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Taxation of income in the globalisation era

Treading the line between fairness and efficiency

Income tax has developed into a major pillar of funding for public budgets, whose financial requirements are in most cases trending up steadily. The design of income tax systems has to satisfy a variety of criteria, such as fairness, efficiency and simplicity. However, to a certain extent these objectives represent a trade-off.

The fairness or justice of taxation is not only an issue of redistribution. Above all, tax fairness means the equitable, uniform taxation of income. This helps make an income tax system more efficient and just.

The interdependence of national economies and the increasing competition for mobile bases of assessment pose serious challenges to taxation systems. A broader tax base and lower tax rates along a flatter, more extended scale are to be preferred, as well as a better integration of corporate taxation into the tax system.

It is difficult to implement a simple tax system in a complex economic world. The exaggerated focus in Germany on finding a just solution to satisfy every individual case ultimately does not ensure greater fairness. Flat tax models do not automatically solve all the problems, particularly in view of the burden on middle-income earners and the overall volume of taxes and contributions to government coffers.

In Germany, the generally heavy burden caused by high taxes and social-security contributions is a major problem. But the burden results primarily from the high social-security contributions. Without other reforms, though, the necessary reduction of social-security contributions, particularly for statutory health insurance and long-term care, is not viable.

The incentive and redistribution effects of the social-security contributions are equally a problem – also partly for fairness reasons. Besides a reform-related decrease in social-security contributions, greater consideration ought to be given to funding government welfare programmes via taxation (of income).

In a system that mixes taxes and social-security contributions it is not very helpful to discuss fairness while looking at just one element of the system in isolation. As there is considerable interplay between the systems, one must look at the effects of the overall tax and contribution burden to obtain the full picture.

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Introduction

Virtually nobody is really fond of paying taxes. This has long been the case, apparently, as evidenced by a look at the Old Testament. For shortly before the battle between David and Goliath when the people of Israel caught their first glimpse of Goliath, they were seized with panic and the troops began to flee. In the authorities' final attempt to turn the tide and motivate the troops they announced that any man who killed Goliath would be given great riches by the king; the king would give him his daughter and his father's house would be exempted from taxes in Israel[1]. After David slew Goliath the Israelites went on to win the battle.

The question of why taxes are imposed at all today in nearly all countries of the world sounds almost philosophical. It does not take long to find an answer. Public safety, for example, is one of the core tasks of a sovereign state. To be able to fulfil these tasks the government requires money. In most countries this is largely procured by collecting taxes. Depending on the scope and scale of the tasks ascribed to the state, the government may need a greater or a lesser amount of funds.

If taxes are regarded as a means of financing so a government can fulfil its duties and provide services, one speaks of the fiscal objective of a tax. Taxes may be warranted for other reasons, though, too. For one, they have a steering function and, for another, they are a redistribution instrument.

In principle, the three effects may be considered to apply to virtually all types of tax, however to varying degrees. This report concentrates on income tax, which – apart from value-added tax – is one of the biggest sources of government income not only in Germany. With income tax, the main focus is on the fiscal objective and redistribution.

Closely linked with the general explanation of why taxes are imposed are aspects and objectives that fall under taxation procedures. The focus here is mainly on the efficiency and neutrality as well as the fairness of taxation. The last point, as will be shown, initially has to be assessed independently of any form of redistribution.

The advance of globalisation has been inexorable, with inroads also being made into the area of taxation systems. This applies firstly to the revenue side. For the increasing international competition to attract investment may have a negative impact on the volume of tax revenues. In this competition, the tax rate is one parameter of several – especially if it's a matter of taxing mobile factors of production. Secondly, the impact of globalisation also feeds through in terms of the transparency, simplicity and, ultimately, fairness of taxation. Take, say, the taxation of cross-border matters. It immediately becomes apparent that the national approach, which applies in the overwhelming numbers of cases, is unable to cope with the high degree of integration between the world's economies. As a result, the degree of regulation and intransparency increase sharply.

