**BANK OF ISRAEL**

February 2013

**Government budget outcome in 2012 and budget outlook for the coming years**

- **The government budget deficit for 2012 was 4.2 percent of GDP, compared with a target of 2.0 percent of GDP set when the budget was approved at the end of 2010, and about 1 percentage point of GDP greater than the deficit in 2011.**
- **Most of the deviation from the targeted deficit reflects lower tax receipts than originally projected. This gap is mostly explained by different macroeconomic developments than forecast when the budget was approved at the end of 2010.**
- **Based on decisions and programs adopted by the government, the Bank of Israel forecast expenditures for 2013 to be 9 percent greater than in the 2012 budget, and NIS 13 billion above the expenditure ceiling according to the expenditure rule approved in 2010.**
- **Significant additional gaps exist between the expected cost of the programs approved by the government and the expenditure ceilings in 2014 and 2015.**
- **If the government aligns the increase in expenditure in 2013 with the expenditure ceiling, and does not change the tax rates set in law, the deficit, based on forecast growth of 3.8 percent, is expected to be 3.6 percent of GDP, greater than the new deficit target of 3 percent of GDP adopted by the government in the summer of 2012. That is, in order to meet the deficit target, it will also be necessary to increase tax rates or to cancel exemptions. If the government does not adjust its expenditures, the expected deficit in 2013, based on the costs of the programs approved by the government and the tax rates set in law, is 4.9 percent of GDP.**
- **Without significant adjustment of the government budget—both a reduction in government commitments to increased expenditures, and higher tax receipts—the debt to GDP ratio is not expected to decline in the coming years, unless the growth rate is especially high, more than 5 percent per annum, on average.**
- **In light of the experience of recent years, it would be beneficial for the government to adopt a mechanism to control its expenditure and revenue commitments for years beyond those covered by a current budget.**

The budget deficit in 2012 was 4.2 percent of GDP, about 2 percentage points of GDP above the deficit ceiling set when the budget was approved at the end of 2010, and about 1 percent of GDP greater than the deficit in 2011. In light of this, the government decided in the summer of 2012 to increase the deficit target for the coming years, assessing that it will find it difficult to meet the target set in the current law. In addition, the government and the Knesset increased tax rates in the second half of 2012 by about NIS 9 billion in order to support the attainment of the new target. Nonetheless, meeting the target will not be simple. The government's expenditure commitments for the coming years are substantially greater than the expenditure ceiling set in law, and a marked effort will be required to reduce them to the permitted limit. Without such a reduction, or increased tax receipts of an equivalent amount, the deficit is liable to be significantly above the new target, which will markedly increase the debt to GDP ratio. Furthermore, even if the government succeeds in reducing the increase in its expenditures to a level aligned with the ceiling, the expected deficit in 2013 and in the following years is still greater than the increased target adopted by the government, and additional measures will be required in order to meet it.

The wide gaps between the current fiscal outlook and the targets set by the government have a marked potential macroeconomic impact, as the budget adjustment required for the deficit not to deviate from the new target this year, about 2 percent of GDP, is likely to affect wide swaths of the population via incomes, tax payments and the provision of public services. The sooner the government clarifies how it intends to deal with these gaps, the more the uncertainty will be reduced and the general public and investors in Israel will be able to conduct their business with confidence.

### a. Budget performance in 2012

The government deficit in 2012 was greater—by more than 2 percent of GDP—than the target set in law of 2 percent of GDP, on which the budget was constructed when it was approved at the end of 2010. The deviation of the deficit from its target primarily reflects low tax receipts—about NIS 14 billion below the original forecast—but also a shortfall in other receipts, and expenditures which are greater than the original budget[1] (Table 1). The gap became apparent during 2011, and the government acknowledged its existence in the beginning of 2012, raising its deficit forecast to 3.4 percent of GDP. With that, since the budget was within a 2-year framework, it was decided not to act to reduce to the deficit, even following this assessment[2], and only toward the end of the year were tax rates increased. Furthermore, the government decided in January 2012 on a substantial increase in its expenditures[3], which was reflected at the end of the year in a level of expenditure which was greater than the original budget.

