflected fiscal responsibility. However, its composition was not in line with supporting long-term growth.

The original budget framework demonstrated fiscal responsibility, but its composition did not align with support for long-term growth and the implementation of structural reforms. The investment budget was reduced relative to 2022, and regulatory reforms in the food and toiletries industry and the "Metro Law" were only adopted in part. In contrast, the government increased the number of ministers and ministries, contrary to the recommendations of an interministerial committee that examined the issue,[2] and increased budget lines that reduce incentives to teach core subjects and to encourage employment in the ultra-Orthodox (*Haredi*) community. The collective wage agreements signed this year, like those signed in the previous year, focused on budgetary savings rather than structural changes in the public sector or strengthening its human capital.[3] Nonetheless, the National Infrastructure Law enacted in 2023 may help to accelerate important projects in the future.

Coalition funding makes it easier for elected officials to implement their policies in the short term. However, some of the programs budgeted in this context create long-term obligations.

Public discourse in 2023 put a lot of emphasis on the large scale of "coalition funding", and this issue became even more acute with the need for budget cuts following the outbreak of the war. The role of the "coalition agreements" is to reflect the priorities of the new government and the issues on which it intends to focus during its term. Some of the items in the agreements have significant budgetary implications and are accompanied by government decisions; however, tracking the budgeting and actual implementation of these decisions is complex, since some are budgeted in the original budget law while others are included in subsequent within-budget transfers.[4] Although these budgets are temporary and require additional government decisions to renew them, they are integrated within the regular budget framework and are subject to fiscal rules, including the expenditure ceiling. This system makes it easier for public officials to implement their policies in the short term, but it may increase the fiscal burden in the long term. This is because some of the programs funded within the framework of coalition funding create long-term obligations without requiring the government to find a long-term funding source for them and without going through the professional prioritization process that is implemented for other programs in the budget base (for example, funding salary increases for private schools in the *Haredi* sector in accordance with the "New Horizon" collective wage agreement or the expansion of the Border Guard[5]). It is important to preserve the professional budget

[2] The Interministerial Taskforce for Implementing Adjustments to the Government's Structure was created by Government Decision 1887. In its January 2018 report, it recommended that the number of government ministries be limited to 17, that a minister serve in only one ministry and that the possibility be created of appointing a Minister for Cross-Ministerial Issues instead of a Minister Without Portfolio.

[3] According to this agreement, like the one signed with the Teachers Union at the end of 2022, most of the salary increases were frontloaded (concentrated at the beginning of the period), although the average annual salary increase over the entire period is moderated both by the inflation expected in coming years and relative to the salary increases expected in the private sector. For further details, see the chapter on the Labor Market in this report and that on The Public Sector and its Financing in the Bank of Israel Annual Report for 2022.

[4] This is in accordance with the instructions issued by the Attorney General to the Government 1.1801 – "Implementation of Political Agreements that have Significant Budgetary Implications" in March 2015. Starting from that point, coalition funds were included in the existing budget lines. Since the current government was formed at the beginning of 2023, the coalition budgets this year were allocated concurrently with the budget legislation process. As a result, additional government resolutions were required after the decision to approve the budget, and they were budgeted in reserve programs until the approval of the legal advisors in the relevant ministries and until the budget transfer from the reserves to the regular programs was approved by the Finance Committee.

[5] These programs create a contractual obligation with employees, even though they are only temporarily budgeted within the coalition agreements.

formulation process, in order to ensure that the programs are constructed efficiently and are coordinated with other programs within the budget.

With the outbreak of the Swords of Iron War, the government significantly increased defense expenditure in order to fund the military costs of the conflict and expanded civilian expenditure to address the needs of citizens directly affected by the Hamas attacks and those displaced from their homes in the North and South. The government also decided to provide economic support to businesses and workers who were affected by restrictions on their activity and by reduced demand. The substantial increase in the budget helped to mitigate the economic impact of the war on the economy (see Chapter 2). About a month after the outbreak of the war, the government approved a nationwide business continuity grant program based on the framework created during the COVID-19 crisis, with the addition of compensation of employers for salary expenses, which was intended to encourage employee retention rather than layoffs. (For further details on the various assistance programs for businesses and the loosening of conditions for furlough, see Chapter 5.)

Alongside the important measures adopted by the government, critical failures and policy gaps on the home front emerged during the first month of the war. These were the result of a lack of preparedness for an emergency on the part of the government ministries.[6] The main issues identified were the irrelevance of the original evacuation plans and delays in implementing alternative solutions; problems in the response by ministry representatives due to the sudden shift to fully remote work; interruption of contracts and payments by the Ministry of Finance at the start of the war; and a lack of available budget in the affected local authorities and in local authorities who took in evacuees.[7] These problems were dealt with over time as work methods and government mechanisms adapted to the new situation. However, the defects revealed highlight the need to improve government preparedness for crises and in order to increase the public's trust in the government's emergency responses and its willingness to rely on them.

The deficiencies revealed at the start of the war uncovered the need to improve government preparedness, with the goal of increasing the public confidence in solutions provided by the government in times of emergency and its willingness to rely on them.

b. Fiscal Aggregates

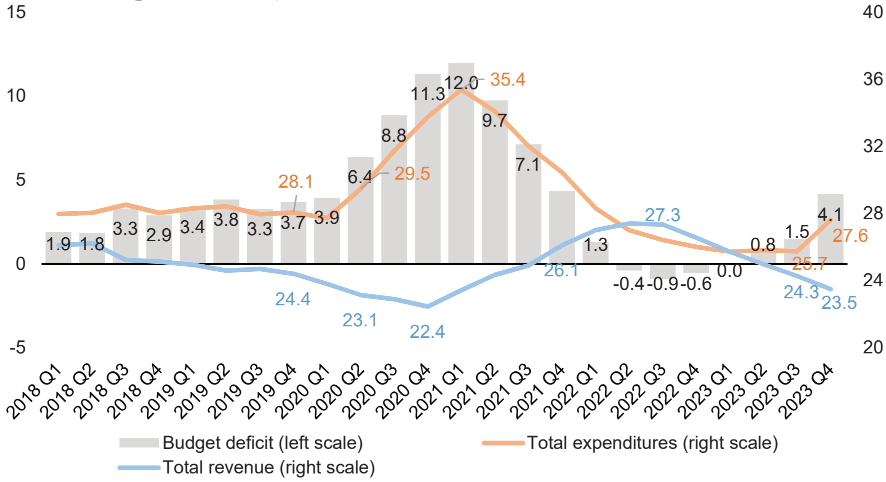
The deficit in the state budget for the 12 months ending in September 2023 totaled 1.5 percent of GDP, although it skyrocketed in the last quarter of the year to an annual level of 4.1 percent of GDP. The prewar deficit, which followed the exceptionally large surplus during the corresponding period in 2022, was lower than during the two

6 State Comptroller's report on "Preparedness for the Defense of the Home Front against Missile and Rocket Threats, Physical Sheltering, Warning and Evacuation of Population – Follow-up Monitoring," August 2020; State Comptroller's report on "Local Authorities' Preparedness for Handling Anxiety Victims in Emergencies," May 2021; State Comptroller's report on "Computer Infrastructure for Remote Learning and Alternative Learning Spaces during the COVID-19 Crisis – Interim Findings," October 2020. [Hebrew]

7 Letter from the State Comptroller to the Prime Minister on " Swords of Iron War—Major Failures and Lacunae in Dealing with the Home Front. A Status Report based on Inspections by the Comptroller and the Ombudsman for Public Complaints," November 13, 2023. [Hebrew]

years that preceded the COVID-19 crisis. Government expenditure prior to the war was significantly lower as a percentage of GDP than just prior the COVID-19 crisis, and state revenues returned to approximately their pre-crisis share of GDP. In the last quarter of 2023, the government enlarged the state budget to cover the costs of the war, while state revenues decreased due to the impact on economic activity (Figure 6.1). The debt to GDP ratio increased from 60.5 percent at the end of 2022 to 61.9 percent at the end of 2023.

Figure 6.1
Revenue, Expenditures[a] and Cumulative Deficit in the Past Four Quarters, 2018–2023 (percent of GDP)



Revenue and expenditures are net of the credit provided by the government and repayments it receives, and net of US government grants and the expenditures they finance.
SOURCE: Based on Ministry of Finance and Central Bureau of Statistics.

The general government deficit,[8] which reflects the activity of the entire public sector and can be used for purposes of comparison to other countries, totaled 6.7 percent of GDP in 2023 (see Table 6.2).[9] The gap between the general government deficit and the deficit in the state budget terms (which was, as mentioned, 4.1 percent

[8] The general government includes the government itself, the National Insurance Institute, local authorities, health funds, public NGOs (universities, yeshivas, etc.) whose main source of income is the government, and the national institutions (the Jewish Agency, the Jewish National Fund and the World Zionist Organization). Its activities are measured according to National Accounting definitions, which differ from those used in the state budget.

[9] According to the Central Bureau of Statistics, the deficit amounted to 4.9 percent of GDP. The reason for the discrepancy is that the Central Bureau of Statistics offsets public investment (in housing) by the revenue from land sales, since the interpretation of National Accounting rules views land sales as a negative investment by the government. The data on OECD countries in recent years show that this type of revenue is very small in most cases (an average of about 0.05 percent of GDP), and the offset of investment reflects activities such as the sale of improved agricultural land or the purchase and renovation of public housing and its sale to eligible parties. In contrast, the revenues in Israel stem from the sale of lands historically owned by the state, i.e., asset realization, and in 2023 they amounted to about 1.9 percent of GDP. Since asset realization is essentially a financial phenomenon, we present the public expenditure without that offset, and the land sales are presented as a financial item that offsets the growth of the debt.

of GDP) is the result of methodological differences in the calculation of the deficit. The general government deficit in 2023 included, among other things, off-budget expenditures and land subsidies financed through land privatization (1.9 percent of GDP) and off-budget expenditure to cover direct and indirect war damages (0.3 percent of GDP). Excluding the effects of the war, the general government deficit is estimated at about 4.4 percent of GDP: approximately 1.8 percent of GDP was due to expenditure attributed to the war—both defense and civilian—and an additional 0.5 percent was the result of forgone tax revenue in the last quarter of the year. (For more details, see Section 4 in this chapter.)

Table 6.2
The main components of the general government's revenue and expenditures, 2017–2023

(percent of GDP)

	2017	2018	2019	2020	2021	2022	2023
Total public revenue	**37.6**	**36.1**	**35.3**	**34.5**	**36.9**	**37.5**	**34.7**
of which : Income from property	0.5	0.5	0.5	0.4	0.5	0.6	0.7
Total taxes	**32.1**	**30.7**	**30.0**	**29.5**	**32.2**	**32.6**	**29.8**
Indirect taxes on domestic production	12.3	12.3	11.9	11.5	12.4	12.2	10.7
Indirect taxes on civilian imports	2.6	2.7	2.7	2.7	2.8	2.8	2.5
Direct taxes, fees and levies	11.9	10.5	10.3	10.2	12.0	12.7	11.5
National Insurance Institute revenue	5.2	5.2	5.2	5.2	5.0	5.0	5.0
Grants	1.2	1.2	1.1	1.0	1.0	1.1	1.2
Other[a]	3.9	3.7	3.7	3.6	3.2	3.2	3.1
Total public expenditure[b]	**39.9**	**40.4**	**39.8**	**45.9**	**42.2**	**39.3**	**41.5**
Current expenditure	37.0	37.4	37.0	42.5	39.3	36.2	37.8
Civilian expenditure on services and in-kind transfers	19.6	19.8	19.7	20.6	19.5	18.7	19.0
Domestic defense consumption	4.6	4.6	4.5	4.4	4.2	3.9	4.9
Defense imports	0.3	0.3	0.3	0.3	0.4	0.2	0.4
Direct subsidies	0.8	0.8	0.9	4.0	3.0	1.0	1.1
Transfer payments on current account	9.6	9.6	9.6	11.2	9.6	9.1	9.5
Interest payments[c]	2.2	2.4	2.1	2.0	2.8	3.4	3.0
Transfer payments on capital account[d]	0.6	0.6	0.5	0.5	0.6	0.8	1.3
Investments of the general government including investm	2.3	2.4	2.3	3.0	2.3	2.3	2.4
of which : Net civilian investment	2.1	2.1	2.1	2.8	2.1	2.0	2.0
Primary civilian expenditure[b]	**32.7**	**33.0**	**32.8**	**39.1**	**34.7**	**31.5**	**32.9**
Total deficit of the general government[b]	**2.2**	**4.4**	**4.5**	**11.4**	**5.3**	**1.8**	**6.7**
Central government deficit (excluding provision of credit)[e]	1.9	2.9	3.7	11.3	4.3	-0.6	4.1
Current deficit of the general government	0.8	2.7	3.0	9.4	4.3	0.7	4.5
Total cyclically adjusted deficit using international definitio	1.3	4.3	4.4	8.9	6.7	3.3	7.5
Net public debt[g,h]	56.8	57.3	57.2	66.8	64.1	58.3	59.8
Gross public debt[g]	59.8	60.1	59.2	70.9	67.8	60.5	61.9

[a] Includes transfer payments from the public on the current and capital accounts, imputed pensions, civilian sales, capital transfers from abroad, and transfers from abroad to National Institutions and nonprofit organizations.

