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AFTER THE CRISIS: BRINGING GERMAN PUBLIC FINANCES BACK TO A SUSTAINABLE PATH

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ABSTRACT/RÉSUMÉ

After the crisis: bringing German public finances back to a sustainable path

Past consolidation has allowed the automatic stabilisers to operate fully during the crisis. Further fiscal easing in late 2008 and early 2009 contributed to a markedly widening fiscal deficit in 2010. A newly enacted fiscal rule, which limits the structural budget deficit of the federal government to a maximum of 0.35% of GDP and requires balanced structural budgets for the *Länder*, will help bring public finances back to a sustainable path. However, some elements of the new rule may need to be fine tuned in order for it to be more effective. To comply with the transition requirements of the new rule, consolidation beyond a mere phasing-out of the stimulus packages will be needed between 2011 and 2016. Priority should be given to reducing public expenditure, notably by improving public sector efficiency and by cutting back on grants and government consumption, and to phasing out distorting tax concessions. To improve the structure of the tax system, the government should consider raising the share of taxes on property and consumption in total tax revenues. This paper relates to the *2010 OECD Economic Survey of Germany*. (www.oecd.org/eco/surveys/germany).

Keywords: Germany; public debt; fiscal consolidation

JEL Classification: H2; H6; H7

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Après la crise: retrouver la viabilité des finances publiques allemandes

Les efforts budgétaires récents ont permis aux stabilisateurs automatiques de fonctionner pleinement au cours de la crise. Des mesures de relance entre fin 2008 et début 2009 ont contribué à un élargissement marqué du déficit public en 2010. La règle budgétaire adoptée récemment, qui limite le déficit structurel de l'administration fédérale à un maximum de 0.35% du PIB et exige l'équilibre des budgets structurels des *Länder*, aidera à retrouver la viabilité des finances publiques. Toutefois, des ajustements de certains aspects de cette nouvelle règle pourraient contribuer à la rendre plus efficace. Ses dispositions transitoires exigeront une consolidation budgétaire entre 2011 et 2016 allant au-delà de la simple élimination des mesures de relance. La priorité devrait être accordée à la réduction des dépenses publiques, notamment en améliorant l'efficience du secteur public, en réduisant les subventions et la consommation publique, et à l'élimination des avantages fiscaux engendrant de larges distorsions. Pour améliorer la structure du système fiscal, le gouvernement devrait envisager d'augmenter la part des impôts sur la propriété et la consommation dans le total des recettes fiscales. Ce document se rapporte à l'*Étude économique de l'OCDE de l'Allemagne, 2010* (www.oecd.org/eco/etudes/allemagne).

Mots clés: Allemagne; dette publique; consolidation budgétaire

Classification : H2; H6; H7

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AFTER THE CRISIS: BRINGING GERMAN PUBLIC FINANCES BACK TO A SUSTAINABLE PATH

by Isabell Koske[1]

The economic crisis has reversed fiscal consolidation

Until the onset of the economic crisis, public finances had improved considerably with the general government budget deficit coming down from almost 4% of GDP in 2003 (when the Ecofin Council initiated an excessive deficit procedure) to close to balance in 2007 and 2008 (Table 1). Thanks to these improvements, gross public debt relative to GDP declined in 2006 and 2007 (Figure 1). Consolidation was expenditure-driven, with general government expenditures falling by more than 4 percentage points of GDP between their peak in 2003 and 2007. Although the fall in the expenditure-to-GDP ratio reflected buoyant economic growth and an associated significant decline in spending on social security benefits, the structural deficit also declined. Restraint in public employment and wages, subsidy cuts, and further cutbacks in public investment all contributed to this development. On the revenue side, the cyclical upswing and the VAT hike in 2007 helped to reverse part of the earlier drop in government receipts.

Table 1. General government finances

% of GDP

	2005	2006	2007	2008	2009	2010	2011
Financial balance	-3.3	-1.6	0.2	0.0	-3.3	-5.8	-5.2
Cyclically adjusted financial balance	-2.5	-1.8	-0.8	-1.1	-2.0	-4.3	-4.0
Total disbursements	46.9	45.3	43.6	43.8	47.6	48.3	47.4
Total receipts	43.6	43.7	43.8	43.8	44.3	42.5	42.3
Gross public debt (Maastricht)	68.1	67.6	64.9	66.0	74.3	79.1	83.0

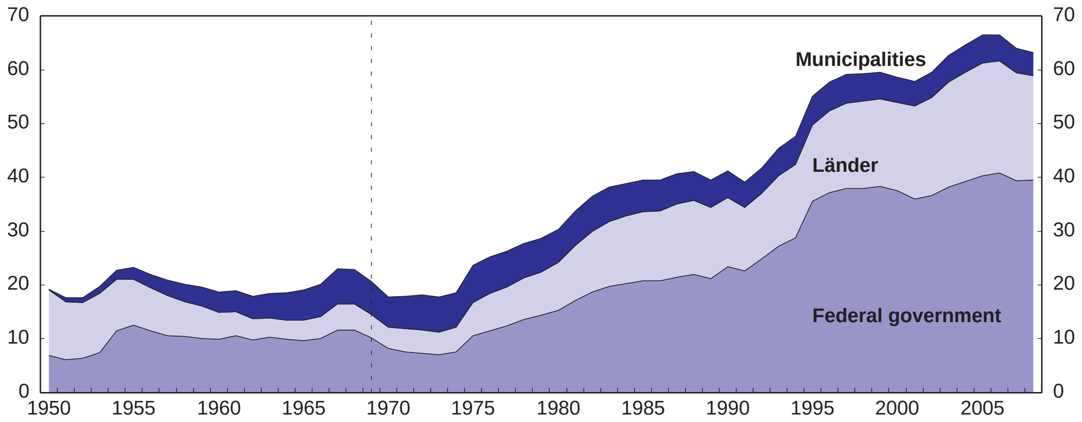
Note: Figures for 2010-11 are projections.

Source: OECD, *OECD Economic Outlook*, No. 86, and Secretariat estimates.

1. Senior Economist in the Economics Department. This Working Paper incorporates Chapter 3 of the OECD's 2010 Survey of Germany which was prepared under the responsibility of the Economic and Development Review Committee. The author is grateful for the valuable comments received on earlier drafts of this text from Andrew Dean, Bob Ford, Andreas Wörgötter, Felix Hüfner and other colleagues in the Economics Department.

Figure 1. Gross debt by level of government

% of GDP



Note: The vertical line indicates the coming into effect of Article 115 of the constitution in its pre-reform version in 1969. Debt for 1950-90 is for western Germany only.

Source: Federal Ministry of Finance.

Consolidation was abruptly reversed by the economic crisis, as a result of which the economy contracted by an annual rate of almost 6½ per cent between 2008Q2 and 2009Q1. In an attempt to revive the economy, the German government launched two stimulus packages; a modest one in November 2008 and a more substantial one in January 2009 (Box 1). Together with some additional measures taken in early October 2008, the stimulus amounted to around EUR 80 billion (3.1% of 2008 GDP), to be spent primarily over the period 2009 and 2010.[2] Applying a set of multipliers to these measures suggests that they boosted the level of GDP by around 0.5% in 2009 and will boost it by a further 0.2% in 2010 (OECD, 2009a).[3] This relatively small multiplier effect reflects the composition of the stimulus packages which contained many measures with only a small impact on GDP growth, such as personal income tax cuts. As a result of the fiscal stimulus measures and automatic stabilizers, the general government deficit reached 3.3% of GDP in 2009 and is expected to widen further, to more than 5¾ per cent of GDP, in 2010. Gross public debt is expected to increase to around 80% of GDP by the end of 2010, also owing to measures to support the financial sector, such as the recapitalization of financial institutions. Guarantees for the bond issues of financial institutions have in addition considerably increased the contingent liabilities of the government (OECD, 2010, Chapter 4).

2. This does not include tax allowances for health and long-term care contributions and for commuting to work, which had to be introduced due to constitutional court rulings. Together these measures generated fiscal costs of EUR 5.5 billion in 2009 and will generate costs of EUR 10.3 billion in 2010.

3. The overall size of the estimated GDP impact is similar to that of other studies. The Council of Economic Experts (Sachverständigenrat, 2009) and Cwik and Wieland (2009) obtain estimates of respectively 0.5% and 1.1% for the cumulative impact over 2009 and 2010.

Box 1. The fiscal stimulus packages

In the light of the severity of the cyclical downturn, the government decided to not rely exclusively on automatic stabilisers but also to take measures to cushion the fall in activity. Some initial measures were taken on 5 October 2008, which amounted to EUR 12.2 billion (0.5% of 2008 GDP), to be spent over 2009 and 2010, and included, among other things, a temporary cut in the unemployment insurance contribution rate from 3% to 2.8% and an increase in child benefits and the tax allowance for children. The government then adopted two fiscal stimulus packages, a first one on 5 November 2008 and a second one on 27 January 2009. In May 2009, a few more measures were taken, most notably a deferral of VAT payments for small companies and an extension of the car scrapping premium, generating fiscal costs of EUR 5.1 billion (0.2% of 2008 GDP) over 2009 and 2010.