This has consequences in respect of both the general reasoning for taxes and the objectives discussed above which need to be considered in the tax collection process. After all, the impact on growth and employment also needs to be factored into the overall analysis.

Why tax?

There are basically three reasons for collecting taxes: fiscal objectives, the steering function and income redistribution. **Fiscal objectives** means that the government needs funds to be able to fulfil its duties. These include meeting the costs of providing public goods, such as internal and external security. Taxes are the best way to raise funds particularly when government services cannot be allocated on an individual basis. The **steering function** seeks to influence taxpayer behaviour in a certain way. For example, increasing the price of fuel consumption by imposing a tax on it can reduce consumption. Taxes are an appropriate instrument in principle also in this regard. Finally, taxes can bring about the **redistribution** of income and wealth, if the degree of income and/or wealth disparity produced by market conditions is not acceptable to society at large. To reduce the disparity between net incomes it is possible – as is done in Germany and many other industrial countries – to apply a progressive income tax, for instance. Deciding the scope of this tax is invariably a political issue, however. This holds especially for the particular design of the scale of rates.

[1] 1 Samuel 17:25.

Categorising tax types

There is a veritable plethora of tax types. Primarily, the underlying consideration is to decide who and, above all, what will be taxed (or should be taxed). This is not purely academic, as it has no small impact on the size of the tax burden. There are many ways to categorise taxes. The most significant criterion besides the possibility of tapping into the circular flows of economic activity is the frequently made distinction of whether taxation is direct or indirect.

Direct taxes are ones in which the tax debtor or taxable person is also the person who is meant to pay the tax. This applies, for example, to income tax. By law, the taxable individual is also the one who has to pay the tax and is liable for it. In this case, the personal circumstances of the taxable person and thus of this person's ability to pay can be taken into account.

By contrast, with **indirect taxes** the tax is not paid by the one who is meant to be the target. Instead it is paid by another economic agent. A case in point is value-added tax (VAT). It is meant to tax the consumption of the end-consumer. Since in practice it would be extremely difficult to determine the consumption habits of all inhabitants and then collect the taxes from them, VAT is collected indirectly, from businesses. The intended tax effect works on the assumption that the business community can pass on the burden to consumers. This is easier and cheaper, and it reduces the risk of tax evasion. However, it is not possible to take personal circumstances and thus a person's ability to pay into account. Whether the burden on the individual works out as intended depends, though, on the market situation (to be more precise, on elasticities). In an intensely competitive market in which the consumer reacts sensitively to price changes, entrepreneurs encounter difficulties in passing on VAT to consumers. In such cases, the businesses would have to bear the tax burden.

An analysis of income tax in isolation is not very conducive to a proper assessment of the taxation system – particularly when the issue is redistribution. In fact, social-security contributions and thus the social-security system itself also have to be included, as there is an interplay between them and the tax system. This may emerge, for instance, in an examination of concepts for combination wages or a basic pension (e.g. a negative income tax). It may also be observed in the debate over tax-funded social spending.

1. Taxation possibilities and objectives

Application vs. generation of income

A question that directly hinges on the justification of taxation is how taxes can best be collected in order to fund a specific budget. In the course of this report we shall discuss various criteria to this end. Special attention is attached – not only because of the related debate that has flared up of late – to the issue of a fair tax, i.e. a tax which distributes the burdens justly and for which there is an appropriate assessment yardstick. Primary importance is focused on the so-called ability-to-pay principle which is widely accepted. Both income and consumption may be taken as indicators of the individual ability to pay.

Income tax is levied at the point where income is generated and the value-added tax, by contrast, where income is used. From a macroeconomic standpoint, income generation and application are, by definition, identical in volume, for the total of income generated within a country (net domestic product) equals the sum of consumption, net investment, government consumption and the balance when imports are subtracted from exports (external contribution)[2]. However, in practice, this relationship is not as close as discussed here. Some processes (e.g. the disbursement of maintenance payments) may be posted either to the income generation or to the application side, but there are no corresponding postings on the other side of the account.