[b] Excludes the reduction of expenses financed by the sale of land. Beginning with the 2022 report, the recording of defense investments was moved from defense consumption and imports to government investments. Depreciation of defense fixed capital is recorded in doemstic defense consumption.

[c] In 2018, the Central Bureau of Statistics revised the calculation for interest expenses from 1995 onward, and they are now calculated on a cumulative nominal basis plus indexation differentials on the public debt.

[d] Includes mortgage subsidies and transfers on the capital account to nonprofit organizations and businesses.

[e] The central government deficit is calculated based on various definitions.

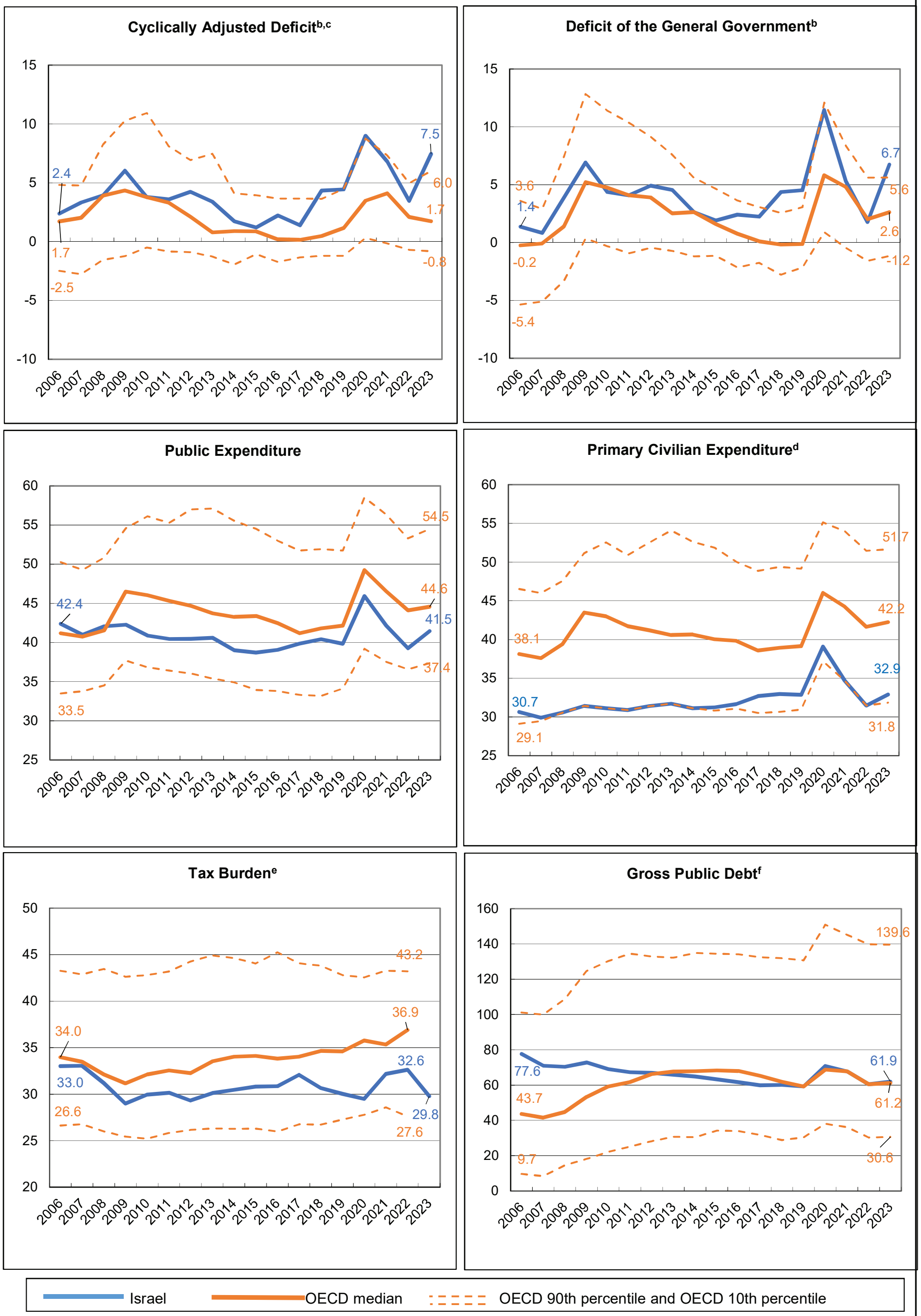
[f] In previous publications, the source for this figure in the current year was based on the OECD estimate. This year, the methodology was changed as outlined in the chapter.

[g] Excluding municipalities' debts to the government.

[h] Net public debt equals the gross public debt minus active loans minus government deposits with the Bank of Israel.

SOURCE: Based on Central Bureau of Statistics data.

Figure 6.2
Israel's Fiscal Aggregates Compared to the OECD Average[a], 2006–2023 (percent of GDP)



[a] Data for OECD countries are based on all member countries for which there are data available.
[b] According to the international definitions, excluding revenue from the sale of land.
[c] The OECD estimates are as of November 2023.
[d] Due to a lack of up-to-date data, defense expenditures in 2023 are equal to defense expenditures in 2022 for most countries, and are equal to 2021 data for some others. Defense expenditures for Israel are 2023 data.
[e] The graphs are presented up to the last year for which there are data in the OECD database.
[f] Data are in line with the International Monetary Fund's definition, and are taken from the IMF database.
SOURCE: Based on Central Bureau of Statistics data, OECD data (*Economic Outlook* 114, Dec. 2023, and Revenue Statistics, 2023) and International Monetary Fund.

Primary civilian expenditure as a share of GDP continued to be among the lowest among the OECD countries, despite the increase in civilian expenditure to support the home front. Meanwhile, tax revenues as a percentage of GDP, which increased in 2021–22 due to anomalous revenues, returned to their previous level due to the convergence of tax revenues in Israel to their structural level and due to the effects of the war. Israel's cyclically adjusted deficit is among the highest in the OECD. In 2021–22, Israel's situation improved relative to other advanced economies that were forced to increase their deficits as a result of COVID-19 and the subsequent energy crisis. Nonetheless, the cyclically adjusted deficit rose to a high level in 2023 relative to most OECD countries, due to the fiscal expansion undertaken in the last quarter to address the consequences of the war. The ratio of public debt to GDP in Israel remained similar to the OECD median, as it has been throughout the past decade (see Figure 6.2).

Primary civilian expenditure as a share of GDP in Israel continues to rank among the lowest in the OECD, despite the increase of civilian expenditure to support the home front.

2. THE GOVERNMENT DEFICIT

The cyclically adjusted deficit separates out the effect of the business cycle from the headline deficit, and changes in it reflect the extent of fiscal policy expansion or contraction. This measure is calculated by expressing the rate of public expenditure and non-tax revenues in terms of potential output.[10] We also deduct from total tax revenues the portion of income explained by deviations from the long-term trends of output, wages, imports, the Tel Aviv Stock Exchange General Index, and the Bank of Israel interest rate.[11]

The structural deficit is a measure the government's long-term policy, namely that expected to be realized in the actual deficit in the medium term in a "business-as-usual" scenario. Changes in the structural deficit are primarily impacted by government discretionary decisions that affect the level of permanent spending and statutory tax changes, although it can also change in the long term due to structural changes in public expenditure (e.g., due to the population aging trends) or changes in the tax base. (See below, on the subject of the gasoline tax.)

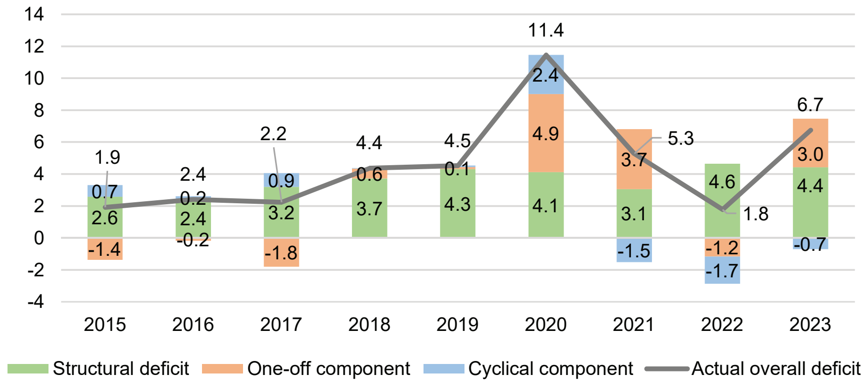
To estimate the structural deficit, one-off factors are deducted from the cyclically adjusted deficit that are not part of the general business cycle, such as one-off tax

[10] Public expenditure and non-tax revenues are less sensitive to changes in output than are tax revenues, which tend to vary over time according to changes in output. In 2023, the actual output level was higher on average than its potential, such that the actual public expenditure rate was lower than its rate relative to potential output. The potential output level is calculated according to the long-term trend of output between 1988 and 2023 and changes that have occurred in it, which are correlated with the growth of the prime working-age population (aged 25–64). The analysis of the output gap in Chapter 2 of this report uses a different definition of potential output (based on an estimation of the production function), which is partly affected by cyclical factors that we wish to neutralize.

[11] Trends are calculated using linear regressions for the period 1995–2023 for each of the variables mentioned, where the dependent variable is the one for which the trend is calculated, and the independent variables are a dummy for the quarter and a quadratic time trend.

receipts, temporary expenditure[12], and the effects of inflation.[13] Inflationary surprises reduce the actual deficit in that same year, but their effect disappears in the following year due to automatic modifications of expenditure or revenue components indexed by law to the CPI or average wages, wage agreements signed retroactively and the adjustment of the budget expenditure ceiling to actual inflation during the preceding three years. Additionally, because indexation of government bonds to CPI is recorded as an expenditure according to National Accounting definitions, we adjust the latter by deducting the gap between actual inflation and long-term expected inflation.

Figure 6.3
Components of the Overall General Government Deficit, 2015–2023
(percent of GDP)



SOURCE: Based on Central Bureau of Statistics and Israel Tax Authority.

The structural deficit has not changed significantly relative to the previous year.

Figure 6.3 presents the breakdown of the total deficit into the components described above. It shows that the large deficit observed in 2023 was biased upward by one-off factors, just as the low deficit in 2022 was biased downwards. The cyclically adjusted deficit (the sum of the structural component and the one-time component) increased relative to the previous year as part of the fiscal expansion undertaken by the government in the last quarter of the year to cope with the costs of the war; however, the structural deficit did not change significantly relative to 2019 or 2022,

[12] Temporary expenditures include the government's temporary expenditures due to the COVID-19 crisis and the Swords of Iron War.

[13] In order to adjust for inflation, we only consider surprises in inflation and in the GDP deflator relative to the forecast that appeared in the state budget, since the government can preemptively respond to an expected price increase through structural changes in expenditure and revenues. For example, in 2022, the average inflation forecast used in preparing the budget and the increase in the GDP deflator were 1.5 percent and 1.4 percent, respectively, while these indices in actuality ended up at 2.9 percent and 3.3 percent, respectively. In 2023, the surprises were smaller: 4.2 percent versus a forecast of 3.9 percent in inflation, and 3.8 percent versus a forecasted increase of 3.1 percent in the GDP deflator.

since during 2023 it was related to temporary expenses associated with the war only.[14] However, starting from 2024, structural expenditures are expected to increase, due to additions to the defense budget for military buildup, the allocation of budgets for the Tekuma Administration and the rehabilitation of the North, National Insurance Institute expenses for victims, mental health services, and the continuous increase in interest payments, which will accelerate due to the growth in the stock of debt and the rise of its cost. The structural budgetary adjustments legislated in March 2024 will offset some of this increase in the structural deficit. (See Section 3b below.)