The November 2008 stimulus package

The stimulus package launched in November 2008 envisaged measures of EUR 3.9 billion in 2009 (0.2% of 2008 GDP) and of EUR 7.1 billion in 2010 (0.3% of 2008 GDP), with some measures also producing costs in later years. The two most important measures of the package were a temporary reintroduction of declining-balance depreciation for certain types of investment goods (EUR 6.3 billion in 2009 and 2010) and an increase in public investment (EUR 2 billion in 2009 and 2010). In addition, the tax deductions permitted for handicraft services were extended, new cars were temporarily exempted from motor vehicle tax, the special depreciation allowance for small and medium sized enterprises (SMEs) was temporarily broadened, a special programme to improve regional economic structures was launched, investments in the energy efficiency of buildings were subsidised, and the programmes of the Kreditanstalt für Wiederaufbau (KfW), for example for structurally weak local authorities, were topped-up.

The January 2009 stimulus package

The second stimulus package was significantly larger than the first one, amounting to EUR 54.3 billion (2.1% of 2008 GDP) to be spent in 2009 and 2010. Some of the measures included in the package are not restricted to 2009/2010 but are of a permanent nature. The specific measures of the second stimulus package comprise the following:

- EUR 14.7 billion were earmarked for the purpose of infrastructure improvements. Two-thirds of the funds were supposed to be used to improve educational facilities with the remainder being spent on other forms of infrastructure, for example in the area of health, transportation and information technology.

- Income tax rates were lowered by increasing the basic tax allowance (from EUR 7 664 in 2008 to EUR 7 834 in 2009 and to EUR 8 004 in 2010), reducing the bottom tax rate (from 15% to 14%) and by raising the other tax brackets (by EUR 400 in 2009 and an additional EUR 330 in 2010). Overall, these measures were expected to lead to tax shortfalls of EUR 3.1 billion in 2009 and EUR 5.8 billion from 2010 on.

- The standard child allowance for long-term unemployment benefit II recipients was raised and, as a one-off in 2009, the sum of EUR 100 was paid for every child entitled to child benefits, leading to overall costs of EUR 2.3 billion.

- The rate of social security contributions payable by employers for employees on short-time work was halved during the first 6 months of short-time work and waived altogether provided the employees participate in training programmes (EUR 2.3 billion in 2009 and 2010). In addition, new active labour market programmes were launched (EUR 2.8 billion) and a total of 5 000 additional jobs were created at job centres (EUR 0.8 billion).

- The lowering of the unemployment insurance contribution rate from 3% to 2.8% in 2009 (originally envisaged to be phased out in mid-2010) was extended until the end of 2010, costing EUR 0.8 billion, and the health insurance contribution rate was cut by 0.6 percentage points, costing EUR 9.5 billion in 2009 and 2010.

- Consumers were encouraged to scrap vehicles that were at least nine years old and buy new or nearly new cars with the aid of a government subsidy of EUR 2 500 per car. Initially, EUR 1.5 billion were earmarked for this measure, but the fund was later extended to EUR 5 billion. Moreover, the long planned reform of motor vehicle tax, incorporating a stronger link to CO_2 emissions, was implemented in mid-2009, generating fiscal costs of EUR 0.3 billion in 2009 and 2010.

- A loan and guarantee programme amounting to EUR 100 billion was introduced to help companies secure access to credit.

- Other measures included a subsidy for R&D investment by SMEs, the promotion of the development of environment-friendly transportation technologies and the upgrading of broadband networks.

Now that the economy is recovering, the main policy challenge is to put public finances back to a sustainable path. Because the worsening of the fiscal position since the start of the economic crisis is also due to structural factors such as higher interest payments and lower potential growth, consolidation will have to go beyond just removing the fiscal stimulus packages (which will be difficult anyway as some measures are not time-limited). Fiscal consolidation will have to be implemented under relatively unfavourable conditions, when potential output growth is reduced because of population ageing and public expenditures are coming under additional pressures due to rising pension and health care costs.

To address this challenge, the government introduced a new fiscal rule in 2009, which will become binding for the central government in 2016 and for the *Länder* in 2020. This step is very welcome, as cross-country empirical evidence suggests that fiscal consolidation is more successful if associated with clear prior commitment, as embodied, for example, in credible fiscal targets or expenditure rules (OECD, 2007a; European Commission, 2006; Ayuso-i-Casals *et al.*, 2007). Nonetheless, a number of implementation issues remain to be addressed. *Firstly*, the design of the rule needs to be improved so that it can better fulfil its purpose of limiting the accumulation of public debt. *Secondly*, though the rule strengthens the government's commitment to fiscal consolidation, the question remains of how to raise revenues and/or cut expenditures to ensure that the rule is met. *Thirdly*, although the rule does not cover the social insurance system, obeying the rule might force the government to no longer finance any deficits in the insurance system, meaning that the system must be sustainable on its own (as the social security system cannot issue its own debt).[4] Estimates of the implicit debt embedded in the social insurance system put it at 185% of GDP in 2007 (Raffelhüschen and Moog, 2009), requiring sizable adjustment in terms of eligibility, contribution hikes and/or benefit cuts.[5]

A new fiscal rule will help to improve public finances…

Constitutional borrowing limits have a long tradition in Germany. The most important rule at the federal level is article 115 of the constitution which had not been changed since 1969 and stated that net government lending may not exceed gross government investment spending, with exceptions allowed only to avert a disruption of macroeconomic equilibrium. Similar rules were embedded in the constitutions of most *Länder*. However, these arrangements had failed to sufficiently restrain the build-up in government

4. This does not reduce the government's responsibility to finance types of services which are not funded by contributions.

5. The implicit debt is the net present value of all future primary deficits, assuming unchanged policies (see Raffelhüschen *et al.*, 2006, for methodological details).The implicit debt splits up into obligations for public pension insurance (101% of GDP), for public health insurance (99% of GDP), and compulsory long-term care insurance (33% of GDP), which are partly offset by claims in other subsystems. Hagist (2009) compare the implicit public debt of eight OECD countries based on 2004 data and show that Germany's implicit debt level is somewhat above average.

debt over past decades; the GDP share of general government debt almost quadrupled between 1970 and 2007.[6] Reasons for the failure of the German fiscal rule include, among other things, the focus on gross rather than net investment, which allowed the consumption of fixed capital to be debt-financed, the vague formulation of the exception clause, which was legally not enforceable and therefore used rather frequently, and the lack of an adjustment mechanism, which would have allowed the clawing back of breaches of the rule during more buoyant times (*e.g.* Sachverständigenrat, 2007; Bundesbank, 2007). In light of the ineffectiveness of the borrowing limit, the Federal Constitutional Court asked for a revision of article 115 in its ruling in 2007 on the constitutionality of the 2004 federal budget. The Federalism Reform Commission II was mandated to draft a new fiscal rule, which was adopted by both houses of parliament in May 2009 (Box 2).

Box 2. The new fiscal rule

Instead of moving towards a stricter, but still investment-oriented, deficit ceiling, the Federalism Reform Commission II opted for a deficit ceiling along the lines of the European Stability and Growth Pact (SGP) for reasons of greater transparency and clarity. This shift in focus has the advantage that changes in the cyclically adjusted balance become more visible (*e.g.* in 2008, when the cyclically adjusted balance deteriorated despite an improvement in the actual balance). The new fiscal rule restricts the cyclically adjusted budget deficit of the federal government to a maximum of 0.35% of GDP and requires balanced cyclically adjusted budgets for the *Länder*.[1] No borrowing limits are specified for municipalities and social security funds.[2] The new rule essentially formalizes the preventive arm of the European Stability and Growth Pact, which requires countries to maintain a fiscal position close to structural balance. The numerical ceiling of the new rule is consistent with Germany's latest medium-term objective under the SGP, which specifies a maximum structural deficit of ½ percentage point of GDP for the general government.[3]

Deviations of the actual net borrowing from the maximum admissible level (assessed *ex post* based on the actual cyclical development of the economy)[4] are to be recorded on an equalization account. These deviations can result from errors in predicting revenues and expenditures that stem, for example, from difficulties in projecting the effects of legislative changes. As the *ex post* assessment of the cyclical position of the economy relies on the original estimate of potential GDP growth made at the time the budget was approved, revisions to the potential growth estimate do not translate into debits/credits on the equalization account. If a negative balance on the control account exceeds a threshold of 1.5% of GDP, the provisions of the constitution require this excess to be reduced in a manner that takes account of the cyclical situation. Because repayment is spread over time, the government has to start reducing debits on the equalization account already once they exceed a lower threshold value of 1% of GDP. In this case, the borrowing limit in the following budget year is reduced by the amount exceeding the 1% threshold, though by no more than 0.35% of GDP. To avoid that this obligation has a detrimental impact on the business cycle, the need for redemption only applies to years with an increasing positive output gap or a declining negative one (in absolute terms).