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[1] The government is allowed to spend more than originally budgeted for a specific year by transferring unutilized surpluses from previous years.

[2] The government budget for 2012 was approved at the end of 2010 as part of the two-year budget for 2011 and 2012. The law requires the government to prepare a budget which is in line with the deficit ceilings in place at the time the budget is prepared, but does not require the government to adjust the budget during its two year period if it turns out that the deficit is above the ceiling.

[3] "Recent Economic Developments", No. 132, September–December 2011, pp 12–13 (February 2012, BoI)

**Table 1**
**Estimated budget performance vs. original budget, 2012**
**(excluding expenses contingent on revenue and credit)**

| | Original budget | Estimated performance |
|---|---|---|
| | (NIS billion) | |
| **Total revenues** | **265.1** | **246.6** |
| *of which:* Taxes[a] | 233.8 | 219.7 |
| National Insurance Institute loans | 15.8 | 14.0 |
| Other revenues | 6.8 | 4.1 |
| Defense grant | 8.7 | 8.9 |
| **Total expenditures** | **283.4** | **285.6** |
| *of which*: Civilian expenditures, excluding interest | 176.7 | 176.7 |
| Defense expenditure[b] | 59.0 | 62.0 |
| Interest and principal payments, including to the National Insurance | 47.7 | 46.9 |
| **Balance, excluding credit granted** | **-18.3** | **-39.0** |

Source: 2012 Budget performance estimates, Ministry of Finance Accountant General.

[a] Includes VAT on defense imports.

[b] Includes estimate of defense expenditures included in budget reserves.

Tax receipts in 2012 were about 6 percent, or NIS 14 billion, below the budget forecast. Such gaps have not been out of the ordinary in recent years in some advanced economies due to the sharp fluctuations in the economic environment. With that, GDP in Israel increased in the past 2 years at a rate similar to the assumption in the original budget forecast[4], and legislated changes in tax rates were approximately neutral. Thus it is important to understand the source of the deviation since in a policy assessment, there is great significance to the question of whether the gap derives from a forecast which was reasonable when the budget was approved, even if retroactively it turns out to have been wrong, or from assumptions which were unreasonable even at the time the budget was prepared. This is because errors of the first type are viewed somewhat forgivingly by the markets, particularly in the current global economic environment which is marked by numerous shocks and structural changes, and especially if governments correct the policy when the gap is revealed. In contrast, responses to errors of the second type are liable to be much sharper.

Based on the Bank of Israel Research Department's tax model, tax revenues do not depend only on developments in GDP, but also on real macroeconomic and other

[4] When the 2011–12 budget was approved, it was assumed that nominal GDP would grow during these two years by 13 percent, and actual GDP growth, based on Central Bureau of Statistics estimates, was 14 percent.

financial variables.[5] An analysis of the gap between the original tax forecast and actual tax receipts in 2012, using the model, indicates that most of the deviation is explained by unexpected developments of two variables:

1. Slow growth of wages: Tax receipts increase, at least in the short term, as the share of wages in GDP increases.[6] In the past 2 decades, there has been a stable connection between wages and GDP, but in 2009 and in the beginning of 2010, wages increased at a lower pace than would be expected from their relationship to GDP. The budget forecast for 2011–12 was consistent with the assessment that wages will not return to the level derived from that connection, but that the gap will cease to increase. In actuality, the gap continued to rise and explains a shortfall of NIS 7 billion in revenues, compared with the forecast.[7]
2. The housing market: New home sales are another tax base, in addition to GDP.[8] When the budget was approved, it was assessed that the level of sales would be maintained at the end-2010 level, in light of the strong demand and price increases at that time. In actuality, sales declined, which explains a gap of about NIS 3 billion vis-à-vis the forecast.

It is important to note that although these two variables explain a substantial share of the gap between tax receipts and the forecast, there is no indication that they will return in the near term to their 2010 levels. Thus, given the high level of activity relative to the long term trend, the current deficit can be described as approximately reflecting the size of the structural deficit, not a cyclical gap.