The transition process to electric vehicles and the structural deficit

State revenues from the gasoline tax amounted to 1.6 percent of GDP in 2010, 1.3 percent in 2019, and 1.1 percent in 2023 (1.2 percent had it not been for the temporary reductions implemented by the Minister of Finance). One of the reasons for the downward trend in revenues from this tax is the accelerated transition from gasoline-powered vehicles to electric vehicles—a process expected to erode the tax base until it eventually disappears. The Ministry of Energy's targets stipulate that by 2030, 100 percent of new cars should be electric. In a less ambitious implementation scenario, in which there are about a million electric vehicles in Israel by 2030, this change means a loss of about a quarter of the gasoline tax revenues by 2030.[1] To address this, the government has decided to introduce a mileage tax, which will tax the number of kilometers driven by an electric vehicle. This tax is also intended to reduce road congestion and other externalities of electric vehicles, and to minimize tax distortions between different modes of transport. Due to the reduced pollution caused by electric vehicles, the proposed tax is NIS 0.15 per kilometer, compared to the existing gasoline tax which the Chief Economist estimates to be NIS 0.19 per kilometer. Therefore, it is not expected to fully replace the loss of revenues from the gasoline tax. Nonetheless, it is essential to promote this tax as part of the overall effort to prevent the divergence of the structural deficit in the long term.

[1] Ministry of Finance (2023), "The Introduction of Electric Vehicles in Israel – Benefits and Challenges", p. 25. [Hebrew]

[14] According to the OECD methodology, one-off expenditures due to assistance programs for the COVID-19 and energy crises are not deducted from the structural deficit. Therefore, Israel's structural deficit according to their methodology is closer to the cyclically adjusted deficit than under our calculation method.

3. PUBLIC EXPENDITURE

a. The level of public expenditure prior to the war

The original budget for the years 2023–24, which was approved in May 2023, was an acyclical budget that approximately maintained the size of the regular budget[15] in terms of GDP. If the government had set the budget framework according to the existing expenditure ceiling, the fiscal stance would have been more contractionary.[16] To overcome the fiscal restraint built in to the expenditure rule, the government temporarily increased the nominal adjustment parameter.[17] This change raised the expenditure ceiling by 7.1 percent relative to the 2022 expenditure ceiling and by 5.5 percent relative to the actual 2022 budget implementation (which also included one-off COVID-19 expenditures), while nominal output at that time was expected to grow by 6.2 percent.[18] Raising the ceiling primarily addressed natural growth (as a result of population growth) and the price increases of public services, including the funding of collective wage agreements signed with the Teachers Union and those expected to be signed with the General Federation of Labor in Israel (Histadrut) and the Post-Elementary Teachers Union, and an increase in the healthcare basket in line with the Healthcare Cost Index. Furthermore, the budget for the Ministry of National Security (Internal Security) was expanded, many new ministries were budgeted and public funding was increased for students in the *Haredi* educational streams and *Yeshivot* (religious institutions of higher learning).

Relative to the original 2019 budget, the 2023 budget reflected a 2 percent erosion in expenditure.

Relative to the original 2019 budget, the 2023 budget represented an erosion of about 2 percent of GDP in budgetary expenditure: the budgets of the civilian ministries were lower by about 1.1 percent of GDP, the defense budget by 0.5 percent of GDP, and the interest payments budget (including for Social Security) by 0.4 percent of GDP. Part of the erosion of civilian expenditure relative to output since 2019 stemmed from the suspension of wage agreements, which began in 2020, and they were only reinstalled in mid-2023 with the signing of a collective wage agreement for the public sector.[19]

[15] Excluding COVID-19 expenses, which were budgeted as a general reserve totaling NIS 10 billion in 2022 by temporarily increasing the expenditure ceiling.

[16] When the debt ratio stands at 60 percent of GDP, as it was at the end of 2022, the increase according to the expenditure rule = population growth rate (1.9 percent) + 50/60 (the ratio between 50 and the debt ratio: 0.8 percent) = 2.7 percent in real terms – a rate lower than the growth rate of potential output (approximately 3.9 percent). Therefore, this rule reduces the share of public expenditure in GDP.

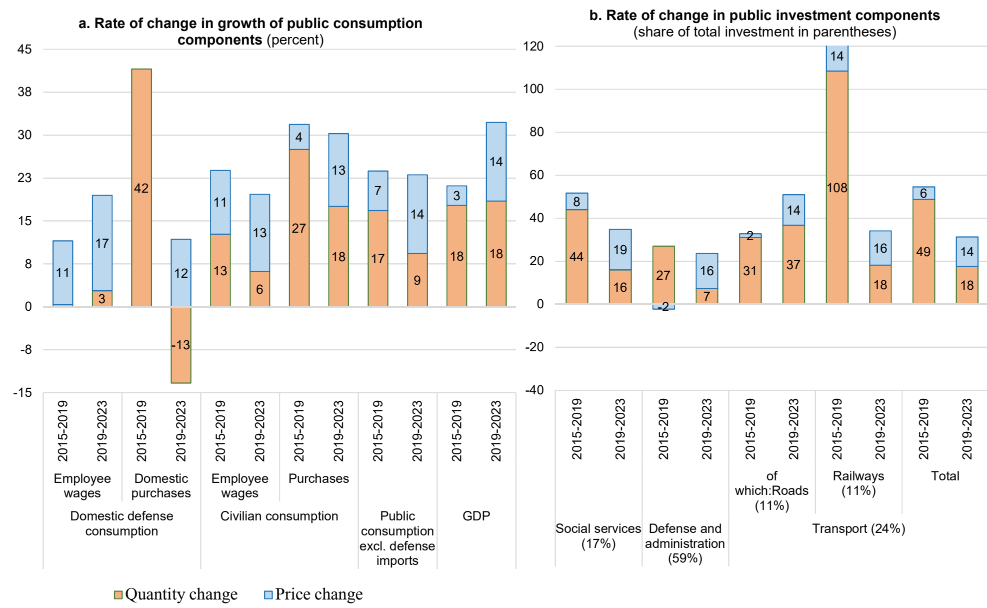
[17] The price adjustment parameter is designed to address price increases in the budget. The rate of price adjustment according to law (before the temporary update) is calculated based on the average inflation rate during the three years preceding the budget. Instead of using the average inflation rate for 2020–22, i.e., 1.8 percent, the government used—on a one-time basis—the average inflation for 2022 only (4.4 percent). Also in the case of the 2021–22 budget, the government raised the price adjustment parameter to 2 percent as a temporary measure.

[18] The document entitled "Budget Highlights" lists the assumptions used by the Chief Economist when setting the revenue forecast. They forecasted a real growth rate of GDP of 3 percent and a nominal growth rate of 6.2 percent.

[19] For further details, see the Bank of Israel Annual Report for 2022, Chapter 6: "The Public Sector and Its Financing."

Another part of the erosion is explained by the slower pace of real growth in public consumption relative to the real growth of output. The breakdown of growth in public consumption presented in Figure 6.4a shows that its growth slowed between 2019 and 2023 relative to its growth between 2015 and 2019. The main reason for its erosion relative to output was lower real growth, which was partially offset by rising prices of public consumption. The breakdown of public investment into its components (Figure 6.4b) indicates that for most of the components, the real rate of change between 2019 and 2023 was lower than between 2015 and 2019, and it is evident that the main slowdown in infrastructure investment resulted from a sharp decline in investment in railways (including light rail) and ports[20], compared to an acceleration in the growth rate of investment in roads.

Figure 6.4
Components of the Growth of Public Consumption and Investment, 2019 Compared to 2015 and 2023 Compared to 2019 (Q1–Q3)



SOURCE: Based on Central Bureau of Statistics.

b. The effect of the war on public expenditures and the government's response to it

As a result of the war and the need for an unusually large increase in public spending, the government decided to increase the budget framework for 2023 by about NIS 26 billion (1.4 percent of GDP). This increase included a budget addition of approximately NIS 17 billion for the defense ministry and about NIS 12 billion for civilian ministries

[20] These data are not presented in the graph. The investment in seaports and airports contracted by 74 percent in fixed prices in 2023 relative to 2019.

in order to finance their response to the war,[21] and a cut of other budgets relative to the original budget amounting to about NIS 3 billion. In addition to expanding the budget framework, the government used the Compensation Fund (Property Tax Fund) to compensate businesses whose operations were negatively affected during the war. The use of the Compensation Fund to finance this expenditure is not reflected in the budget nor the budget deficit, but is reflected in the general government deficit and it requires the government to raise debt against it, since it involves an off-budget recording fund rather than actual savings done in the past by the government. By the end of December, the Israel Tax Authority had paid compensation amounting to about NIS 5 billion (0.3 percent of GDP) out of a total expected cost of about NIS 23 billion by the end of 2024.[22]

The limited cut of expenditures not related to the war during the amendment of the budget law for 2023 was evidence of the government's difficulty in carrying out budget adjustments.

The limited reduction of expenditure not related to the war during the amendment of the 2023 Budget Law—in contrast to the major increase resulting from the cost of the war—demonstrated the government's difficulty in making adjustments to the budget even in an emergency situation. The problem in deciding not to cut nonessential budgets was highlighted by the December 2023 Deviations Report[23], according to which the Ministry of Finance anticipated 2024 expenditure to exceed the original budget framework by about NIS 50 billion, including NIS 9 billion due to unexpected growth in the costs of original budget programs, with the remainder due to war-related expenditure. The NIS 9 billion deviation highlights the government's difficulty in adjusting its expenditure to the original budget framework approved in May 2023. The existence of such a gap only a few months after the budget's approval suggests a need for a more meticulous examination at the time of approval—a process that could be facilitated by an independent entity, such as a fiscal council.[24] The forecast revenues for 2024 were about NIS 48 billion lower than the original budget, with half of the shortfall being the result of economic trends that began before the war and the rest stemming from a negative revision of the macroeconomic forecast as a result of the war. The amendment added in May 2023 to the "Basic Law: The National Economy" stipulates that if the government does not make adjustments to meet the

[21] The increase in the civilian budget was primarily allocated to the evacuation of the population from conflict zones (see Chapter 7 of this report), the payment of national insurance benefits to victims and their families, the easing of conditions for unemployment benefits eligibility, support for the healthcare, education, emergency and welfare systems, budgeting of the "Tekuma" Administration and programs of the Ministry of the Economy and the Innovation Authority in support of the high tech industry.

[22] During January–February 2024, another approximately NIS 5 billion was paid out for damages incurred in November–December 2023. The payment of claims for direct property damage (homes, factories, and vehicles) is more complicated and will take longer.

[23] The Deviations Report was submitted for the first time this year in accordance with a new amendment to the "Basic Law: The National Economy", which stipulates that in the case of budget legislation for the next fiscal year, the government must submit a report to the Knesset by November 1st on expected deviations in expenditure or in the budget deficit for the coming fiscal year relative to the approved budget and a plan for balancing the budget. If the plan is not approved by the Finance Committee on time, the budget will be uniformly cut in order to cover the gap.

[24] For further details on fiscal councils and their contribution to the quality of budget management, see Chapter 6 of the Bank of Israel Report 2021.

deficit ceiling according to the law, a uniform cut will be made in the amount of the gap between the predicted deficit in the Deviations Report (in this case, 5.7 percent of GDP) and the deficit ceiling set by law (2.25 percent of GDP).

Between the time of the Deviations Report's publication and the approval of the revised 2024 budget by the government, war-related expenditure increased even further, and the projected deficit (before adjustments) was estimated at 7.5 percent of GDP. Consequently, the government approved a revised budget for 2024, which included an increase of NIS 15.3 billion in the budgets of the civilian ministries, and an increase of NIS 55 billion in the Ministry of Defense's budget in order to finance the war. Furthermore, the ministry of defense was authorized to commit to sign long-term contracts, which will limit the government's budgetary flexibility over the next decade.[25] The government also decided on a series of measures on both the expenditure side and the revenue side, which amounted to about 0.9 percent of GDP and led to a revised deficit target of 6.6 percent of GDP for 2024. These steps included, among others, an across-the-board cut of 5 percent, cancellation of various budget additions and postponement of infrastructure projects.

Approximately 70 percent of the adjustments made to the 2024 budget are of a temporary nature. Therefore, at the same time the government made a series of decisions that apply to 2025 and subsequent years, the most significant of which is an increase of the VAT rate by one percentage point (approximately NIS 7 billion). The scope of the adjustments was in line with the long-term budget agreements that were in place at that time, thus preventing a significant increase in the structural deficit in the near future. However, some of the government's decisions were split into parts during the budget discussions: the Knesset decided to postpone the legislative process for tax increases and the cancellation of tax exemptions totaling about NIS 3 billion annually.[26] If the government decides in the future to further increase the defense budget or other civilian budgets, additional adjustments will be required (see Box 6.1).

Despite the urgent short-term needs, it is imperative that the government discuss the desirable burden of the defense budget and the long-term plans for developing the Israeli economy, given the new challenges added this year to the already existing ones, namely those related to Israel's low labor productivity.[27]

[25] According to officials in the defense sector, this budget agreement only meets part of the country's security needs, and the government will need to decide—based on the recommendations of a public committee—on the appropriate long-term defense budget and how it will be funded. (For further details, see Box 6.1.)

[26] These measures included: a mileage tax and increased levies on electric vehicles, a pollution emission tax (carbon tax), taxation of cigarettes sold in duty-free shops, a purchase tax for investors, taxation of rental income and fuel devices tax reform.