Within the framework of supplementary budgets, the cyclically adjusted borrowing limit may be exceeded by up to 3% of the originally budgeted tax revenue. According to the new rule, the supplementary budget must not foresee any new measures that would lead to an increase in expenditures or a decrease in revenues. Additional borrowing is possible in the case of natural disasters or other exceptional events that are outside government control and severely affect the state of public finances. If the government makes use of the exception clause, it has to set up a repayment plan, which foresees the ensuing debt being paid back within an appropriate (not further specified) time horizon.

Although the new rules will enter into force as early as 2011, they will be fully applicable only following a transition period during which existing structural deficits (which partly result from the stimulus measures taken to tackle the economic crisis) have to be reduced in equal instalments. The new borrowing limit of 0.35% of GDP for the federal government will become binding in 2016 with the necessary fiscal consolidation supposed to start in 2011.[5] A longer transitional phase, lasting until 2020, was agreed for the *Länder*, mainly because of particularly serious consolidation needs in Bremen and Saarland.[6]

6. Most of the strong increase in public debt originated at the federal level and the *Länder* level; at the municipal level, debt ratios remained roughly constant over that period (Figure 1).

Alongside the new borrowing limit, an early warning system was introduced to prevent the government from sliding into financial distress. At the heart of this new system is a stability council, consisting of the Minister of Finance, the Minister of Economy and the finance ministers of the *Länder*. The stability council will regularly monitor the budgets of the federal government and the governments of the *Länder* based on a set of indicators to be defined by the council. If the council deems that a government risks falling into financial distress, the government has to propose measures to reduce net borrowing over a period of five years. The council monitors the implementation of the consolidation plan based on semi-annual progress reports by the government.

1. The new article 115 of the constitution is complemented by a federal law (*Gesetz zur Ausführung von Artikel 115 des Grundgesetzes*) which governs implementation details.
2. The borrowing requirements of municipalities and social security funds are, however, part of the general government balance and taken into account in the assessment of the 3% of GDP deficit ceiling of the SGP.
3. The maximum deficit of 0.35% of GDP for the federal government represents 70% of the maximum deficit of 0.5% of GDP under the SGP, which corresponds approximately to the federal government's share in total public debt (Baumann *et al.*, 2008).
4. The deviation is first assessed on 1 March of the year following the budget year and then constantly updated until 1 September, when the assessment is considered as final.
5. In case further stimulus measures are required in 2011 to combat the economic crisis, the consolidation may start later, though it has to be completed by 2016.
6. To help these and three other *Länder* (Berlin, Sachsen-Anhalt and Schleswig-Holstein) comply with the balanced budget rule in 2020, grants are offered to these *Länder,* which amount to a total of EUR 800 million per year (half of which will be financed by the federal government with the other half financed by the *Länder*). Berlin, Sachsen-Anhalt and Schleswig-Holstein will each receive EUR 80 million per year, Saarland will receive EUR 260 million per year and Bremen will receive EUR 300 million per year.

... though its design may need to be refined

By moving away from an investment-oriented deficit ceiling, the reform will lead to greater transparency and clarity. Moreover, it will make the national framework more consistent with the European Stability and Growth Pact, an explicit aim of the reform. Nonetheless, implementation is tricky and needs careful monitoring. Areas of concern include *i*) the design of the equalization account, which may not sufficiently take care of data revisions; *ii*) the lack of a safety margin *vis-à-vis* the borrowing limit, which might cause procyclical behaviour when expenditures have to be cut in a downturn in the light of sudden revenue shortfalls; *iii*) the budgeting framework underpinning the rule, which should be moved from a bottom-up to a top-down approach; *iv*) remaining loopholes in the system, which could be exploited to circumvent the rule and in that case have to be closed; and *v*) the stability council, which is meant to monitor budgetary developments but lacks sufficient independence from the government.

The design of the equalization account might need adjustment

Under the new fiscal rule, the task of measuring the cyclical position of the economy is of key importance. Obtaining a reliable measure of the business cycle is fraught with difficulties as potential output is unobservable and, hence, any measure of the gap between actual and potential activity is highly uncertain and often subject to considerable revision over time. The limits of measuring potential output have been clearly revealed by the recent economic crisis. The federal government's decision to rely on the European Commission's methodology to estimate potential output is welcome in that it will strengthen transparency and ensure consistency with the fiscal rules of the Stability and Growth Pact. An equally transparent approach to determining the output gap should be adopted by the *Länder*.

Even *ex post* output gap estimates are, on occasion, subject to sizable and persistent revisions over time (*e.g.* Koske and Pain, 2008; Orphanides and Van Norden, 2002). Calculations for Germany show that annual revisions on the order of ½ percentage point are not unusual, even several years after the initial estimate was published.[7] The new fiscal rule stipulates that the GDP estimate published in the autumn of the year following the budget year is to be considered as final, thus ignoring any revisions that take place in later years. Whilst this has the advantage of creating certainty about the necessary corrective actions early on, it may lead to persistent changes in public debt if the disregarded revisions are not symmetric. Analyses of the output gap estimates published by the European Commission show that the German output gap was generally revised upwards in the past, *i.e.* becoming less negative (Table 2), particularly in the first two years following the budget year.[8] The cyclical component of the fiscal deficit was thus initially overestimated and the structural component underestimated. Under the current rule, this would cause an accumulation of structural deficits which are not recorded on the equalization account and thus need not be corrected in future years (Table 2), thereby causing public debt to increase over time or to decline less than if revisions in later years were taken into account. If this asymmetry materializes in practice, also later data revisions might have to be taken on board. Revisions taking place more than two years after the budget year have been roughly symmetric in the past, so that ignoring those revisions is unlikely to have lasting implications for the public debt-to-GDP ratio.

Table 2. Revisions to potential output and the cyclically adjusted budget balance

Percentage points

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Revisions to potential output									
Data outturn autumn *t*+1	-1.8	0.4	-0.1	-0.3	-1.6	-0.6	-1.3	-0.5	1.3
Data outturn autumn *t*+2	-0.8	1.0	0.8	-0.4	-1.1	-1.0	-2.1	0.2	3.0
Data outturn autumn *t*+4	-0.1	1.0	1.1	0.0	-1.6	-1.4	-1.1		
Revisions to the GDP share of the cyclically adjusted budget balance (general government)									
Data outturn autumn *t*+1	-0.5	-1.6	-2.8	-3.4	-3.0	-3.4	-2.6	-1.3	-0.8
Data outturn autumn *t*+2	-1.3	-1.9	-3.3	-3.5	-3.5	-3.2	-2.3	-1.6	-1.5
Data outturn autumn *t*+4	-1.5	-1.7	-3.4	-3.6	-3.2	-3.1	-2.8		
Cumulative error									
By autumn *t*+2	-0.8	-1.1	-1.6	-1.7	-2.2	-2.0	-1.7	-2.0	-2.7
By autumn *t*+4	-1.0	-1.1	-1.7	-1.9	-2.1	-1.8	-2.0		

Source: European Commission and OECD calculations.

A safety margin vis-à-vis the borrowing limit could avoid pro-cyclical behaviour

Whilst deviations between the actual net borrowing and the maximum permissible amount of net borrowing that emerge during the execution phase of the budget or *ex post* can be dealt with by the equalization account, deviations that already emerge during the planning phase have to be corrected immediately through adjustments in the budget plan. Revisions to projections of government revenues can at times be quite sizable. For example, in its November 2006 forecast (which was underlying the final budget for 2007) the finance ministry projected tax revenues of EUR 219 billion for 2007, which was

7. Analyses by Koske and Pain (2008) for output gap estimates published by the OECD suggest that a bit more than half of such revisions are due to revisions in actual GDP, with the remainder being due to revisions in potential GDP.

8. The same applies to the output gap estimates published by the OECD (Koske and Pain, 2008).

EUR 9 billion (0.4% of GDP) more than its forecast from May 2006 (which was underlying the draft budget) while the actual outcome was even EUR 20 billion larger. Reasons for such revisions include, among other factors, revisions to the potential growth rate and thus the trend growth rate of tax revenues (Kremer and Stegarescu, 2009).

