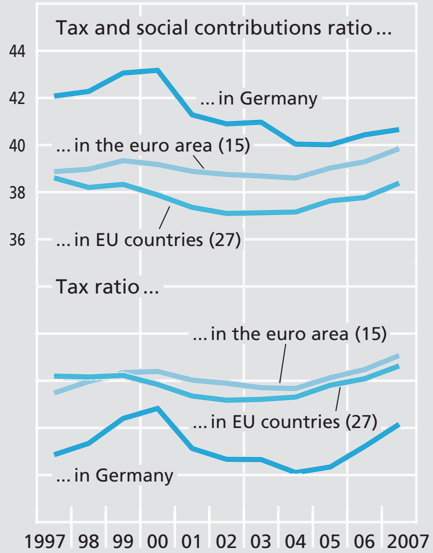
Development of tax revenue in Germany and current tax policy issues

Over the last ten years, tax revenue in Germany fluctuated greatly and, at times, unexpectedly. This was due, in particular, to the extremely volatile nature of profit-related taxes. Overall, the tax ratio rose and, at the end of the period under review, was high even by historical standards. This rise was driven by increases in consumption-related taxes, which significantly outweighed the tax relief which was granted predominantly by the reform of income tax and business tax in 2000. By contrast, the combined tax and social contributions ratio declined on balance. The increased allocation of taxes towards co-funding the social security schemes was one of the factors which contributed to the diverging trends in the tax ratio and the combined tax and social contributions ratio.

An efficient tax and social contributions system and a contained tax burden are essential for creating an environment conducive to growth. A more transparent system could help improve the degree of public acceptance and reduce distortions. Thus the need to lower tax rates and limit special provisions for many types of taxes remains on the tax policy agenda. Furthermore, the degree of equivalence between social contributions and corresponding insurance benefits for the contributor could be strengthened by adopting a coherent strategy of tax-funding non-insurance-related benefits.

Taxes and social contributions in an international context *

As a percentage of GDP



Source: ECB and Bundesbank calculations. — * For information on the statistical concept, see box on p 37. For the EU and the euro area, unweighted averages.

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General trends in the tax ratio and the combined tax and social contributions ratio over the last ten years

Tax ratio volatile and higher overall

Over the course of the last ten years, Germany has seen some extremely volatile and erratic developments in its tax revenue. This has been a major contributory factor to the considerable fluctuations in the general government deficits. Sharp revenue growth from 1997 up to the turn of the century was followed by a phase of decidedly weak revenue growth against the backdrop of an unfavourable macroeconomic momentum and comprehensive income tax cuts. This situation only reversed around the middle of the current decade and was notably reinforced by the substantial additional revenue ensuing from the raising of the standard VAT rate last year. By the end of 2007 the tax ratio, that is tax revenue in relation to gross domestic product (GDP), again edged closer to the high level recorded in 2000, which is also elevated in a longer-term comparison (see adjacent chart and table on page 35 for details on the figures and the box on page 37 for the statistical concept). The high revenue volatility was due not only to legislative changes but also to the development of profit-related taxes, which fluctuated wildly and often unpredictably. At the end of the period under review, the level of revenue from profit-related taxes probably again distinctly exceeded the medium-term trend.

Slight shift towards consumption-related taxes

Consumption tax rates have been raised across the board as part of changes in tax legislation. By contrast, income tax rates (including business taxes) have been lowered, and this was offset only in part by counterfinancing measures.[1] Nevertheless, there was only a slight shift in relative weights from income-related taxes to consumption-related taxes on balance as, in the wake of rising income, the progressive structure of the income tax regime causes the income tax burden to increase automatically over time (fiscal drag) and the assessment bases for consumption-related taxes grew relatively sluggishly.

Declining tax and social contributions ratio and structural shifts

While on balance the tax ratio increased by 1½ percentage points over the last ten years to 24½% in 2007, the combined tax and social contributions ratio (ratio of revenue from taxes and social contributions to GDP) de-

1 The general trends described here and in the following sections remain valid even after taking account of the tax relief provided by the 2008 business tax reform.

Development of the tax and social contributions ratio *

Ratios as a % of GDP

Item	1997	2000	2001	2002	2003	2004	2005	2006	2007
Taxes and social contributions	42.2	43.3	41.4	41.0	41.1	40.2	40.1	40.6	40.8
Tax revenue	23.0	25.0	23.3	22.8	22.8	22.2	22.5	23.3	24.3
Income-related taxes	11.9	13.3	11.7	11.4	11.3	11.0	11.2	12.1	12.5
Wage tax	8.5	8.5	8.1	8.2	8.1	7.5	7.2	7.2	7.3
Profit-related taxes	3.4	4.8	3.6	3.2	3.2	3.5	4.0	4.9	5.3
Consumption-related taxes	10.1	10.6	10.5	10.4	10.5	10.2	10.2	10.2	10.7
Turnover tax	6.4	6.8	6.6	6.4	6.4	6.2	6.2	6.4	7.0
Other	3.7	3.8	4.0	4.0	4.2	4.0	4.0	3.9	3.7
Other taxes	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Social contributions	19.2	18.3	18.2	18.2	18.3	17.9	17.7	17.2	16.5

Sources: Federal Statistical Office, Federal Ministry of Finance, Bundesbank calculations. — * For information on the statistical definition, see box on p 37.

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creased by 1½ percentage points to 41%. This was associated with a clear rise in the share of taxes relative to social contributions and a perceptible shift in the revenue structure from income-related levies to consumption-related taxes. The social contributions ratio fell mainly because social security spending in relation to GDP was lower in 2007 than it was in 1997 and the tax-financed share of the social security funds was lifted significantly by a substantial topping-up of Federal grants. A factor contributing to the decline of the ratio was the net lowering of contribution rates to the social security funds between 1997 and 2007. An even weightier factor was that the growth of the assessment bases for contribution receipts (gross wages and salaries, in particular) lagged behind that of GDP. In terms of public finances as a whole, a decline in the wage ratio means that both the general government revenue and expenditure ratios fall almost automatically (that is without fiscal policy intervention) as numerous social benefits on the expenditure side are linked to the average growth of wages and remuneration in the public sector is also based on this growth.

Tax and social contributions ratio above EU average

Measured by international standards, the German tax and social contributions ratio has been declining towards the euro-area average since 1997 and in 2007 was just above

Development of tax ratios and their determinants *

Year-on-year change in ratios in percentage points

Item	2000	2001	2002	2003	2004	2005	2006	2007	1998 to 2007 1
Tax revenue	0.4	– 1.7	– 0.5	0.0	– 0.6	0.2	0.9	0.9	1.3
Legislative changes	0.2	– 0.9	0.6	0.3	– 0.5	– 0.2	0.1	1.1	1.2
Fiscal drag	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	1.0
GDP structural shift	– 0.1	0.0	– 0.2	0.0	0.0	0.1	0.0	– 0.4	– 0.7
Residual	0.2	– 0.9	– 1.0	– 0.4	– 0.1	0.3	0.7	0.1	– 0.2
Income-related taxes	0.5	– 1.6	– 0.3	– 0.1	– 0.3	0.3	0.9	0.4	0.6
Legislative changes	– 0.1	– 1.1	0.4	0.0	– 0.6	– 0.3	0.1	– 0.1	– 1.8
Fiscal drag	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	1.4
GDP structural shift	– 0.1	– 0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Residual	0.5	– 0.6	– 0.8	– 0.3	0.0	0.4	0.6	0.4	1.0
Consumption-related taxes	0.0	– 0.1	– 0.1	0.1	– 0.3	0.0	0.0	0.5	0.6
Legislative changes	0.2	0.2	0.2	0.3	0.1	0.1	0.0	1.2	3.0
Fiscal drag	– 0.1	– 0.1	0.0	– 0.1	– 0.1	– 0.1	– 0.1	0.0	– 0.5
GDP structural shift	0.0	0.0	– 0.1	0.1	– 0.1	0.0	– 0.1	– 0.4	– 0.6
Residual	– 0.2	– 0.2	– 0.2	– 0.2	– 0.2	– 0.1	0.1	– 0.3	– 1.3

Sources: Federal Statistical Office, Federal Ministry of Finance, Bundesbank calculations. — * For information on the method of calculating the determinants of the development using the disaggregated framework, see box on pp 38-39. — 1 Total changes from 1998 to 2007.

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the EU average (see chart on page 34).[2] By contrast, the German tax ratio is comparatively low; however, unlike in other EU countries, the social security system in Germany is financed to a large extent by social contributions (rather than taxes). When comparing the tax and social contributions burden at international level, it is therefore advisable to consider taxes and social contributions jointly.