[27] For further details, see Bank of Israel (2021), The Bank of Israel's Program to Accelerate Economic Growth: Recommended Strategic Pillars of Action for the Government.

Table 6.3

Changes in the state budget due to the war[a]

(NIS billion)

	2023	2024	2025
Growth of preadjusted expenditures	**29**	**81**	**51**
Temporary growth of expenditures	29	62	29
Structural growth of expenditures		19	22
Total expenditure-side adjustments[b]	**3**	**9**	**9**
Temporary reduction	3	5	3
Structural reduction[c]		4	5
Total revenue-side adjustments[b]		**5**	**10**
Temporary increase		5	2
Structural increase		1	8

[a] The budget for 2025 has not yet been legislated. The changes listed are relative to the original 2023–2024 budget, including unforeseen price increases and expenditure increases in 2025 relative to the prewar forecast.

[b] The total is not the sum of the components due to rounding.

[c] Including a reduction in the Health Ministry budget due to an increase in the health tax beginning in 2025, and excluding carbon tax, reporting on rents, and mileage tax, which have not yet been legislated.

SOURCE: Based on Government decisions regarding the 2024 budget from January 14, 2024.

4. GOVERNMENT REVENUES

The sharp decline in tax revenues relative to 2022 originated primarily in corporate tax and taxes related to the housing market, as well as VAT on domestic production.

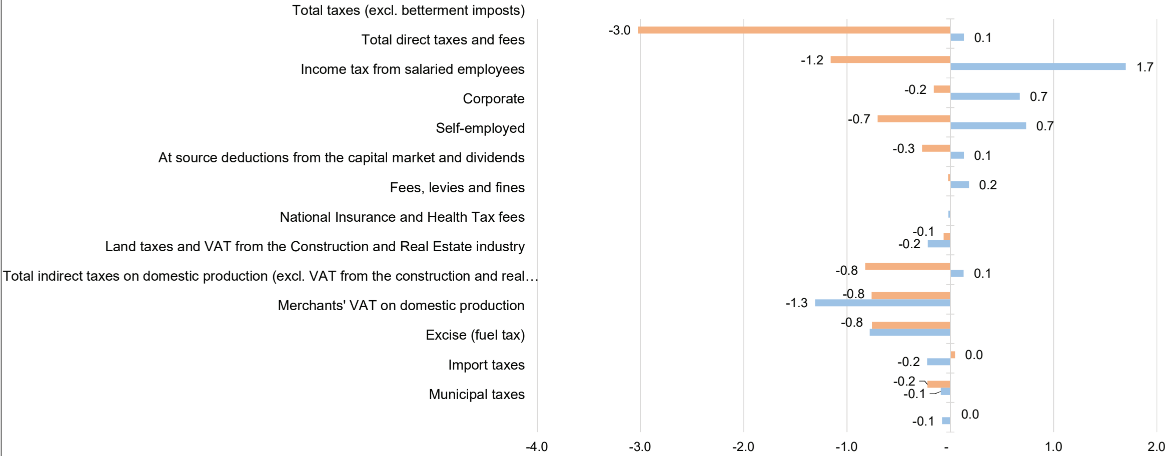
After an exceptionally large increase during 2021–22, tax revenues began to decline in the last quarter of 2022, a trend that continued into 2023. By the third quarter of the year, revenues in terms of GDP were already lower than for the same period in 2019, although from a cumulative perspective, the total revenues from the beginning of the year until September were similar to those during the same period in 2019.

Figure 5 illustrates the breakdown of the change in the tax burden (the ratio of tax revenues to GDP) between the first three quarters of 2023 and the corresponding periods in 2019 and 2022. The sharp decline relative to 2022 was mainly due to corporate taxes and taxes related to the housing market[28]—where receipts had been exceptionally high in the previous year—and from VAT on local production, which is consistent with the weakness in private consumption (see Chapter 2). The modest growth relative to 2019 was accompanied by a change in the composition of revenue: an increase in the proportion of direct taxes and a decrease in the proportion of

[28] Including real estate taxes (appreciation and acquisition taxes) and an estimate of VAT on new homes. This is an underestimate of tax revenue from the housing market, which also includes VAT in the real estate and construction industry, including that on land sales. Tax Authority data by industry in 2021 indicate that VAT collection from the real estate and construction industry was about 30 percent higher than direct land taxes.

indirect taxes. Part of the increase in the burden of direct taxes relative to 2019 is explained by the rise in wages and the progressivity of the tax system, while another part is explained by large, though temporary, tax withholdings from companies in the financial services and insurance industry, capital gains, the exercise of options by high tech employees and public sector workers who received one-off bonuses and retroactive payments under new wage agreements.

Figure 6.5
Change in Tax Revenues, 2023:Q1–3 Compared to 2022:Q1-3 and 2019:Q1-3 (percent of GDP)



SOURCE: Based on Central Bureau of Statistics and Israel Tax Authority.

The excess decrease in taxes due to the war totaled about NIS 10 billion in the last quarter of the year, which is equivalent to about 0.5 percent of GDP.

As a result of the war, the Israel Tax Authority announced an extension of reporting and payment deadlines, designed to ease the cash flow burden on business owners and workers. This mainly altered the timing of revenue over the course of the year and postponed some of it to the beginning of 2024. Furthermore, the advance tax payments made by self-employed individuals and firms dropped significantly, due to the uncertainty prevailing in the economy; despite a recovery in December, they have not returned to their original level. To estimate the tax loss due to the war, the rate of decline in the last quarter of 2023 relative to the same period in 2022 is subtracted from the rate of decline in the first three quarters of 2023 relative to the corresponding period in 2022. The result indicates that the decrease in tax revenue due to the war amounted to about NIS 10 billion in the last quarter of the year, which is about half a percent of GDP. This loss resulted from a decrease of 0.6 percent of GDP in collection from salaries, Social Security contributions and health tax deductions; a 0.2 percent of GDP decrease in collection from companies and the self-employed; and a 0.1 percent of GDP decrease in the collection of import taxes, in addition to a 0.1 percent decline in municipal taxes (property tax) due to exemptions granted to evacuated residents. In contrast, tax collection from the capital market increased by approximately 0.4 percent of GDP, likely due to an increase in asset realization.

5. THE PUBLIC DEBT

The public debt to GDP ratio was 60.5 percent at the end of 2022. It continued to decline during the first three quarters of 2023, but increased markedly to 61.9 percent of GDP during the last quarter of 2023 due to the financing of the war. The increase in the debt to GDP ratio this year was partly due to the budget deficit, which amounted to 4.1 percent of GDP, extra-budgetary expenditures on account of the Property Tax Fund (0.3 percent of GDP), the indexation of the debt to the CPI and the indexation of the foreign currency debt due to the depreciation of the shekel as of the end of 2023 relative to the end of 2022. These factors were partially offset by privatization revenues from the sale of land by the Israel Land Authority and the privatization of the Haifa port, the use of government cash reserves, and nominal GDP growth, which reduced the debt to GDP ratio, but at a slower pace than in 2021–22 (see Table 6.4).

Table 6.4
Components of the increase in the gross public debt, 2018–2023

(percent of GDP)

	2018	2019	2020	2021	2022	2023
Debt at the end of the previous year	**59.8**	**60.1**	**59.2**	**70.9**	**67.8**	**60.5**
Contribution of the change in nominal GDP to the debt to GDP ratio	-2.7	-3.3	0.3	-7.4	-7.0	-3.4
Net capital inflow	2.5	3.2	12.8	3.8	-2.7	3.0
of which : Government's cash deficit (excluding credit)	2.9	3.7	11.3	4.3	-0.6	4.1
Compensations paid by the Property Tax Fund	0.0	0.0	0.0	0.0	0.0	0.3
Net repayment of credit by the public[a]	-0.1	0.0	0.0	0.0	0.0	0.0
Privatization proceeds	-0.2	-0.1	0.0	-0.9	-0.9	-0.6
Funding beyond the financing deficit[b]	-0.1	-0.4	1.6	0.4	-1.2	-0.9
Revaluation of shekel-denominated indexed debt[c]	0.2	0.2	-0.2	0.8	1.6	0.9
Revaluation of foreign currency-denominated debt	0.5	-0.6	-0.4	-0.4	1.0	0.3
Adjustment to issuance costs	-0.1	-0.2	-0.4	-0.2	0.1	0.4
Remainder[d]	-0.2	-0.2	-0.4	0.3	-0.3	0.2
Debt at year end	**60.1**	**59.2**	**70.9**	**67.8**	**60.5**	**61.9**

[a] Including the provision of credit and principal collection.
[b] Funding surplus.
[c] Effect of the increase in the Consumer Price Index during the year on indexed debt.
[d] As a result of roundings.
SOURCE: Bank of Israel.

The continuing issuance of high-cost debt is expected to increase interest payments and their burden on the state budget in the medium term.

The increase in the financing costs of the public debt, which began in 2022 against the backdrop of rising global yields, intensified this year due to an increase in the country's risk premium[29] and a sharp increase in the amount of debt issuance, which began in October due to the increase in the deficit. The rising cost of debt does not have an immediate impact on the state budget thanks to the relatively high term to maturity of government debt, which is about nine years on average.[30] However, interest payments on the debt are already high relative to other countries, and continuing to issue high-cost debt is expected to increase interest payments and to elevate the burden on the state budget in the medium term (see below for a description of the scenarios for the development of the interest burden).

29 For further details, see Chapters 1 and 3 in this report.
30 In other words, the majority of the debt continues to bear lower interest rates, which were set at the time of issuance.

6. A REEXAMINATION OF THE FISCAL TARGETS

The events of recent years demonstrate the need for fiscal buffers, particularly in view of the geopolitical risks that characterize the State of Israel.

The debt to GDP ratio in 2023 was similar to the OECD median (see Figure 6.2), but recent events underscore the need for Israel to maintain safety buffers, especially given the geopolitical risks it faces. The fiscal policy during and after the war is expected to impact Israel's ability to handle future shocks and support long-term economic growth through public investment.[31] A temporary increase in the deficit and debt due to temporary war expenditures does not significantly affect resource allocation in the economy over time and can be managed with focused budgetary effort over a limited period and a long-term spreading out of costs. In contrast, a prolonged increase in defense expenditure requires budget adjustments to prevent unsustainable growth in the public debt and its associated financing costs.

In order for the markets to tolerate the high transitory deficit, it is important that stabilizing the public debt to GDP ratio—at the very least—be the guideline underlying the multiyear budget framework.

For the market to tolerate the high temporary deficit during the war, it is crucial that the guiding principle underlying the multiyear budget framework and the government decisions that will determine that framework during the approval of the 2025 budget will be the stabilization—at the very least—of the public debt to GDP ratio. It will also be important to discuss a target for the debt level over a longer term. The markets' assessment that Israel is moving toward a rising debt trajectory in the medium and long terms could lead to further increases in yields beyond what the economy experienced last year, leading to depreciation and inflationary pressures. The negative reaction is not always linear and therefore, it would be desirable to preempt adjustments in order to spread their effect out over as long a period as possible and to prevent reaching that critical point where the markets re-price the economy's risk—a situation that would require much larger adjustments at a time when the government's maneuverability is low. Although reducing the debt to GDP ratio is not the goal but rather a signal to lenders in the markets regarding the fiscal stability of the Israeli economy, it is a prerequisite that will help the government achieve long-term goals, namely higher labor productivity and standard of living.[32]

