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Introduction

Under the requirement of the Stability and Growth Pact, EU member countries are obliged to submit a stability program (convergence program in case of pre-ins) yearly. The Austrian federal government presented an updated stability program for 2000-2004 on December 19, 2000. According to this program, Austria will achieve a balanced budget by the year 2002 and, parallel to this development, reduce the debt-to-GDP ratio to a level below the reference value of 60% as early as by the end of 2002.

Analyzing the budgetary developments and stance of fiscal policy in EU member countries has therefore become a central issue in economic policymaking.[1] While the object of the Stability and Growth Pact is the actual budget balance as a ratio of GDP, there is a broad consensus that this variable is not a very useful indicator. Consequently, the ECOFIN followed an opinion by the Monetary Committee to take the Commission services' cyclical adjustment method as a useful approach for assessing budgetary developments. The ECOFIN, however, also recognizes that *"... results from other methods may also be considered."* [2]. Since each method has its strengths and weaknesses (see, e.g. Brandner, Diebalek and Schuberth 1998), the usefulness of a certain indicator is determined by its function.

In this paper we analyze the updated stability program of Austria for 2000 - 2004. We assess the budgetary developments and the stance of fiscal policy by means of a new fiscal indicator, following an idea of Braconier and Holden (2001) who suggested a new indicator concept. This concept decomposes changes in the budget balance into "induced" and "discretionary" ones. Induced changes are due to changes in the economy while discretionary changes are due to changes in fiscal policy. The discretionary fiscal indicator representing the net effect of discretionary revenue and expenditure measures can be used to assess the stance of fiscal policy. A policy, for example, where discretionary tax cuts are higher than discretionary expenditure increases can be considered as a relaxation of the fiscal stance (the sign of the fiscal indicator is negative); a policy, where discretionary tax increases are lower than

[1] For a discussion of fiscal policy in the USA, see Taylor (2000). He also emphasized the importance of distinguishing between automatic stabilizers and discretionary fiscal policy.

[2] ECOFIN Council Meeting, Luxembourg, 12 October 1998.

discretionary expenditure cuts can be considered as a tightening of the fiscal stance (the sign of the fiscal indicator is positive).

An assessment of Austria´s fiscal stance in the year 2002 – when, according to the stability program, a balanced budget ("zero deficit") will be realized –according to the new fiscal indicator concept produces the following main results:

1. The induced changes in public revenues exceed the required increase of 1.6 percent of GDP by 0.2 percent of GDP, implying a small room for maneuver on the revenue side. Applying the fiscal indicator analysis on Austrian's stability program for 2001 - 2004 based on a revised forecast for 2001 and 2002 (lower growth rate of GDP), the above room for maneuver on the revenue side disappears. The fiscal indicator signals that appropriate measures must be taken to tighten the fiscal stance and to force down the growth rate of primary public spending below the trend growth of GDP. The required savings effect on the expenditure side will amount to 21 billion ATS or 0.7 percent of GDP in 2002.

2. There is a fundamental difference between the development of the revenue and expenditure sides of the fiscal consolidation plan 2001 - 2004. Inspecting the revenue side, the "induced revenues" according to the fiscal indicator lie systematically above the projections of the fiscal consolidation program, reflecting some leeway on the revenue side. On the expenditure side, the situation is quite different. In this case, the "induced" expenditures according to the fiscal indicator normally exceed the government's fiscal stability program. The fiscal indicator for the year 2002 clearly shows that a tightening of the fiscal policy stance is necessary to achieve the envisaged target of a "zero deficit." The fiscal indicator conveys the message that the sustainability of the government's consolidation program can mainly be improved through expenditure restraints.

This paper is organized as follows: in Section 2, we assess the stability program for 2001 - 2004 and the implied path of public debt. In Section 3, we discuss the new fiscal indicator concept designed for the purpose of measuring changes in fiscal policy. In Section 4, we present the results of the fiscal indicator analysis for the year 2000 and the year 2002.
The conclusions and main findings concerning Austria's stability program can be found in Section 5.