Need for caution in interpreting effective burdens

Hence overall tax and social contributions ratios, but also GDP ratios for individual tax and contribution types, are a customary international basis for analysing and classifying the development of taxes and social contributions as well as their impact on public finances. However, conclusions with regard to the underlying concrete burdens based on revenue-related observations should be drawn with caution. For instance, social contributions function less as a distortionary tax if they are more closely linked to the social benefits accruing to the contributor (equivalence principle). Similarly, differences in the extent to which the recipient is taxed on social benefits (gross or net payment) or the possibility of providing a subsidy either by means of financial assistance or tax concessions, can significantly inhibit comparability. In addition, the ratio is influenced by the combination of the legislative setting and economic agents' behaviour, ie it also dependent

2 The shift from income-related levies to consumption-related taxes and the volatility of profit-related taxes observed in Germany have also been recorded in many other EU countries, see European Commission (2008a), Taxation trends in the European Union, and, for information on current developments and revenue volatility, see European Commission, Public Finances in EMU – 2008, in particular p 100 ff.

on their (legal and illegal) evasive reactions. A high tax rate could, for example, lead to low ratios if tax payers partially evade taxation.

Other indicators also point to above-average burden by international standards

One approach which is independent of such behavioural reactions but instead more strongly affected by model assumptions is, for example, to calculate the wage income burden using the tax wedge. In this method, the relative gap between employers' labour costs and employees' net wages is analysed for stylised employee groups. Effective burdens for sample companies are calculated for enterprises. A number of different studies conducted in this field indicate that tax and social contribution burdens have declined considerably owing to rate cuts over the last ten years but that, by international standards, Germany still has a relatively high burden.[3]

Individual determinants of the tax ratio trend[4]

The disaggregated framework for analysing fiscal developments

The following section provides a more detailed breakdown of the development of tax revenue in Germany outlined above. The disaggregated framework for analysing public finances is used for this purpose, which shows the individual explanatory factors (see also the box on page 38). In this method, the

3 See, for example, OECD (2008), Taxing Wages 2006-2007; D Endres, C Spengel and T Reister, Neu Mass nehmen: Auswirkungen der Unternehmensteuerreform 2008, Die Wirtschaftsprüfung 11/2007, p 478 ff and Federal Ministry of Finance, Die wichtigsten Steuern im internationalen Vergleich 2007.
4 For further information about the period up to 2002 and especially for a detailed description of the developments around the turn of the century, see Deutsche Bundesbank, Recent tax revenue trends, Monthly Report, December 2002, pp 15-36.

Notes on statistical concepts

Unless indicated otherwise, the revenue development is described as defined in the national accounts, and the tax ratio includes the levies paid to the EU.[1] One important difference vis-à-vis the definition used in the government's budgetary financial statistics is that payments of grants to homeowners and investors and of child benefit are offset there against tax revenue, ie they reduce revenue, whereas they are treated as government expenditure in the national accounts. In addition, in the national accounts revenue is allocated not to the year of receipt but to the year of origin.

The national accounts generally differentiate between current taxes on income, wealth etc (direct taxes), taxes on production and imports (indirect taxes) and capital taxes. Here, however, a classification is used that is more oriented towards the underlying tax assessment bases. The term "income-related taxes" comprises wage tax, assessed income tax, investment income tax, corporation tax and local business tax. This classification is different from the "direct taxes" as defined in the national accounts, particularly since, in the national accounts, local business tax is assigned to the category of indirect taxes. The category of income-related taxes is subdivided into wage tax and (other) "profit-related taxes". However, it should be noted that wage tax merely represents a special method of levying income tax. Deviations from the actual tax liability (eg owing to additional deductions or additional income) are offset in the course of the income tax assessment procedure and reduce the receipts from assessed income tax. Turnover tax, energy tax, electricity tax, tobacco tax and insurance tax as well as the other special excise duties are classified as "consumption-related taxes".

As is customary (also at international level), the ratios are calculated in relation to GDP. Another way of evaluating the withdrawal of funds by means of levies, in principle, would be to consider the ratio in relation to national income (and thus to factor income) after deducting depreciation, among other things. However, this alters the general trends only modestly, although the ratios are naturally significantly higher (in 2007 the ratio of national income to GDP was 75.4%).

1 The analysis of the European Commission (2008a), op cit, is based on a definition and classification that is for the most part comparable with the one used here.

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The disaggregated framework for analysing public finances

Outline of the framework[1]

Under the disaggregated framework, the development of the revenue and expenditure ratios can be explained in more detail. Revenue developments in the major taxes and social contributions are attributed within a model-based procedure to the (estimated) impact of legislative changes and the evolution of macroeconomic reference variables. To this end, appropriate reference variables are selected and revenue elasticities (percentage change in receipts when the variable is changed by 1 %) and lag structures (temporal relationship between the evolution of the reference variable and payment of the tax or social contribution) are defined (see also table on p 39). The revenue models used under the framework are relatively simple and standardised, and correspond in principle to those used for revenue forecasting, for example. They are therefore also suitable, among other things, for modelling revenue windfalls, which are the subject of some discussion.

Analysing extraordinary developments

Revenue developments cannot usually be fully explained using the standardised revenue models of the disaggregated framework, so that some unexplained components (residuals) remain. These arise, for example, because the models capture regular and average relationships but cannot record special factors. Thus, a certain relationship is seen between the unexplained weak development in turnover tax receipts in 2001 and an increase in turnover tax fraud (including "carousel transactions"). This manifests itself as a negative residual. However, the above example also demonstrates that specifically identifying and quantifying special factors can be difficult.

Problems in assessing the financial impact of legislative changes are a further cause of unexplained residuals. The calculations for this report were largely based on the estimates carried out by the Federal Government as part of the legislative process. The particular problem with this is that the estimates are often dependent on the forecasts for the economic and revenue development made at the time of estimation (*ex ante* approach). A subsequent adjustment to the actual outturn has been carried out here only in isolated cases – primarily for changes to the rates of consumption-related taxes (*ex post* approach). Despite these limitations, the explanatory power of the revenue models can be significantly improved by including the estimates regarding the impact of legislative changes.[2]

The revenue elasticities are also ultimately estimates, and inaccuracies here can likewise lead to residuals. For taxes or social contributions for which the rates are, in principle, proportional, the elasticities are set to one. For income tax, the elasticity is set at greater than one owing to the progressive tax scale. This results in a positive fiscal drag, ie revenue increases automatically.[3] Furthermore, particular account is taken of the fact that excise taxes are largely volume-related and their receipts are consequently independent of price developments. Technically speaking, the elasticity to the relevant deflator is thus zero. The resultant decline in the tax ratio is likewise described as a (negative) fiscal drag.

Another cause of residuals in the disaggregated framework is that the actual tax assessment bases are not directly observable. For this reason, macroeconomic indicators which are also often used in revenue forecasts are applied to measure their development. In some cases, however, additional information with which the actual tax assessment bases can be better approximated becomes available *ex post*. By including this additional information, the explanatory power of the models can be improved, although this also renders them more complex. For example, this occurs in the case of turnover tax when allowing for the fact that the differently taxed components of the VAT assessment bases (standard rate, reduced rate, exempt) have developed differently, leading the effective average tax rate to change. Furthermore, the consumption volume figures used for energy and tobacco taxes show a much weaker development than that of real private consumption, which is used as the reference variable in the standard model. This provides an explanation for some of the negative residuals in the case of excise taxes.

1 For more detail, see also Deutsche Bundesbank, A disaggregated framework for analysing public finances: Germany's fiscal track record between 2000 and 2005, Monthly Report, March 2006, pp 61-76, and J Kremer, C R Braz, T Brosens, G Langenus, S Momigliano, M Spolander, A disaggregated framework for the analysis of structural developments in public finances, ECB Working Paper Series, 579/2006, and Deutsche Bundesbank Research Centre, Discussion Paper, Series 1, Economic Studies, No 05/2006. — **2** See also G. Koester, The political economy of tax reforms, Nomos 2008, Chapter III, forthcoming. — **3** The estimate for wage tax elasticity is taken from A Boss, A Boss and T Boss, Der Deutsche Einkommensteuertarif: Wieder eine Wachstumsbremse? Perspektiven der Wirtschaftspolitik, 9 (2008), 1, pp 102-124. Other estimates indicate higher or lower revenue effects, see eg T Büttner, A Dehne, G Flaig, O Hülsewig and P Winker, Berechnung der BIP-Elastizitäten öffentlicher Einnahmen und Ausgaben zu

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Volatile revenue from profit-related taxes

As the chart on page 43 demonstrates, the revenue development can generally be explained quite satisfactorily using these more detailed (in comparison with the figures in the table below) revenue models; this means – in the terminology of the disaggregated framework – that a larger part of the development can be attributed to fiscal drag and structural shifts within GDP. For the profit-related taxes, however, the models' explanatory power in individual years is limited, and considerable residuals remain even after refinements. This is due, among other things, to the fact that the macroeconomic reference variables – entrepreneurial and property income and its sub-components – are only relatively loosely connected with the actual tax assessment bases. In particular, fluctuation in the tax assessment bases over the economic cycle seems to be significantly greater than that in the macroeconomic variables. For example, tax-relevant value adjustments are not recognised in entrepreneurial and property income as defined in the national accounts. The lag structures for the assessed taxes (assessed income tax, corporation tax, local business tax) are probably likewise very variable over time – contrary to the assumption in the models. At the end of a phase of relatively strong profit growth, for example, large advance payments often coincide with large back payments (and vice versa following a period of relatively weak growth). Additionally, the extensive legislative changes in this area cause estimation difficulties.