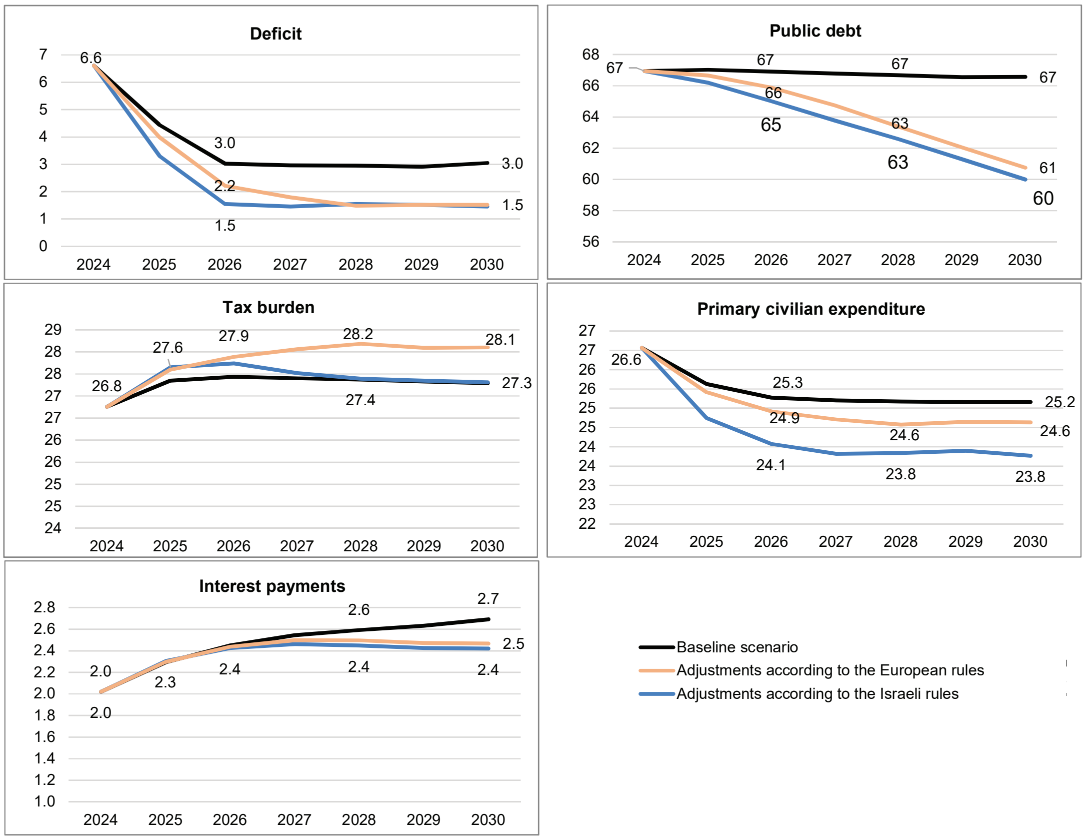
Figure 6.6 illustrates the fiscal implications of various multiyear trajectories according to a number of policy scenarios. The baseline scenario, represented by the black lines, takes into account the one-off costs—both defense and civilian—and the existing budgetary agreement with respect to increasing the defense budget by approximately NIS 10 billion on average per year until the end of the decade and the structural growth in civilian expenditure and interest expenses as a result of the war, as well as the budget adjustment plan of both revenues and expenditures approved by the Knesset in March 2024 (see Table 6.3). This scenario suggests that adjusting the spending ceiling and deficit targets in line with current expected revenues and expenditures will stabilize the debt to GDP ratio at around 67 percent in the medium

[31] For further details, see Bank of Israel (2021), The Bank of Israel's Program to Accelerate Economic Growth: Recommended Strategic Pillars of Action for the Government.

[32] For further details on the financing of government long-term investment in infrastructure and education programs, see the chapter on the public sector and it's financing in the Bank of Israel Annual Report for 2021.

term. This will require deviating from the existing fiscal rules: a deficit target that declines to 1.5 percent of GDP from 2026 onward and an expenditure ceiling that grows at a significantly lower rate than GDP.

Figure 6.6
Fiscal Aggregates Under Various Policy Scenarios, 2024–2030 (percent of GDP)



SOURCE: Bank of Israel calculations.

The frequent upward revisions of the expenditure and deficit ceilings have damaged the credibility of the multiyear trajectories and the government's ability to implement long-term projects.[33] The design of the existing rules causes the government to prioritize current expenditure over investment de-facto, because long-term investment plans, which require a long period of planning and preparation, are limited by the constraining expenditure ceiling set for the medium term and by the numerator rule, which helps to enforce it. Therefore, when the annual expenditure ceiling is raised

[33] Brender, Adi (2021). "Fiscal Policy: The Journey toward a Low Debt-to-GDP Ratio and Smaller Government" in The Israeli Economy, 1995-2017: Light and Shadow in a Market Economy, eds., Ben-Bassat, A., R. Gronau and A. Zussman, Cambridge University Press, 41-72.
For an updated table of the changes that have occurred in the rules since the 2015–16 budget, see: Bank of Israel (2021), Budget Survey for 2021–2022 and Expected Developments in Coming Years.

ad hoc during budget discussions, the available-for-execution planning inventory of investments is limited, and the only plans that can be executed are those funded by current expenditure.

The inherent problems of the current rules can be illustrated using the adjustments required to comply with them. Given the forecasted expenditure and the existing statutory rules, meeting the expenditure ceiling in 2025 will require the government to make additional cuts in expenditure amounting to about NIS 55 billion (2.6 percent of GDP) beyond those already approved in the 2024 budget. Even if the government does not include the temporary expenditures resulting directly from the Swords of Iron War in 2025, as it did in 2023–24, it will still need to reduce expenditure by about NIS 21 billion and raise taxes by about NIS 6 billion in order to meet the legally set expenditure rule and deficit target. This scenario (including the exemption) is depicted by the blue lines in Figure 6.6. The aforementioned adjustments will lead to a projected deficit of 3.3 percent of GDP (1.75 percent of GDP combined with the exempted war expenditures in the amount of 1.6 percent of GDP). Adhering to the expenditure rule throughout the decade will lead to a gradual erosion of expenditure relative to GDP, allowing the government to meet the deficit target of 1.5 percent of GDP, and even to gradually reduce the tax burden starting from 2027 cumulating to 0.6 percent of GDP by 2030. While adhering to these rules will accelerate the rate at which the debt to GDP ratio declines, by the end of the decade it will also lead to sharp cuts of 2.8 percent of GDP in primary civilian spending, which is already among the lowest in the advanced economies (see Figure 6.2).

The built-in tendency of the current fiscal rules in Israel toward restraint of expenditure will lead to drastic cuts in civilian expenditure and taxes, which are already among the lowest in the advanced economies.

The discussion of the right way to maintain fiscal robustness is not unique to Israel. In the EU, a new set of rules was recently formulated after a reevaluation of its members' fiscal targets (see Table 6.5). The discussions of the new rules occurred against the backdrop of lessons learned from the EU's handling of the COVID-19 crisis, the Russia-Ukraine war, and the energy crisis, as well as the budgetary challenges those events pose for the future. The rules were redesigned so as to allow countries to implement countercyclical policies in the short term, increase defense spending in the medium term and support the transition of their economies toward more digital and green growth in the long term (see Box 6.2 on Israel's climate commitments). This is to be accomplished while maintaining fiscal credibility by reducing high levels of debt and taking into consideration the diversity of the EU members with respect to their fiscal configuration and challenges. The focus of the new rules has shifted from rigid and uniform deficit targets[34] to long-term structural adjustment trajectories, which are tailored to the circumstances of each country, so that they can maintain a sustainable level of debt while not impairing their ability to implement large-scale investment programs and structural reforms.

[34] A deficit target of 3 percent, a structural deficit of 0.5 percent and a debt to GDP ratio of 60 percent. In the case that the debt to GDP ratio is above 60 percent, the government will have to make adjustments so that the gap is reduced by 3/20 (15 percent) within three years. Such targets may lead to austerity programs that will harm growth and the government's ability to reduce its debt.

Table 6.5
New fiscal rules in the European Union

Principle	Details
Range of the multiyear program	**4–5 years** (depending on the institutional structure of the state) **7 years if the country undertakes and actually carries out reforms and investments** that will support debt sustainability, common European targets (such as the struggle against climate change) and the realization of potential growth.
Principle of the forecast	**Likelihood:** Examining the forecast under various risk scenarios.
Adjustment trigger	**If the debt to GDP ratio is expected to be higher than 60 percent or the deficit is expected to be higher than 3 percent in one of the scenarios.**
Type of adjustment	Setting a net expenditure path[a] and structural reforms that will help reduce the debt to GDP ratio and/or the deficit within 4 years.
Pace of convergence of the debt to GDP ratio	**If between 60 and 90 percent of GDP:** Average reduction of 0.5 percentage points per year. **If higher than 90 percent of GDP:** Average reduction of 1 percentage point per year.
Necessary adjustments according to the deficit at the starting point	**If lower than 3 percent of GDP:** The government must build an adjustment program that will lead to a deficit of 1.5 percent of GDP in the medium term, so that even in a case of revenue surprises, the deficit will not cross the 3 percent of GDP threshold. **If higher than 3 percent of GDP:** Adjustments of half a percent of GDP per year, and when the deficit falls below 3 percent, adjustments of 0.4 percent of GDP per year (or 0.25 percent of GDP in the case of a seven-year plan) until it reaches the target of 1.5 percent of GDP.

[a] Net expenditures equal public expenditures minus: (1) the change in revenues as a result of policy (legislative changes or temporary measures); (2) interest payments; (3) unemployment payments; (4) expenditures financed by the European Union; and (5) expenditures that the European Union has defined as one-off, such as COVID-19 assistance programs and support for domestic economies due to the energy crisis. This multiyear target replaces the structura deficit targets that led to procyclical adjustments. For more information regarding Israel, see the Bank of Israel *Annual Report* for 2021, Chapter 6.

[b] The advantage of an overall program compared to an expenditure rule as currently adopted in Israel is the option to reduce the debt ratio not only by eroding expenditures, but also through sustainable acceleration of growth or an increase in tax rates. Debt reduction is cumulative: One percentage point per year in a 4-year adjustment program equals 4 percent of GDP in total.

It is important that the government reopen the discussion of fiscal rules in Israel, with the goal of restoring the credibility of fiscal policy and also to support long-term economic goals.

The fiscal challenges facing Israel are not very different from those of some EU countries. It is imperative that the government re-evaluate the fiscal rules in Israel with the aim of restoring the credibility of the fiscal framework and promoting long-term economic goals. A re-examination of Israel's fiscal targets can benefit from the guiding principles established in the EU. For illustration, consider Israel's targets if it adopted the EU's fiscal rules (depicted by orange lines in Figure 6.6) versus the current Israeli targets. According to the European method, Israel would be required—starting in 2025—to reduce the debt to GDP ratio to 65 percent by 2028 and the deficit to 1.5 percent by 2028. Since the expected deficit at the start is higher than 3 percent of GDP, the government would need to present a plan of structural adjustments amounting to half a percent of GDP each year, and once the deficit falls to below 3 percent, adjustments of 0.4 percent per year until reaching a target of 1.5 percent of GDP. This implies cumulative adjustments of 1.6 percent of GDP by 2028. To demonstrate, consider the scenario of adjustments according to European rules in Figure 6.6 which shows the increase in taxes and the reduction in civilian expenditure if the government decided to equally divide the adjustments between the revenue and expenditure sides. Maintaining a deficit of 1.5 percent of GDP starting in 2028 would reduce the debt to 61 percent of GDP by 2030. If the government initiates a broad investment program, the adjustment plan could be extended to 7 years. In that case, the adjustments would be spread out so that the deficit converges to 1.5 percent and the debt ratio to 63 percent of GDP by 2031.

There is no external entity in Israel such as a fiscal council that can monitor the budget measures adopted by the government and report them to the public with transparency.

The deficit and debt targets set in Europe are not binding on Israel, and other targets can also be considered. For example, due to the rapid growth of GDP as a result of the faster growth of the workforce in Israel, a deficit of about 3 percent can still stabilize the debt to GDP ratio.[35] However, it is important to emphasize that political instability in Israel undermines the credibility of multiyear plans. Unlike the EU, Israel does not have an external entity that audits government plans and can impose sanctions in case of deviations.[36] Therefore, any fiscal plan initiated by the government will require more rigid and more front loaded adjustments in order to earn market trust that the debt trajectory is indeed under control. To mitigate this difficulty, an internal function, such as a professional and independent fiscal council, could be established to monitor the government's budgetary measures and transparently report them to the public and their implications for achieving fiscal targets.[37] Finally, caution is called for in examining the trajectories, since all of the outcomes presented in the current analysis assume that the growth rate will follow the current potential GDP growth trajectory. Since developments over the last year and the policies adopted in their wake may impact the economy's medium-term growth trajectory, the actual deficit and debt may be higher.

[35] For example: The debt to GDP ratio is expected to be about 67 percent at the end of 2025, assuming that in 2026 real GDP grows by 3.7 percent, inflation is 2 percent and the exchange rate remains unchanged. The growth of nominal GDP will reduce the ratio between the existing debt stock and GDP by 3.7 percentage points. In contrast, the CPI-indexed debt will increase the existing debt stock by 0.7 percent of GDP (since about half of it is indexed to the CPI). This means that under such a scenario, it is possible to maintain a deficit of 3.0 percent of GDP and still arrive at a debt to GDP ratio of 67 percent by the end of 2026.

[36] In the EU, the European Council has the authority to impose fines on countries that do not comply with the rules.

[37] A recommendation to strengthen Israel's fiscal frameworks by establishing a fiscal council was also included in the International Monetary Fund's report on Israel in March 2022. It is important to emphasize that a fiscal council is not a policymaking body, but rather an entity whose role is to independently assess the quantitative adequacy of the government's fiscal policy against the targets it has set.