Sudden downward revisions to tax revenues during the budget planning phase require an equal reduction in expenditures if the original budget plan envisaged a deficit close to the upper ceiling. This problem is further exacerbated by the fact that there appears to be a base effect whereby an unforeseen change in (cyclically-adjusted) revenues in one year tends to persist in future years (Kremer and Stegarescu, 2009). Sudden revenue revisions may become a problem as soon as the rule becomes binding for the federal government. The risk of procyclical behaviour of fiscal policy could be mitigated if the government aimed to maintain an adequate safety margin *vis-à-vis* the borrowing limit (so that the cyclically-adjusted scope for incurring debt is not utilised in draft budgets). Based on historic projection errors for tax revenues, Kremer and Stegarescu (2009) suggest a safety margin of 0.85% of GDP, meaning that the government should aim at a structural surplus of ½ percentage point of GDP.[9]

A top-down budgeting approach could facilitate implementation of the rule

Traditionally, the government's budgeting process has been formulated according to the bottom-up approach, with each agency and ministry sending requests for funding to the finance ministry. Starting from these requests, which typically exceed what the agencies and ministries can expect to get, the finance ministry and line ministries go through iterative rounds of negotiation until common agreement is reached. A major drawback of this approach is the lack of global expenditure control by the finance ministry, especially in times when the macroeconomic situation requires additional consolidation measures. In such situations 'across the board' expenditure cuts are typically applied, which ignore prioritisation of expenditure programmes. This approach thus does not fit well with the new fiscal framework which might require the achievement of certain consolidation targets even under difficult circumstances.

To strengthen strategic planning and budget discipline, the government should move towards a top-down approach to budget formulation. This was also the route chosen by several other OECD countries, which were confronted, during the 1990s, with growing fiscal deficits and thus the need for sizable consolidation. In a top-down budgeting approach the main task of the finance ministry is to specify an aggregate target and spending limits for line ministries, according to national objectives and priorities (Kim and Park, 2006). Once these are confirmed by the cabinet they become binding during the budget process. Within their assigned expenditure ceilings line ministries then allocate resources to individual programmes to best meet their policy objectives. Provided sufficiently deep monitoring and evaluation procedures are in place, there is no need for the finance ministry to intervene in detailed resource allocations made by line ministries. Instead, the finance ministry merely monitors that allocations are in accordance with set rules. The budget process therefore creates a sense of ownership in line ministries for the actions they take. However, for the approach to be effective, a longer-term perspective is needed. Countries with a top-down budgeting approach typically opted for a planning horizon of 3 to 5 years (Petkova, 2009), which is in line with the five-year budget framework currently applied in Germany. Experience of other OECD countries shows that a top-down budgeting system needs to

9. The introduction of a safety margin raises the issue of what to do with unused funds. The Dutch government (which establishes expenditure ceilings at the start of a government), for example, uses such funds for tax reforms.

incorporate elements of the bottom-up approach as a complementary method in the budget process to be successful, *e.g.* for funding decisions for new programmes or projects (Kim and Park, 2006).[10]

The framework still contains some loopholes

The reform of the fiscal rule closed a number of loopholes that had been excessively used in the past to circumvent the constitutional borrowing limits. In line with the European fiscal framework, revenues and expenditures will be adjusted for financial transactions when calculating the borrowing limit. Privatisation proceeds and loan repayments, often employed in the past to fill budgetary gaps, can therefore no longer be used to achieve compliance with the borrowing limits. Borrowing limits can also no longer be circumvented by creating special funds. Examples of such funds include the *Federal Railways Fund* (set up in 1994 for the liabilities of *Deutsche Bahn*) and the *Redemption Fund for Inherited Liabilities* (set up in 1995 for the debt and assets of the *Treuhand* agency) which increased public debt as measured. Whilst the old fiscal rules excluded special funds from the deficit ceiling, the results of such funds are regarded as ordinary public borrowing/lending under the new rules.

But even after the reform, serious loopholes remain. For example, there could be attempts to record payments to enterprises or other institutions as loans or capital injections (thus ignoring them when calculating the distance from the borrowing limit) even where no associated market-based returns are expected (Bundesbank, 2009). If this occurs, classification rules might have to be adjusted. As an explicit aim of the reform was to align national rules with the SGP the natural option would be to follow the European framework, which reclassifies such payments as capital transfers, thus having a negative impact on the budget balance. The same applies to non-cash debt reliefs and debt assumptions. As Germany anyway has to adhere to the rules of the SGP, there is of course already a disciplining effect.

A second potential loophole relates to the treatment of the municipalities in the new fiscal framework. As the revised article 115 of the constitution does not specify any borrowing limits for municipalities, their borrowing will continue to be governed by the existing rules in the constitutions of the *Länder*. These typically specify credit limits similar to a golden rule on borrowing by municipalities, whereby borrowing is allowed only for capital investments if other financing is not feasible or appropriate, and such borrowing is subject to approval by the respective *Land*. In addition, municipalities are allowed to borrow for short-term liquidity management purposes (so-called *Kassenverstärkungskredite*). Although debt for liquidity management purposes is supposed to be repaid no more than six months after the end of the budget year, the instrument has been increasingly used for long-term borrowing purposes in order to finance structural shortfalls in revenues *versus* expenditures (Kreditanstalt für Wiederaufbau, 2009; Heinemann *et al*., 2009; Junkernheinrich and Micosatt, 2008). A stricter enforcement of the budget law is needed to avoid such behaviour. This is all the more important as the exemption of the municipalities from the new constitutional borrowing limits entails the risk that the *Länder* will shift expenditures to the municipal level in order to ease their own budget constraints, even though the scope of expenditures that could be transferred to the municipalities is limited.

The treatment of potential output estimates in the assessment of the permissible amount of net borrowing represents another potential loophole in the new framework. Since changes in potential output are not under the direct control of the government, the *ex post* assessment of the cyclical position of the economy relies on the original estimate of potential GDP growth made at the time the budget was approved. Revisions to potential output thus do not trigger adjustments in the permitted amount of net

10. In the case of new programmes or projects, line ministries are usually required to submit detailed proposals to the finance ministry, which include performance data and longer-term cost projections about the total programme. Australia and Canada, for example, have cabinet committees that review new policy initiatives.

borrowing.[11] This might induce the government to produce overly optimistic forecasts of potential output, thereby portraying the cyclical position of the economy as worse than it is.[12] This would inflate the permissible amount of net borrowing not only *ex ante*, but, more importantly, also *ex post*. One possibility to avoid this would be to assign the task of producing forecasts of potential output (and, possibly, other key economic variables that feed into the budgeting process) to an authority that is independent from the finance ministry and the government. A number of OECD countries (*e.g.* Austria, Belgium and the Netherlands) already use economic forecasts in the budgeting process that are produced by independent authorities. In addition, the government may consider basing the *ex post* assessment of the borrowing limit on revised estimates of potential output.

The stability council lacks independence

The newly created stability council, which will conduct surveillance of the finances of the federal government and the governments of the *Länder*, is an important step to prevent financial distress early on. However, in the current set up, the council consists of the finance ministers of the *Bund* and the *Länder*, so that the federal government and the governments of the *Länder* essentially control themselves. This may cause the council to be too lax in reacting to budgetary slippages or fiscal gimmickry. To ensure success of the early warning system, the council should be strengthened, possibly through the use of inputs from independent experts.

Another potential problem is that the council has no binding authority. If a government does not comply with the agreed consolidation plan, the stability council can only ask it for further action. While sanctions could help secure compliance, designing appropriate sanctions is a challenging task.[13] They must be credible and effective and represent a reasonable policy response to the potential problem. Monetary sanctions have the drawback that fining a government already experiencing financial troubles might worsen the situation and be politically difficult. Administrative sanctions imply costs in terms of loss of reputation and administrative freedom and are more likely to be implemented than monetary sanctions, though designing such sanctions is difficult, not least due to information asymmetries. Another possibility would be to subordinate new expenditure programmes of non-complying federal or *Länder* entities under collective authorisation procedures.

Compliance with the new fiscal rule requires fiscal consolidation…

Although the new deficit ceiling will become binding for the federal government only in 2016, the law requires a step-wise reduction of the 2010 structural deficit from 2011 onwards. According to current projections, the cyclically adjusted deficit of the federal government will amount to around 3% of GDP in 2010.[14] This deficit-to-GDP ratio has to be reduced to 0.35% of GDP by 2016.[15] The reductions have to be

11. For example, if GDP growth turns out to be lower than orginally envisaged, the permissable borrowing limit increases even if the lower GDP growth rate is entirely due to lower potential growth.

12. Jonung and Larch (2006) show that in the past, official German forecasts systematically overestimated the underlying growth of the economy. However, since a few years the government's forecasts orient themselves strongly at the forecasts of a consortium of independent research institutes.

13. Joumard and Kongsrud (2003) give an overview on sanctions used by OECD countries to secure sub-national governments' compliance with fiscal rules.

14. This represents 70% of the cyclically adjusted deficit of the general government, which is projected at around 4.3% of actual GDP in 2010 (over the years 2002 to 2008, the federal government's average share in the actual deficit of the general government was around 70%).