This problem is illustrated in the chart on page 44. Although, after adjustment for cyclical components estimated using the standard procedure and for the impact of legislative changes, the trend in profit-related tax receipts was similar to that in entrepreneurial and property income, there were massive fluctuations in revenue in individual years.

Relationship with cyclical adjustment

The revenue models on which the disaggregated framework is based are also used in the Bundesbank's disaggregated standard cyclical adjustment procedure for estimating the cyclical component of the general government fiscal balance. In this procedure, the trend deviations of the relevant macroeconomic variables are calculated using the Hodrick-Prescott filter (smoothing parameter λ=30) and are used, with the aid of the elasticities, to determine the cyclical impact on the individual types of revenue. On the expenditure side, an analogous procedure is used to estimate the cyclical effects on spending on unemployment and of the statutory pension insurance scheme. The cyclical component of the fiscal balance is determined by netting the individual cyclical influences on the revenue and expenditure sides.

Overview of the revenue models on which the disaggregated framework is based

Levy type	Macroeconomic reference variable	Elasticity of revenue in t with regard to reference variables in: t	t-1	t-2
Wage tax	Gross wages and salaries per employee [4]	1.9	.	.
	Employee total [4]	1	.	.
Profit-related taxes				
Assessed taxes [5]	Entrepreneurial and property income	0.9	0.1	0.1
Investment income tax	Entrepreneurial and property income	.	1	.
VAT	Nominal private consumption expenditure [6]	1	.	.
	Nominal private housing expenditure [6]	1	.	.
	Nominal government expenditure subject to VAT [6]	1	.	.
Excise taxes	Real private consumption expenditure	0.8	.	.
Social contributions [7]	Gross wages and salaries, total employees, unemployed	1	.	.

Prognosezwecken und Diskussion ihrer Volatilität, or P Gottfried and D Witczak, Gesamtwirtschaftliche Auswirkungen der "heimlichen Steuerprogression" und steuerpolitische Handlungsempfehlungen zur Entlastung der Bürger, IAW-Kurzbericht 1/2008. — **4** Excluding low-paid part-time jobs and "one-euro jobs" (ie top-up earnings of benefit recipients). — **5** Assessed income tax, corporation tax, local business tax; a certain progressive effect assumed for assessed income tax. — **6** Excluding VAT; included VAT and government expenditure subject to VAT are estimates. — **7** Social contributions for employees (reference variable: gross wages and salaries), for pensions in the statutory pension insurance scheme (reference variable: gross wages and salaries per employee on an average of the years t-1 and t-2) and for unemployment benefit I (estimate; reference variable: unemployed total).

actual evolution of revenue is compared with a reference scenario in which tax revenue develops in line with GDP and the tax ratio thus remains constant.[5] Differences may be the result of legislative changes, ie they may be attributable to active fiscal policy measures. A role may also be played by additional revenue resulting from fiscal drag owing to the effects of tax progression and any structural shifts within GDP between components taxed at different rates (taking turnover tax as an example, between high tax-yielding domestic consumption and low tax-yielding exports). Changes in the tax ratio that cannot be explained by these three factors, which are termed residuals, have to be analysed in more detail. They can, in part, be explained by special developments and the high level of abstraction of the underlying revenue models.

Changes in tax law lead to considerable additional revenue

On balance, additional revenue due to legislative changes

Between 1997 and 2007, changes in tax law had a significant impact on the development of tax revenue. On balance, they brought about a rise of over 1 percentage point in the tax ratio, which for 2007 meant additional revenue of €30 billion (for an overview of the legislative changes, see the annex on pages 53-57). A sharp increase in the consumption tax ratio (+3 percentage points) was partly offset by a clear fall in income-related taxes (-2 percentage points).

The extensive rise and expansion of consumption-related taxes – in the case of energy tax and tobacco tax as well as turnover tax and insurance tax – was based partly on the argument that social benefits were to be financed to a greater extent out of general tax revenue. Thus the Federal grants to the social security funds have increased substantially since 1997, which *per se* created scope to lower the contribution rates to the social security funds with a revenue volume of 1½% of GDP in 2007 (see the box on page 41). In effect, the ratio of social contributions to GDP fell on balance by a mere ½ percentage point as a result of relief measures (lower contribution rates, in particular) as other factors impacted negatively on the financial situation of the social security funds.[6] In addition to co-financing the social security funds, tax increases – especially the hike in VAT and insurance tax in 2007 – were closely linked to the need to consolidate government budgets, which showed large deficits, and they were explicitly justified by the need to plug structural budgetary gaps.[7] Partly thanks to this, the structural deficit declined noticeably.

Higher consumption tax rates used partly to lift tax financing of social security funds

Net cut in income-related taxes

Legislative changes between 1997 and 2007 provided considerable relief in respect of income-related taxes, causing the tax ratio to fall by almost 2 percentage points on balance. A key element in this was the income tax and business tax reform adopted in 2000 in the context of a comparatively comfortable budgetary position and outlook at that time.

5 The developments described below remain valid after adjustment for standard cyclical components as the cyclical components of the numerator (revenue) and the denominator (GDP) develop broadly in parallel and the impact on the revenue ratio is therefore small. As for the ratios, cyclical fluctuations are reflected primarily in the development of the expenditure ratio.
6 See comments on pp 34-35.
7 In addition there were a number of measures designed to stabilise revenue from turnover tax by combating tax fraud.

Additional Federal grants to the social security funds and associated tax increases since 1997

Federal grants to the social security funds have been increased substantially over the past ten years in order to stabilise contribution rates. In most instances, taxes were raised simultaneously. Since social contributions are perceived as and act like a tax (owing to the limited equivalence between contributions and benefits accruing to the contributor), this essentially means that one tax was replaced with another. It cannot be ruled out, however, that retrenchment efforts from the social security funds may then have subsided owing to an easing of financial pressure and that some of the Federal grants were used to cover additional expenditure. Nonetheless, it can be assumed that there was an overall redistribution of funding from tax payers to contribution payers. This was intended, among other things, so as to better align non-insurance-related benefits with tax grants. In the following sections, the additional revenue generated through specific tax rises between 1997 and 2007 is compared with the greater leeway for lowering contribution rates resulting from the increases in the Federal grants. However, it should be borne in mind that a further rise in the Federal grants, particularly those to the statutory health insurance scheme, is planned for the coming years.

In 1998, the general Federal grant to the statutory pension insurance scheme was supplemented by an additional Federal grant. Since 1999, moreover, the Federal Government has been paying contributions to cover child-rearing periods. To finance this, the standard rate of VAT was increased on 1 April 1998 and energy tax was increased in several stages (“ecological tax reform”). While the general Federal grant amounted to just over €35 billion in 1997, the general and additional Federal grants reached a total of €67½ billion in 2007. In 1997, the contribution rate was kept just over 4½ percentage points lower with the aid of the Federal grants; by 2007, this effect had increased to nearly 8½ percentage points. The difference (over 3½ percentage points) was worth almost €29½ billion in 2007. Additional revenue from the aforementioned tax rises came to a total of €26 billion in 2007.

A Federal grant was paid to the statutory health insurance scheme for the first time in 2004 and was financed through a rise in tobacco tax rates. The grant was raised from an initial €1 billion to €4.2 billion in 2006, but was cut again to €2.5 billion in 2007. It is planned to increase the Federal grant in stages from 2009 onwards from €1.5 billion annually to €14 billion (from 2016 onwards). Without the Federal grant of €2.5 billion, the contribution rate would have needed to be ¼ percentage point higher in 2007. The additional revenue generated from the increase in tobacco tax was also around €2½ billion in 2007.

Until 2006, the Federal Employment Agency’s deficits were offset in full by the Federal Government. In 2007, a rule-based Federal grant was introduced. It is no longer envisaged that the Federal Employment Agency’s deficits will be automatically offset using funds from the Federal budget; the Agency must therefore compensate for cyclical fluctuations using its own reserves. This requires a contribution rate which ensures a balanced budget over the economic cycle and sufficient reserves to avoid incurring debt. The new Federal grant is to be funded using one-third of the additional revenue generated from increasing the standard rate of VAT from 16% to 19%. In 2007, this additional tax revenue of an estimated €7 billion (the corresponding cash receipts were still relatively low in the year of the increase) was accompanied by a Federal grant of €6½ billion, ie just over ¾ percentage point of the contribution rate. In future, the Federal grant will be adjusted on the basis of turnover tax revenue. [1]

Overall, the Federal grants to the social security funds in 2007 were around €38½ billion higher than they would have been had the legislative *status quo* from 1997 still been in force. This was accompanied by additional revenue of €35½ billion arising from the specific tax increases. However, other measures reapportioning funding responsibilities have, on balance, considerably burdened the social security funds to the benefit of central, state and local government. These measures notably include the successive reductions in contributions to the statutory pension, health and long-term care insurance schemes paid out of the Federal budget on behalf of recipients of unemployment assistance. All in all, the additional revenue from the tax increases of the past ten years, for which the stated justification was refinancing of the social security funds, and the change in the payment flows between the social security funds and central, state and local government are likely to have opened up a potential to lower the contribution rates of a similar magnitude.