2. The Updated Stability Program and the Time-Path of Public Debt

The federal government presented an updated stability program in December 2000. According to this program, Austria will reduce its public deficit to zero by the year 2002, whereby the federal government's deficit will be reduced to 0.75% of GDP, while the governments of the Länder and the local authorities will show a surplus of 0.75% of GDP. In parallel with these developments, Austria´s public debt ratio is expected to fall to below the reference value of 60% of GDP as early as by the end of the year 2002.

Let us now analyze the consolidation path to which the federal government has committed itself. The calculations are based on the following difference equation, describing the intertemporal budget constraint of the government (Frisch 1997). The change in the debt ratio is a function of the growth-adjusted interest rate and the primary budget balance:

$$(1) \qquad \Delta\left(\frac{D}{Y}\right)_t = \frac{\mathrm{D}_t}{\mathrm{Y}_t} - \frac{\mathrm{D}_{t-1}}{\mathrm{Y}_{t-1}} = (i_t - g_t)\frac{D_{t-1}}{Y_{t-1}} - \frac{T_t - G_t}{Y_t}$$

where T_t stands for total tax revenues and G_t for total government primary expenditure (total expenditure less interest payments), D_t denotes the national debt, i_t is the nominal interest rate defined as $G_{I,t}/D_{t-1}$ with $G_{I,t}$ being the interest payments on the public debt; g_t is the growth rate of nominal GDP (Y_t). The difference $(T_t - G_t)$ represents the primary budget balance S_t (surplus if > 0, deficit if < 0).

The calculations of Austria´s debt path in Table 1 shall be understood as a scenario. The following assumptions have been made:

- The growth rates of nominal GDP correspond to the standard scenario in the stability program (Column g_t in Table 1).
- The nominal interest rate is fixed at 5.7%.
- In contrast to the calculations of the Ministry of Finance, it is assumed that the value of capital transactions will total the modest value of ATS 100 billion with the following effect: national debt will be reduced by ATS 30 billion in the year 2001, by ATS 50 billion in the year 2002, and by a further ATS 20 billion in the year 2003 through the sale of government assets.

Table 1: Development of Public Debt and Public Deficit 2000 to 2004

	Y_t	D_t	D_t/Y_t	$G_{I;t}$	S_t	S_t/Y_t	$i_t = G_{I,t}/D_{t-1}$	g_t	i_t-g_t	Deficit	Deficit in% of GDP
1999	2,712.0	1,752.7	64.6%	96.5	39.0	1.4%	5.82%			-57.4	-2.1
2000	2,836.8	1,792.1	63.2%	98.2	59.6	2.1%	5.60%	4.6%	0.0100	-38.6	-1.4
2001	2,953.1	1,787.2	60.5%	100.4	78.3	2.7%	5.70%	4.1%	0.0160	-22.2	-0.75
2002	3,074.2	1,741.2	56.6%	99.0	99.0	3.2%	5.70%	4.1%	0.0160	0.0	0.0
2003	3,169.5	1,723.6	54.4%	98.1	98.3	3.1%	5.70%	3.1%	0.0260	+0.1	0.0
2004	3,280.4	1,724.8	52.6%	98.2	98.4	3.0%	5.70%	3.5%	0.0220	+0.2	0.0

Source: Statistics Austria; WIFO Forecast of December 2000; Federal Ministry of Finance (2000); own calculations.
The variables are expressed in ATS billions (if not otherwise indicated).

Column 3 in Table 1 shows the development of the debt-to-GDP ratio and the last column shows the deficit-to-GDP ratio. The table headings include the variable $G_{I,t}$, interest payments in ATS billion, and S_t, the primary balance. It becomes obvious here that from the year 2002 onwards, i.e. from reaching a balanced budget onwards, the primary surplus is equal to interest payments (see columns $G_{I,t}$ and S_t).

Starting from the end of the year 2000, the consolidation process can be characterized as follows: The debt-to-GDP ratio is 63.2% and the budget deficit is 1.4% of GDP, or ATS 38.6 billion. The primary surplus of ATS 59.6 billion is insufficient to compensate the debt service costs of ATS 98.2 billion; the difference between these two figures, i.e. the budget deficit, amounts to ATS 38.6 billion.

