Tax Reform 1998/99: No Breakthrough in the Fight against Unemployment

Against the background of the all too apparent weakness of economic activity in Germany, both the federal government and the opposition are seeking a sweeping reform of income and corporation tax. The government takes the view that such a reform would bring about a lasting improvement in German competitiveness, strengthening corporate propensity to invest, improving the incentives to take up paid employment and reducing costs by simplifying the taxation system. Just as the United States sought to do in the mid-1980s, reform in Germany is to induce a growth boost that will increase tax receipts and minimise the fiscal risks involved. The prime concern of the opposition, on the other hand, is to bolster domestic demand as a means of fighting unemployment.

In January 1997 the taxation reform commission set up by the federal government proposed a drastic cut in income tax rates – particularly at the high-income end – with a gross impact on tax receipts of some DM 70 billion (cf. table 1). Together with the cut in the rates of corporation tax this would imply a cut in the tax burden of DM 82 billion, a reduction that is supposed to be partially offset by additional revenue from a broadening of the tax base (DM 38 billion) and increases in indirect taxes or value added tax (DM 15 billion). The net impact of the tax reform – i.e. excluding other public sector activities – is a planned reduction of DM 30 billion in the tax burden.

Table 1
Tax Reform 1999 and its Financial Effects Compared with 1999 Legislation
in DM millions

	Total
Income tax progression	–69 100
Corporation tax	–9 800
Capital earnings tax	–500
Interest earnings tax	–500
Solidarity supplement on income tax	–2 000
Gross reduction in tax burden	–81 900
Broadening of the tax base	38 008
Net reduction in tax burden (I – II)	–43 892

Sources: Federal Ministry of Finance; DIW calculations.

In this report we attempt to quantify the growth and employment effects of the tax reform with the help of an econometric model. The alternative modes of financing and the risks of the reform are presented, sketching out a possible framework for growth and employment. There are two versions of the calculations. In the first it is assumed that government finances in full the net reduction in the tax burden of DM 30 billion by increased borrowing. In a second scenario it is assumed that the government abides by its aim of meeting the Maastricht criteria to the letter, i.e. that losses of tax revenue are offset in full by spending cuts.

The calculations show that – as was the case in the USA in the mid-1980s – a positive growth effect can only be expected if a significantly higher budget deficit is accepted. The most favourable variant is one in which social insurance contributions are also cut. In contrast to widely held expectations, a tax reform without additional borrowing brings with it substantial risks for growth and employment.

Figure 1 shows the proposed income tax progression for 1998/99 for single persons – for married couples the income thresholds are doubled. The central features are as follows:

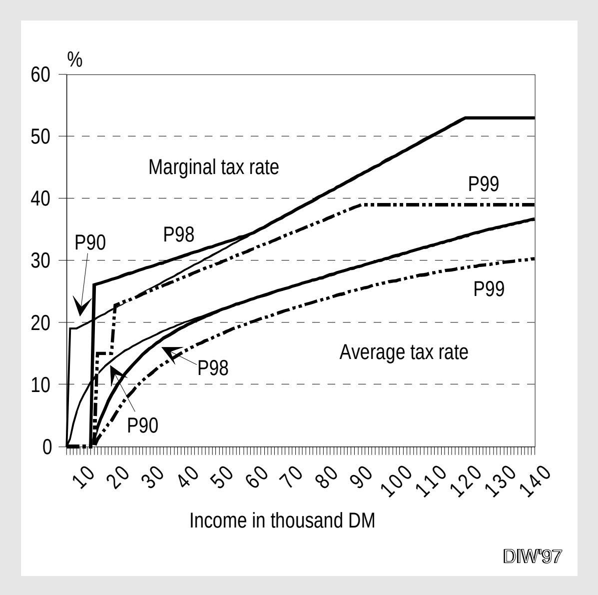
– a rate of 15% applies to income from DM 13 014 to DM 18 035 (instead of a linear-progressive rate rising from 26% to 26.9%);
– the progression zone encompasses incomes from DM 18 036 to DM 90 017 in which the marginal tax rate rises from 22.5% (instead of the previous marginal tax rate at this point of 26.9%) in linear-progressive fashion to the top rate of 39% (currently 53%);
– for taxable income in excess of DM 90 017 (currently DM 120 041), a top rate of 39% is imposed (compared with 53%); for income from business a reduced rate is to apply, as is currently the case. In future it is to be 35% (currently 47%).

As for corporation tax, it is planned to reduce the rate of tax on retained profits from its current level of 45% to 35%; for distributed profits a tax rate of 25% (currently 30%) is planned.[1] This maintains the government policy of reducing the tax burden on profits. Since the start of the 1980s taxes on profits as a proportion of gross income from entrepreneurial activity and property has declined virtually continuously. As can be seen from figure 2, the effective tax burden on firms has fallen during the last 17 years from around 37% to under 25%, i.e. by more than 10 percentage points. The tax burden on employees, on the other hand, has risen slightly from 14% to more than 15%, despite the income tax reforms of 1986, 1988, 1990 and 1996.