Controversy rages as to whether consumption or income is the "better" focal point or basis for taxation.[3] Both bases of assessment may in principle be tapped for either an indirect tax or a direct tax.[4] In Germany, the legislators decided – as in most industrial countries – to opt for a combination of income tax as a direct tax and value-added tax as an indirect tax. These are the two main taxes in Germany. Combined, they generated about two-thirds of total tax revenues in Germany in 2007.

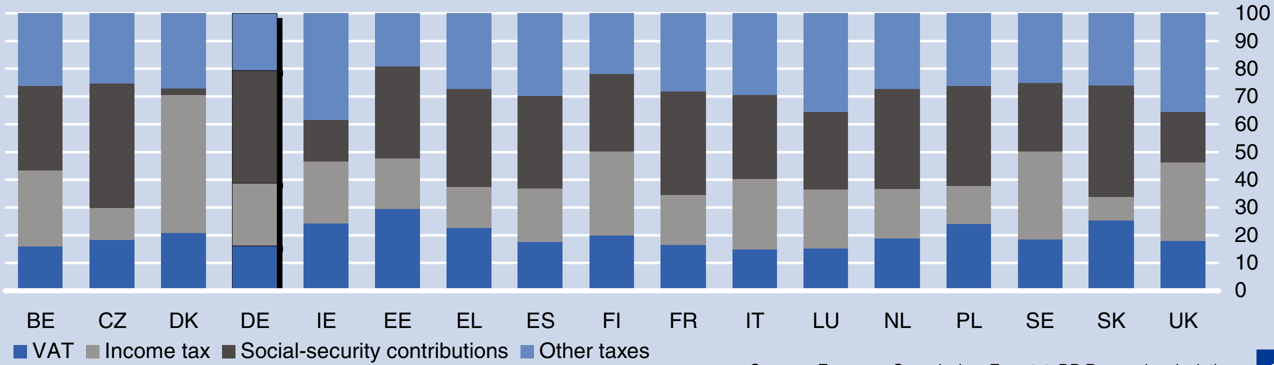
[2] For a discussion of this matter here and in the following see Homburg, Stefan (2007), p. 15. The given variables are flows, which must be differentiated from the stock of macroeconomic assets. A tax can also be applied here.

[3] For more on this see e.g. Rose, Manfred (1991), p. 7ff. and Musgrave, Richard (1991), p. 35ff. The focus here is mainly on issues of "efficient" taxation – in concrete terms, how to avoid distortions, e.g. the decision of an individual between consumption and saving. See below for more on this topic.

[4] Direct taxation of consumption would be possible as part of a tax on expenditures. This could be done in practice by saying that consumption of every single individual is calculated indirectly via the ratio of income to savings. In such an event, not only personal circumstances but also a progressive tax rate could be taken into account.

Large chunks of revenue: Value-added tax and income tax

As % of total tax revenues and social-security contributions, 2006



Sources: European Commission, Eurostat, DB Research calculations 1

Taxation targets and/or principles and income tax

Demands for tax reforms now constitute a basic plank in every political programme. Borrowing from a cliché made famous by German football legend Sepp Herberger, one could postulate that "after the reform is before the reform". However, the concrete objectives targeted by reform and appropriate criteria for assessing the success of a reform are given surprisingly short shrift in the reform debate. Usually the focus is only on very general issues of greater fairness and less complexity. But what does this mean?

Criteria for assessing the success of a tax reform

It is necessary to distinguish between two levels. One issue is the general level and scope of taxation. This is mainly derived from financial requirements driven by politically acceptable motives. Another issue is the "design" of the tax system. Three criteria are of particular relevance: simplicity/administrative expense, efficiency/ neutrality and fairness. The last two criteria in particular need to be fleshed out.