1 In 1997, the Federal Government used just under €5 billion to offset the Federal Employment Agency’s deficit. Under the assumption that, given the structural improvement in the labour market, no further transfers from the Federal Government budget would be required based on the legislative status quo in force in 1997, here the current grant has not been netted with the offset of the 1997 deficit.

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These measures lowered the tax rates considerably. However, this was counterfinanced in part by a broadening of the assessment bases and, in addition, various revenue-boosting measures in the area of income-related taxes were adopted with the aim of budgetary consolidation.[8]

Fiscal drag raises tax ratio

Fiscal drag offsets much of income tax relief

With growing average income, the fixed nominal progressive income tax regime generates much higher additional revenue than a proportional tax regime. Consequently, over time, tax revenue tends to grow faster than GDP, thus also causing the tax ratio to rise. Over the course of the last ten years, this fiscal drag accumulated to a total of 1½ percentage points in 2007, the final year of the period under review, thereby neutralising a large part of the income tax relief described above. Measured on the basis of the rate of consumer price inflation, approximately two-thirds of fiscal drag was due to higher inflation ("cold progression") while one-third was attributable to real income growth.

Negative fiscal drag of volume-based consumption taxes

Additional revenue ensuing from income tax progression was accompanied by a negative fiscal drag of approximately ½ percentage point in the case of consumption taxes. This little heeded effect results from the fact that excise duties are mainly charged based on volume. For example, energy tax on petrol is charged at a fixed amount per litre that remains constant in the face of general price increases. The revenue generated from this tax loses real value over time and the ratio of consumption-related taxes to GDP declines.

Shifts in GDP structure lower tax ratio

Lower tax ratio owing to changed GDP structure unsuitable indicator of change in tax burden

In addition to changes in tax legislation and fiscal drag, shifts in the relationship between higher tax-yielding and lower tax-yielding GDP components can automatically change the tax ratio. Such shifts have lowered the tax ratio by ½ percentage point in the last ten years. When interpreting this development, however, it should be noted that it does not reflect changes in the tax and social contributions burden for individual factors and thus does not reflect tax relief.

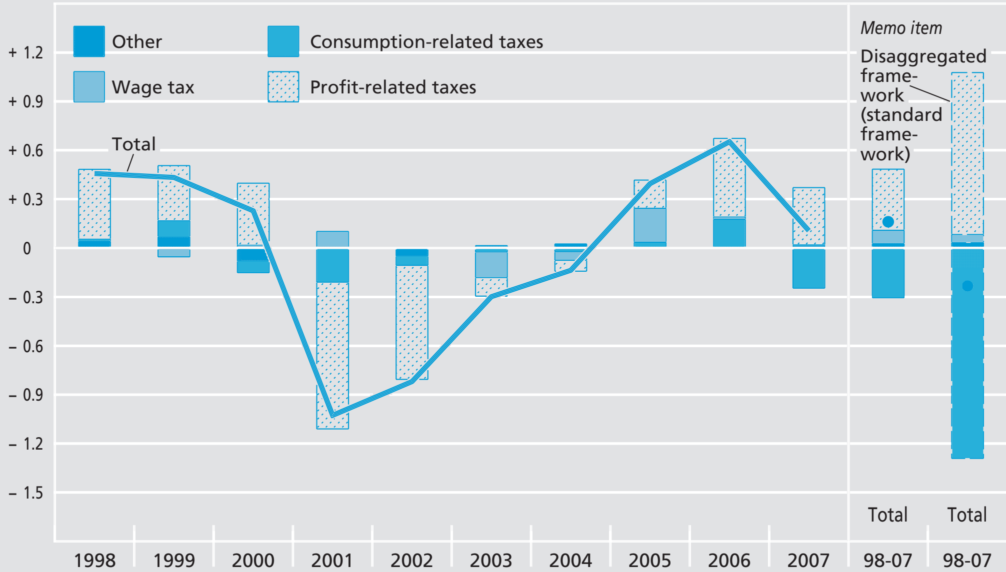
Negative impact on consumption-related and wage-related taxes

The assessment bases for consumption-related taxes in particular developed at a much slower pace than nominal GDP, even after the negative fiscal drag described above has been factored out of the calculations. The rises in tax rates had a major part to play in this as they entailed a nominal increase in consumption and GDP (at market prices) but not in the assessment bases (before taxes). This structural effect was particularly pronounced in 2007 owing to the hike in the standard rate of VAT. Furthermore, entrepreneurial and property income grew at a faster pace than gross wages and salaries, which shifted the relative weight from wage tax to profit-related taxes.

8 Although the 2000 reforms and also the 2008 business tax reform were broadly acclaimed for the fact that the lower tax rates would improve conditions for investment in Germany, they were also criticised on the grounds of systemic incoherence as inter alia they intensify the distortion of enterprises' choice of form of financing and legal form: see, for example, the German Council of Economic Experts (2008 and 2008), 2000/01 and 2007/08 Annual Reports as well as the Deutsche Bundesbank's comments on the withholding tax presented to the Deutsche Bundestag's finance committee, 20 April 2007.

Development of tax revenue not explained by the revenue models *

As a percentage of GDP



Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. — * This chart shows the unexplained components of revenue models, which are more detailed than the models on which the disaggregated framework is based (see box on pp 38-39).

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Other factors with a significant impact

Residuals fairly small overall but sizeable in individual years

As a whole, tax developments over the last ten years can largely be explained by the factors mentioned above. However, in individual years there were sizeable developments that could not be explained using the disaggregated framework (residuals). Profit-related taxes, in particular, recorded an unexplained high volatility, leading to large net additional revenue. By contrast, consumption taxes grew far more slowly over time than was envisaged in the standard framework.

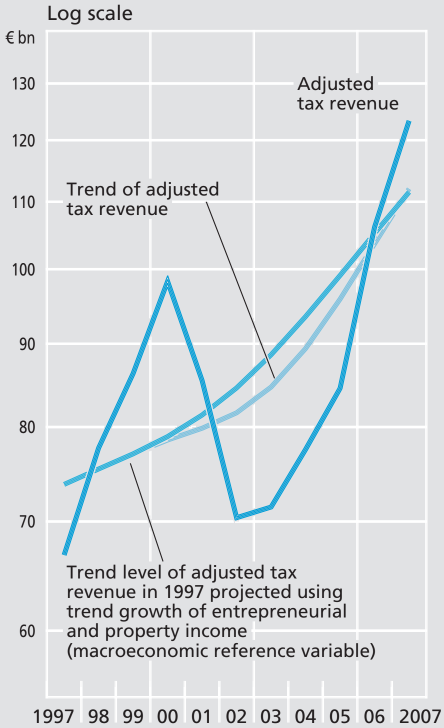
More detailed analysis provides some explanation ...

As the disaggregated framework determines "normal" revenue development using some key macroeconomic reference variables, the residuals can, in part, be explained using more detailed revenue models (see chart on this page and the box on pages 38 and 39). For example, the development of consumption-related taxes can be captured much more accurately if the clearly shrinking proportion of the more highly taxed components of private consumption are taken into account in the case of turnover tax or energy tax and tobacco tax. Nevertheless, this still leaves some noticeable discrepancies in individual years. For turnover tax, these could be partly due to changes in the extent of tax fraud or tax shortfalls owing to insolvencies.

... but profit-related taxes still erratic

The residuals for profit-related taxes are particularly large and erratic. In some years, revenue swings amounting up to 1% of GDP (€24 billion in 2007) could not be explained using the more detailed approach either. This is probably due *inter alia* to the specific prob-

Profit-related taxes and their macroeconomic reference variable*



Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. — * Revenue was adjusted by factoring out the standard cyclical component (using the Bundesbank's procedure) and the impact of legislative changes as these factors explain a certain part of revenue volatility. The trends of adjusted tax revenue and of entrepreneurial and property income were estimated using the Hodrick-Prescott filter (smoothing parameter λ=30). At the current end, they are also dependent on projections (here: official tax estimate and central government's spring 2008 macroeconomic projection.

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lems of estimating the effects of legislative changes in this area of revenue. Furthermore, the cyclical pattern suggests that the impact of the changing level of macroeconomic activity on revenue is underestimated in the underlying models. Thus large positive residuals were recorded for the "better" years between 1998 and 2000 as well as 2006 and 2007, and sizeable negative residuals for 2001 and 2002. This may well owe something to the fact that the actual assessment bases for profit-related taxes are more volatile than the proxy entrepreneurial and property income shown in the national accounts, which is used as the macroeconomic reference variable in the disaggregated framework. Moreover, changes in the relative amounts of advance and back payments of tax are likely to have magnified the cyclical revenue fluctuations. As regards the level, there are currently some grounds for supposing that, at the end of the period under review, revenue from profit-related taxes exceeded its medium-term trend and that a high setback potential exists (see chart on this page).