[1] The reduced rate of corporation tax is to be cut from 42% to 32%.

Figure 1

Income Tax Progression 1990,1998 and Proposed Progression for 1999



The 1999 income tax progression: substantially less progressive

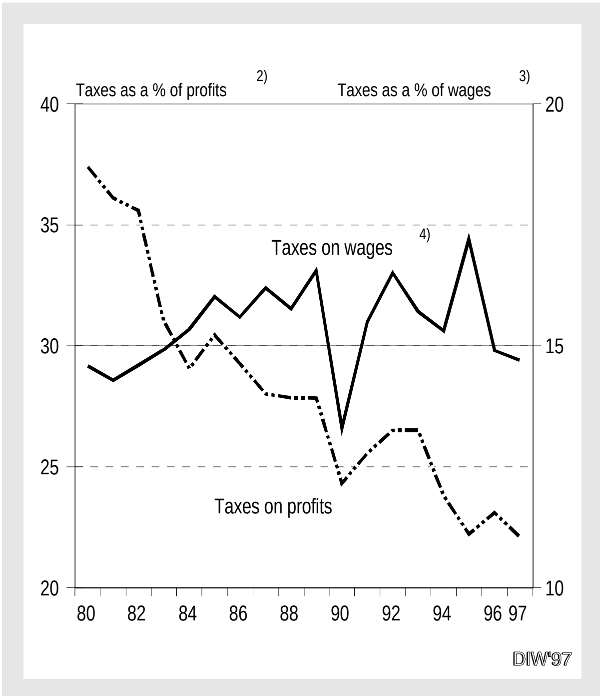
Under the planned income tax progression, the progressive tax on higher incomes would become far less significant. The top rate of tax is reduced by 14 percentage points, whereas the opening rate of tax is cut from 25.9% to just 15 or 22.5%. The proposals by the Tax Reform Commission involve only a slight increase in the level of subsistence income on which no tax is imposed, namely from DM 12 365 in 1998 to DM 13 067.

In terms of the overall coherence of the taxation system, the nature of the proposed progression must be questioned. This is true both of the introduction of a proportional tax rate for incomes between DM 13 068 and DM 18 035 and, more importantly, of the narrowing of the progressive zone. At the threshold between the proportional zone and the linear-progressive zone there is a problematic – in terms of incentives – leap in the marginal tax rate of 7½ percentage points to 22.5%. This means that the marginal tax rate for incomes between around DM 18 000 and around DM 30 000 is almost as high as in the progression applying in 1990 (cf. figure 1). It must be doubted, moreover, whether the progression is in accordance with the principle of taxation according to means. Under the tax reform the top rate of tax – 39% instead of 53% – will commence not at DM 120 042, but at DM 90 118. This means that a middle management tax payer would pay the same rate of tax on additional income as an income-millionaire.

The "tax-burden reduction curve" resulting from the 1999 progression takes the form of a U. The following comparisons initially take no account of the planned abolition of or reduction in tax allowances, i.e. the broadening of the tax base (cf. figures 2 and 3); the only reduction included in the comparison is the reduction in the employee lump-sum allowance from DM 2 000 to DM 1 300. This implies high percentage reductions in the tax burden in the lower and upper income brackets and relatively minor reductions on middle incomes (cf. figures 3 and 4). A single employee with an average gross annual income of around DM 52 600 would benefit under the proposed progression to the tune of around DM 1 600, paying 16.3% less than under the taxation legislation prevailing in 1998 (cf. table 2). The reduction is only slightly higher for a married, childless employee with the same average income (wage tax category III), at 17.7%. For an employee earning just two-thirds of the average, the reduction in tax burden amounts to 22.3% for singles and just under 27% for a married tax payer. For an employee earning four times the average income (DM 210 400), the relative reduction in the tax burden is, at 20.7% (single) and 20.2% (married) – already

Figure 2

The Incidence of Taxes on Profits and Wages

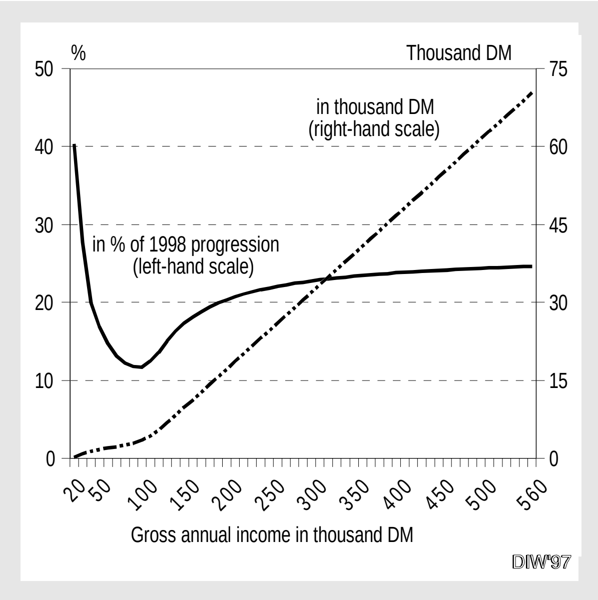


1) Taxes on profits: assessed income tax prior to deductions under § 46 of the income tax law, solidarity supplement (pro rata), non-assessed taxes on profits, tax on interest earnings, corporation tax, property tax and trade tax. Taxes on wages: wage tax after deductions under § 46 of the income tax law, solidarity supplement (pro rata). — 2) As a % of gross income from entrepreneurial activity and property. — 3) As a proportion of gross wages and salaries. — 4) From 1996 the % share is depressed by the reform of the child benefit system.