In addition to those two factors, the model's assessment, based on data observed when the budget was approved, was that revenues will be NIS 3 billion (0.3 percent of GDP) below the forecast.[9] With that, it appears that most of the shortfall in tax revenues reflects the nonoccurrence of assumptions which were reasonable when the budget was approved. This assessment, alongside the government's important decision to begin to deal with the shortfall in revenues by a significant increase in tax rates, already in the second half of 2012, likely explains markets' relatively moderate response to the large deficit and its substantial deviation from the target.

In 2012, government non-tax revenues were NIS 4.5 billion below the budget forecast. In the Revenue from Interest, Royalties, Dividends, etc., section, the gap was about NIS 2.7 billion, which is about 40 percent of the revenue forecast in this item. This marks the second consecutive year in which receipts in this section were markedly lower than budgeted and contributed to a deviation from the deficit target. In addition,

[5] Brender, A. and Navon, G., (2010), "Predicting Government Tax Revenue and Analyzing Forecast Uncertainty", *Israel Economic Review* 7(2), 2010, pp. 81-111.
[6] Wages affect not only direct taxes, but also private consumption and indirect tax receipts.
[7] A similar gap in the US is described in "CBO's Economic Forecasting Record: 2013 Update" (January 2013), Congressional Budget Office.
[8] Home construction is recorded in GDP in accordance with the construction process, while taxes on new homes are collected upon sale.
[9] "Analysis of the State Budget Proposal for the Years 2011–12 Relative to the Budget Targets and from a Long-Term View", Bank of Israel Research Department, Public Sector Unit (November 7, 2010).

National Insurance Institute surpluses recorded as revenue in the budget were NIS 1.8 billion lower than the budgeted amount. Of this gap, about NIS 0.8 billion reflect the slow growth of wages in comparison to the original forecast and the remainder reflects lower than budgeted government transfers to the National Insurance Institute.[10]

The expenditure side also contributed this year to increasing the deficit. Total budget expenditures were about NIS 2.2 billion greater than in the original budget. Expenditure which is greater than the original budget is not against the law, as the government is permitted to increase its expenditure on the basis of unutilized funds carried over from previous years, but expenditure beyond what was originally budgeted is uncommon. Such a level of expenditure, in particular given lower than expected expenditures in the Transfers to National Insurance Institute and the Interest sections, indicates the increasing difficulty of digesting the many programs adopted by the government within the budget framework.

An examination of the components of the deviation of the deficit in 2012 indicates that most of the deviation can be explained by the effect of macroeconomic changes on revenues, but there was a considerable contribution as well from expansionary decisions on the expenditure side and overly optimistic forecasts of revenues. As such, there was considerable importance to the decision by the government and the Knesset to begin to deal, already at the end of 2012, with the gaps that had been created, by increasing tax rates. With that, further adjustment will be necessary on the revenue side, alongside the primary challenge of reaching decisions which will either limit the increase in expenditure to the rate set in law or compensate for deviations from it by a further increase in tax receipts.

### b. The 2013 budget

Meeting the fiscal targets in the 2013 budget will pose a difficult challenge to the government, even though the expenditure rule allows a notable real increase of 4.6 percent in expenditure compared with the 2012 budget (Table 2), and although it already increased the deficit ceiling last summer to 3 percent of GDP, compared with a ceiling of 1.5 percent of GDP set in law from 2009. The difficulty derives from the large commitments by the government to expenditures on multi-year programs which it adopted, and following the low tax revenues; these will require a marked effort and policy decisions on substantial sums in order to adhere to the fiscal rules.

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[10] In addition to collecting insurance premiums from the public and paying allowances, the government transfers to the National Insurance Institute (NII) matching payments to the public's contributions, payments for allowances which are fully funded by the government, and principal and interest payments on government bonds purchased in the past by the NII. When total NII receipts, including government payments, are greater than the total of allowances paid and operational expenses, it invests the surplus in government securities; this purchase is recorded in the budget as revenue. When the government does not transfer the full amount budgeted, this activity thus reduces its revenue and expenditure in parallel. In such a situation, it becomes possible to increase other expenses without deviating from the expenditures set in the original budget and this is reflected in budget data as a shortfall in revenues.