If the federal government were to achieve the balanced budget announced for the year 2002, it must increase the primary surplus (regarded here as the strategic variable) to ATS 99 billion or 3.2% of GDP. It will be necessary to continue to achieve primary surpluses of this magnitude over the coming years (see columns S_t and S_t/Y_t).

This program will also reduce the debt-to-GDP per the end of 2002 to far below the 60% reference value (debt ratio at the end of 2002: 56.6% of GDP). Yet despite this decline in the debt ratio, the interest service payments will actually rise slightly to ATS 100.4 billion. From 2002 to 2004, the debt service costs will show a slight downward trend because the level of

public debt will only recede marginally until 2004. By contrast, the public debt ratio will is estimated to fall to 52.6% under these same conditions.

These calculations take into account the fiscal measures concerning the revenue and expenditure sides as agreed upon in the year 2000, i.e. when the effects of those measures will already be noticeable during the 2000 - 2003 period. The heavier effect of consolidation on the tax revenue side at the outset of the program is outweighed by a heavier contribution resulting from consolidation on the spending side (savings in personnel costs, slowing down pension payments) in 2002 and 2003. The fall of the tax-to-GDP ratio (excluding social security contributions) from 28.4% in 1999 to 27.9% in 2000 and its rise to 28.6% in the year 2001 indicate that, as a result of the new measures, the concessions of the Tax Cut Package 1999 have virtually been offset.

We can conclude that the consolidation path as portrayed in Table 1 will probably be realized, provided, of course, that economic growth does not deviate significantly from the assumptions on which the macroeconomic scenario is based.

3. Decomposing the Budget Balance

3.1 Approaches to analyzing fiscal developments

International organizations like the EU Commission, the OECD or the IMF use cyclically adjusted budget indicators to assess fiscal policy issues. Their main concern lies in evaluating the impact of economic activity on the fiscal position. Therefore, most indicators which focus on cyclical adjustment do this by linking a measure of the output gap to various revenue and expenditure categories. Basically, the weakness of these approaches is twofold:

First, the tax base as well as expenditure indicators may evolve differently than GDP. More recently, however, methods have been suggested that assign revenues to movements of the tax base (e.g. Momigliano and Staderini, 1999) and also make the tax base a function of economic activity (output gap). The OECD has recently made some effort in this direction (van den Noord, 2000).

Secondly, tax and expenditure elasticities must be estimated or assumed to be constant. They are subject to possible large sampling errors and may be time-varying. By means of a bootstrapping simulation, Brandner, Diebalek and Schuberth (1998) demonstrate that the

variation of elasticities over the business cycle is so high that not even the sign of the cyclical balance can be statistically determined.

In this paper, we follow an idea proposed by Braconier and Holden (2001) to decompose changes in the budget balance into discretionary changes which describe fiscal policy and into changes which arise endogenously. They suggest a fiscal indicator which is based on the following assumption: If fiscal policy remains unchanged, tax revenues are proportional to their tax bases and general government expenditures are proportional to trend output (unemployment benefits are proportional to the rate of unemployment). In our application, however, we made some adaptions to Braconier and Holden (2001), but the basic idea of how to define the benchmark policy (no fiscal change) is the same.

While this approach is highly transparent and the indicator can easily be calculated, the weakness lies in imposing unit elasticity. As Braconier and Holden (2001) argue, there is reason to believe that elasticities with respect to the tax bases are much closer to 1 than elasticities with respect to GDP.