Figure 3

Gross Reduction in the Burden of Wage Tax in 1999

For a single wage-earner without children



1) Incl. solidarity supplement of 5.5%. Absolute and relative reduction in comparison with the 1998 income tax progression.

greater than for the average earner. For unmarried persons the absolute reduction in the tax burden (DM 17 689) is more than ten times that enjoyed by an average earner. The absolute and relative reduction continues to increase as income rises, reaching more than 25% and DM 135 300 for a gross annual income of DM 1 million.

In order partially to offset the reform of the tax progression, the tax reform commission has decided on a number of measures aimed at widening the tax base. In 1999 they are supposed to generate additional revenue amounting to DM 40 billion. In many respects the proposals made mark a step in the right direction towards a systematisation of the tax system. Taxation legislation is overburdened with myriad exceptions and allowances that render it impenetrable and offend against the principle of equality of taxation. Closer analysis of the reform proposal reveals, however, that only some of the tax concessions are to be abolished, while others are remain.

On balance middle incomes benefit least from tax reform

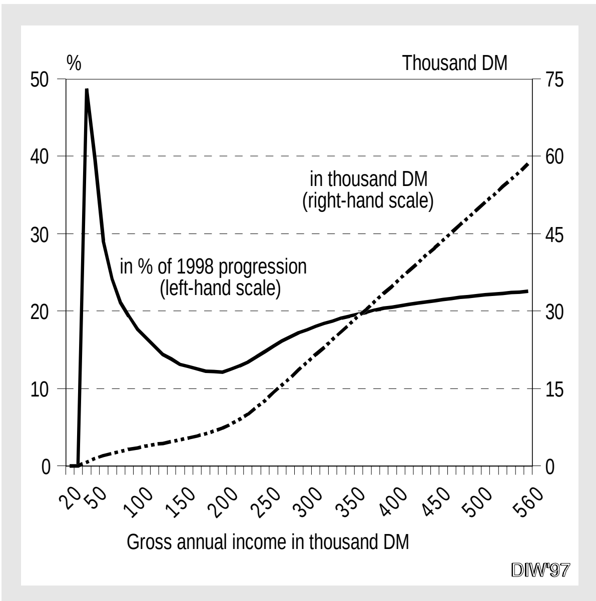
The decisive question for the individual tax payer is the effective net reduction in his or her tax burden generated by the reform. Due to the lack of data it is not possible to capture the impact of the broadening of the tax base in empirical fashion with the help of suitable models. What is possible is to gain an impression of the extent to which the outcome can vary by means of selected "tax-payer cases". Generally speaking, tax-payers whose tax base is broadened only slightly or not at all can expect the greatest net reductions in their tax burden. In terms of economic growth it is particularly significant that high-investment firms are particularly hard hit by the broadening of the tax base. Service companies, such as banks and insurance companies, with comparatively low investment can expect *ceteris paribus* greater tax cuts than firms in which investment accounts for a larger proportion of turnover. Thus the positive growth effects that may be associated with the change in the progression will be partially or completely offset by the effects resulting from the broadening of the tax base.

The net income tax cut can be seen for selected payers of income tax – under the assumption of a number of concrete measures to broaden the tax base – from table 3. In Variant I it is assumed that the tax payer has a journey of 50 km from home to work. Variant II applies to cases in which – in the lower income categories – the removal of tax exemption on bonuses for night and Sunday working and – in the upper income catego-

Figure 4

Gross Reduction in the Burden of Wage Tax in 1999

For a married wage-earner without children



1) Incl. solidarity supplement of 5.5%. Absolute and relative reduction in comparison with the 1998 income tax progression.

Table 2
Burden of Wage Tax under the 1998 Progression and the Government Proposal for 1999