**Table 2**

**Components of change in the 2013 budget expenditure ceiling**

| | **2013 budget vs. 2012 budget** | |
|---|---|---|
| | **(percent)** | |
| Real increase, permitted by law[a] | 3.0 | |
| Inflation adustment due to underestimate of 2011& 2012 CPI (2 -1) | 1.6 | |
| 1. Forecast inflation in budget for 2011-12[b] | | 4.6 |
| 2. Actual inflation over 2011-12[c] | | 6.1 |
| Total real increase permitted in expenditure | **4.6** | |
| Projected real increase based on government commitments and programs | **9.4** | |

[a] The average real increase in GDP in 2002 to 2011 (simple average), multiplied by 0.81, which is the result of a numerator of 60 divided by the debt to GDP ratio at the end of 2011, of 74 percent.

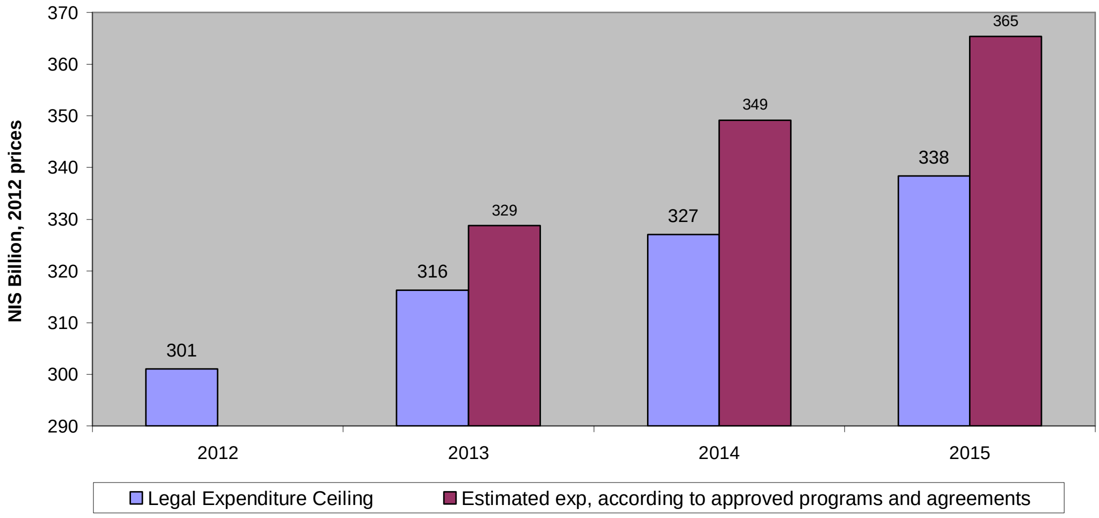
[b] The CPI was projected to increase by 2.3 percent (annual average) in 2011, and by 2.2 percent in 2012.

[c] Includes a gap of 0.8 percent between the inflation forecast at the end of 2010, when the budget was prepared, and actual inflation in 2010.