3.2 Theoretical concept of decomposing budget revenues and expenditures

At time t, total tax revenue T_t and total government primary expenditure G_t (total expenditure less interest payments) for period t can be decomposed into

(2a) $$T_t = T_t^I + T_t^D$$

(2b) $$G_t = G_t^I + G_t^D$$

where T_t^I (G_t^I) is the induced tax revenue (induced government primary expenditure) endogenously arising when fiscal policy remains unchanged, and T_t^D (G_t^D) is the discretionary tax revenue (discretionary government primary expenditure) resulting from fiscal policy measures. The implied average tax rate τ_t, which represents the tax system and the implied average expenditure parameter γ_t representing the expenditure structure, is

(3a) $$\tau_t = \frac{T_t}{Z_t}$$

(3b) $$\gamma_t = \frac{G_t}{X_t}$$

where Z_t is the tax base and X_t is an indicator variable related to expenditures. The induced tax revenue (government expenditure) at time t can be obtained by applying the "tax system" ("expenditure structure") which prevailed at time $t-1$ on the tax base (expenditure indicator) at time t

(4a) $$T_t^I = \tau_{t-1} Z_t$$

(4b) $$G_t^I = \gamma_{t-1} X_t$$

Using (3) and (4), the tax revenue (government expenditure, respectively) decomposition reads as

(5a) $$T_t = T_{t-1} \frac{Z_t}{Z_{t-t}} + T_t^D$$

(5b) $$G_t = G_{t-1} \frac{X_t}{X_{t-t}} + G_t^D$$

To consider changes in these proposed decompositions, note that one cannot simply write equations (2a) and (2b) in difference forms. In our framework, it is implicitly assumed that a temporary discretionary fiscal measure at time $t-1$ becomes a permanent one at time t. It is then part of the "tax system" τ or "expenditure structure" γ to be applied for analysis in the following period, see equations (3) and (4). It also means that total revenues and total expenditures at time $t-1$ serve as "structural" components for decomposition at time t.[3]

Subtracting T_{t-1} (G_{t-1}) from both sides in (2a) and (2b), respectively, the change in total tax revenues ΔT_t and the change in total government primary expenditure ΔG_t is

(6a) $$\Delta T_t = T_t - T_{t-1} = (T_t^I - T_{t-1}) + T_t^D = \Delta T_t^I + T_t^D$$

(6b) $$\Delta G_t = G_t - G_{t-1} = (G_t^I - G_{t-1}) + G_t^D = \Delta G_t^I + G_t^D$$

where we define $\Delta T_t^I := (T_t^I - T_{t-1})$ as the induced change in tax revenues and $\Delta G_t^I := (G_t^I - G_{t-1})$ as the induced change in government primary expenditures.

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[3] In fact, our analysis is an exercise in comparative static (of a change in the tax base or of the expenditure indicator). The component labeled "discretionary" is the difference (residual) between the result of the comparative static analysis and the observed variable. Therefore $\{\Delta T^I\}_t$, $\{T^D\}_t$, $\{\Delta G^I\}_t$, and $\{G^D\}_t$ should be interpreted as a series of independent results from a comparative static analysis.

Equations (6) can also be expressed as ratios to GDP (Y_t)

(7a) $$\frac{\Delta T_t}{Y_t} = \frac{\Delta T_t^I}{Y_t} + \frac{T_t^D}{Y_t}$$

(7b) $$\frac{\Delta G_t}{Y_t} = \frac{\Delta G_t^I}{Y_t} + \frac{G_t^D}{Y_t}$$

The primary budget balance S_t (budget balance B_t minus interest payments) and its decomposition is given by

(8) $$S_t = S_t^I + S_t^D = (T_t^I - G_t^I) + (T_t^D - G_t^D)$$

and hence, the change of the primary budget balance reads as

(9) $$\Delta S_t = (\Delta T_t^I - \Delta G_t^I) + (T_t^D - G_t^D)$$

Often the change of the primary budget balance ΔS_t is used as an indicator to assess the fiscal stance. Equation (9), however, suggests that the net effect $(T_t^D - G_t^D)$ of discretionary measures on the revenue and expenditure sides is more appropriate. Hence, the fiscal indicator used in this paper to assess the fiscal stance is

(10) $$F_t \equiv S_t^D = T_t^D - G_t^D$$

or as a ratio of GDP

(11) $$\frac{F_t}{Y_t} = \frac{T_t^D - G_t^D}{Y_t}$$

It is also common to classify fiscal policies as expansive or restrictive according to the change of the cyclically adjusted budget balance. While in the latter approach, the balance (or various budget categories) is adjusted for the business cycle, revenues and expenditures are adjusted for the movements of tax bases and expenditure indicators (which need not necessarily correlate perfectly with the output gap) in our approach.