Wage tax category	Gross annual income	1998 progression			Government Proposal for 1999			Reduction	
		Wage tax	Child benefit	Net wage tax	Wage tax	Child benefit	Net wage tax	Net wage tax	
	DM	DM	DM	DM	DM	DM	DM	DM	in %
					average income				
I	52 596	9 935	0	9 935	8 320	0	8 320	1 615	16.3
II/1	52 596	8 159	2 640	5 519	6 715	2 640	4 075	1 444	26.2
II/2	52 596	8 159	5 280	2 879	6 715	5 280	1 435	1 444	50.2
III/0	52 596	4 284	0	4 284	2 736	0	2 736	1 548	36.1
III/1	52 596	4 284	2 640	1 644	2 736	2 640	96	1 548	94.2
III/2	52 596	4 284	5 280	–996	2 736	5 280	–2 544	1 548	155.4
III/3	52 596	4 284	8 880	–4 596	2 736	8 880	–6 144	1 548	33.7
					two-thirds of average income				
I	35 644	4 685	0	4 685	3 642	0	3 642	1 043	22.3
II/1	35 644	3 084	2 640	444	2 259	2 640	–381	825	185.8
II/2	35 644	3 084	5 280	–2 196	2 259	5 280	–3 021	825	37.6
III/0	35 644	420	0	420	162	0	162	258	61.4
III/1	35 644	420	2 640	–2 220	162	2 640	–2 478	258	11.6
III/2	35 644	420	5 280	–4 860	162	5 280	–5 118	258	5.3
III/3	35 644	420	8 880	–8 460	162	8 880	–8 718	258	3.0
					double average income				
I	105 192	30 363	0	30 363	26 740	0	26 740	3 623	11.9
II/1	105 192	24 755	0	24 755	21 863	0	21 863	2 892	11.7
II/2	105 192	21 865	0	21 865	19 264	0	19 264	2 601	11.9
III/0	105 192	20 498	0	20 498	17 018	0	17 018	3 480	17.0
III/1	105 192	20 498	2 640	17 858	17 018	2 640	14 378	3 480	19.5
III/2	105 192	20 498	5 280	15 218	17 018	5 280	11 738	3 480	22.9
III/3	105 192	20 498	8 880	11 618	17 018	8 880	8 138	3 480	30.0
					three times average income				
I	157 788	57 578	0	57 578	47 253	0	47 253	10 325	17.9
II/1	157 788	50 938	0	50 938	42 367	0	42 367	8 571	16.8
II/2	157 788	47 275	0	47 275	39 671	0	39 671	7 604	16.1
III/0	157 788	39 038	0	39 038	34 044	0	34 044	4 994	12.8
III/1	157 788	36 382	0	36 382	34 044	2 640	31 404	4 978	13.7
III/2	157 788	33 758	0	33 758	34 044	5 280	28 764	4 994	14.8
III/3	157 788	39 038	8 880	30 158	34 044	8 880	25 164	4 994	16.6
					four times average income				
I	210 384	85 454	0	85 454	67 765	0	67 765	17 689	20.7
II/1	210 384	81 454	2 640	78 814	65 519	2 640	62 879	15 935	20.2
II/2	210 384	80 431	5 280	75 151	65 464	5 280	60 184	14 967	19.9
III/0	210 384	61 636	0	61 636	53 986	0	53 986	7 650	12.4
III/1	210 384	58 426	0	58 426	51 290	0	51 290	7 136	12.2
III/2	210 384	55 290	0	55 290	48 596	0	48 596	6 694	12.1
III/3	210 384	52 224	0	52 224	53 986	8 880	45 106	7 118	13.6

1) Allowing for tax allowances for children if this is more favourable than child benefit, i. e. in such cases child benefit is set at zero. — 2) Wage tax minus child benefit.
Source: DIW calculations.

ries – the halving of the tax allowance for savers take effect, i.e. taxable income is DM 3 000 higher than previously. In Variant III net reductions in the tax burden are calculated under the assumption that the conditions prevailing in both Variants I and II apply. In Variant IV it is assumed that, in addition to the conditions prevailing

Table 3

The Level of Income Tax in 1999 for Selected Cases

Decrease in tax burden (+); increase in tax burden (–)