**SOURCE: Bank of Israel Research Department.**

The expenditure rule set in law allows a real increase of 4.6 percent in the 2013 budget, a very high rate relative to the past decade. There are 2 components of the increase: (1) the base increase under the rule, which allows expenditure to expand by 3 percent, and (2) an increase of 1.6 percent in respect of the gap between inflation since the 2011–2012 budget was prepared and the forecast prepared at the time the budget was approved. However, based on estimated expenditures in various sections of the budget, the cost of programs approved by the government along with the regular increase in current expenditures (due to population growth and the change in its composition and due to laws and long term arrangements such as the update to the health basket) is double, 9.4 percent (including expenses contingent on revenue). This would mean additional expenditures of NIS 28 billion—while based on the rule, an increase of about NIS 15 billion is allowed. This gap is based on a conservative working assumption that the total defense budget in 2013 will be set in accordance with existing government decisions (that is, that an increase in expenditure on unplanned items will be funded by transfers between sections within the defense budget). The meaning of this gap is that in order not to deviate from the expenditure rule, the government and the Knesset will need to reduce expenditures by NIS 13 billion compared with existing plans, an out of the ordinary gap compared with the past. It is important to note that the gap accrued despite very moderate general wage agreements in the public sector that were based on maintaining the real wage and not more. Closing the gap will be especially difficult because a substantial part of the commitments are in respect of wage agreements in specific sectors and multi-year reforms, the implementations of which are already well along, such as the "Ofek Chadash" (New Horizon) and "Oz Le'tmura" (Courage to Change) in the education system, wage agreements with doctors and the associated changes in the medical system, improved conditions for contract workers, and expanding the Free Mandatory Education Law to pre-primary school aged children.[11] Furthermore, an examination of the government's commitments for the years after 2013 (Figure 1, and Section c below) indicates that they deviate from what is allowed under the expenditure rule in those years as well, and so there is no option of dealing with the over-commitments in 2013 by deferring costs to those years.

**Figure 1**
**The Budget's Expenditure Ceiling, 2012-2015, Compared to the Cost of Approved Government Programs**




The aggregation of government over-commitments, without a discussion on the effects on the expenditure ceiling and the size of the deficit, was made possible due to the absence of a mechanism to monitor the budgets for commitments for years beyond the current budget. In recent years, the government has operated within the framework of two-year budgets, but commitments beyond the budget period were not examined in terms of the expenditure ceiling. Thus, the government approved multiyear programs without examining their coordination with the multiyear targets that it set.[12] Even when part of the gap was identified in the beginning of 2012, adjustments were not made

[11] Out of the gap with what is required to meet the expenditure ceiling, the government can cover close to NIS 1 billion through the credit granting section. The expenditure rule applies to this section, which has been budgeted in recent years by a much greater amount than was actually used. Thus, precise budgeting of the section would allow increasing other expenditures within the framework of the ceiling when the budget is approved, and not just during the year, as has been done in recent years. With that, since granting credit is not listed as expenditure for the purpose of calculating the deficit, such use requires additional increases in revenue in order to prevent an increase in the deficit.

[12] This phenomenon, in itself, is not new, even if the amount this year is especially large, and it was difficult for the government in the past as well to meet the multiyear deficit target that it set. For further discussion, see Brender, A., (2008), "If You Want to Cut, Cut, Don't Talk: The Role of Formal Targets in Israel's Fiscal Consolidation Efforts 1985-2007", in *Fiscal Policy*: *Current Issues and Challenges*, Banca d'Italia, pp. 348-376.

because the government operated within the framework of a two-year budget—which did not require an immediate modification—and continued to undertake commitments during the year. As a result, the government now faces a difficult choice between negatively impacting part of the important programs that it approved, and deviating markedly from the expenditure target. At the end of 2011, the government faced a similar problem when the multiyear framework to reduce direct taxes was not in line with the path to reduce the deficit. In light of these experiences, it is important that the government adopt a mechanism to control its commitments for the years beyond a current budget period, in terms of both expenditure and revenues, in order to ensure their coordination with its medium term fiscal goals.

If government expenditure remains at a level which reflects the costs of the programs it adopted, and based on the tax rates set in law and the Bank of Israel's current growth forecast, the deficit in 2013 is projected to reach 4.9 percent of GDP. This is a worrying level for the deficit, particularly since it will be reached at a time when defense expenditures are expected to be similar to the multiyear path adopted by the government to reduce their share in the budget and GDP (the Brodet framework), and when Israel's economy is at the lowest unemployment rates in recent decades. Even if the government carries out all the adjustments required in order not to deviate from the expenditure ceiling, or increases tax rates to compensate for these deviations, a deficit of 3.6 percent of GDP is nonetheless expected. This is greater than the increased target adopted by the government. A deviation from an increased target, just recently adopted, is liable to negatively impact markets' trust in the government's commitment to reach reasonable deficit levels and to reduce the debt to GDP ratio, and thus it is important that it carries out the adjustments required to prevent that. Reducing the gap by markedly increasing taxes would mean that additional tax revenues of NIS 6 billion will be required; which, taking into account the effect of the government budget on economic activity in the short term, requires an increase in tax rates or cancellation of exemptions of about NIS 7.5 billion.