Economic ***efficiency*** focuses on the (mostly negative) incentive effects and additional burdens triggered by the tax. Taxation almost invariably entails additional burdens; they are virtually impossible to avoid.[5] In practice, the primary aim is to minimise negative incentive effects since they may, for example, impair decisions pertaining to investment or the labour supply. The reason is that the tax drives a wedge between productivity *before* taxes and a person's net receipts from this activity *after* tax. Such distorted decisions (for example, implementing investment projects that generate lower pre-tax returns but attract a lower tax rate[6]) lead to a non-optimal deploy-

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5 At the theoretical level the efficiency criterion may be differentiated according to best and second-best tax. For a detailed discussion see Homburg, Stefan (2007), Section 34 and p. 159f. in particular.

6 One good example of distortions of this type resulting from the taxation system can be seen in the recently introduced definitive (flat-rate) tax on investment income in Germany which is not properly integrated in the corporate taxation system. To illustrate: a business entity (it is immaterial whether it is set up as a sole proprietorship, partnership or joint-stock company) that would like to invest a profit (or other assets) of 100 faces the following situation. Given the choice between a safe fixed-income investment that produces a return of 6% and a real investment in the company, the latter investment has to generate a much higher pre-tax return than the fixed-income investment. The reason is that the fixed-income investment attracts a tax rate of about 48% (corporation tax, municipal trade tax, income tax and solidarity surcharge), while the other investment a rate of only about 26% (definitive tax and solidarity surcharge). After taxes, the capital market investment generates a return of approx. 4.4%. To generate the same after-tax return on the real investment, though, the pre-tax return has to total about 8.5%. No real investments generating between 6% and 8.5% will be made. This means that the

ment of resources and thus to welfare losses, since gross domestic product could be higher without the tax.

Negative incentive effects appear in the context of income taxation not only when tax rates are excessively high, but especially also when individual sources of income and/or identical cases are treated differently. This is where we come to touch on the issue of ***fair and/ or uniform taxation***. In fact, this is a product of the already mentioned ability-to-pay principle. Note that one needs to differentiate between "horizontal tax justice" and "vertical tax justice".

Horizontal tax justice is based on uniform taxation and requires that persons with identical income levels bear the same tax load. *Vertical tax justice* requires that different income levels be taxed differently.

Horizontal justice demands that persons with identical incomes should bear the same tax load. One way of realising this is via a so-called comprehensive tax base, i.e. all types of income are grouped together (regardless, for example, whether wage-based or commercial) and taxed according to a single scale of rates. Another essential facet, furthermore, is the so-called "net principle". This principle requires that taxation be confined to net income, i.e. expenditures that arise in income generation have to be deductible from the tax base.[7]

Features of an income tax

- Tax base (what income is included, and how increases in asset value are treated)
- Deductions from the tax base vs. deductions from the tax debt:
  - Scope of tax-allowable expenses
  - Consideration of personal circumstances
  - Social-policy reasons
  - Economic-policy reasons
  - Other steering purposes
- Taxation unit (taxation of individual vs. splitting procedure)
- Scale of tax rates
- Collection procedure (e.g. deduction at source vs. assessment)

In practice, though, the very question of what belongs to income and what may be deducted is a source of problems. This also touches on the third point mentioned above, ***simplicity and complexity***. For the given criteria may, to a certain extent, have conflicting targets. This becomes obvious when looking at the features of an income tax (see adjacent box).

The first step, after all, is to identify gross income (in Germany's income tax system this is called the "sum of [positive] income"). This may include: wages and salaries, income from entrepreneurial activity (e.g. farming or self-employed), investment income (e.g. dividends, interest and capital gains), rental or leasing income, transfer income (unemployment benefit, social welfare etc.), pensions, inheritances and gifts. Not all of these elements are actually a part of the tax base in every country.[8] Moreover, with some sources of income it is not always exactly clear to what extent they will be taxed.[9]

Which expenditures should be tax deductible?