	Gross annual income	Taxable income	Impact of progression				Broadening of the tax base: Variant I 50 km distance between work and home			Variant II Bonus payments or reduction in tax-free allowance for savers			Variant III = Variant I + II Distance to work plus bonuses			Variant IV = Variant III plus tighter conditions on housing depreciation allowance for higher incomes		
			Tax 98	Tax 99	Increase/ decrease in tax burden		Tax 98	Tax 99	Increase/ decrease in tax burden	Tax 98	Tax 99	Increase/ decrease in tax burden	Tax 98	Tax 99	Increase/ decrease in tax burden	Tax 98	Tax 99	Increase/ decrease in tax burden
	DM					%	DM			DM			DM			DM		
Tax category I (single)																		
Salesperson	29 000	22 032	2 746	1 936	+810	29.5	1 107	1 182	–75	1 873	2 700	–827	267	1 923	–1 656	–	–	–
Nurse	45 000	39 004	7 973	6 517	+1 456	18.3	6 147	5 636	+511	7 001	7 389	–388	5 225	6 486	–1 261	–	–	–
Office worker	50 000	44 004	9 609	7 986	+1 623	16.9	7 746	7 069	+677	8 626	8 911	–285	6 778	7 971	–1 193	–	–	–
Blue-collar worker (auto industry)	65 000	59 004	14 842	12 791	+2 051	13.8	12 815	11 762	+1 053	13 773	13 825	–52	11 759	12 773	–1 014	–	–	–
High-level white-collar worker	90 000	84 004	24 932	22 002	+2 930	11.8	22 468	20 787	+1 681	23 629	23 219	+410	21 196	21 981	–785	5 225	16 271	–11 046
Head of department (chemical industry)	150 000	144 004	56 397	46 652	+9 745	17.3	53 227	45 386	+7 841	54 737	47 897	+6 840	51 536	46 631	+4 905	27 799	40 454	–12 655
Tax accountant	250 000	244 004	112 316	87 800	+24 516	21.8	109 147	86 535	+22 612	110 656	89 045	+21 611	107 456	87 779	+19 677	82 304	81 602	+702
Member of board (industry)	750 000	744 004	391 884	293 520	+98 364	25.1	387 687	291 521	+96 166	390 223	294 765	+95 458	387 023	293 498	+93 525	361 871	287 322	+74 549
Medical superintendent	1 500 000	1 494 004	811 250	602 110	+209 140	25.8	808 080	600 844	+207 236	809 589	603 355	+206 234	806 389	602 088	+204 301	781 237	595 912	+185 325
Tax category III (married)																		
Salesperson	29 000	21 006	0	0	0		0	0	0	0	0	0	0	0	0	–	–	–
Nurse	45 000	33 820	2 549	1 350	+1 199	47.0	950	872	+78	1 700	1 949	–249	118	1 333	–1 215	–	–	–
Office worker	50 000	38 226	3 776	2 286	+1 490	39.5	2 184	1 555	+629	2 946	3 020	–74	1 339	2 260	–921	–	–	–
Blue-collar worker (auto industry)	65 000	53 388	8 247	6 067	+2 180	26.4	6 540	5 289	+1 251	7 341	6 856	+485	5 651	6 047	–396	–	–	–
High-level white-collar worker	90 000	79 954	16 580	13 380	+3 201	19.3	14 727	12 504	+2 223	15 597	14 266	+1 331	13 761	13 380	+381	444	8 322	–7 878
Head of department (chemical industry)	150 000	139 954	38 038	33 052	+4 986	13.1	35 825	31 918	+3 907	36 883	34 158	+2 725	34 654	33 013	+1 641	18 644	26 648	–8 004
Tax accountant	250 000	239 954	85 923	73 265	+12 658	14.7	82 809	71 976	+10 833	84 300	74 509	+9 791	81 153	73 221	+7 932	58 229	65 800	–7 571
Member of board (industry)	750 000	739 954	365 519	278 962	+86 558	23.7	362 319	277 718	+84 601	363 829	280 206	+83 623	360 628	278 962	+81 666	335 507	271 541	+63 966
Medical superintendent	1 500 000	1 489 954	784 855	587 574	+197 281	25.1	781 715	586 285	+195 430	783 225	588 818	+194 407	780 024	587 530	+192 494	754 842	580 109	+174 733

1) Bonuses for Sunday, holiday and night work amounting to DM 3 000 per year. DM 45 000 p.a. — 2) Reduction by DM 3 000. — 3) Depreciation of housing valued at DM 900 000 at 5% (DM 45 000 p.a.) and 2% (DM 18 000); thus under the 1999 proposal DM 27 000 less can be deducted from taxable income than before.

Source: DIW calculations.

in Variant III, those earning more than DM 900 000 a year face a deterioration in the linear depreciation on housing let for rent from the current rate of 5% to 2% (acquisition price = DM 900 000).

If the impact of the reduction due to the changed progression is viewed in isolation, the case studies reveal the typical U-shaped curve of tax reduction. In relative terms a salesperson with a gross annual income of DM 29 000 enjoys a slightly higher cut in tax (29.5%) than a medical superintendent earning DM 1.5 million a year (25.8%). If the allowance for distance to work of DM 0.40 for every km in excess of 15 km) is introduced, the beneficial effect of the cut in tax rates is completely offset by the broadening of the tax base in the case of the unmarried salesperson; he or she would have to pay DM 75 more in tax than under the current system. If employees are affected by the imposition of taxes on bonuses for night and sunday working, the circle of the "losers" as a result of the reform widens substantially. Among unmarried tax-payers the circle of those affected ranges from the sales-person to the blue-collar car worker; they would have to pay higher taxes in 1999. For those facing both the costs of travelling to work and earning bonuses for night and Sunday working, all those up to middle management (an annual income of DM 90 000) would have to pay higher taxes than previously. In Variant IV – i.e. Variant III plus the reduced depreciation allowance for rented-out housing for those earning more than DM 90 000 – both middle management and a head of department in the chemical industry would have to pay more than previously. At just DM 702 an accountant would benefit only marginally from the combined effect of the cut in tax rates (DM 24 516) and the broadening of the tax base. In the case of a member of the board of an industrial company and a medical superintendent, on the other hand, the broadening of the tax base as assumed here is not sufficient to offset the cut in tax rates. Even in Variant IV, an unmarried medical superintendent would still benefit to the tune of more than DM 185 000 (the cut in tax rates alone generating DM 209 140). In such a case, taxable income would have to rise by an additional DM 475 000 for no net reduction in the tax burden to occur. In the case of a member of the board of an industrial firm with an annual gross income of DM 750 000 almost an additional DM 185 000 would have to be taxed in order for the net effect to be zero.