Outlook fraught with uncertainty

Constant tax ratio estimated given legal status quo ...

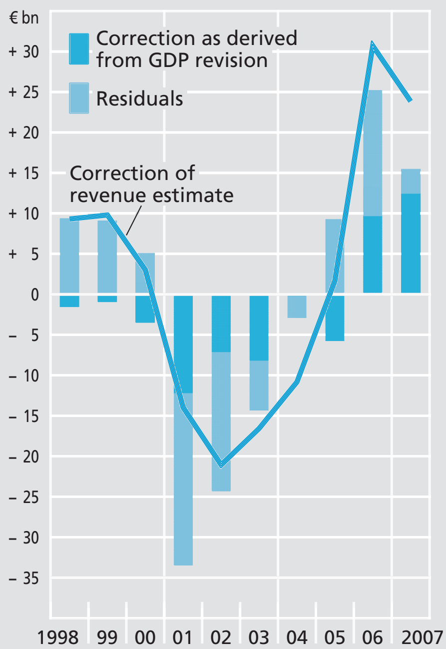
According to the latest official tax estimate in May 2008, the tax ratio is expected to remain broadly unchanged until 2012.[9] Proceeds from income-related taxes will increase more rapidly than GDP on balance, with a relatively weak rise in profit-related taxes (as a counterswing to the previous dynamic growth) likely to be offset by additional revenue owing to fiscal drag. The ratio of consumption-related taxes, by contrast, is expected to fall, predominantly because the assessment bases will probably continue to grow more slowly than GDP.

9 The recalibration from the definition used in the government's financial statistics to that in the national accounts, which is the underlying definition here, is based on Bundesbank calculations.

... but lower revenue likely

On the whole, tax revenue has grown at a faster pace than expected so far this year.[10] However, forecasts for the forthcoming period are subject to considerable uncertainty, in particular regarding the macroeconomic outlook, the implications of the financial crisis and the level of revenue from profit-related taxes, which is currently very high and is prone to fluctuate greatly. Furthermore, various tax cuts are in the offing. For example, in addition to the planned increase in the tax allowance for children, the basic allowance may also be increased owing to the recalculation of the minimum subsistence level. Furthermore, the income tax allowance for contributions to private health and long-term care insurance schemes has to be raised from 2010 at the latest following a ruling of the Federal Constitutional Court. Depending on the precise form that this will take and, above all, on whether this will also apply to persons insured in the corresponding statutory schemes, this could mean substantial tax revenue shortfalls. Overall, these factors are likely to notably dent tax receipts vis-à-vis the forecast on which the current medium-term financial plan is based.

The role of macro revisions and residuals in correcting the revenue estimate*



Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. — * This chart shows the estimate corrections for the tax revenue cash flows of central, state and local government that were made to the official tax estimate from November of the respective previous year. The corrections as derived from the GDP revision are calculated as the difference in the revenue level, as projected using the previous year's revenue level and the GDP growth rate, from the perspective of both the following year and the time of estimation. The residuals are the unexplained components of revenue models, which are more detailed than the models on which the disaggregated framework is based (see box on pp 38-39).

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Some aspects of the current tax policy debate

Need to factor tax forecast uncertainties into budgetary rules

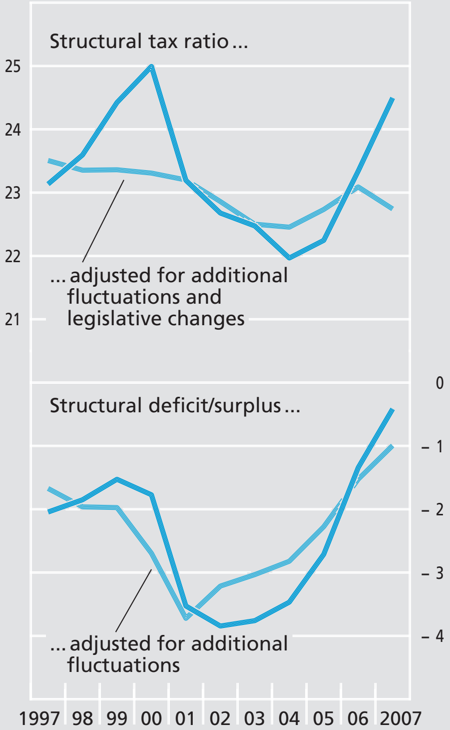
Volatile development makes tax forecasting very hard

Tax forecasts – such as the regular official tax estimate but also other projections – are sometimes subject to considerable revision. For instance, tax revenue cash flows in 2002 (as defined in the government's financial statistics) were €21 billion lower than expected in the official tax estimate from November 2001, while revenue in 2007 exceeded the previous year's forecast by €24 billion (see chart). One reason why tax forecasts have to be revised is because the macroeconomic reference variables were estimated incorrectly.

10 See Deutsche Bundesbank, Public finances, Monthly Report, August 2008, pp 57-67.

Tax revenue and structural government deficit/surplus*

As a percentage of trend GDP



Sources: Federal Statistical Office, Federal Ministry of Finance and Bundesbank calculations. — * To calculate the structural values, special temporary effects and the cyclical components determined using the Bundesbank's standard cyclical adjustment procedure were factored out. The additional fluctuations were determined using the residuals from the disaggregated framework for profit-related taxes. See also box on pp 38-39. With regard to legislative changes, the impact in the base year 1997 was set to zero. The GDP trend was estimated using the Hodrick-Prescott filter (smoothing parameter λ=30).

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For example, the course of macroeconomic development was weaker than forecast during the period from 2001 to 2004, in particular, but then surpassed the expectations in 2006 and 2007. A major role is played, too, by factors which are reflected in the residuals in the disaggregated framework described above and which are generally very hard to predict. A factor which regularly poses major headaches in this context is the strong volatility of profit-related taxes, which can only be partly explained using the customary estimation models and accounts for a remarkably large proportion of the estimation errors of the past few years, especially given this item's relatively small share of overall revenue. But corrections may also be caused by incorrect estimates of the effects of legislative changes, which are often difficult to quantify even *ex post* and are then reflected as residuals in the disaggregated framework.

Short and medium-term budget planning hampered

Forecasting uncertainty, which at times is considerable, hampers central and state government's budgetary and medium-term financial planning and its attempts to meet the set targets. For example, if there is an insufficient margin of safety below the deficit ceilings, unexpected tax shortfalls may necessitate extensive fiscal policy corrections at short notice. One particularly problematic aspect is that it is often difficult to judge at that moment whether deviations from the estimates are cyclical developments or whether a structural reassessment of the budgetary situation is necessary. For example, only a minimal proportion of the sharp and unexpected movements in profit-related taxes can be attributed to fluctuations in the commonly used macroeconomic reference variables (or even GDP). The standard cyclical adjustment procedures therefore only attribute a very small part of them to the cyclical component of the fiscal balance. The tax ratio adjusted for legislative changes and standard cyclical effects is still very volatile (and, in addition, tends to demonstrate a cyclical pattern). An additional adjustment for fluctuations not captured in the standard cyclical component to take account of the volatility of profit-related taxes appears to track the actual development more accurately (see chart on page 46).[11] This extra adjustment markedly alters the picture of the budgetary stance in individual years.

Strict budgetary rules need cushion to absorb "genuine" estimation errors

The estimation uncertainties described above are also relevant for the current discussions about stricter national budgetary rules.[12] If deficit limits are strictly defined, extensive revisions of the forecasts sometimes necessitate abrupt correction measures which impede the attempt to pursue a medium-term fiscal policy. However, this is no reason to dispense with strict rules. Instead, the likelihood of revisions can be reflected in the rules by stipulating that targets which are missed as a result of general, unexpected revenue developments have to be corrected only over the medium term. As forecasts often tend to overestimate tax revenue in economic downturns and to underestimate it in upturns, such leeway to adjust the budget plans (and the target deficit/surplus) to the forecast errors over a longer period of time could also considerably strengthen the stabilising function of public finances over the economic cycle. To prevent the in-built leeway from being abused for deliberate mistargeting, debt resulting from revisions to forecasts would have to be generally restricted and limited to "genuine" estimation errors. There should be institutional safeguards to ensure as far as possible that the relevant estimates are unbiased, ie that they are not regularly overoptimistic. The same applies to approaches to assessing the financial impact of legislative changes. Nevertheless, some estimation errors will remain unavoidable. However, a rule-based approach to dealing with the resulting deficits could limit the short-term and procyclical adjustment measures that are sometimes needed – including under current budget legislation.[13]

Reducing individual tax allowances

Curbing tax subsidies is important ...