As the next step, the expenditures incurred in connection with income generation are deducted, for by definition only net income is meant to be taxed. Businesses can, for example, deduct inputs, depreciation charges and also paid wages as expenditures.[10] People receiving wage income can, for example, deduct expenditures for work clothes or job-related literature. It is already obvious at this juncture that it is anything but easy to take account of all these factors. Income tax is a sophisticated tax that is not easy to collect. The question often arises at companies, for example, of the degree to which depreciation charges should be factored in to reduce the tax load, and also whether it is justified to buy high-priced sports

definitive tax will raise the cost of capital, so capital will tend to be withdrawn from the enterprise. Nevertheless, there are good reasons for the introduction in general of a definitive (flat-rate) tax.

7 Moreover, the net principle ensures efficient production. See Homburg, Stefan (2007), p. 166f.

8 See OECD (2006), p. 54. In Germany, the seven types of income are defined in the income tax act, and all taxable income is then categorised as one of these seven types.

9 Taxation according to the ability-to-pay principle on the basis of income is, in principle, a crutch, because it is impossible to tax the ability to pay since it cannot be observed directly as such. It is always problematical to define any form of income if there are no market prices shaping it. One example of this, for instance, is unrealised capital gains on real estate.

10 In Germany, these are referred to as operating costs.

cars as company cars. For private individuals, the issue is whether the cost of travelling between the home and place of work is a private matter or whether such costs may be deducted. The following overview shows that the opinions on this topic vary considerably not only in Germany – as we can currently observe – but also in other countries where different arrangements are in place.

Deductibility of expenditures for commuting

No expenditures deductible	Only expenditures on loc. publ. transp.	Only for long-dist. commuters	With differing lump-sum amounts
Czech Republic	Netherlands*	Denmark	Austria
Greece	Finland	Netherlands*	Poland*
UK	Norway	**Germany**	France
Ireland	Sweden		Belgium
US	Poland*		Luxembourg
Canada			Portugal
Turkey			Switzerland
Mexico			

*Combinations of both regulations

Source: German finance ministry 2

Social and economic-policy aspects increase complexity of taxation

The collection procedure becomes even more complex if parts of the tax base are exempted from taxation for social or economic-policy reasons. In principle, this is already a violation of horizontal justice, since identical income is not treated the same way.[11] It is at this very point, though, that social-policy reasons are put forward as arguments, asserting that for example people with serious illnesses or disabilities as well as single parents are restricted in their ability to pay compared to other persons and therefore should be granted special allowances, for instance. Other examples can also be found, though not all of them are truly convincing. The most problematic issues are deductions granted for economic-policy reasons. The steering effects of these tax breaks are all too frequently very difficult to control and result in rent-seeking. Moreover, most measures of this type – e.g. the special depreciation allowances that used to be offered to develop east Germany under the *Aufbau Ost* programme – are only worthwhile for those earning high incomes.[12]

The more exactly and (perhaps presumably) fairly one wants to treat individual cases, i.e. the more deductions from the tax base granted, the more this contradicts the goal of simplicity.[13] In the case of income tax, this also results in the government having to encroach very far in the personal sphere of the individual. Besides, exemptions and privileges allow the individual to obtain both “legal” and

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[11] See also Peffekoven, Rolf (2008), p. 223.

[12] However, this applies first and foremost to a directly progressive tax scale. In the given example, the desired steering function not only had rent-seeking effects but also resulted in some taxpayers venturing into property deals which saddled them with substantial losses.

[13] Here are a few numbers on the topic of "simplicity”. The most recent figures available (from 1997!) show that approximately one-third of all taxpayers turn to a tax consultant for help. If one subtracts all those who count on relatives, friends or income tax help associations from the total number of taxpayers, only 44% would be able to complete the tax forms on their own. At the same time, the number of tax consultants (including those with power of attorney and the consultancy firms) has risen by 25% (from 65,000 to 85,000) since 1998. In parallel, the number of those who prepare their income tax return with the help of a commercial electronic programme has increased since 2001 from 130,000 to 2.4 million.