Macroeconomic effects of the various scenarios

We now attempt to estimate the macroeconomic effects of the planned tax reform, with the help of an econometric business cycle model for west Germany. A number of alternative scenarios are considered, the differences pertaining to details of the reform, its mode of financing and the possible impact on investment in buildings. The model results are based on a number of other assumptions regarding the behaviour of the monetary authorities and exchange rate trends.[2] The macroeconomic model used contains both demand and supply-side elements, but is not able to calculate in detail the effects of the broadening of the tax base and the tightening of depreciation conditions on investment activity, particularly on housing construction. For this reason a separate simulation scenario was conducted for investment in buildings.

The first three tax reform scenarios considered constitute "corner-stones" for specific conditions of a tax reform. In reality the tax reform would be expected to be situated within these cornerstones. The fourth scenario reveals the risks associated with all the variants: if investment in buildings is hard hit by the reform, the macroeconomic effects are certain to be negative.

Tax reform Scenario I is based largely on the federal government's plans for the reform as currently known. Estimates of the loss of tax revenue incurred are given in the model. In order partially to offset these revenue losses the standard rate of VAT is raised by one percentage point from its current rate of 15%. On the basis of a direct estimation of fiscal revenue loss for 1999, such a reform would increase the public sector borrowing requirement by around DM 30 billion. Normally such a credit-financed cut in taxation would have a substantial expansionary impact on economic activity. This then serves to reduce the burden on public finances, although complete self-financing cannot be expected. It is assumed that the monetary authorities accept the price effects induced by the rise in VAT, so that nominal interest rates increase only in line with price effects. A correction of exchange rates of the same order of magnitude is also assumed to occur. Thus the real external value of the D-Mark remains unaffected by the tax reform.

Table 4 (column 1) summarises the macroeconomic effects of such a tax reform. The result is a slight increase in growth. Real GDP is 0.7% higher than the level that would be achieved without the tax reform. This has a beneficial effect on the labour market. The level of employment could rise by more than 100 000.

[2] The model simulations were conducted for the years 1988 to 1991; the impulses emanating from tax reform were calculated as if they had taken effect during this period. This does not pose a problem for the interpretation of the macroeconomic effects given in table 4 to the extent that these are given as a relative deviation from the results of a base-line simulation (without tax reform).

Table 4

Tax Reform Scenarios

Deviations in % from base scenario (without tax reform) in the fourth year

	Scenario I[1)]	Scenario II[2)]	Scenario III[3)]	Scenario IV[4)]
Employment	0.4	0.5	–0.2	–0.4
Productivity per employee	0.3	0.4	–0.6	–0.7
GDP, real	0.7	0.9	–0.8	–1.1
Private consumption, real	1.3	1.7	–0.1	0.1
Government consumption, real	0.3	0.3	–2.5	–0.3
Gross fixed capital formation, real	0.5	0.8	–1.7	–5.3
Investment in equipment, real	1.0	1.4	–0.6	–1.4
Investment in buildings, real	–0.0	0.1	–2.8	–9.2
Exports, real	0.0	0.0	0.0	0.0
Imports, real	0.6	0.8	–0.1	–0.2
GNP, nominal	1.6	1.3	–0.9	–1.0
Price index of private consumption	1.1	0.6	0.0	0.3
Price index of GNP	0.9	0.4	0.1	0.1
Gross wage and salary income	1.2	0.8	–0.9	–1.0
Gross entrepreneurial income	–0.0	0.2	–2.7	–2.7
National income	0.9	0.6	–1.4	–1.5
Net entrepreneurial income	3.7	3.1	0.6	0.7
Net wages and salaries	2.7	2.9	0.8	0.7
Collectively agreed wages	0.9	0.7	–0.7	–0.6
Unit labour costs	0.6	–0.1	–0.0	0.1
memo item:				
Public budget deficit,[5)] DM billions	–14.5	–17.1	1.9	–28.5
Nominal interest rates, %	0.3	0.2	–0.2	–0.1

1) Assumptions: cut in tax rates and broadening of the tax base simulated in the model for the period 1988 to 1991; increase in the standard rate of VAT by 1 percentage point; real interest and real exchange rate exogenous. — 2) Assumptions: cut in tax rates and broadening of the tax base simulated in the model for the period 1988 to 1991; increase in the standard rate of VAT by 1 percentage point; real interest and real exchange rate exogenous; contribution rates to the social insurance funds cut by 1 percentage point and reduction in taxes cut to a corresponding extent equally for employees and employers. — 3) Assumptions: cut in tax rates and broadening of the tax base simulated in the model for the period 1988 to 1991; increase in the standard rate of VAT by 1 percentage point; compensation of loss of fiscal revenue by cutting public investment in buildings, transfers and government consumption (one-third of the loss made good by each area of spending). — 4) Assumptions: cut in tax rates and broadening of the tax base simulated in the model for the period 1988 to 1991; increase in the standard rate of VAT by 1 percentage point; real interest and real exchange rate exogenous; reduction of housing investment by 13% and commercial construction investment by 8%. — 5) –: Increase in deficit.
Source: Simulation using the DIW's version of the econometric business cycle model of the six leading German economic research institutes.