From a macroeconomic perspective, low tax rates coupled with limited special tax allowances generally appears to be the optimal tax regime as this makes the tax system more transparent and simple and reduces the risk of misallocation. A moderate and transparent taxation system would increase public acceptance and dampen the incentive to evade or avoid paying tax. Adherence to coherent systemic principles and a transparent tax system could also facilitate public comprehension and discussion of changes to tax law and discourage the privileging of individual vested interests. This objective could be bolstered by a shift away from tax subsidies towards granting financial assistance on the expenditure side. In addition, it is crucial, however, to evaluate whether subsidies (whether granted in the form of tax relief or financial assistance) actually serve the public interest and, if not,

11 As with every trend adjustment procedure, caution should be exercised when interpreting the trend level results, especially at the current end.
12 A revision of the national budgetary rules is currently being considered by the Federalism Reform Commission II. For information on the Federal Finance Ministry's proposal, see C Kastrop and M Snelting (2008), Das Modell des Bundesfinanzministeriums für eine neue Schuldenregel, in: Wirtschaftsdienst, Vol 6, p 375 ff. For an overview of the discussion, see Deutsche Bundesbank, Reform of German budgetary rules, Monthly Report, October 2007, pp 47-68.
13 For more information on this issue, see J Kremer and D Stegarescu (2008), Eine strenge und mittelfristig stabilisierende Haushaltsregel, in: Wirtschaftsdienst, Vol 3, p 181 ff.

Tax benefits according to the modified definition from the Kiel Subsidy Report *

in € bn

Item	2003	2007	2008	2003 to 2007 [1]	2003 to 2008 [1]
Total	54.0	53.4	50.4	– 0.6	– 3.6
Memo item: included in addition to the Kiel report	2.2	1.5	1.6	– 0.7	– 0.6
***Of which:* quantitatively most important tax regulations**	50.5	50.2	47.6	– 0.3	– 2.9
Turnover tax relief and exemptions [2]	11.5	15.0	15.1	3.5	3.5
of which: tax benefits according to government report	2.3	3.0	3.0	0.6	0.6
Tax benefits relating to energy taxes	7.0	8.0	7.8	1.0	0.8
Grant to homeowners	10.5	8.0	6.7	– 2.5	– 3.9
Income tax relief for certain household services	0.0	3.3	3.3	3.3	3.3
Special expenditure allowance for church tax [2]	3.6	3.0	3.1	– 0.6	– 0.6
Tax allowance for part-time trainers etc [2]	2.0	2.0	2.0	0.0	0.0
Tax exemption of certain supplements paid for working on Sundays, public holidays and at night	1.9	1.9	2.0	0.0	0.1
Commuting allowance [2]	5.8	2.8	1.6	– 3.0	– 4.2
Tax allowances to promote charitable, religious and non-profit activities as well as political parties [2]	1.2	1.4	1.3	0.2	0.2
Savers' tax-free allowance	2.2	1.0	1.1	– 1.1	– 1.1
Flat-rate wage tax for certain insurance contributions [2]	1.0	0.9	0.8	– 0.1	– 0.2
Halving of tax rate for corporate capital gains [2]	0.8	0.7	0.7	– 0.1	– 0.1
Grant to investors	1.9	0.7	0.6	– 1.3	– 1.4
Promotion of supplementary private pension plans	0.0	0.5	0.6	0.5	0.6
2007 rate allowance for business earnings	0.0	0.5	0.5	0.5	0.5
Series with data problems (not reported for all years)	1.0	0.5	0.5	– 0.5	– 0.5
Temporary measures [3]	.	.	8.4	.	.
Grant to homeowners	.	.	6.7	.	.
Tax allowances for biofuels	.	.	0.7	.	.
Grant to investors	.	.	0.6	.	.
2007 rate allowance for business earnings	.	.	0.5	.	.

Sources: A Boss and A Rosenschon, Der Kieler Subventionsbericht: eine Aktualisierung, Kiel Discussion Papers No 452/453, May 2008; Federal Ministry of Finance, 21st Subsidy Report, September 2007, Bundesbank calculations. — * Explanatory notes on the table: it is very hard to detail the tax revenue shortfalls that are likely to result from special tax benefits as there is much controversy as to how these items should be defined and there are widely varying views on issues such as the allowance-free reference system. In addition, the financial implications mostly have to be estimated. Furthermore, with regard to the general trend, in particular, it should be noted that the volume of tax benefits can change not only due to fiscal policies but also, for instance, due to changing take-up patterns. The definition from the Kiel Subsidy Report has mainly been applied here. Overall, this definition is broader than the definition of subsidies used by central government as it includes most tax subsidies defined in the government report (appendix 2 of the government report) as well as a number of additional tax regulations that are quantitatively important (predominantly those from appendix 3 of the government report). However, the definition from the Kiel report was modified to include the tax shortfalls resulting from the savers' allowance and supplementary private pension plans as defined in appendix 2 of the government report. Consequently, the volume given here is comparatively high, although it would be possible to define subsidies even more broadly. However, the definition selected here does not purport to make a clear-cut demarcation but rather to give a relatively comprehensive representation on the basis of information that is generally available. In particular, major controversial tax regulations are shown separately. — **1** Difference between the years stated. — **2** Included either mainly in appendix 3 of the government report or not at all. — **3** Based on the government report. Additional temporary tax regulations with a small financial volume and the non-specified impact relating to section 10 (4a) of the Income Tax Act (in conjunction with the special expenditure allowance for pension contributions) have been omitted.

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to abolish them. As experience has shown that cutting existing subsidies is an uphill struggle, it is particularly important that a transparent and efficient subsidy policy be underpinned by a regular and clear reporting system, including verifiable statements regarding the respective targets, and greater recourse to duration limits.[14]

... but clearly difficult

The volume of tax subsidies is measured differently by different approaches. According to a definition based on the Kiel Subsidy Report (and therefore, in particular, in line with the government's financial statistics), individual tax allowances currently cause tax shortfalls of approximately €50 billion or 8½% of revenue (see table on page 48). Although in the legal *status quo*, the gap will narrow somewhat in the coming years, the shortfalls will remain large. However, it is difficult to comprehensively cut subsidies, as has been seen in the last few years. In their "Joint Initiative to Reduce Subsidies by Consensus" in 2003, Roland Koch, prime minister of Hesse and a member of the Christian Democratic Union, and Peer Steinbrück, prime minister of North Rhine-Westphalia and a member of the Social Democratic Party, managed to agree on a reduction for only around 47% of the total volume of tax allowances of €83½ billion that they had identified in 2002.[15] In the period that followed, many of the identified allowances were indeed abolished or curbed in a cross-party consensus. However, subsidies were greatly expanded at the same time, especially in the form of income tax deductions for certain household services (eg home improvements) and tax allowances for donations and non-profit-making activities. Regular discussions about reducing or expanding tax relief measures for turnover tax and the current debate as to whether to re-expand the commuting allowance, which has only recently been restricted, also highlight the difficulties involved. Nevertheless, it is important and, given the associated distortions and in some cases large tax shortfalls, also worthwhile to continue pursuing the objective of cutting subsidies. When considering the cost of tax benefits, the lack of systemic transparency and the higher general tax and social contribution burden which they cause should likewise be borne in mind.

Limiting fiscal drag

Fiscal drag automatically increases tax burden

The primary aim of the progressive income tax regime is to ensure that higher-earning tax payers make an above-average contribution to tax revenue. Given steady general income growth, however, it leads to a continuously rising burden for all income tax brackets and to rising marginal tax burdens up to the top rate of taxation. The automatic step-up into higher tax bands caused by the growth in nominal income is especially problematic if nominal income growth is not matched by a corresponding improvement in tax payers' financial means measured in terms of real income (cold progression).

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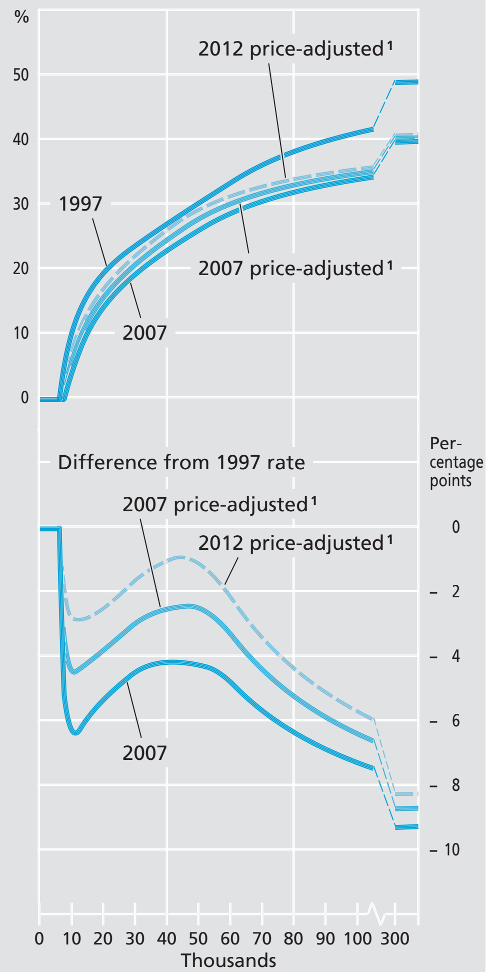
14 See the Federal Court of Auditors' press release from 15 April 2008, "Bundesrechnungshof kritisiert unzureichende Informationen über Steuersubventionen".
15 See R Koch and P Steinbrück (2003), Subventionsabbau im Konsens. The larger size of the allowances identified in 2002 is attributable predominantly to the inclusion of depreciation allowances that have since been abolished (+€10½ billion), tax allowances for contributions to pension insurance (+€15 billion) and the flat-rate allowance for employees' expenses (+€3½ billion).