15. Taking the nominal GDP growth rates that underlie the OECD's medium term baseline projections, nominal GDP will increase from EUR 2 449 billion in 2010 to EUR 2 853 billion in 2016. In absolute terms the structural deficit thus has be reduced from EUR 73 billion in 2010 to EUR 10 billion in 2016.

implemented in equal steps, implying a deficit reduction of around ½ percentage point of GDP per year.[16] While in 2011, the phasing-out of several of the fiscal stimulus measures will help to meet this target, additional consolidation effort will be needed in subsequent years.

While this calculation already accounts for changes in revenues and expenditures related to the implementation of the *Growth Acceleration Act* (*Wachstumsbeschleunigungsgesetz*) at the beginning of 2010 (*e.g.* the government raised child allowances, lowered the corporate tax burden, cut inheritance tax rates, and reduced the VAT rate for hotels), additional consolidation needs will arise from the income tax cuts planned for sometime between 2011 and 2013. Overall, this measure is expected to entail additional costs of around ½ per cent of GDP per year at the federal level. As stressed by the Council of Economic Experts, it is highly unlikely that these tax cuts will finance themselves through higher GDP growth (Sachverständigenrat, 2009).[17] Instead, expenditures will have to be cut or taxes be raised in other areas to fill the financing gap. It is important that the offsetting measures that have to be taken are less harmful to GDP growth than the taxes that are cut.

… which has to be achieved through a combination of expenditure cuts…

Empirical evidence suggests that the adverse cyclical effect of fiscal consolidation is likely to be less severe if it is achieved through spending cuts rather than tax hikes, although this also depends on categories of taxes and expenditures (Cournède and Gonand, 2006; Afonso *et al*., 2005). Spending cuts (notably of government consumption and transfers) have the further advantage that they tend to be associated with more lasting fiscal consolidation (Guichard *et al*., 2007; European Commission, 2007). In this sense, the government should give priority to expenditure cuts and increase taxes only to the extent that the necessary fiscal consolidation cannot be achieved otherwise. The room for expenditure cuts is, however, clearly limited (Sachverständigenrat, 2009). Certain expenditures (*e.g.* interest payments on government debt, which accounted for about 15% of total federal government expenditures in 2008) cannot be cut; others (*e.g.* spending on education, infrastructure and R&D) should not be cut as this could damage long-run living standards, unless such cuts are accompanied by sizeable productivity gains.

Increasing public sector efficiency

Improving the efficiency of the public sector should be the preferred means by which to achieve the necessary fiscal consolidation as this would allow reducing expenditure without diminishing the quality of public services. A number of studies suggest that there is ample room for increasing efficiency. In its latest report, the Federal Court of Auditors argues that sizable savings could be reaped by improving the co-operation between the federal and *Länder* governments, and by eliminating redundancies between the two levels of government (Bundesrechnungshof, 2009). A voluntary merger between *Länder* should also not be excluded as a means to improve efficiency. At a minimum, opportunities for joint service provision should be exploited wherever feasible. The Federal Court of Auditors also points to potential efficiency gains through a re-organization of public administration, including a wider use of quality management and the further centralization or outsourcing of certain internal services such as IT. In addition, a wider use of e-government should help to improve public sector efficiency (in the 2008 *e-Government Survey* of the United Nations, Germany was still ranked 20th in the OECD on e-government readiness). In 2006, the government launched the *e-Government Programme 2.0* to make its services and systems simpler, faster and more customer-friendly. As the programme runs until 2009/2010, its impact cannot yet be fully assessed.

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16. Further consolidation will be necessary for many of the *Länder*. However, no precise transition paths have been specified for them.

17. For example, Trabandt and Uhlig (2009) estimate the degree of self-financing of tax cuts on labour income in Germany at around 50%.

A number of empirical studies based on Data Envelopment Analysis compare inputs and outputs of the public sector across countries. These confirm the existence of inefficiencies for specific spending areas. Afonso *et al*. (2008) assess the efficiency of social spending in promoting greater income equality and show that Germany has room for improvement.[18] The input oriented efficiency score suggests that it would be theoretically possible to attain the same level of income distribution (as measured by the Gini coefficient) with roughly 38% less public social spending. The Federal Court of Auditors has recently made a number of suggestions for how to improve the efficiency of social spending, including the elimination of unnecessary interfaces between the different government bodies involved (OECD, 2010, Chapter 2) and the introduction of country-wide standards for the assumption of housing costs for unemployment benefit II recipients (Bundesrechnungshof, 2009).

Afonso and St. Aubyn (2005) and Joumard *et al.* (2008) investigate the efficiency of health care spending in the OECD and show that Germany performs worse than many other countries. As the two studies do not yet take into account a number of reforms that have been enacted in this area in the recent past, they are, however, likely to overstate the scope for improvement. In particular, the introduction of the health fund (*Gesundheitsfonds*) in 2009 was a step in the right direction and should not be reversed. Nonetheless, the system could be refined to strengthen competition between insurers. As recommended in OECD (2008a), the surcharges that insurers can levy on their members (in case the payments that insurers receive from the central health fund are not sufficient to cover the costs) should be income-independent without any limitation in terms of their share in members' income to avoid distortion of the price signal (OECD, 2008a).[19] To the extent that additional redistribution is needed, this should be achieved through tax subsidies. Gonand *et al*. (2007) and Afonso and St. Aubyn (2006) show that Germany could also improve the efficiency of education spending, which would make it easier to achieve the necessary improvement of service quality as described in Chapter 4 of OECD (2008a).

Cutting back on grants and on government consumption

One area where (wasteful) spending could be reduced further is government grants. The government has made important progress in the recent past in cutting back on grants, especially in the years that followed the publication of the *Koch-Steinbrink Report* in 2003, a list of grants (and tax concessions – see below) that should be reduced or eliminated (Koch and Steinbrück, 2003). Overall, the consolidation volume achieved by the government between 2000 and 2008 amounted to around 0.1 to 0.2% of 2008 GDP (depending on the precise definition of grants).

Nonetheless, there is room to further cutback grants, not least because new ones have been introduced in recent years. The Kiel Institute for the World Economy puts the total volume of direct and indirect grants by the federal government at EUR 34.7 billion in 2008 (1.4% of GDP), EUR 8.6 billion of which concern new grants that had been introduced since 2003 (Institut für Weltwirtschaft, 2008). In terms of sector-specific grants, the transport sector receives the largest amounts, followed by mining and agriculture. The Kiel Institute calculates that a reduction of grants by EUR 23.5 billion (0.9% of GDP) is feasible by 2012 (Institut für Weltwirtschaft, 2008).[20] Such a further reduction also seems justified from an

18. Social expenditure refers to spending on old age, survivors, incapacity-related benefits, health, family, active labour market programmes, unemployment, housing, and other social policy areas. For an in-depth comparison of social spending across OECD countries see Adema and Ladaique (2009).

19. A more detailed discussion of the German healthcare system and further recommendations on how to improve its efficiency are provided in Chapter 6 of OECD (2008a).

20. The study considers the abolishment of a grant as feasible if it is not hindered by long-term contractual obligations, by legal obligations on the basis of which private sector agents have taken (far-reaching) decisions, or by the need for approval by other levels of government.

international perspective. According to the classification used by the European Commission, state aid in Germany was the tenth highest in the EU in 2007 (Federal Ministry of Finance, 2010).[21]

The government should also give consideration to further reducing government consumption expenditures, which are a very significant element of public spending, amounting to around 18% of GDP. Proposals in this direction estimate the amount of potential savings at above EUR 10 billion and include a broad spectrum of measures that ranges from a further reduction of public sector employment to cuts in the travel expenses of public sector employees and in the funds spent on public relationship management (Sachverständigenrat, 2009).

Not jeopardizing past achievements in containing pension expenditures

Almost half of all public expenditure is on social protection, with pensions accounting for the lion's share.[22] In the light of rising ageing-related cost pressures on the public pension system, the government enacted a series of pension reforms. The most significant change was introduced with the 2001 reform (the *Riester Reform*), which transformed the monolithic system of old-age provision into a genuine multi-pillar system. With the *Riester Reform* a rather complex new benefit indexation formula was introduced, which reduces the annual increase in pensions (linked to wage increases in the previous year) by around 0.6 percentage points. The purpose of this adjustment (the *Riester* factor) is to split the financial burden of the partial substitution of the public pillar by a private pillar between the working-age population (which, on a voluntary basis, contributes to the private pillar in addition to paying contributions to the public pillar) and pensioners. The 2004 pension reform then transformed the public first pillar into a notional defined contribution (NDC) look-alike by introducing a sustainability factor in the benefit indexation formula, which reflects the development of the number of pensioners relative to the number of contributors.[23] A safety clause, also introduced in 2004, prevents pensions from declining due to the combined impact of the *Riester* factor and the sustainability factor, with missed (downward) adjustments made up for in later years. Overall, these reforms significantly improved the sustainability of the German pension system. In its latest *Ageing Report*, the European Commission projects pension expenditures to rise from 10.5% in 2007 to 12.8% of GDP by 2060, which is less than in many other EU countries (European Commission, 2009).