**c. Expected fiscal developments in a multiyear view**

The large gap between the government's commitments and expenditures in respect of long-term programs it adopted and the expenditure permitted under the deficit ceiling is not limited to 2013. Figure 1 above presents the gaps expected as well in 2014 and 2015, and indicates that these are projected to increase until, in 2015, the gap reaches NIS 28 billion. The significance of the increasing gaps is that even if the government succeeds in halting the increase in its expenditures in 2013 at the level permitted by the rule, and even if the entire adjustment is carried out via permanent measures, additional adjustments will still be required, of about NIS 10 billion in 2014, and an additional adjustment of about NIS 5 billion in 2015. This, of course, is under the assumption that the government does not adopt any other program with a significant budget cost over the entire period. It is important to note that a marked share of the over-commitments for 2014 and 2015 stems from ambitious investment programs in transportation infrastructure, which are likely easier, from a technical perspective, to postpone or to find alternative sources of financing for, than reforms and agreements in other areas. However, it is up to the government to determine whether such measures match its priorities for the rest of the decade.

**Figure 2**
**Budget Balance: Alternative Policy Scenarios, 2010-2020**
**(percent of GDP, assuming average GDP growth of 3.3%)**

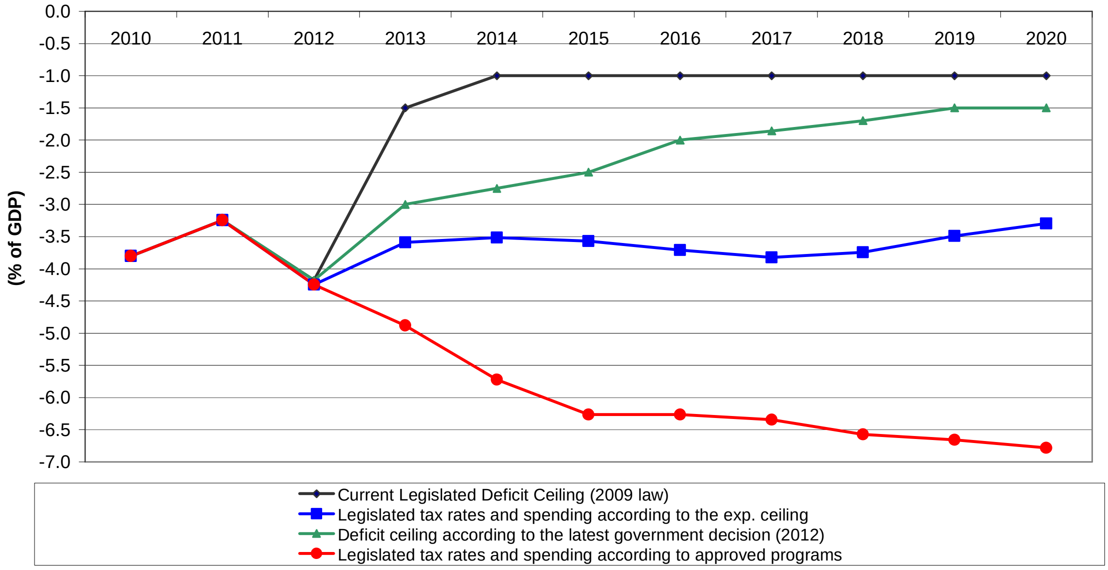