Box 6.1
The size of the defense budget in the past and alternatives for the future

- Defense expenditure in Israel is the highest among the advanced economies as a share of GDP, despite a long-term downward trend. The defense budget decreased from over 6 percent of GDP at the end of the 1990s and was expected prior to the war to reach 4.5 percent of GDP by 2023. However, it increased markedly to 5.4 percent of GDP as a result of the war.
- Public committees that in the past have recommended multiyear plans for the defense budget emphasized that the defense budget should be built from the top down: First, define the budgetary framework that can be allocated to defense based on a macroeconomic examination of the capabilities and needs of the economy, and then use it to allocate resources within the defense budget.
- Despite the urgent short-term needs, it is imperative for the government to discuss, at the earliest opportunity, the desired size of the defense budget in the long term, while balancing between security needs and the budgetary and indirect costs that they will impose on the Israeli economy.

The events of October 7th rekindled the debate over the desired size of the defense budget in the long run and how it should be funded. In this box, we will review the development of the defense budget, the conclusions of the Brodet (2007) and Locker (2015) committees that discussed the issue, their implementation in practice, and the implications of various multiyear defense budget alternatives for fiscal aggregates.

a. Background: Defense Expenditure in Israel

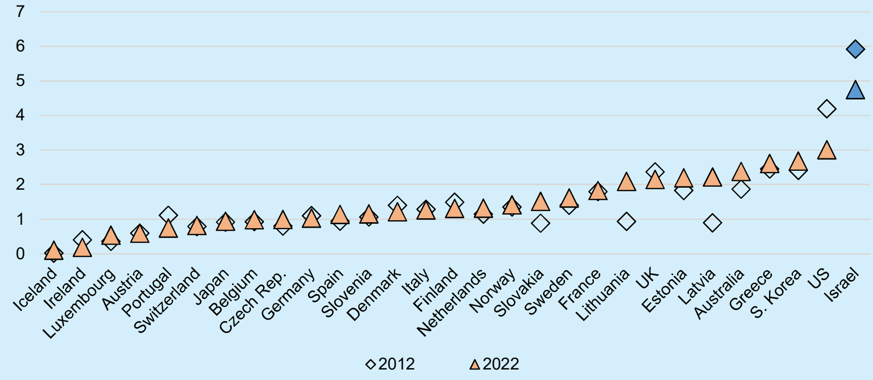
In terms of GDP, Israel's defense expenditure is the highest among the advanced economies, despite a long-term downward trend (Figure 1). This downward trend was a result of the moderation in the growth rate of all its components, especially salary costs and defense investment (Figure 2). In Israel, the transfer payments and pensions paid to ex-military personnel also constitute a significant expenditure, which amounted to an additional one percent of GDP in 2023.

The decline in defense expenditure has eased the burden of domestic funding for the defense budget (the budget net of US aid and other earmarked revenues), which declined from over 6 percent of GDP in the 1990s to around 5.5 percent of GDP in the decade between 2004 and 2014, and to 5 percent in the years 2015–20 (Figure 3); prior to the war, it was expected to reach 4.5 percent in 2023.[1,2]

[1] The aforementioned defense expenditure and transfer payments are budgeted within the state budget under various budget lines: Ministry of Defense (15), miscellaneous defense expenditures (31), and a number of smaller items: civilian emergency expenses (16), coordination of operations in the territories (17), the Atomic Energy Committee (35), the Demobilized Soldiers Law (46) and defense spending under the government housing budget line (5110).

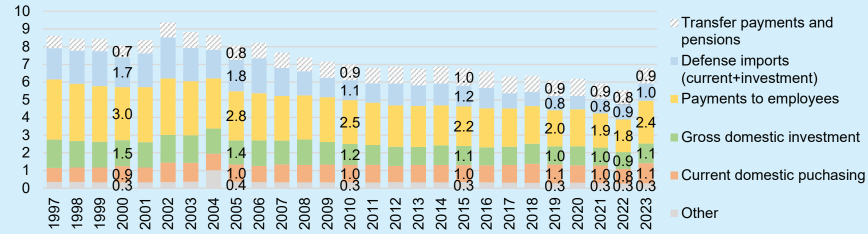
[2] The gross performance of the defense budget totaled 5.5 percent of GDP in 2022. About 0.8 percent of GDP was funded by the multiyear US aid grant ($3.8 billion per year) and another 0.5 percent by other designated revenues (sales made by the defense sector or joint projects with external parties).

Figure 1
Government Expenditures on Defense, International Comparison, 2012 and 2022 (percent of GDP)



SOURCE: OECD (2024), "National Accounts at a Glance"; OECD National Accounts Statistics database, https://doi.org/10.1787/data-00369-en (accessed on March 17, 2024).

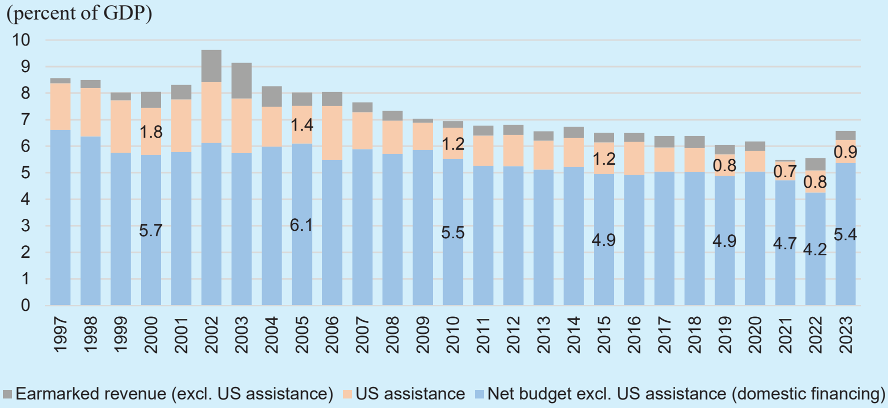
Figure 2
Components of the Defense Expenditures and Transfer Payments by the Ministry of Defense[a], 1997–2023 (percent of GDP)



[a] Transfer payments and pensions are not part of defense expenditures, since they are paid to those who previously served in the defense establishment. The attribution of pension for those currently serving in the permanent forces. which is recorded within payments to employees is offset from this component. "Other" includes taxes on production, other capital expenses, and some Border Guard expenses that are not part of defense consumption but are classified as part of defense expenditures.

SOURCE: Based on Central Bureau of Statistics.

Figure 3
Sources of Financing for the Defense Establishment's Budget Items, Gross, 1997–2023
(percent of GDP)



SOURCE: Based on Ministry of Finance.

In 2023, defense expenditure increased by 1.2 percent of GDP relative to its level in 2022, reaching 5.9 percent of GDP. Half of this expenditure increase was used to pay salaries, including those of reservists who were mobilized on a scale not seen since the Yom Kippur War. The defense budget in 2023 increased by 1.2 percent of GDP, of which 0.9 percent was a direct result of the war. In 2024, defense expenditure is expected to increase by 3 percent of GDP relative to 2023: 1.4 percent of GDP will be funded within the state budget, and the remainder is expected to be financed through a one-time US aid grant of $8.7 billion.

Beyond the effect on budgetary expenditure, the increased demand by the defense sector also has significant indirect economic costs. These include:

1. The extension of mandatory military service delays an individual's entry into higher education and into the workforce, leading to a loss of professional experience that may impact his long-term productivity.
2. Reserve duty and the expansion of the professional army divert labor on an ongoing basis from the civilian sector to the defense sector, which has an impact on business sector output.
3. Increased local defense production and R&D come at the expense of resources available to the manufacturing and high tech industries, which already suffer from a shortage of manpower.

Despite the urgent short-term needs, it is important for the government to discuss, at the earliest opportunity, the desired size of the defense budget in the long term, balancing security needs with the budgetary and indirect costs that they will impose on the Israeli economy.

b. From the Brodet Committee to the Locker Committee: The economic guidelines underlying past trajectories for the defense budget

Following the Second Lebanon War and the budgetary demands made by the defense sector in its aftermath, a committee headed by David Brodet was appointed to examine the defense budget. It presented its recommendations in May 2007. The committee established, for the first time, a multiyear budget framework for the Ministry of Defense and emphasized that the defense system's budget should be built from the top down: First, define the budgetary framework that can be allocated to defense following a macroeconomic examination of the capabilities and needs of the economy, and then, based on this framework, allocate resources according to the needs within the defense sector. The committee recommended that the plan be divided into two five-year periods, similar to the multiyear plans formulated by the military, with the goal of creating certainty and synchronization between the level of funding and the objectives of the military's strategic plans.[3]

The committee decided on an initial budget base for the years 2008–09 according to the existing situation in 2007 and guidelines for the growth rate of the budget, which included: (1) increasing the gross

[3] One of the committee's conclusions was that the frequent crises surrounding the defense budget discussions are due to the practice of holding single-year budget discussions at too late a stage, i.e., after the military plan has already been formulated, making it impossible to alter it in accordance with budgetary constraints.

budget at a rate similar to the growth of civilian public expenditure per capita;[4] (2) setting a rigid budget for training, emergency stockpiles, and R&D in order to prevent recurrent cuts in these flexible budget items, which led to some of the failures in the Second Lebanon War; (3) implementing an efficiency plan in the defense sector, i.e., diverting existing sources in the defense budget, which would fund about 40 percent of the needs presented by the Ministry of Defense to the committee;[5] (4) allocating a reserve for small-scale security events and adjusting the budget upward in case of war or downward during an economic recession; (5) excluding "civilian" expenditures from the program that are not at the core of the military's function, such as the costs of moving IDF bases to the Negev; and (6) maintaining the purchasing power of the defense budget by means of nominal revisions of its line items (in the case of foreign purchases, by indexing to exchange rates and in the case of salary budgets, by indexing to the wage index in the public sector).

Up until 2012, the approved defense budgets were by and large within the framework established by the Brodet Committee. However, following the Social Protest of 2011, the recommendations of the Trajtenberg Committee and the Stabilization Plan in the 2013–14 budget, the issue was reopened for discussion. In May 2014, the government decided to establish a new public committee, which would recommend a multiyear framework and structural reforms in areas where the Brodet Committee's recommendations were only partially implemented or not implemented at all.

The committee, chaired by Yohanan Locker, submitted its recommendations in June 2015. The proposed framework required less interpretation than Brodet's[6] and established that the defense budget base would increase from NIS 52.7 billion in 2015 to NIS 59 billion starting in 2016. Unlike Brodet's recommendations, the committee advised that the budget base should be set realistically and adjusted only according to the CPI throughout the entire period of the framework. The budget base referred only to the net budget (which at that time included part of the expenditure funded by the US aid grant), and therefore an unexpected increase in revenue- contingent spending[7] did not come at the expense of other expenditures and vice versa. The committee also set lower efficiency targets.[8] The recommendations were adopted with only slight changes in the "Kahlon-Ya'alon agreement",[9] which set out the multiyear budget trajectory for the defense sector for the period 2016–20. The success of this framework was reflected in, among other things, the reduction of the gap that existed over the years between the original defense budget and its execution by the end of the year—a change that created transparency regarding the actual composition of the state budget and also certainty for the civilian ministries subject to the expenditure

[4] The rationale behind the proposal was that the quality of civilian public services provided by the government depends on per capita expenditure, while the level of security provided by the state depends on total public expenditure rather than per capita expenditure—Brodet report, p. 35. Therefore, a real annual growth rate of 1.3 percent was arrived at.

[5] The efficiency targets totaled approximately NIS 30 billion in 2007 prices, compared to a budget addition of NIS 46 billion spread out over a decade.

[6] For a discussion of the complexity of the Brodet Committee recommendations, see: A. Brender, "On transparency and simplicity: Deciding on the size of the defense budget since the adoption of the Brodet Committee recommendations", Economic and Social Program Magazine, Volume 14, Van Leer Institute, June 2012. [Hebrew]

[7] Which is funded by earmarked revenue from sales, grants and defense projects carried out jointly with external partners.

[8] NIS 24.6 billion in 2015 prices as opposed to a cumulative budget addition of NIS 63 billion (28 percent as opposed to 40 percent in the Brodet plan), which was spread out over a decade.

[9] The multiyear agreement between Minister of Finance Moshe Kahlon and Minister of Defense Moshe Ya'alon.

ceiling alongside the Ministry of Defense. However, setting the framework for only five years, along with the lack of political stability that has characterized Israel since 2019, led to several years without a multiyear framework, which was finally signed only during 2023, just before the approval of the original state budget (prior to the war).

c. The defense budget looking into the future

Since the signing of the multiyear plan for 2023–27 and in view of the developments since October 7th, there has been a discussion of revising the security doctrine and shifting it from a response to security threats based on the "War between the Wars" strategy (which avoids major security shocks) to a response that requires a more significant military buildup, with the goal of strengthening the army's readiness for scenarios of more intensive fighting. Even before a revised security doctrine was decided on, the developments led to a budget agreement in which the Ministry of Defense would receive—beyond compensation for replenishing stockpiles after the current war—an addition of about NIS 82 billion during the period 2024–31 (about NIS 10 billion per year on average). In addition to this amount, the Prime Minister decided that another discussion was needed in order to deal with other needs raised by the military. It is important that this discussion will take place within a public committee that will discuss not only the needs of the defense sector but also the balance between defense and civilian needs in the short and long terms, based on risk management and subject to the constraint of limited resources.