3.3 Decomposing the budget balance of Austria´s stability program

In the empirical part of the paper, we apply this decomposition to various revenue and expenditure categories as described in Austria´s stability program. However, we aggregated these categories to four different revenue types and corresponding tax bases ($i = 1,\ldots,4$) and

to two different expenditure types ($j = 1,2$).[4] Equations (2)—(7) must be adapted accordingly. For example, equations (4a) and (4b) are re-formulated as

(3´) $$\tau_{i,t} = \frac{T_{i,t}}{Z_{i,t}}\ , \quad \text{and} \quad \gamma_{j,t} = \frac{G_{j,t}}{X_{j,t}}$$

On the revenue side, equation (5a) becomes

(5a´) $$T_t = T_{I,t-1}\left(\frac{C_t}{C_{t-1}}\right) + T_{D,t-1}\left(\frac{I_t}{I_{t-1}}\right) + T_{S,t-1}\left(\frac{W_t}{W_{t-1}}\right) + T_{O,t-1}\left(\frac{Y_t}{Y_{t-1}}\right) + T^D_{I,t} + T^D_{D,t} + T^D_{S,t-1} + T^D_{O,t-1}$$

where

- indirect taxes T_I *(ESA95: taxes on production and imports, D2)* are proportional to private consumption,
- direct taxes T_D *(ESA95: current taxes on income, wealth etc., D5*) are proportional to the weighted sum of compensation of employees, pensions, operating surplus, and mixed income (weighted according to their respective shares),
- social security contributions T_S *(ESA95: social security contributions, receivable, D61)* are proportional to compensation of employees,
- all other receipts T_O *(ESA95: market and nonmarket output (P1); property income (D4), transfers receivable (D7+D9))* are proportional to GDP.

On the expenditure side, equation (5b) becomes

(4b´) $$G_t = G_{U,t-1}\left(\frac{U_t}{U_{t-1}}\right) + G_{O,t-1}\left(\frac{Y^*_t}{Y^*_{t-1}}\right) + G^D_{U,t} + G^D_{O,t}$$

where

- social benefits G_U *(ESA95: social transfers, payable (D62+D63+D7))* are proportional to the weighted total number of unemployed, pensioners and children (weighted according to their respective shares) multiplied by the actual GDP deflator,
- all other outlays G_O *(ESA95: intermediate consumption (P2), compensation of employees (D1), subsidies (D3), gross capital formation (P5) and "others" (D9+K2+D29) except*

[4] The exact definitions according to the European System of Accounts, EUROSTAT 1996, denoted as ESA95, are given below.

D41 interest) are proportional to potential output Y_t^* (HP filtered real GDP times the GDP deflator).

The proposed fiscal indicator (10) or (11), defined as the net effect of the discretionary measures, for Austria (AT) became

$$F_t^{(AT)} = \left(T_{I,t}^D + T_{D,t}^D + T_{S,t-1}^D + T_{O,t-1}^D\right) - \left(G_{U,t}^D + G_{O,t}^D\right) \tag{12}$$

or, as a ratio to GDP

$$\frac{F_t^{(AT)}}{Y_t} = \frac{\left(T_{I,t}^D + T_{D,t}^D + T_{S,t-1}^D + T_{O,t-1}^D\right)}{Y_t} - \frac{\left(G_{U,t}^D + G_{O,t}^D\right)}{Y_t} \tag{13}$$

A positive value of F_t (an increase in discretionary revenues and/or a decrease in discretionary expenditures) indicates a tightening, a negative value a relaxation of fiscal policy.