Figure 2 presents the expected increase in the government deficit if it allows its expenditures to increase in line with the programs it adopted, and maintains the tax rates set in existing legislation (the black line). In this situation, the deficit will increase rapidly to more than 6 percent of GDP in 2015, and will continue to increase at a more moderate rate over the rest of the decade. This is under the assumption that the GDP per capita growth rate in 2013–20 will be similar to the average in recent decades, and that the interest rate on government debt will not be affected by the deficit and by the size of the debt (these assumptions are also used in examining the alternative paths presented below). Under such a policy, the debt to GDP ratio will reach 95 percent in 2020 and will be on a rapidly increasing path (the black line in Figure 3). The share of public expenditure in GDP will increase during the period by more than 3 percentage points, including a marked increase in interest expenditure due to the increased debt, in contrast to the moderate decline during the decade derived from meeting the expenditure ceiling (Figure 4). It appears that such a policy path is not sustainable, and also does not meet the deficit targets set by the government.

**Figure 3**
**Debt to GDP Ratio: Alternative Policy Scenarios, 2010-2020**

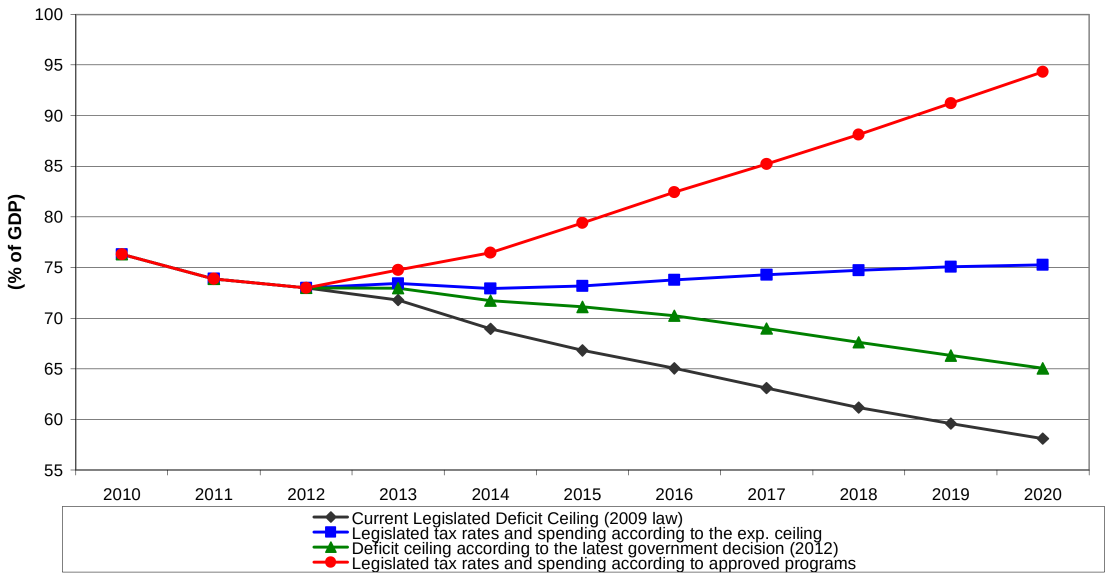
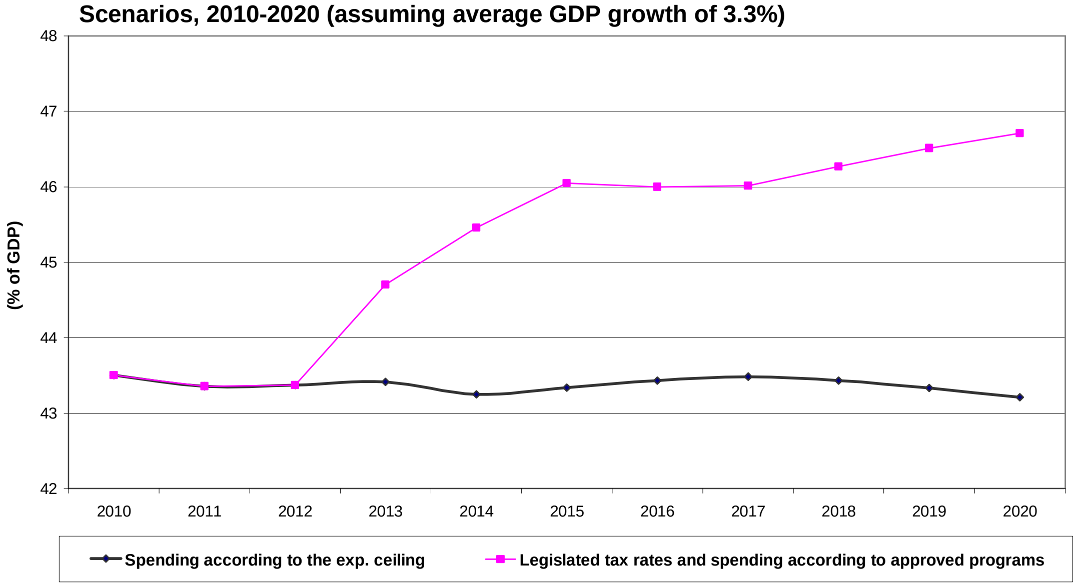