Average income tax rates*



* Unmarried tax payers. — 1 Income adjusted using the private consumption deflator. Central government's spring 2008 forecast has been used for the period from 2008 to 2012.

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Additional revenue from fiscal drag up to 2012 already earmarked

As the analysis of revenue growth has shown, fiscal drag owing to the effects of tax progression has continuously caused additional income tax burdens in Germany. For example, in the period between 1997 and 2007, this pushed up the tax ratio by 1½ percentage points (or €34 billion in 2007), and the ratio could rise further by around 1 percentage point (or in a magnitude of €20 billion with regard to 2007) by 2012. The resulting additional revenue has already been earmarked to help achieve the government's aim of a broadly balanced Federal budget, also in structural terms, in the last medium-term financial plan.

Inflation-induced fiscal drag qualifies rate cuts

In the past, the government has responded to these automatic tax increases at infrequent intervals with tax rate reforms which again reduced the income tax burden, at least temporarily. For example, the reform adopted in 2000 cut income tax rates substantially, and the current rates are significantly lower than those in 1997, the start of the period under review. However, this relief is largely neutralised alone by the effect of cold progression. When comparing real tax rates for 1997 and 2007 (see adjacent chart), it can be seen that the average real burden has, in part, again drawn closer to the 1997 figures and will edge even closer by 2012 assuming consumer prices rise as forecast in the medium-term financial plan; and this comparison still takes no account of the average additional burden owing to general growth in real incomes.

Fiscal drag requires regular review of burden

The automatic increase in the income tax burden owing to fiscal drag will thus continue in the future to necessitate a regular review of income tax rates and of the nominal deduction amounts. There have also been some calls to at least adjust tax rates to price developments so as to prevent cold progression from arising in the first place or at least to mitigate its effects. While fiscal drag would still occur, it would be restricted to cases where tax payers' financial means, measured in terms of average real income, increase.

However, from a stability policy perspective, there are serious reservations concerning all types of price indexation as its widespread use harbours the risk of high inflation rates becoming tolerated and entrenched. Should a rule-based antidote to cold progression be considered, then stability-oriented principles would have to be adhered to. Therefore, the relevant nominal values should be adjusted only within bounds compatible with price stability, for instance using a constant annual rate. The strengthening of the automatic stabilisation function that is part of the progressive income tax system would be broadly maintained.

Reorganising the method of financing the social security funds

Efficiency effect limited if burden is merely shifted

There are occasional calls to switch the basis of financing the expenditure of the social security funds more to general tax revenue on the grounds that this would make the tax and social contributions system more efficient overall and more conducive to growth. However, it should be remembered that freeing labour from social contributions by raising taxes would cause distortions elsewhere and, on balance, these may not be any lower. In the frequently discussed theoretical case of a rise in a general consumption tax with a simultaneous lowering of general levies on wages, the assessment base broadens – and the price effects, in particular, ensure that existing assets are also included in taxation. However, both types of taxes increase the tax wedge, ie the difference between real labour costs for employers and real net wages for employees. On the other hand, easing the burden primarily for employees and placing a relatively heavier burden on existing assets and pension claims should yield a more even intergenerational distribution of burdens resulting from government activities. With regard to the social systems in Germany, it should also be noted that social contributions are generally paid by regular employees subject to social contributions. The associated specific taxation of employees encourages evasive reactions by switching to other forms of employment (such as self-employment and low-paid part-time employment). While, on balance, the burden imposed by general consumption taxation would probably be distributed more evenly, more cautious expectations should be placed on the macroeconomic growth and employment effects of such a shift in the tax and social contributions system.[16]

Strengthening the equivalence principle increases transparency and precision of burden-sharing

A principled and coherent approach appears appropriate to deciding the fundamental issue of how to finance the expenditure of the social security funds. In such an approach, tax grants ought to be transferred to the social security funds to cover the volume of non-insurance-related benefits, while tasks involving general income redistribution should be financed from taxes.[17] Strengthening the equivalence between social contributions and the corresponding benefits for the contributor would improve the transparency of government payments and ensure that general government activities are financed appropri-

16 See, for example, European Commission (2008), op cit, p 169 ff.
17 See, for example, Deutsche Bundesbank, Outlook for Germany's statutory pension insurance scheme, Monthly Report, April 2008, pp 51-72.

ately, ie not just by employees subject to social contributions but by the broader group of all tax payers. If such government activities and the associated expenditure or tax grants were clearly reported, this would also make it much easier to regularly review their necessity and facilitate the associated fiscal policy discussions. Furthermore, it would make it far harder to shift tasks and burdens back and forth in an opaque and unsystematic manner, as has been the case in the past. At the same time, contributions would be perceived less as a tax and more as the price to be paid for purchasing (insurance) benefits, and the distortions of the present tax and social contributions system could diminish overall.

Concluding remarks

Uncertainty about structural revenue development ...

In the last two years, tax revenue developed extremely dynamically. This is due in no small measure to the revenue-boosting measures that were resolved in the context of a tight budgetary situation. In addition, proceeds from profit-related taxes soared, irrespective of legislative changes, and by far exceeded the estimates. Although this was, in part, a counterswing from the sluggish revenue dynamics after 2001, this revenue is now likely to be above the medium-term trend level.

... requires careful planning

The sharp growth in revenue, the achievement last year of a close-to-balance general government budget and the macroeconomic slowdown – owing in part to the crisis on the financial markets – have triggered a public debate about tax cuts. Curbing the tax burden and ensuring an efficient tax and social contributions system are indeed key components of an institutional economic environment that is conducive to growth. However, given considerable uncertainty regarding the structural revenue level and foreseeable budgetary strains, a prudent approach that is consistent with the aim of achieving structurally balanced budgets appears appropriate.

Balanced budget defines bounds of expenditure and revenue

It is important to bear in mind that, in the end, expenditure has to be covered by revenue and that, ultimately, borrowing simply shifts the burden along the time axis – to the detriment of future generations. Thus, cuts in taxes and social contributions require sound counterfinancing. A key objective as part of the second stage of the federalism reform II is therefore the tightening of the budgetary rules so as to take better account of this underlying relationship. In view of the partly erratic evolution of tax revenue, it is important to systematically incorporate the associated forecasting uncertainties in the new budgetary rules. This could also better accommodate the stabilising function of government budgets over the economic cycle.

Avoid further fragmentation of the tax system

In general, policymakers should avoid pursuing a short-term fiscal policy oriented to the cash balance situation and should aim at making structural improvements in the field of tax policy. While the marked lowering of tax rates since 2001 has improved the underlying economic conditions, no progress has been made, for example, towards greater financing neutrality in the area of business taxation, and the transparency of the tax system has not improved on the whole. Furthermore, the tax burden is automatically increasing owing to income tax progression. Therefore, and also because international competition for tax bases is likely to continue, fundamental reforms will remain on the political agenda. These could include lower tax rates and a curbing of special tax provisions, a coherent tax system as well as a transparent financing of non-insurance-related benefits currently provided by the social security funds.

Annex

Major tax policy measures since the end of 2002[18]

Second Act Promoting Modern Labour Market Services (*Zweites Gesetz für moderne Dienstleistungen am Arbeitsmarkt*) (23 December 2002)

This Act revised the terms and conditions for low-paid part-time workers ("mini-jobs") as of 2003. It introduced uniform flat-rate tax and social security levies (flat-rate tax of 2% and flat-rate social security contributions) for employees with a monthly salary of no more than €400. It also implemented income tax relief for expenditure on employment and services in households.

Act Continuing the Ecological Tax Reform (*Gesetz zur Fortentwicklung der ökologischen Steuerreform*) (23 December 2002)

This Act raised the energy tax rates – above all on natural gas – and curtailed the benefits granted to the production and agricultural sectors as of 2003. The additional energy tax revenue generated through the "ecological tax reform" was earmarked to expand the Federal grants to the statutory pension insurance scheme.[19]

Act to Reduce Tax Privileges and Exemptions – the Tax Privilege Reduction Act (*Gesetz zum Abbau von Steuervergünstigungen und Ausnahmeregelungen – Steuervergünstigungsabbaugesetz*) (16 May 2003)

This Act involved, above all, a three-year moratorium (12 April 2003 to 31 December 2005) on offsetting any corporation tax credits originating from the imputation method applicable until 2000, as well as the abolition of the legal institution of the multiple-parent fiscal unit with retroactive effect from the beginning of 2003.

Second Act Amending Tax Provisions – the 2003 Tax Amendment Act (*Zweites Gesetz zur Änderung steuerlicher Vorschriften – Steueränderungsgesetz 2003*) (15 December 2003)

Among other things, this Act introduced measures to combat turnover tax fraud, to simplify the tax system and to reduce bureaucracy with effect from 2004 onwards.