A number of recent legislative changes put these achievements into question. With the aim of letting pensioners participate in the economic recovery, the government decided in 2008 not to apply the *Riester* factor in 2008 and 2009. This caused pensions in the eastern and western *Länder* to increase by respectively 0.7% and 0.6% more than otherwise. The missed adjustments are supposed to be offset by reducing pension increases in 2012 and 2013. Moreover, ahead of the 2009 elections, the government extended the safety clause to prevent pensions from declining in the case where wages decline in the previous year. Again, any missed (downward) adjustment is supposed to be made up for in later years. Such discretionary action should be avoided as it sends the wrong signal to the population and particularly

21. The state aid definition of the EU comprises not only grants but also tax concessions.

22. Germany has the fourth largest GDP share of spending on social protection in the OECD (OECD, 2009b).

23. The pension benefit indexation formula is:

$$AR_t = AR_{t-1} \times \frac{BE_{t-1}}{BE_{t-2}} \times \frac{d_t / 100 - AVA_{t-1} - RVB_{t-1}}{d_t / 100 - AVA_{t-2} - RVB_{t-2}} \times \left(\left(1 - \frac{RQ_{t-1}}{RQ_{t-2}} \right) \times \alpha + 1 \right),$$

where *AR* is the pension value, *BE* is gross income, *d* is a sensitivity factor, which takes the value of 100 until 2010 and then decreases to 90, *AVA* is a fictitious contribution rate to the newly introduced private pension accounts (gradually increasing from 0.5% in 2003 to 4% in 2009), *RVB* is the actual contribution rate to public pensions, *RQ* = (pensioners / (contributors + unemployed)), and α = ¼. The *Riester* factor is the third term on the right hand-side of the equation and the sustainability factor is the fourth term.

harms the trust of younger generations in pension policy. It also weakens the sustainability of the pension system, as making up for the missed adjustments in later years might prove politically difficult. The government should resist pressures not to recover the additional costs related to the missed adjustments, not least as the necessary fiscal consolidation limits the potential for subsidizing the public pension system from the general budget.

... and revenue-raising measures

Given the magnitude of fiscal consolidation required, the spending cuts will most likely have to be accompanied by revenue-raising measures. To generate additional revenues in order to fill the gap, the government should broaden the tax base by further phasing out tax concessions. The government has already made some progress in this area in recent years.[24] The most important individual action was the abolition of the tax relief for home owners (*Eigenheimzulage*) in 2006, which led to additional revenues of more than EUR 2 billion in 2008 (0.08% of GDP).[25] Despite these achievements, there is ample room to further reduce or eliminate tax concessions. The Kiel Institute for the World Economy estimates the revenue potential from such measures at EUR 41 billion in 2012 (1.6% of 2008 GDP), EUR 23 billion of which concern the federal government (Institut für Weltwirtschaft, 2008). However, fully realizing this potential would mean abolishing all tax concessions for which such a step is not hampered by contractual obligations, which might be very difficult politically.[26] Thöne *et al.* (2009) evaluate the 20 largest tax concessions (in terms of revenue foregone) with respect to their economic impact and the deadweight loss involved, as well as with respect to their justification and fairness. The study concludes that 5 of the 20 tax concessions should be abolished (translating into additional revenues of almost EUR 4.8 billion), with a further 10 tax concessions (which account for revenue losses of EUR 10.8 billion) needing careful monitoring.[27] Only 5 of the evaluated concessions should be maintained without further consideration, though these concessions account for revenue losses of only EUR 2.8 billion per year.

In light of the mounting consolidation pressures, the government should continue to eliminate tax concessions. One tax concession that should be reviewed is the reduced value added tax (VAT) rate. Since 2007, the VAT rate in Germany has been 19%. However, many goods and services fare a reduced rate of 7% and a number of goods and services are fully exempt from VAT (*e.g.* certain healthcare and postal services). One internationally comparable measure of the broadness of the tax base, the extent of reduced rates and the effectiveness with which taxes are collected, is the so-called VAT Revenue Ratio, which expresses the revenue collected from the actual VAT in a country as a proportion of the revenue that would be raised if the standard VAT rate were applied to all final consumption. Germany has a VAT Revenue Ratio of 55%, meaning that due to reduced rates, zero rating and non-collection almost half of potential revenues are not collected. This value puts Germany in the lower middle range of OECD countries (Figure 2).

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24. The Kiel Institute for the World Economy (Institut für Weltwirtschaft, 2008) estimates that the concessions that were phased out since 2004 generated additional revenues of EUR 8¾ billion in 2008 (this excludes the reduction of the commuter tax relief, which would have raised revenues by an additional EUR 2½ billion but had to be reintroduced after a ruling of the Constitutional Court).

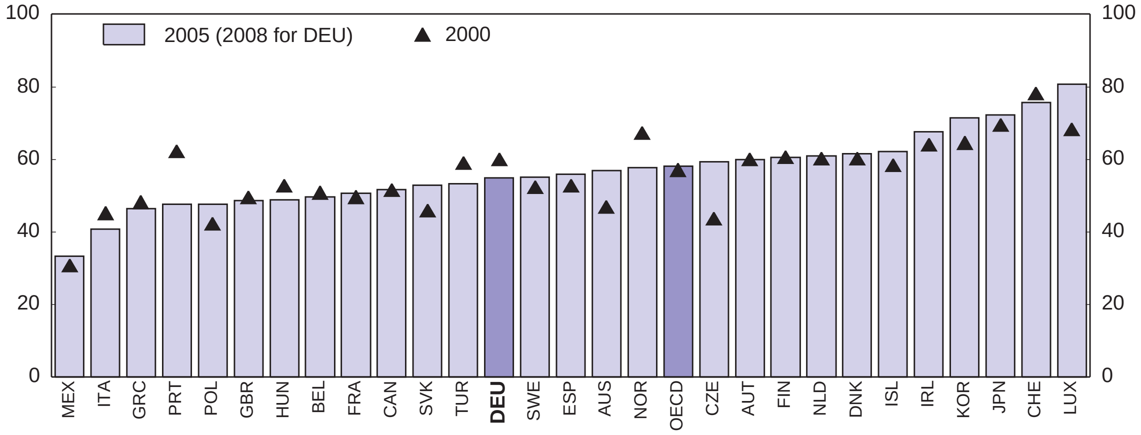
25. Individuals who were accorded the tax relief prior to its elimination still benefit from the relief until the end of the 8-year period for which the relief was granted.

26. Tax concessions that cannot easily be abolished for this reason are the tax relief for foreign investments by enterprises, the exemption from the mineral oil tax on lubricants used by aviation and on heavy fuel used by shipping enterprises for commercial purposes.

27. Note that the abolition of one of the 5 tax concessions (exemption from mineral oil tax on lubricants used by aviation for commercial purposes) is considered as not feasible by the Kiel Institute for the World Economy (Institut für Weltwirtschaft, 2008).

Figure 2. VAT revenue ratio

%



Note: VAT Revenue Ratio = (VAT revenue)/((consumption – VAT revenue) x standard VAT rate). Calculation for Canada is for federal VAT only.

Source: OECD (2008), *Consumption Tax Trends 2008 – VAT/GST and Excise Rates*, *Trends and Administration Issues*, OECD, Paris.

Differentiated consumption taxes are often justified on equity grounds. It is considered desirable to reduce the tax burden on goods and services that form a larger share of expenditure of the poorest households, such as basic food, in order to mitigate the regressive impact of consumption taxes on the distribution of household disposable income. However, although the assumption of a regressive impact may be right based on annual income, consumption taxes are likely to be less regressive or even progressive when their effect is assessed over an individual's lifetime (Warren, 2008). In any case, the effectiveness of reduced VAT rates to achieve distributional objectives is questionable in that wealthier households also benefit from the reduced rates and in terms of expenditure on non-essential goods are likely to purchase more in absolute terms (OECD, 2008b). Empirical studies for Germany confirm that VAT differentiation has only negligible redistributive effects (*e.g.* Boeters *et al*., 2006). Direct lump-sum payments to households that depend only on their socio-economic characteristics (Deaton and Stern, 1986) or targeted transfers (Ebrill *et al*., 2001) are more effective in enhancing equity than VAT exemptions. Furthermore, a reduced rate entails additional administrative and compliance costs, legal uncertainty and opportunities for fraud through deliberate misclassification of items (OECD, 2008b).