The two motors behind economic growth would be private consumption – due to the rise in income at the disposal of private households benefiting from the tax cuts – and private-sector investment in machinery and equipment. With regard to the latter it must be noted, however, that firms with a high level of net investment are worse off after tax reform than before. This may, taken by itself, induce a dampening effect on investment that is not accounted for by the model. The same is true for that proportion of investment in buildings that is highly sensitive to returns. A contraction of building investment could occur as a result of the tax reform – at least for a number of years; this possibility is investigated in Scenario IV.

The tax reform could serve to reduce Germany's high level of net exports. This is due to rising imports following the expansion of private consumption. There is no change in exports resulting from exchange rate movements. After a while, the rise in the cost of living due to the increase in the rate of VAT and higher productivity leads to higher wage settlements in Germany. Despite the success in raising output, this results in slightly higher unit labour costs.

Analysis of the gross and net income trends enable us to follow the effects of the tax reform on income distribution in the econometric model. Allowing for macroeconomic linkages and feedback effects, the direct distributive effects derived in earlier sections need, in some cases, to be corrected. Due to the employment effects and the induced pay rises, employees benefit to a greater extent than employers in terms of gross income. Given that employer income benefits in direct terms to a greater extent from the tax reform, however, net wages and salaries rise less than net employer income.

In interpreting the absolute figures given in table 4 it is to be noted that the simulation was conducted ex post, i.e. at the prices and quantities prevailing in the years 1988 to 1991. Thus all the absolute figures given need to be "inflated". On this basis the additional budget deficit in 1999 would be of the order of DM 20 billion, rather than the 14.5 billion indicated in table 4. Thus within four years more than a third of the direct revenue loss calculated (DM 30 billion) would be recouped by means of the multiplier processes induced. It needs to be emphasised, however, that this is conditional on the German government initially being prepared to implement the net reduction in the tax burden and thus to abandon the target the government has set itself of meeting the Maastricht criteria to the letter.

The idea of reducing indirect labour costs plays an important role in the debates under way in all of Germany's political parties. In view of this, in tax reform Scenario II the rate of contribution to the social insurance funds is cut by one percentage point. Given that employees and employers benefit equally from this cut, in this model simulation the net reductions in the fiscal burden originally envisaged are reduced for both groups by the same amount, and the federal government grant to the social insurance funds increased. As in reform Scenario I, it is assumed that the standard rate of VAT is raised by 1 percentage point. Thus the direct cut in the fiscal burden remains at around DM 30 billion. As before, the reduction is concentrated on the taxes on wage and other income, although here this effect is supplemented by the direct reduction in the overall cost of labour. The proponents of such a measure claim that this will have a more significant effect than a mere change in income tax. The results of this modified tax reform Scenario II are presented in column 2 of table 4.

The differences in the macroeconomic effects of the two tax reform strategies are not spectacular. After four years the employment effect in Scenario II is, however, significantly higher with 150 000 additional jobs created. This is largely due to the slightly higher rate of economic growth. One major difference between the two tax reform scenarios is in cost and price trends. The reduction in the rate of contribution to the social insurance system prevents a rise in unit labour costs. Indeed, in the fourth year of the analysis they were actually lower than in the base scenario. Thus the lower unit labour costs constitute a "counter-weight" to the increase in the rate of VAT in their influence on price trends. This means that certain forms of transfer income, such as child benefit or minimum social benefit, that are not linked to net wages are not devalued to such an extent. This in turn means that private consumption is higher than in Scenario I.

Looking at the influences on functional income distribution, it is apparent that, in Scenario II, the differences in income growth between labour and capital induced by the tax reform have largely balanced out after four years. Moreover, certain groups of the population are not put at such a significant disadvantage. While in both scenarios most recipients of transfer income benefit indirectly and, after a time lag, from the tax reform via adjustment to net wages, in Scenario II the – negative – price effects are substantially less pronounced.

In tax reform Scenarios I and II slight increases in the rate of economic growth are achieved by virtue of the rise in government borrowing. This changes completely, however, if government seeks to finance tax reform by simultaneously reducing spending. The results of such an approach are given in column 3 of table 4. It is assumed that the net reduction in the tax burden of DM 30 million is offset by an equal absolute cut in public capital spending, government consumption and public transfers to private households. The cuts in public spending have a swift contractive effect on economic activity, the impact varying between the areas of spending. Via the circular flow of income net profits may actually be even lower, despite the lower tax rates, because of the sharp fall in gross profits. Corporate investment would be markedly down on the base scenario due to weak demand and reduced profits.