The increase in the budget will require funding by means of debt issuance (shifting the burden into the future), a reduction in civilian expenditure (which is already low relative to other countries) or tax hikes. Increasing the structural deficit due to a persistent and broad-scale increase in the defense budget without making balancing adjustments may lead to a divergence of the debt-to-GDP ratio, an increase in the economy's risk premium and even a reduction in economic growth in the long term. In order to illustrate the fiscal constraints that are created by increasing the defense budget, Figure 4 presents the effect of various alternative sizes of the defense budget on fiscal aggregates up to 2030. The dotted line represents the expectation prior to the war, according to which the Ministry of Defense's budget was meant to grow until 2027 according to the multiyear agreement signed prior to the budget and subsequently, as a working assumption, by 2 percent annually in real terms, in accordance with the rate of growth in the previous decade. In this scenario, the erosion of the defense budget relative to GDP would have continued and would have helped reduce the structural deficit over time.

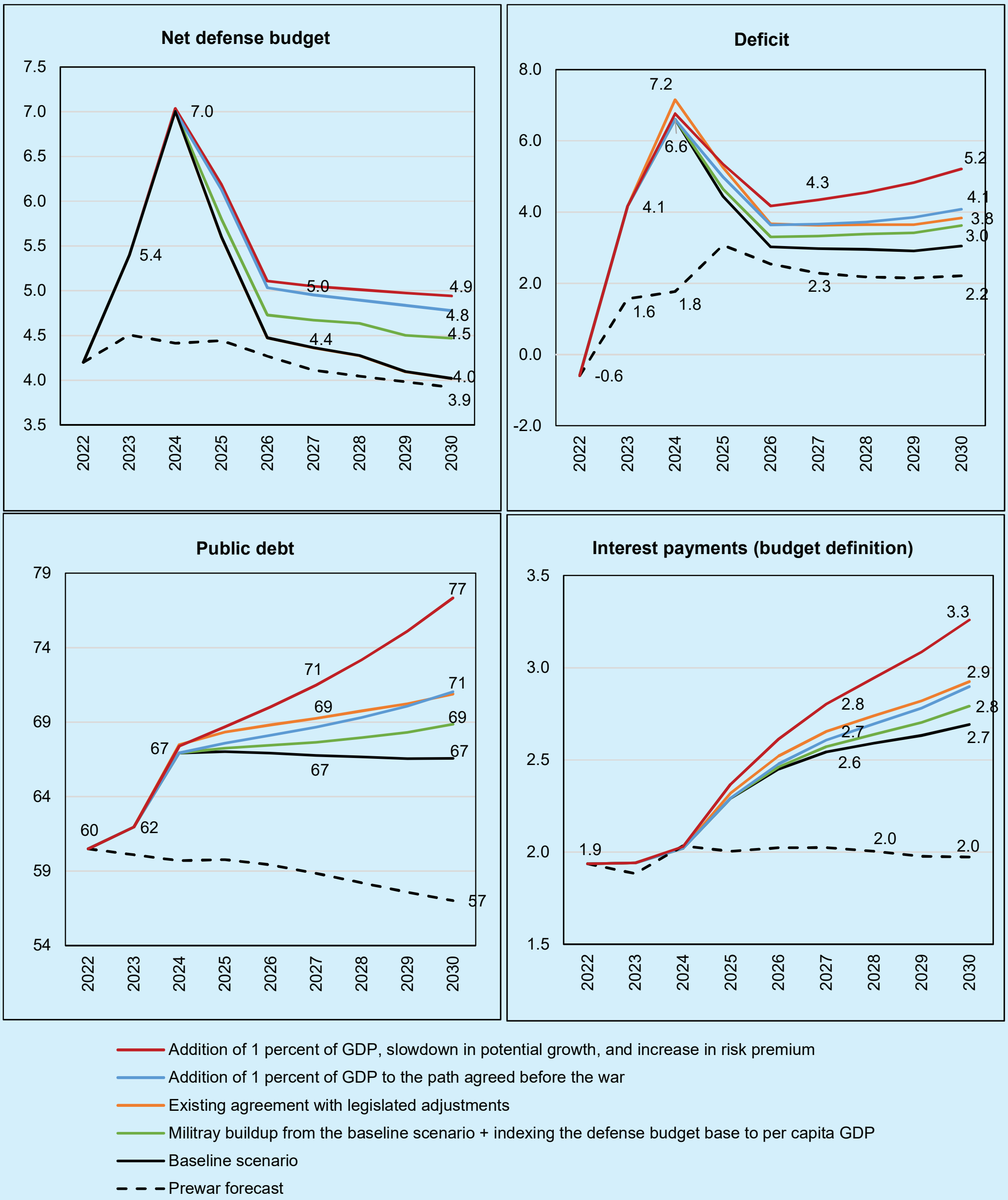
The scenario represented by the black line (the "baseline scenario") is consistent with the budget agreements reached so far. This scenario includes, in addition to the temporary costs of the war, a plan for military buildup according to the existing budget agreement. The agreement over this trajectory was achieved in parallel to the government's decision to implement permanent steps at a cost of NIS 13 billion (see Table 6.3), such that they offset the increase in the deficit as a result of enlarging the defense budget and as a result of the civilian reconstruction budgets. In the baseline scenario, the debt to GDP ratio stabilizes at a level of 67 percent by 2030, compared to 57 percent before the war, as represented by the dotted line. The orange line shows the path that would have been had the government not decides to implement the adjustment measures approved with the updated 2024 budget. In this scenario, the defense budget would have remained the same as in the baseline scenario, but the structural deficit would have been significantly larger, and the debt-to-GDP ratio would have increased in a manner that would impair Israel's fiscal stability.

In the baseline scenario, the nominal additional budget erodes over time relative to GDP and relative to the economy's ability to fund such growth in spending. In contrast, the green line represents a scenario in which the government decides that—in addition to the aforementioned plan—the defense budget base will be linked to the expected growth rate of GDP per capita. This scenario would increase the defense budget by an average of about 8 percent from 2025 to 2030 relative to the baseline scenario budget. If instead of the existing agreement, it is decided to permanently increase the original defense budget (agreed on at the beginning of 2023) by one percent of GDP (shown in blue), the budget would be about 14 percent higher on average than the expected trajectory under the current agreement (the baseline scenario). Such a decision would increase the average annual burden on the state budget by about an additional 0.8 percent of GDP, of which 0.6 percent is due to the increase in the defense budget and another 0.2 percent is due to higher interest payments and lower tax revenues because of the slower growth rate of potential output.

The above scenarios present the expected fiscal developments assuming that the events of the past year will not have a lasting impact on the potential growth rate of the economy and that the interest on government debt will respond to an increase in the debt-to-GDP ratio only when it actually occurs. The red line illustrates the extent to which the debt trajectory is sensitive to these assumptions and shows the expected fiscal developments in a scenario where the defense budget increases by one percent of GDP, and in addition to that the medium-term growth rate is reduced by 0.5 percent per year and the risk premium on the debt rises immediately according to the expected debt trajectory. In this scenario, a divergence of the debt-to-GDP ratio can be seen already in near future.

Figure 4 indicates that any further expansion of the defense budget beyond the existing agreement, without additional budgetary adjustments to offset the growth of the structural deficit, leads to a rising debt trajectory. This occurs even if the government does not make additional decisions that increase the structural deficit, and the economy is not affected by further economic or negative security shocks until 2030. Choosing any of the defense budget options combined with a deficit target of around 3 percent of GDP would require the government to make structural budget adjustments (in addition to the structural measures already approved in the framework of the 2024 budget) by raising tax rates, cancelling tax benefits or reducing civilian expenditure by an equivalent amount. Choosing the most expansive defense alternative (one percent of GDP), for example, would require increasing structural adjustments up to 0.8 percent of GDP by 2030, which would translate into about NIS 20 billion in 2024 prices.

Figure 4
Fiscal Aggregates Under Various Defense Budget Alternatives, 2022–2030 (percent of GDP)



SOURCE: Bank of Israel calculations.

Box 6.2
Israel and the International Effort to Solve the Climate Crisis—Status Report

- International progress in reducing greenhouse gas emissions was assessed at the climate conference held in Dubai in December 2023. Since the 2015 climate agreement and up until 2021, Israel's emissions decreased by 4.3 percent, which is less than the OECD average of 5.8 percent. However, total global emissions increased by 3 percent due to the actions of large non-OECD countries.
- If approved, the climate law and greenhouse gas emission pricing (the carbon tax) that were proposed this year will make significant contributions to Israel's climate policy and its convergence toward the targets it adopted under the climate agreements. For the first time, this law would mobilize governmental, professional, and legal institutions in an effort to reduce greenhouse gas emissions, promote the Israeli economy's move towards the targets, and monitor these processes. The pricing of emissions will internalize the externalities of greenhouse gas emissions and will bring Israel closer to international standards in addressing this issue.

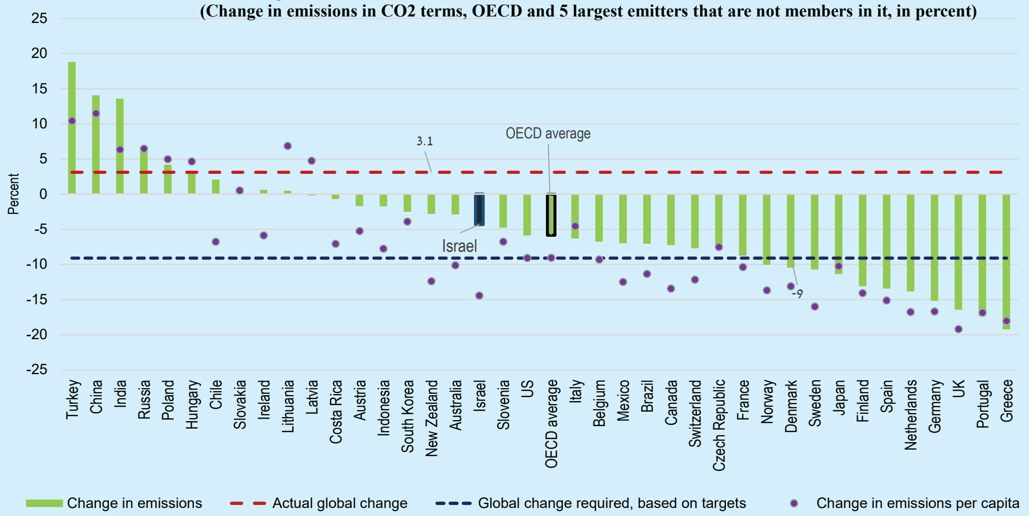
In the 2015 Paris Agreement, the signatory countries committed to reducing their greenhouse gas emissions so that total emissions would not exceed the absorption of greenhouse gases in the atmosphere (carbon neutrality). This is aimed at halting the process of global warming. To achieve carbon neutrality, a reduction of about 53 percent in greenhouse gas emissions is required over approximately 35 years.[1] At the climate conference in Dubai in November 2023, the first status assessment was carried out of the change in total emissions by each country since the Paris Agreement and up until 2021. Figure 1 shows the change in greenhouse gas emissions in OECD countries and the five non-OECD countries with the highest emissions. The countries shown in the graph are responsible for about 70 percent of global emissions. The data show that by 2021, Israel's greenhouse gas emissions had decreased by 4.3 percent, slightly less than the OECD average of 5.8 percent. Total greenhouse gas emissions by the countries shown have increased by 3 percent since the Paris Agreement, mainly due to the growth in emissions by large developing countries (represented by the red line in the graph).

In September 2023, the Joint Committee on Legislation in Israel approved the Climate Law.[2] If the law is passed by the Knesset, it will, for the first time, anchor Israel's international commitments submitted to the Glasgow climate conference in 2021, i.e., a reduction of greenhouse gas emissions to 27 percent below 2015 levels by 2030 and to 85 percent below 2015 levels by 2050.[3] The proposed law sends a signal to the Israeli economy and the international community that the Israeli government intends to meet its international commitments. However, since achieving the targets requires the use of technologies that have not yet been developed, and thus there is no certainty they will be available within the time frames set by the targets, the law will allow the government to modify the targets it decides on. This provides flexibility in the case that external circumstances do not make it possible to reach the targets; however, at the same time, it weakens the commitment to meet the targets. The proposed law also establishes

1 For further details, see "Israel's Energy Security, Nationally Determined Contribution to the Fight Against Global Warming, and Emissions Outlook," Bank of Israel Annual Report for 2021, Chapter 7.
2 Draft of the Climate Law (12.9.2023). Ministry of Environmental Protection website.
3 See also: Government Decision 171 from 25.07.2021. https://www.gov.il/he/departments/policies/dec171_2021

governmental and professional procedures for planning and promoting convergence to the targets and for monitoring progress toward achieving them: a national plan for reducing greenhouse gas emissions, a climate change adaptation plan, the establishment of a Ministerial Committee on Climate Affairs and the creation of a Climate Council, which will include representatives from the public sector and an academic committee of experts. Completing the passage of the law and promoting these steps will reduce uncertainty in the economy, particularly in the relevant markets, regarding the directions of development and will enable them to plan their actions and investments.