What's what?

In the political debate, arguments usually centre on **widely differing tax rates**; sometimes these are not used uniformly (correctly). The most important rates are the average tax rate, the marginal tax rate, and the peak and bottom rates. These measures typically show the characteristics and design of a scale of tax rates. Application of this scale to income (the tax base) determines the tax burden to be paid.

The **bottom and the peak tax rates** define (with a progressive scale) where the scale begins and where it ends. In the first case this means the tax rate when taxation first kicks in (currently 15% in Germany on taxable income of EUR 7,665), and in the second case the maximum tax rate (currently 45% in Germany on income of over EUR 250,000, also referred to as the "tax on the rich"). The term "tax on the rich" is misleading in this context and only serves to incite populist debate. It is not a tax in its own right, but merely the designation for the recently introduced top rung of the income tax scale in Germany.

The **marginal tax rate** is the designation for the additional tax burden triggered by growth of the basis of assessment, i.e. of income, thus indicating the deduction from the last euro earned. In Germany, for example, the marginal tax rate is 42% (on taxable income of EUR 53,000). This means that from this income threshold a person has to pay 42 euro cents for every additional euro earned.

The **average tax** rate reflects the overall tax burden on income, i.e. the tax payable in relation to the income base. In Germany, the average tax rate is 27% (on taxable income of EUR 53,000) and is thus much lower than the marginal tax rate for the same income.

At present, Germany's scale of income tax rates does not contain income brackets, as is normally the case in all other countries, but instead a specific mathematical formula which enables the tax burden to be calculated individually.

"illegal" tax allowances. Note that an increase in tax evasion is also a violation of fair taxation. Thus, horizontal justice secures a uniform approach to taxation and ensures efficiency.

Tax scales and vertical justice

In practice, there is virtually no country in the world where the ideal of a comprehensive tax base has been fulfilled. Since the beginning of the 1990s systems such as the dual income tax[14] or mixed forms of the same have been developed in a host of countries. These forms typically have special tax scales, so there is no longer uniform taxation of all income and thus no horizontal justice. But this means that such tax systems or scales also contradict the demand for *vertical justice*. Vertical justice is thus mainly a matter of how the scale of tax rates is designed.

The horizontal justice outlined hitherto is only one facet of a fair tax system. This facet has nothing to do with the issue of redistribution. In the public debate, though, fair taxation is primarily understood to mean redistribution.

The demand for vertical justice in the income tax system means that people with different income levels should also be treated differently in tax terms. The cardinal issue, though, is *how* differently. This brings up the issue of the curve of the tax scale, e.g. proportional vs. progressive. There is a very widespread misunderstanding that only a progressive tax scale enables a differentiated method of taxing income – and thus redistribution. However, incomes are already treated differently by applying a proportional tax scale, since with a fixed rate the tax burden increases when incomes are higher. With a progressive scale (regardless of whether indirectly or directly progressive) the tax burden not only increases in absolute terms but also in relative terms, i.e. the average tax rate rises. The summary on page 9 shows how different scales of tax rates influence the development of the average tax rate and thus the "actual" tax burden.

Directly progressive tax scale provokes fairness debate

In respect of fair taxation, a directly progressive scale of rates (as currently applied in Germany) regularly provokes debate over the effects of deductions from the tax base. The child allowance is a perfect example. Usually, the charges levelled at it centre on the so-called "degressivity" or "regressivity" effect. What is meant is that – in absolute terms – high earners obtain greater relief from tax deductions than low earners do. However, in terms of the systematics of the tax regime, this is merely the reverse effect of the directly progressive tax scale, which has a disproportionately stronger bite when income grows. From a tax-system perspective the consequence for the child allowance is that if one wants to treat every child equally, a given uniform monetary amount must be allowed in order to shore up the minimum living standard of each child. Degressivity is the price of the directly progressive schedule. To avoid this effect, one would have to introduce a proportional tax scale.[15] This is also why child benefit has to be regarded separately from the child allowance. For the child benefit is purely an instrument of social policy, a transfer payment, which has to be viewed in isolation from the tax system. The child allowance ensures that the minimum