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18 See also German Federal Ministry of Finance, Übersicht über die Steuerrechtsänderungen seit 1964 (available only in German), August 2007; for measures between 1997 and the end of 2002, see Deutsche Bundesbank, December 2002, op cit.
19 See also the box on p 41.

Act Implementing the Federal Government's Protocol Statement on the Mediation Committee's Recommendations for the Tax Privilege Reduction Act (*Gesetz zur Umsetzung der Protokollerklärung der Bundesregierung zur Vermittlungsempfehlung zum Steuervergünstigungsabbaugesetz*) (22 December 2003) and the Act Amending the Local Business Tax Act and Other Acts (*Gesetz zur Änderung des Gewerbesteuergesetzes und anderer Gesetze*) (23 December 2003)

These Acts introduced various measures with the intention, above all, of stabilising corporation tax revenue, in particular limiting the tax loss carry-forward facility to 60% of total income for losses in excess of €1 million and implementing adjustments with regard to shareholder loans with effect from 2004 onwards. They also implemented analogous modifications to local business tax and relief for local governments through a reduction in the share of local business tax transferred to central and state government.

Act to Promote Tax Honesty (*Gesetz zur Förderung der Steuerehrlichkeit*) (23 December 2003)

This Act provided an exemption from prosecution and fines for tax evasion between 1993 and the end of 2002 through submission of an income declaration and payment of a flat-rate levy of 25% up to the end of 2004 or 35% in the first quarter of 2005 (tax amnesty).[20]

Act Amending the Tobacco Tax Act and Other Excise Duty Acts (*Gesetz zur Änderung des Tabaksteuergesetzes und anderer Verbrauchsteuergesetze*) (23 December 2003)

This Act involved a three-stage increase in tobacco tax: in March 2004, December 2004 and September 2005 (for cigarettes, this meant an increase of around 1.2 cents per cigarette each time). The additional revenue was earmarked to finance the Federal grant to the statutory health insurance scheme which was paid for the first time in 2004.[21]

Act Accompanying the 2004 Budget (*Haushaltsbegleitgesetz 2004*) (29 December 2003)

This Act brought forward part of the third tax relief stage of the 2000 income tax reform from 2005 to 2004 (the bottom rate was cut from 19.9% to 16%, the top rate was cut from 48.5% to 45%, the basic tax allowance was raised and the upper proportional zone was lowered). The Act also introduced various measures to eliminate tax subsidies, to aid budget consolidation and to combat turnover tax fraud with effect from 2004 onwards (these included, in particular, a reduction in the grant to homebuyers, modifications to the depreciation rules for movable assets and a cut in the commuting allowance).

20 The estimated revenue from this measure was put at €5 billion in the draft legislation. In reality, however, only €1.4 billion was generated.
21 See also the box on p 41.

Act to Reform the Income Tax Treatment of Pension Expenditure and Income – the Retirement Income Act (*Gesetz zur Neuordnung der einkommensteuerrechtlichen Behandlung von Altersvorsorgeaufwendungen und Altersbezügen – Alterseinkünftegesetz*) (5 July 2004)

This Act implemented, above all, a gradual changeover to a downstream taxation of pensions. It was laid down that the taxable part of a pension would increase from 50% for current pensioners and those receiving a pension for the first time in 2005 to 100% for new pension recipients from 2040 onwards, while the share of tax-free pension contributions would be raised from the 2005 level of 60% to 100% by the year 2025.[22]

Act to Transpose EU Directives into National Tax Legislation and Amend Further Provisions – the Directives Transposition Act (*Gesetz zur Umsetzung von EU-Richtlinien in nationales Steuerrecht und zur Änderung weiterer Vorschriften – Richtlinien-Umsetzungsgesetz*) (9 December 2004)

This Act revised, above all, the special provisions for interdependent corporate groups with fiscal unity with effect from 2004 onwards (corporation tax treatment of overpayment or underpayment resulting outside the fiscal unit).

Act to Abolish the Grant to Homebuyers (*Gesetz zur Abschaffung der Eigenheimzulage*) (22 December 2005)

This Act abolished the grant to new homebuyers with effect from 2006 onwards.

Act to Limit Loss Offsetting in Connection with Tax Deferral Models (*Gesetz zur Beschränkung der Verlustverrechnung im Zusammenhang mit Steuerstundungsmodellen*) (22 December 2005)

This Act limited the offsetting of losses resulting from tax deferral models against positive income from the same source with retroactive effect from 11 November 2005.

Act to Initiate an Immediate Tax Action Programme (*Gesetz zum Einstieg in ein steuerliches Sofortprogramm*) (22 December 2005)

This Act implemented various measures to aid budget consolidation as of 2006 (in particular, the abolition of both the tax exemption for severance payments and the special allowance for private tax consultancy fees).

Act on the Tax Promotion of Growth and Employment (*Gesetz zur steuerlichen Förderung von Wachstum und Beschäftigung*) (26 April 2006)

This Act implemented various measures to promote economic growth from 2006 onwards: the declining-balance depreciation rate for movable assets was raised from 20% to 30% per year in 2006 and 2007, the income tax relief for expenditure on household services was extended (in particular to include the services of specific skilled trades) and actual taxation was expanded in the case of turnover tax.

22 For further details, see Deutsche Bundesbank, April 2008, op cit.

Act Accompanying the 2006 Budget (*Haushaltsbegleitgesetz 2006*) (29 June 2006)

This Act raised the standard rates of turnover tax and insurance tax by 3 percentage points to 19% as well as the lump-sum input tax for agriculture and forestry with effect from 2007 onwards. One-third of the additional revenue arising from the increase in turnover tax was earmarked (as part of a fundamental revision of the financial relations between central government and the Federal Employment Agency) to finance a rule-based Federal grant to the Federal Employment Agency.[23]

2005 Investment Grant Act (*Investitionszulagengesetz 2005*) (17 March 2004), 2007 Investment Grant Act (*Investitionszulagengesetz 2007*) (15 July 2006)

These Acts laid down that the assistance granted by the 1999 Investment Grant Act (*Investitionszulagengesetz 1999*) – which expired at the end of 2004 – would be continued up to the end of 2009, albeit with a reduced scope of assistance.[24]

2007 Tax Amendment Act (*Steueränderungsgesetz 2007*) (19 July 2006)

This Act implemented various measures to aid budget consolidation as of 2007. Above all, it laid down that the commuting allowance would be granted only from the 21st kilometre onwards (travel expenses for journeys between home and work would, in principle, no longer be deemed to be income-related expenses), the savers' tax allowance was cut (from €1,370 to €750 for unmarried persons), the maximum age of a child qualifying for child benefit was lowered and the rate of income tax for annual income in excess of €250,000 in the case of unmarried persons or €500,000 in the case of married persons was raised to 45% (excluding income from profits up to the end of 2007).

Act on the Creation of German Real Estate Investment Trusts with Listed Shares – the REIT Act (*Gesetz zur Schaffung deutscher Immobilien-Aktiengesellschaften mit börsennotierten Anteilen – REIT-Gesetz*) (28 May 2007)

This Act created a new instrument for indirect investment in real estate in the form of the German real estate investment trust (REIT), ie a special kind of listed public limited company, which fulfils certain conditions (especially with regard to the free float of the company's shares and minimum dividend payments) and is itself not subject to taxation. The Act promoted the sale of commercial real estate to REITs through exempting half of the sales proceeds from income tax for a limited period from 2007 to 2009.

2008 Business Tax Reform Act (*Unternehmensteuerreformgesetz 2008*) (14 August 2007)

This Act lowered tax rates for enterprises and was counterfinanced by various measures to broaden the tax assessment bases from 2008 onwards. The Act included the following.

- The corporation tax rate was cut by 10 percentage points to 15%.
- A retention reserve was introduced for non-corporations with a nominal tax rate of around 30%.

23 See also the box on p 41.
24 For the time being, assistance at reduced rates is scheduled to be continued until 2013.

- The factor for offsetting local business tax against income tax was increased to 3.8.

- Various revisions were implemented with regard to local business tax (in particular, the lowering of the basic tax rate to 3.5%, the abolition of the possibility of deducting local business tax as operational expenditure and the revision of the facility for deducting debt financing costs).

- Declining-balance depreciation for movable assets was abolished, the debt interest deductible was limited by means of an "interest deduction ceiling" and revised arrangements were implemented with regard to shell purchases, securities lending and the determination of intercompany transfer prices in the case of a relocation of functions.

This Act also introduced a withholding tax of 25% for private investment income (such as interest, dividend payments or capital gains from the sale of securities) from 2009 onwards, with an assessment option and a blanket deduction for income-related expenses (new savers' tax allowance of €801 for unmarried persons and €1,602 for married persons).

Act to Further Promote Civic Involvement (*Gesetz zur weiteren Stärkung des bürgerschaftlichen Engagements*) (10 October 2007)

This Act extended the tax promotion of donations and non-profit-making activities with retroactive effect from the beginning of 2007.