4. Results of the Fiscal Indicator Analysis for the Years 2000 and 2002

When applied to the future part of the stability program 2001-2004 we emphasize that these fiscal plans consist of variables which are "expected" or "forecast". Hence, induced changes are "expected" endogenous changes, while "discretionary" measures indicate fiscal policy measures that have been "required". The latter must be taken to bring the expected endogenous variables (tax revenues and government expenditures) in line with the fiscal plans for 2001 - 2004. Therefore, a "caveat" is necessary if we compare the fiscal indicator calculations for 2000 and 2002. The fiscal indicator calculation for the year 2000 is an *ex post* analysis, while it is an *ex ante* analysis for the year 2002. The variables G_t^D and T_t^D represent discretionary changes in fiscal policy that actually took place in the year 2000.[5] In the calculations for the year 2002, G_t^D and T_t^D represent target variables: in our case, the discretionary fiscal policy measures required to meet the budget consolidation program according to the stability growth pact.

[5] Although the results of the year 2000 are partly estimated (for the central and local governments) and are therefore not final, they are based on policy measures implemented in the past.

What information is contained in the fiscal indicator calculation for the year 2000?

Inspecting the tax revenue side (table 2a), we can see that the growth in government revenues was smaller than that of the tax base ($T_t^D < 0$). This difference amounts to ATS 18 billion or 0.6 percent of GDP, mainly reflecting the 1999 tax reduction package of the previous government. In other words, without the 1999 tax cut , the rise in total revenues would have been 2.0 percent of GDP instead of (actually) 1.3 percent of GDP.

Table 2a: Austria's Stability Program: Fiscal Indicators: Discretionary and Induced Changes of Budget Balance *(in percent of GDP)*

	2000	2001	2002	2003	2004
Discretionary revenues (T^D/Y)	**-0.6**	**0.1**	**-0.2**	**-0.6**	**-0.2**
Induced change in revenues ($\Delta T^I/Y$)	2.0	1.8	1.8	1.7	1.7
Change in total revenues ($\Delta T/Y$)	**1.3**	**2.0**	**1.6**	**1.1**	**1.5**
Discretionary primary expenditures (G^D/Y)	**-0.9**	**0.0**	**-0.7**	**-0.2**	**0.2**
Induced change in primary expenditures ($\Delta G^I/Y$)	1.5	1.4	1.4	1.3	1.3
Change in primary expenditure ($\Delta G/Y$)	**0.6**	**1.3**	**0.8**	**1.1**	**1.5**
Primary balance discretionary (S^D/Y) ≡ (F/Y)	**0.3**	**0.2**	**0.5**	**-0.4**	**-0.4**
Induced change in primary balance ($\Delta S^I/Y$)	1.8	2.5	2.9	3.7	3.6
Change in primary balance ($\Delta S/Y$)	**2.1**	**2.7**	**3.4**	**3.3**	**3.2**
Change in budget balance ($\Delta B/Y$)	**0.7**	**0.6**	**0.7**	**0.0**	**0.0**

Looking at the expenditure side (Table 2a), we find a rather high negative figure for G_t^D (the discretionary change in primary expenditures of -0.9 percent of GDP). This implies that the growth rate of public expenditures was below the trend rate of GDP.[6] The government spending restraints in 2000 reflect measures in the domains of government employees (staff reduction), cost of administration and public investment. Furthermore, government accounts for Austria were influenced by revenues from the sale of UMTS licenses in 2000

[6] For expenditures we generally assume that an unchanged policy implies that expenditures are proportional to trend GDP. The only exception was made for expenditures on social benefits. These are linked to the development of our social benefit indicator (see Chapter 3.2).

(ATS 11.2 billion or 0.4 percent of GDP). These revenues are recorded as negative expenditures, according to the accounting rules of ESA95.

The positive discretionary contribution to the primary budget surplus in the year 2000 of 0.3 percent of GDP $(S_t^D > 0)$ or, in other words, the policy change in the primary budget of the previous year, is the result of two opposing forces: The tax cut effect $(T_t^D < 0)$, which relaxed the fiscal stance and the restrained expenditure growth $(G_t^D < 0)$, implies a tightening of the fiscal stance. The improvement in the primary budget surplus indicates that the tightening of the fiscal stance dominated the relaxation effect implied by the tax cut package of 1999.