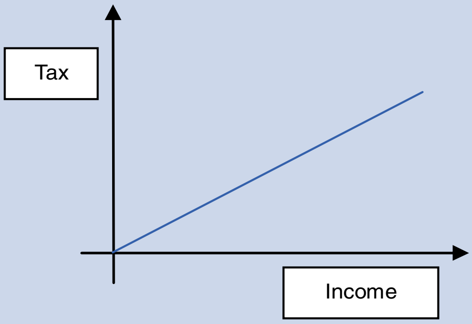
[14] A dual income tax is in most cases marked by a proportional tax rate on investment income and a progressive tax rate on the other types of income (i.e. also wage income). See OECD (2006) for more detailed information, p. 74ff.

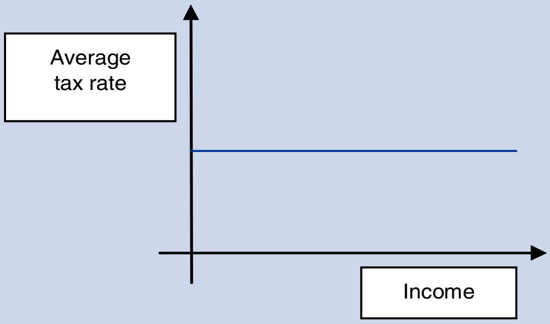
[15] See also: Wissenschaftlicher Beirat beim BMF (2004), p. 5.

living standard for children is factored in correctly from the standpoint of the tax system.

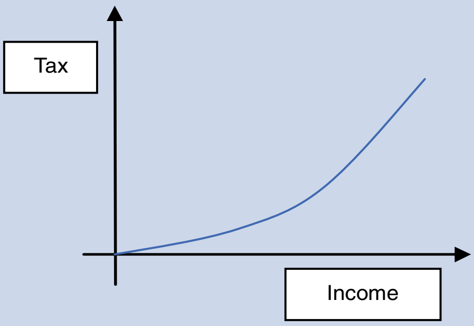
What makes a tax scale progressive?

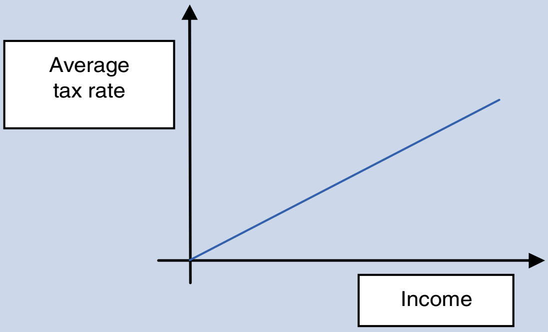
A scale of tax rates contains the rules for calculating tax liability. Very different scale patterns are possible. As already explained above, the patterns of the marginal and average tax rates are the main determinants of the tax burden on a given income. A proportional or linear scale provides for a simple fixed percentage rate on the tax base. In this case, the average tax rate is constant.