This is precisely the picture that emerges from table 4. The contractive impulses induced by the reform reduce economic growth and employment. In principle all the components of GDP are affected by the contraction. Only the slight depreciation of the D-Mark that is assumed to occur prevents a decline in exports. Despite the rise in VAT, price rises remain modest due to the fall in capacity utilisation. In fact the rise in VAT cannot be passed on in full to consumers, reducing corporate profitability. The fact that in this scenario net income from entrepreneurial activity and property is slightly higher than in the base scenario is of only marginal significance. Investment is in any case lower than in the base scenario (without tax reform). All the government has achieved is to finance the tax reform in a revenue-neutral fashion.

Besides the risks coupled with any attempt to finance the tax reform in revenue neutral fashion, there exist, as has already been mentioned, particular dangers regarding the medium-term trend of commercial construction and housing construction. The planned relatively rapid move to lower tax rates with a simultaneous broadening of the tax base via a reduction in depreciation allowances leads to a substantial deterioration in expected returns on investment in rented housing. Thus investment activity in this sector can be expected to decline substantially. On the basis of past trends in investment in commercial and housing construction, which is oriented primarily to the rate of return, in this tax-reform Scenario IV commercial investment in buildings is exogenously reduced by 8% and investment in housing construction by 13% compared with the base scenario. Clearly these deductions constitute only a rough estimate. It may well be that investment projects in the areas affected by the tightening of the tax deductibility for depreciation will be brought forward, so that in the short term such investment actually contracts to a greater extent following implementation of the tax reform. Not until further rationalisation measures have been implemented in the construction industry and rents for commercial buildings and for private housing have increased markedly following the fall in supply, will investment in this area once again be attractive in terms of expected yields. In all other respects the assumptions are the same as in tax-reform Scenario I.

The macroeconomic effects of a tax-reform-induced decline in investment in buildings are dramatic. Extrapolating the figures to the level prevailing at the end of the decade, under these assumptions the budget deficit following the tax reform could rise to up to DM 40 billion. Although Scenario IV cannot be considered a "prognosis", it does make clear the risks associated in the short to medium term with a deterioration of depreciation allowances in investment in buildings. In this model simulation it is assumed that the fall in demand for investment in buildings is not automatically offset by additional demand in other areas. Although savings, and thus the supply of capital on the financial markets, rise, the interest-rate-reducing effect is, given the international character of capital markets, so small that Germany will not benefit from any significant compensation of the loss of demand.

Conclusions

The debate on economic policy in Germany is currently dominated by two issues. On the one hand, strict fiscal discipline, i.e. the reduction of budget deficits, is being called for in order not to endanger the stability of the Euro. On the other hand, a sweeping reform of the taxation system is supposed to take a significant step towards reducing unemployment. Although the two issues are clearly closely interrelated, they are discussed in isolation from one another. Yet anyone claiming that public spending must be cut and taxes raised in order to reduce the budget deficit to 3% of GDP and, at the same time, the tax burden on firms and private households reduced by DM 30 billion is obliged to explain just how this is to be achieved.

Clearly the federal government is aiming to bring about a net reduction in taxes, while at the same time reducing public spending to such an extent that the budget deficit does not increase, indeed actually falls in relation to GDP. The econometric simulations described above show that such a strategy cannot succeed. While it is possible to argue about the details of such simulations, it is very unlikely that the direction of the effects forecast by them is false. Thus a strategy relying on forced consolidation in the context of tax cuts cannot achieve the growth and employment targets aimed for.

There can be no doubting the value of continuing to make efforts to improve the efficiency of the economy and the legislative framework for economic activity. The simplification and improvement of the taxation system is one element of this effort. Yet it is illusory to believe that in the wake of these specific measures – irrespective of the actual package and their macroeconomic effects – will improve the employment situation. Cuts in public spending, considered alone, lead to a deterioration in the economic situation, even if – in principle – they serve to raise the efficiency of the system as a whole. It is only by considering micro and macroeconomic effects together that the impact on the economy as a whole can be judged.

A reform of the system of taxation and social insurance contributions should both reduce tax allowances whose steering function has become dispensable and retain the distributive function of income tax. On top of this the distortions that have arisen in the wake of German unification due to the financing of non-insurance-related spending by the social insurance funds should be corrected. This would ease the burden on and help stabilise the social insurance system. In such an environment and given the continued burden on government budgets by the need to support economic development in eastern Germany, marked reductions in tax rates are only acceptable in the short term if higher budget deficits are accepted. If the federal government rejects this on the basis of its strict interpretation of the Maastricht treaty and the Stability and Growth Pact agreed in Dublin, the prospects for growth and employment are certain to deteriorate in the wake of tax reform.

Overall, the economic impact of the reform package makes sobering reading. It cannot be seriously claimed that the overall burden of taxes and contributions will fall significantly: as a share of output taxes and contributions will fall by less than one percentage point. Even allowing for the reduction in tax allowances, high-income earners will benefit to a greater extent from the reform package than lower income brackets and particularly those on medium incomes. This effect is even more pronounced if, in order to close the gap, the rate of VAT were raised to an even greater extent or public spending cut back even further. In such a case, even employers are more likely to lose out than to gain. Serious risks pertain for housing construction if government support for the sector is severely cut back.

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