What information is contained in the fiscal indicator calculation for the year 2002?

Next, we look at the results for the year 2002 when the balanced budget target ("zero deficit") should be implemented in Austria. It is interesting to note that the underlying structural budget position (the induced and discretionary changes in revenues and expenditures) resembles the situation of 2000. However, the economic interpretation of the outcome is quite different.

Let us start with the revenue side (Table 2a). The induced change in public revenues - under the macroeconomic scenario of the stability program - is still very strong. Public revenues will increase by 1.8 percent of GDP. According to the Austrian stability program, an increase of public revenues by 1.6 percent of GDP would be sufficient to meet the requirements of a "zero deficit" target. Like in 2000, this would lead to a negative discretionary fiscal indicator of T_t^D. But in the forward-looking case, a negative figure of T_t^D indicates that fiscal policy only has little room for maneuver (namely -0.2 percent of GDP or about ATS 6 billion) on the revenue side. In other words, the expected induced increase in total tax revenues of 1.8 percent of GDP exceeds the required target increase by 0.2 percent of GDP. The above circumstances can be expressed as:

(14) $$T_t^D = T_t^* - \Delta T_t^I$$

where T_t^* denotes the tax revenue compatible with the "zero deficit" target.

Inspecting the expenditure side (Table 2a), we find a negative figure for G_t^D (resembling the situation observed in 2000). However, the economic meaning differs. G_t^D of -0.7 percent of GDP or ATS 21 billion signals that the government must take appropriate measures to tighten

the fiscal stance and to force down the growth rate of primary public spending below the trend rate of GDP and below the growth rate of our social transfers indicator.

Savings effects on the expenditure side can be expected from the pension reform (removing incentives for early retirement), which entered into force in October 2000. The savings effect of the pension reform becomes increasingly pronounced over time. Another important area concerns savings measures regarding public administration, including efforts to increase efficiency (especially between the different levels of government in Austria) and to further reduce the number of government employees. At the same time, the government plans to raise the family benefits from 2002 onwards ("Karenzgeld für alle"), a measure which goes into the opposite direction.

Table 2b: Austria's Stability Program under the Revised Economic Outlook: Discretionary and Induced Changes of the Budget Balance
(in percent of GDP)

	2000	2001	2002	2003	2004
Discretionary revenues (T^D/Y)	**-0.6**	**0.2**	**0.1**	**-0.5**	**-0.2**
Induced change in revenues ($\Delta T^I/Y$)	1.9	1.7	1.5	1.6	1.7
Change in total revenues ($\Delta T/Y$)	**1.3**	**2.0**	**1.6**	**1.1**	**1.5**
Discretionary primary expenditures (G^D/Y)	**-0.9**	**-0.1**	**-0.6**	**-0.3**	**0.1**
Induced change in primary expenditures ($\Delta G^I/Y$)	1.5	1.5	1.4	1.4	1.4
Change in primary expenditure ($\Delta G/Y$)	**0.6**	**1.3**	**0.8**	**1.1**	**1.5**
Primary balance discretionary (S^D/Y) ≡ (F/Y)	**0.3**	**0.4**	**0.7**	**-0.2**	**-0.4**
Induced change in primary balance ($\Delta S^I/Y$)	1.8	2.3	2.7	3.5	3.5
Change in primary balance ($\Delta S/Y$)	**2.1**	**2.7**	**3.4**	**3.3**	**3.2**
Change in budget balance ($\Delta B/Y$)	**0.7**	**0.6**	**0.7**	**0.0**	**0.0**

To summarize the information contained in the fiscal indicator: The required improvement of the primary surplus (discretionary primary balance) by 0.5 percent of GDP in 2002 tells policymakers that a tightening in the fiscal stance will be necessary in 2002 to meet the fiscal target ("zero deficit"). Concerning primary expenditure, the reduction in government spending

relative to trend GDP amounts to ATS 21 billion or 0.7 percent of GDP. Since the expected induced increase in tax revenue will exceed the "target increase" by 0.2 percent of GDP, the expected discretionary change in tax revenue is negative ($T^D < 0$). This means that the government has some leeway on the tax revenue side which could be used to relax the required reduction in primary expenditure.