To improve efficiency, the government should review the current application of the reduced VAT rate. There are various goods and services, which are taxed at the reduced rate without any clear justification (*e.g.* funiculars, chipped wood, hotel services – the latter introduced at the beginning of this year). In these cases, the reduced rate amounts to an implicit subsidy and should be phased out.[28] For those goods and services where a reduced rate can be justified on distributional or other grounds (for example, the reduced rate on books and cultural activities such as museum and theatre visits is justified by the otherwise too low consumption level), the government should verify whether the desired objectives cannot be achieved more efficiently through other means such as monetary transfers which can be better targeted. Overall, around 16% of the VAT tax base is benefitting from the reduced rate (Federal Ministry of Finance, 2007). With total VAT revenues of EUR 176 billion in 2008, the abolition of the reduced rate

28. The reduced rate for cultural and entertainment services is among the 5 tax concessions proposed for abolition by Thöne *et al.* (2009).

could boost government revenues by up to EUR 20 billion per year (0.8% of GDP). The final impact is likely to be somewhat smaller though, since the increase in the reduced VAT rate might have an adverse impact on demand. Moreover, to the extent that the reduced VAT is replaced by more targeted instruments, the associated costs have to be set against the additional VAT revenue.

The government should also phase out tax concessions in other areas. In particular, it should simplify the income tax system by reducing the number of exception clauses, which give rise to a reduction in personal or corporate income tax payments. While many of the provisions were too small individually to be included in the evaluation study by Thöne *et al*. (2009), the combined volume of foregone tax revenue is by no means negligible. Boss and Rosenschon (2008) list a total of 48 different tax concessions, amounting to annual revenue shortfalls of more than EUR 25 billion. When phasing out income tax concessions, a broad approach seems preferable as the elimination of individual provisions might violate the equality principle of the constitution (as was the case with the reduction of the commuter tax relief in 2007). In addition to abolishing the aforementioned tax concessions, the government should give consideration to eliminate those that were proposed for abolition in the recent evaluation study by Thöne *et al*. (2009).

Improving the structure of the tax base

Taxes affect the decisions of households and firms, for example regarding the supply of and demand for labour, the level and composition of investment and production and the choice of savings channels and assets. What matters for these decisions is not only the level of taxes but also the tax structure, *i.e.* the way in which different tax instruments are designed and combined to generate revenues. Previous OECD work finds strong evidence that indirect taxes, notably those on consumption and property, are less harmful for growth than direct taxes (Johansson *et al*., 2008; Arnold, 2008). To improve the structure of the tax system and make it more conducive to economic growth, the government should consider raising the share of taxes on property and consumption in total tax revenues and reducing the excessive burden of more distortionary levies, notably social security contributions. In addition, the government may give consideration to raising environmental taxes to change the behaviour of economic agents so as to reduce pollution.

Increasing property taxes

The German government is generating only a small part of its revenues from property taxation. In 2007, total revenues from these taxes amounted to only 0.9% of GDP, which was less than half the OECD average (Figure 3, panel A). In particular, revenues from taxes on land and buildings (*Grundsteuer*) were very small, amounting to less than ½ per cent of GDP (compared with an OECD average of 1.3%; Figure 3, panel B).[29] This is very unfortunate as taxes on land and buildings (especially residential buildings) are generally argued to be less distortive than other types of taxes as they have a smaller impact on the decisions of economic agents (*e.g.* to supply labour or to invest in human and physical capital) and are also more difficult to evade (Johansson *et al*., 2008). Another advantage is that the tax base is relatively stable (*e.g.* Joumard and Kongsrud, 2003).

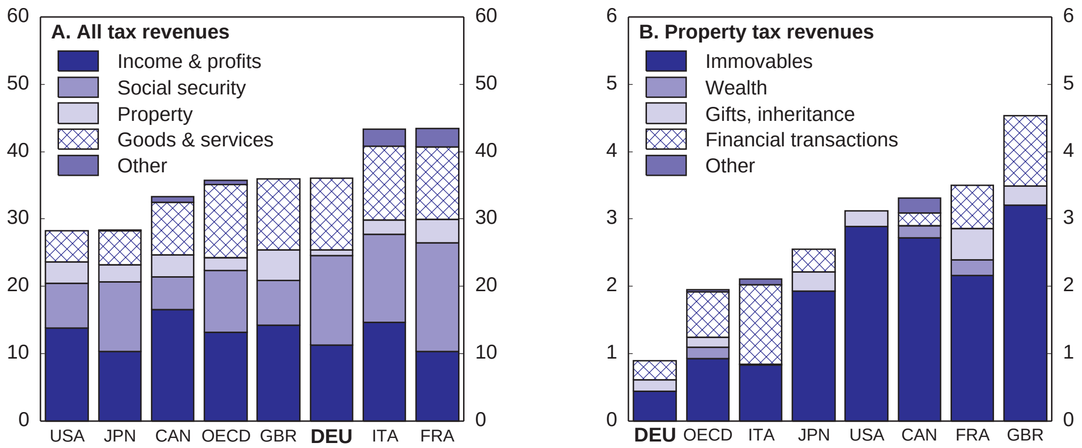
Against this background, the government should increase taxation on land and buildings with special arrangements put in place to reduce the liquidity constraints that the tax may imply for people with low incomes and illiquid assets (for example, new mortgage products could allow mortgage financing of the

29. This comparison neglects cross-country differences in charges for property-related services such as waste disposal, water supply, and sewerage. However, accounting for these differences does not change the conclusion that Germany generates far less revenue from this source than the average OECD country (Fuest and Thöne, 2008).

tax liability; see OECD, 2007b, Box 4.7). An increase in taxation could be achieved by further raising the tax rates (*Hebesätze*), though any such decision has to be taken at the municipal level. If Germany were to increase its taxation of immovable property to the OECD average, this could boost revenues by an amount of EUR 20 billion or more. Concerns about an eventual short term adverse effect on house and land prices of such measures have to be balanced against the long term benefits of a more growth friendly tax structure. Moreover, to make the tax more equitable, the government should move towards actual prices as the basis for evaluating the tax base of the *Grundsteuer* rather than relying on the values determined in 1964 (1935 for the eastern *Länder*) and then regularly update these values as is done in other OECD countries (*e.g.* United States, Denmark, Sweden).[30]

Figure 3. Composition of tax revenues

% of GDP, 2007



Source: OECD (2009), *Revenue Statistics*.

Regarding the other types of property taxes, net wealth taxes and inheritance taxes are more distortive than taxes on land and buildings as they discourage savings and may induce people to move their wealth offshore (Johansson *et al.*, 2008). Since inheritance taxes are levied only at the end of a person's life they avoid the taxation of most life-cycle savings. They are also less distortive than annual wealth taxes because a large part of inheritances are unplanned (Auerbach, 2006). In 2007, revenues from estate, inheritance and gift taxes amounted to 0.17% of GDP, which is close to the OECD average of 0.15% (Figure 3, panel B). Taxes on capital and financial transactions, while relatively easy to collect, are highly distortive (Johansson *et al.*, 2008). They not only discourage the ownership of assets (as do taxes on income, consumption and wealth), but have the added distortionary cost of discouraging transactions that would allocate these assets more efficiently.[31] Germany taxes transfers of real estate (at a rate of 4½ per cent in Berlin and Hamburg and 3½ per cent in the other *Länder*) and generates revenues of around EUR 6 billion (¼ per cent of GDP). While this is below the OECD average, taxing the ownership of assets should be preferred because of its less distortive nature.

30. Already at the end of the 1980s, these values (*Einheitswerte*) represented on average only 10 to 20% of the actual market value of the property (Bach and Bartholmai, 2002).

31. For example, taxes on real estate transactions discourage individuals from buying and selling houses and so prevent them from moving to areas where their labour is in greater demand.

Revising the value added tax system

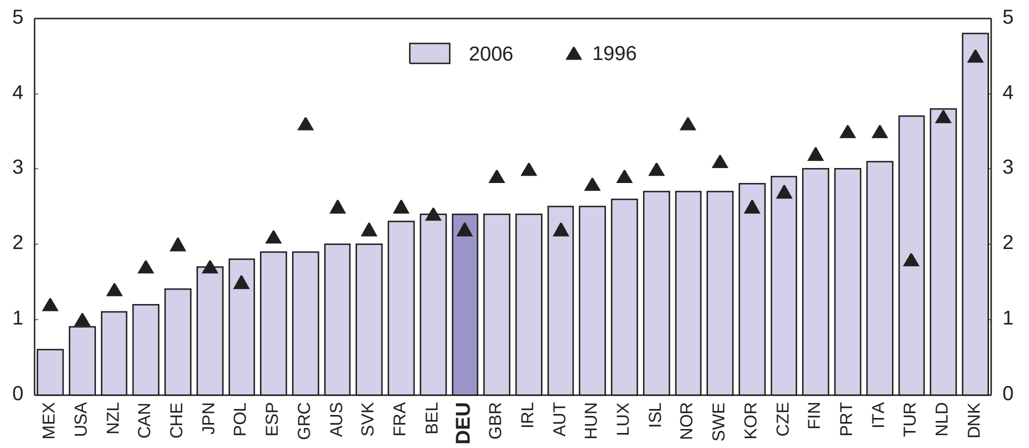
While taxes on residential property are likely to be best for economic growth and should thus be given priority, the scope for switching revenue to recurrent taxes on immovable property is clearly limited. Any strategy to improve the structure of the tax base should therefore also include a revenue shift into consumption taxes, which scored second in the tax and growth ranking by Johansson *et al*. (2008). Germany has already made an important step in this direction in 2007 when the standard VAT rate was raised from 16% to 19% and social security contributions were reduced in return (about two-thirds of the revenues generated from the VAT increase were used to finance the cut in social security contributions). At 19%, the standard VAT rate is still somewhat lower than that of most other EU countries, suggesting that a further movement in this direction is feasible and should be considered.