Figure 1
Carbon Reduction Performance:
The Change in Greeenhouse Gas Emissions between 2015 and 2021
(Change in emissions in CO2 terms, OECD and 5 largest emitters that are not members in it, in percent)



*The five polluting companies outside the OECD are China, India, Russia, Brazil, and Indonesia. The countries in the sample are responsible for about 70 percent of total global emissions. The data for Brazil, Costa Rica, Mexico, and South Korea are updated to 2018.
**The global change required is calculated as the average change, that if it continues, will allow carbon neutrality in 2050.
SOURCE: Our World in Data, Annual PRTR Report – Israeli Ministry of Environmental Protection, OECD.stats.

During the state budget discussions for 2024, the government advanced a plan to increase purchase tax rates and taxes on fuels so as to effectively price greenhouse gas emissions. Effective carbon rates, as defined by the OECD, includes taxes on greenhouse gas emissions, specific taxes on fossil fuels (coal, natural gas, diesel, gasoline, etc.), and costs arising from emission trading mechanisms.[4] The organization publishes data on effective carbon rates, i.e., the tax per ton of actual emissions, relative to the cost of the estimated damage caused by a ton of emissions (which ranges from $32 to $130). It is important to note that these taxes are meant to include, apart from a tax on greenhouse gas emissions, taxes on air pollution due to particulates, and externalities such as road congestion, accidents, and noise. Therefore, different effective carbon rates are expected for different fuels, since the externalities involved vary.

In Israel, the effective carbon rates includes the gasoline tax and purchase taxes, which are imposed directly on fuels. Table 1 shows the scope of these taxes in Israel and selected OECD countries across

4 OECD (2023).

various sectors. According to the OECD index, the effective carbon rates on emissions in Israel in 2021 was lower than the average in other countries, i.e., $14, which is about 44 percent below the minimum cost threshold of approximately $32 per ton.[5] This low rate ranks Israel as 28th out of the 38 OECD countries. The low effective carbon rates in Israel primarily reflects the low effective carbon rates on emissions from the electricity sector (only about $7, compared to an average of about $18 in other countries) and from the manufacturing sector (only about $3, compared to an average of $15 in other countries). However, the effective carbon rates on fuels in transportation in Israel is above the minimum cost threshold, which is similar to the level in most OECD countries.

Table 1
Index of the Effective Carbon Rates in Israel and in Selected Countries
(2021, dollars per ton)

	ranking (by (total	Total	Transportation*	Manufacturing	Electricity
Iceland	1	29	29	27	29
Ireland	2	28	>30	23	29
Australia	37	6	>30	0	0
Chile	38	6	25	0	4
Israel	28	14	>30	3	7
OECD average		19	>30	15	18

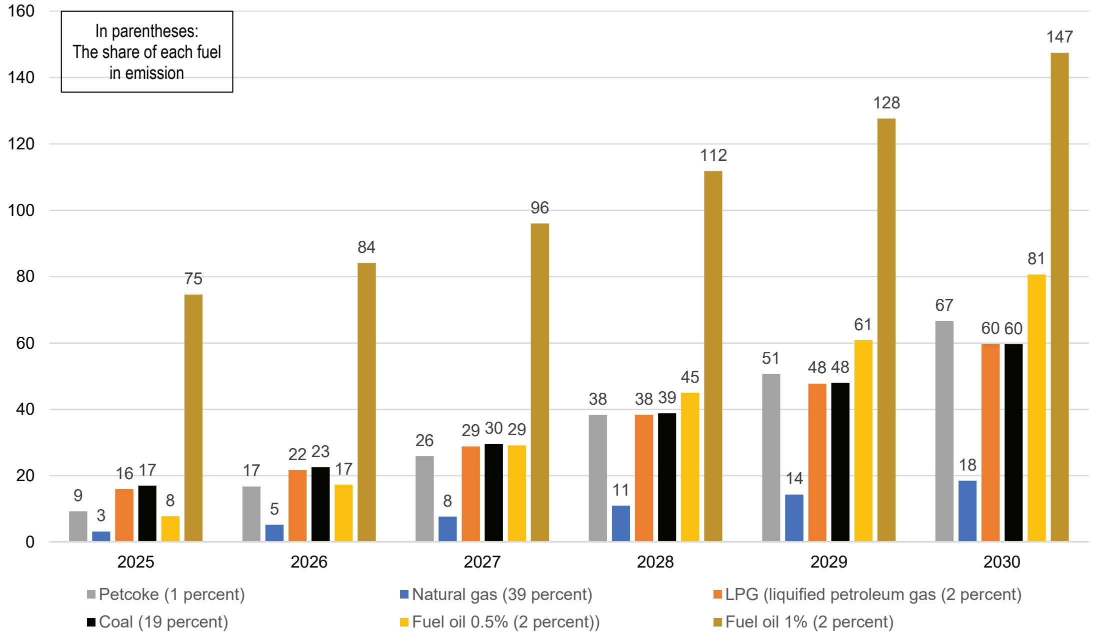
*Taxation of fuels in the transportation industry in OECD countries is markedly higher than the the minimum cost for pricing carbon and therefore marked as greater than 30.
SOURCE: OECD.

Figure 2 shows the total gasoline and purchase taxes that will be imposed according to the government's decision per ton of carbon dioxide emitted for each fuel if the carbon tax specified by the plan is passed by the Knesset.[6] As the graph illustrates, the cost per ton of carbon dioxide that will be levied on natural gas is significantly lower than that which will be levied on other fossil fuels. Specifically, the peak tax rate will be even lower than the OECD's lower threshold, which is, as mentioned, about $32.

5 In 2022, the gasoline and purchase taxes on fuels were reduced in order to mitigate a rise in global prices. For further details, see Bank of Israel Annual Report for 2022, Chapter 1.

6 The current framework does not change the excise and purchase taxes on gasoline and diesel, which are used in transportation and industry, and therefore they are not presented here. The effective tax on gasoline and diesel currently exceeds $200 per ton of carbon, which is in line with the tax imposed on these energy products globally.

Figure 2
Effective Carbon Pricing Roadmap
(Total cost from excise and purchase tax, dollars per ton of CO2, by type of fuel)



The primary reason for imposing a carbon tax is, as noted, to price the negative externalities of greenhouse gas emissions, which impose costs on the public that emitting companies do not internalize in their product pricing. The imposition of the tax implements this pricing, raises the prices of polluting energy and reduces its cost effectiveness, and thus supports energy efficiency and the diversion of resources and consumption to emission-free energy sources. Recent findings in the empirical literature show the significant effect of a carbon tax in reducing greenhouse gas emissions.[7] This impact has motivated international bodies such as the International Monetary Fund,[8] the International Energy Agency[9] and the OECD[10] to view the tax as a major tool for reducing greenhouse gas emissions. Beyond its contribution to pricing the negative externality, the carbon tax is a source of government revenue, expected to generate about NIS 2.6 billion per year by 2030 when the tax rates reach their peak. The EU has also approved a carbon border adjustment mechanism for products from countries without carbon pricing, with the initial stages of implementation starting in 2023. This mechanism is expected to be fully in effect by 2026. If no carbon tax is imposed in Israel, it will effectively be paid to the EU instead of to Israel's treasury.

One argument against the imposition of a carbon tax is that Israel's energy market is fully regulated, such that connecting an energy supplier requires government approval, and thus the mix of energy sources can be designed based on production quotas. This argument overlooks the need to use market

7 D'Arcangelo et al. (2022); Gugler, Haxhimusa & Liebensteiner (2023).
8 International Monetary Fund (2019).
9 IEA (2020).
10 OECD (2023).

mechanisms to ensure that the transition to emission-free energies is efficient. A carbon tax prices the damage from emissions, thereby reducing the value and competitiveness of companies that use polluting energies compared to those that do not. It allows market mechanisms to determine the optimal mix of technologies by diverting investments toward less polluting companies and stimulating investment in the development and adoption of emission reduction solutions, such as filters and carbon capture and storage technologies.

A common concern about the carbon tax is the possibility that the resulting price increases may harm vulnerable populations. However, our analysis shows that the potential impact of the proposed tax on vulnerable groups is limited: household spending on energy in the lowest decile averages about 7 percent of income, and the expected increase in electricity prices according to the proposed legislation is expected to be about 0.6 percent. This translates into an impact of less than half a percent of household income in the lowest decile (about 200 NIS per year) and even less in higher deciles. Furthermore, it is possible to compensate vulnerable groups for the tax in ways that are not directly related to their energy consumption. An interministerial team has examined possible compensation mechanisms and proposed two alternatives: a package of benefits to promote efficiency and welfare in the energy sector and annual grants to the affected population.

As part of Israel's commitment to the Climate Conference, it was determined that the share of electricity production from renewable energy would reach at 30 percent by 2030. The development of renewable energy is of great importance because continued reliance on natural gas in the long term will prevent meeting long-term greenhouse gas emission targets.[11] In 2022, the proportion of electricity production from renewable energy was 10 percent, up from 2 percent in 2015.[12] According to the Electricity Authority, and based on already approved tenders, the share of renewable energies is expected to reach 17 percent by 2025.

There are several challenges to increasing the share of renewable energy in electricity production. Renewable energy sources in Israel are limited to solar power and thus are dependent on weather conditions. Extensive reliance on them could therefore compromise energy security. Increasing the share of solar-based renewable energy sources in Israel will require extensive changes to the electricity infrastructure, including, among other things, the development of transmission and distribution systems that connect production in the South to consumers in the Center, alongside storage technologies. Recently, such a development plan was approved and submitted to the government by the System Management Company ("Noga"), with a cost of approximately NIS 20 billion.[13] It is important to note that current electricity

[11] Although there has been progress in the development of technologies that enable carbon capture and storage, there is a still long way to go until their economic implementation. Once these technologies are developed, they will allow the use of natural gas as an energy source by capturing greenhouse gases rather than emitting them into the environment. For this reason, the EU has agreed to consider natural gas technologies combined with carbon capture as green technologies.

[12] Source: The Electricity Authority, Status Report on the Electricity Sector in 2022. [Hebrew] https://www.gov.il/he/departments/general/dochmeshek

[13] See: The Plan for the Development of the Production and Transmission Systems 2030, Noga – Electricity System Management, 2022. [Hebrew]
https://www.noga-iso.co.il/%D7%AA%D7%9B%D7%A0%D7%99%D7%AA-%D7%A4%D7%99%D7%AA%D7%95%D7%97-%D7%9E%D7%A2%D7%A8%D7%9B%D7%95%D7%AA-%D7%94%D7%99%D7%99%D7%A6%D7%95%D7%A8-%D7%95%D7%94%D7%9E%D7%A1%D7%99%D7%A8%D7%94-2030/#

storage is based on batteries that are only able to store a few hours' worth of energy. In Israel, the amount of electricity that can be generated from solar power is limited during the winter months. Therefore, increasing the capacity of renewable energies does not eliminate the need for power stations based on fossil fuels, which can provide a solution during those months.[14] The construction and maintenance of these stations involve costs that need to be considered when pricing renewable energies.

References

D'Arcangelo, F., et al. (2022). "Estimating the CO2 Emission and Revenue Effects of Carbon Pricing: New Evidence from a Large Cross-Country Dataset", OECD Economics Department Working Papers, No. 1732, OECD Publishing, Paris, https://doi.org/10.1787/39aa16d4-en

Gugler, K., A. Haxhimusa & M. Liebensteiner (2023). "Carbon Pricing and Emissions: Causal Effects of Britain's Carbon Tax", Energy Economics, 121, 106655.

IEA (2020). Implementing Effective Emissions Trading Systems, IEA, Paris https://www.iea.org/reports/implementing-effective-emissions-trading-systems, Licence: CC BY 4.0.

International Monetary Fund (2019). Fiscal Monitor: How to Mitigate Climate Change. Washington, October.

OECD (2023). Effective Carbon Rates 2023: Pricing Greenhouse Gas.

Emissions through Taxes and Emissions Trading, OECD Series on Carbon Pricing and Energy Taxation, OECD Publishing, Paris, https://doi.org/10.1787/b84d5b36-en.

[14] See: Roadmap for a low-carbon energy sector by 2050, Ministry of Energy, 2021. [Hebrew] https://www.gov.il/he/departments/publications/reports/