5. Main Findings and Conclusions

1. Table 2a exhibits the fiscal indicator for the updated Austrian stability program for 2001-2004, submitted to the European Commission on the basis of macroeconomic projections available as per autumn 2000. Table 2b shows the fiscal indicator for the stability program on the basis of the recently revised forecast for 2001 and 2002, implying a marked slowdown of the Austrian economy's output growth . A comparison with the year 2002 shows that, on the revenue side, the room for maneuver of 0.2 percent of GDP indicated in table 2a disappeared. Table 2b, on the contrary, indicates that (given the revised forecast) additional discretionary measures of 0.1% of GDP will be necessary to achieve the envisaged target. At the same time, the fiscal indicator for the expenditure side is stable and resembles the situation described in Table 2a. The conclusion is that the envisaged "zero deficit" target can still be achieved, despite a less favorable economic growth projection.

2. Table 2a and 2b indicate a fundamental difference concerning the development of the revenue and expenditure sides of the budget.

   Inspecting the revenue side, "induced revenues" according to the fiscal indicator lie systematically above the projections of the government consolidation program, reflecting some leeway on the revenue side. This statement holds for Table 2a as well as for Table 2b (the less optimistic version) with one exception, namely the year 2002.

   The situation on the expenditure side is quite different. In this case, the "induced" expenditures calculated by the fiscal indicator normally exceed the projections of the stability program. The fiscal indicator signals a "built-in" pressure to increase spending in the Austrian budget and indicates that measures to force down the dynamics of the budget's expenditure side are required to bring the expenditure side in line with the targets of the fiscal consolidation program for 2001 - 2004. Focusing again on the year 2002, the

fiscal indicator analysis depicted in Tables 2a and 2b clearly shows that a tightening of the fiscal policy stance is necessary to achieve the envisaged target. According to Tables 2a and 2b, expenditure growth will have to be forced down below the trend growth of GDP (i.e. 0.6 percent of GDP according to Table 2a, 0.7 percent according to Table 2b).

The main message of the fiscal indicator analysis of the Austrian stability program (consolidation program) can be expressed by one proposition: The sustainability of the government stabilization program can mainly be improved through expenditure restraints.

3. Positive discretionary contributions to the primary budget surplus shown in Table 2a as well as in Table 2b imply a tightening of the fiscal stance in the years 2000-2002. Although a weakening of external demand is expected, the broad economic outlook for Austria remains favorable. Under these economic premises, the planned fiscal consolidation should not hamper economic growth considerably, especially if household savings are likely to support private consumption.

4. Successful implementation of a balanced budget in 2002 prompts the question: What comes after the year 2002? Should a balanced budget be aimed at on a strict year-to-year basis or should the “zero deficit concept” be considered a medium-term concept targeting at the average over the business cycle? Realizing a "zero deficit" on an annual basis implies a pro-cyclical fiscal policy, adding force to cyclical upswings and aggravating recessions. It also requires frequent adoptions of ad-hoc measures. Instead, the government should follow the notion of the EU Commission that fiscal balance is a "medium-term budgetary policy objective". Therefore, fiscal policy should be oriented toward a fiscal position close to balance (or in surplus, as agreed in the Stability and Growth Pact) in times of normal economic growth, stripping away transitory and cyclical effects. In other words, fiscal policy should aim at achieving a “structural” fiscal balance. With such a policy, the automatic stabilizers are able to function. The fiscal indicator gives no direct information on whether the envisaged "zero deficit" in 2002 also implies a structural fiscal balance. The necessity of frequent adoptions of discretionary measures (especially on the expenditure side) indicates that the general government’s "zero deficit" does not imply a “structural” fiscal balance. The uncertainty about the sustainability of the "zero deficit" supports the above finding that sustainability must be improved mainly on the expenditure side and that expenditure restraints should rather result from structural reforms than from compressed expenditure within the system.

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