Increasing environmental taxes

Preserving the environment is high on the agenda for all OECD governments. Using a variety of instruments, Germany has made considerable progress in recent years in restraining environmentally harmful behaviour. In particular greenhouse gas emissions were reduced significantly (Box 3). Among different tools to curb pollution, taxes have proven efficient from an economic point of view and offer flexibility to adapt for those affected. While direct regulation of polluting activities forces immediate compliance regardless of the comparative cost for different businesses and individuals, environmental taxes leave more flexibility for those affected, because they allow firms and individuals to buy time to adapt (and thus not having to pay the tax in the future). In terms of revenues from environmental taxes, Germany ranks in the lower middle range of OECD countries with annual revenues of slightly less than 2½ per cent of GDP (Figure 4). A duty on mineral oil is the most important revenue source, accounting for about two-thirds of the total. The government should consider raising environmental taxes further. However, although the moderate level of revenues points to untapped revenue potential, it is important to keep in mind that an achievement of the objective of environmental taxes – a reduction in environmentally unfriendly behaviour – is associated with a reduction in the tax base, thus limiting the revenue potential of such taxes.

Figure 4. Revenues from environmental taxes

% of GDP



Source: OECD (2009), *OECD Economic Surveys: Japan*, OECD, Paris.

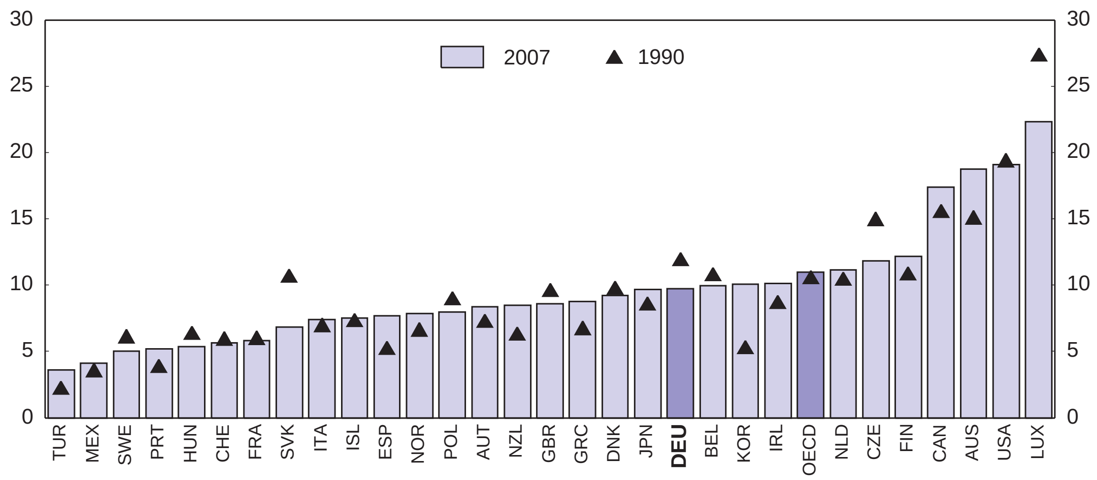
Box 3. German policies to mitigate climate change

Although the level of CO_2 emissions *per capita* is still relatively high compared to other OECD countries, Germany has reduced emissions markedly since the early 1990s – not least because of downsizing overly energy intensive industries in the eastern *Länder*. Between 1990 and 2007, emissions from fuel combustion were cut by 2.3 tonnes *per capita*, which is the fourth-largest reduction in the OECD (Figure 5). Relative to their absolute level in 1990, emissions were 16% lower in 2007. This compares with a Kyoto target of reducing greenhouse gas emissions by 21% by the period 2008-12.[1] Germany has committed itself to reduce greenhouse gas emissions beyond what was agreed in the Kyoto protocol: By 2020, it plans to emit 40% less greenhouse gases than in 1990. A wider use of renewable energy sources plays a key role in achieving this objective. By 2020, the government plans to satisfy 18% of total final energy consumption from renewable sources.

The cut in greenhouse gas emissions that was achieved over the past two decades was split relatively unevenly across sectors. For example, while manufacturing and construction sectors reduced their CO_2 emissions by 34.6% between 1990 and 2007, producers of heat and energy contributed nothing to the reduction in emissions. On the one hand, this is a reason for concern, as this sector is the main producer of CO_2 emissions, accounting for about 40% of the total (OECD, 2009c). But on the other hand, it stresses the immense reduction potential that could be realized if this sector were to curb its emissions to a similar extent to other sectors.

Figure 5. CO_2 emissions

Tonnes *per capita*



Source: OECD (2009), *CO_2 emissions from fuel combustion*, OECD, Paris.

The reduction in greenhouse gas emissions is supported by a wide range of tax measures.[2] Most notably, in 1999, the government enacted an environmental tax reform, which, over a number of years, increased taxes on energy, while reducing social security and pension contributions. According to a recent evaluation study, the policy cut CO_2 emissions by 2-3% while having only minor negative effects on GDP growth (Deutsches Institut für Wirtschaftsforschung, 2007). More recently, in 2009, Germany reformed its vehicle tax by introducing a CO_2 element. By increasing the price for the use of fossil fuels, taxes can also provide a strong stimulus for investment in alternative renewable energy sources. However, sectoral competitiveness concerns often limit the application of such taxes. In Germany for example, such concerns required exemptions from ecological taxes for coal and much industrial energy use (European Commission, 2008).

Germany is fostering the use of renewable energies also through several non-tax instruments. Regarding electricity production, a feed-in tariff system guarantees the purchase of electricity from water power, wind and solar energy, biomass and geothermal energy and for a period of 15 to 20 years pays a fixed amount for each kilowatt-hour fed into the grid. This amount is reduced each year in order to not harm incentives for innovation and efficiency improvements. Thanks to this tariff system, the share of renewables in electricity production has more than quadrupled between 1991 and 2006 (European Commission, 2008). To promote the use of renewable energies in heating, firms and households who install a solar heating system, a wood pellet or firewood stove or a geothermal energy probe receive a grant, which varies depending on the size and quality of the system. The use of biofuels in the transport sector is promoted by a blending obligation requiring the addition of renewable fuel to conventional fuels. While these measures to promote green growth are highly welcome, a continuous monitoring and assessment of their effectiveness in promoting green growth is crucial to ensure that they foster innovation and only support the most efficient and sustainable technologies (for example, the environmental impact of biofuel support policies crucially hinges on the feedstock used).

1. The targets apply to a basket of six greenhouse gases.
2. A detailed overview on policy instruments used by the German government to combat climate change is provided by the International Energy Agency in its databases on policies and measures (*www.iea.org/textbase/pm/*).

Box 4. Recommendations for bringing public finances back to a sustainable path

Refining the design of the fiscal rule

- Carefully monitor implementation of the rule and adjust the new framework where necessary.
- Move towards a top-down approach to budget formulation.
- Strengthen the stability council, possibly by providing additional inputs from experts or institutions, which are independent from the government.
- Ensure that the *Länder* adopt a transparent approach to determining the output gap.
- Ensure a stricter enforcement of the law on short-term borrowing by municipalities to prevent that this instrument is used to finance structural shortfalls in revenues *versus* expenditures.

Achieving fiscal consolidation

- Improve public sector efficiency. In particular, raise the efficiency of health and social spending.
- Further cutback on grants and give consideration to further reducing government consumption expenditures.
- Avoid discretionary changes of the pension indexation formula and resist any pressures not to make up the past missed downward adjustments of pension increases.
- Broaden the tax base by further phasing out tax concessions. In particular, review the current application of the reduced VAT rate. In cases where the reduced rate amounts to an implicit subsidy due to the lack of any clear justification, phase out the reduced rate. In cases where a reduced rate can be justified on distributional or other grounds, verify whether the desired objectives cannot be achieved more efficiently through other means such as monetary transfers.

Improving the structure of the tax base

- Consider increasing taxation on land and buildings (*Grundsteuer*), for example by moving closer towards actual prices as the basis for evaluating the tax base or by further raising the tax rates. Put special arrangements in place to reduce the liquidity constraints that the tax may imply for people with low incomes and illiquid assets.
- Depending on the size of any tax structure reform, a revision of the VAT system should be considered.
- Give consideration to raising environmental taxes further.

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