**Figure 4:**
**The Share of General Government Expenditure in GDP: Alternative Policy Scenarios, 2010-2020 (assuming average GDP growth of 3.3%)**




If the government does in fact choose to increase its expenditure by an amount based on the deficit path set in law, which the government decided to change, the deficit needs to decline to 1.5 percent of GDP in 2013 and to 1 percent of GDP thereafter. Figure 3 (the blue line) indicates that staying on this path would allow the government to reduce the debt to GDP ratio to less than 60 percent in 2020. With that, Figure 2 indicates that in order to meet this target, a very large fiscal adjustment will be required over the coming years, reflected in a gap between the deficit expected in accordance with existing government decisions and current tax rates, and the deficit set by law. The size of the adjustment is about 3.5 percent of GDP in 2013 alone, and about another 2 percent of GDP in the 3 following years. The government assessed during 2012 that it will have difficulty carrying out such an adjustment, and that its negative impact on economic activity in the short run will be too severe, and thus adopted the new deficit path which it intends to bring to the Knesset for approval.

The framework adopted by the government sets a gradual decline in the deficit, from 3 percent of GDP in 2013 to 1.5 percent of GDP toward the end of the decade (the green line). Meeting this framework will allow the debt to GDP ratio to decline gradually to 65 percent in 2020 (Figure 3), and to continue to decline in the following decade as well. With that, converging to this framework requires—in addition to reducing commitments on the expenditure side in order to bring them under the expenditure ceiling—a marked increase in tax rates, though higher rates and/or cancellation of exemptions, over the coming 4 years. Without such an increase, even if the government does not deviate from the expenditure ceiling, the deficit will not decline between 2013 and 2018, and the debt to GDP ratio will remain around its current level (the red line).

The above analysis is based, as noted, on specific growth assumptions—3.8 percent in 2013, 4.2 percent in 2014, and an overall average growth rate of 3.3 percent (1.7 percent per capita) over the period examined. These assumptions derive from the per capita GDP growth rates in recent decades and from population growth projections of the Central Bureau of Statistics. Clearly, if growth rates are different from the base forecast, the various fiscal aggregates will develop differently.[13]

Figure 5 indicates that even if the average growth rate over the coming decade will be 4 percent per year, the government deficit based on the tax rates set in law and the expenditure ceiling will be greater than the target until the end of the decade. That is, even with such growth rates the government will be forced to increase tax rates in order not to deviate from the new deficit target it adopted. In contrast, if the average growth rate will only be 2.5 percent, such a policy will increase the deficit to more than 5 percent of GDP in 2018, before beginning to decline gradually.

[13] A discussion of the potential growth of Israel's economy in the coming decade appears in Chapter 1 of the Bank of Israel Annual Report 2011.

**Figure 5**
**The Budget Balance Based on Existing Tax Legislation and Expenditure Ceiling: Alternative Growth Scenarios, 2010-2020**