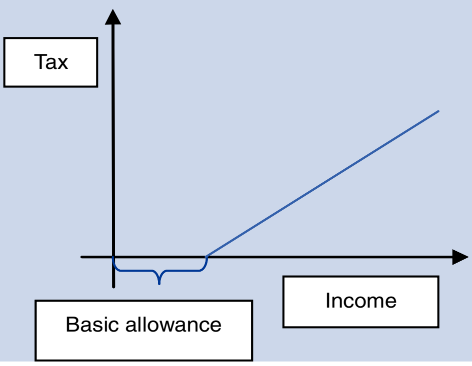


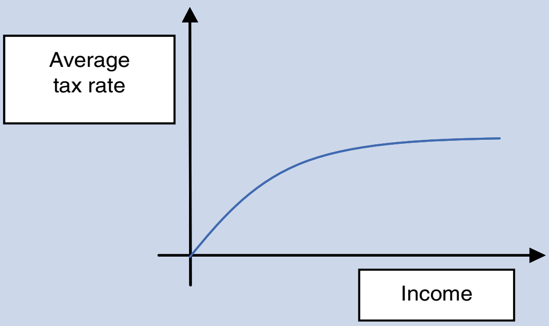
With a (directly) progressive scale the tax rate increases as income increases. This means that the tax burden increases not only in absolute terms but also in relative terms, for a steadily greater share of the income will be deducted (up to a specific level). In other words, this means that the marginal tax rate and especially the average tax rate (i.e. the average tax burden) will rise with an increase in income.





The decisive criterion in assessing the progressivity of a tax scale is the average tax rate. But, under this definition, progressivity can be achieved by various means. A linear tax scale, i.e. a proportional scale in combination with a basic allowance (which ensures that a certain basic income is exempted from taxation in order to meet minimum living standards), is itself progressive since the average tax rate increases.





Should lifelong income be taxed instead of annual income?

Moreover, the shape of the tax scale may also have implications for horizontal tax justice. The demand for horizontal justice is undermined by a progressive scale in cases where the focus is on lifelong income or at least fairly long periods instead of annual income. The reason is that people with fluctuating incomes will be taxed higher than those who obtain constant income flows even if the overall level of income perhaps does not differ at all over a longer period. The "victims" of this development are not only professional footballers but also the increasing number of people whose income has been growing irregularly over time.

Debate over the tax scale is overdone

In the political arena, mostly matters relating to the tax scale are the subject of debate. The discussion hitherto has shown, though, that it is mainly the way taxable income is determined that decides how complicated a tax system is and how the tax burden is distributed. However, it is virtually impossible to make this point in the political debate. It's simply easier and more spectacular to talk about tax scales and tax rates in particular. There is no other way to explain why an income tax reform with falling nominal tax rates has led to a (initially largely unobserved) "middle-class bulge" with a sharply increasing marginal burden for the middle-income groups.

Progressive tax scale primarily serves purpose of redistribution

After having shown that the issue of vertical (tax) justice initially has to be separated from the issue of redistribution, it becomes obvious that a progressive tax scale primarily serves the purpose of redistribution.[16] At the first step (in the context of the tax system) redistribution invariably implies that something is taken away from a particular population group (e.g. high earners, and if the system features a progressive income tax there is an inordinate increase in taxation). At the next step this means that others will receive an additional inflow. In effect, beyond the general financing of public goods, one very rapidly enters the area of social security, i.e. the issue of how (and to what extent) the state should pursue the goal of public welfare.

Provision of government services arranged via tax system

There is a whole host of possibilities in this regard; however, they differ considerably in terms of scope or apply to only limited segments. The income tax regime in Germany confines itself to the first step, i.e. the generation of funds for the government. In the US and some other countries the tax system also (partly) kicks in at the second level, i.e. to support the needy via a so-called negative income tax.[17] Other concepts such as a solidarity-based "citizen's income" as advocated by Dieter Althaus, the state premier of Thuringia, contain partial elements of a negative income tax and also a type of flat tax.[18]

Assertions on the pattern of the tax scale are, however, only one side of the coin when these pertain to redistribution effects.[19] For assertions on the tax curve refer to a specific point in the tax scale and thus to an individual income bracket. However, when assessing the redistribution effect it is also important to look at the overall distribution of income upon which the tax scale is built, i.e. the tax

[16] Besides, a progressive income tax, with its revenue elasticity being greater than 1, works as an automatic stabiliser to stabilise or cool the economic cycle. For example, it provides disproportionately strong relief for taxpayers in a downswing.
[17] For an international overview see SVR (2006), No. 58ff.
[18] See more below.
[19] For more on this matter and in the following see Homburg, Stefan (2007), p. 72ff.

base. The scale of income tax rates used in Germany, for instance, would produce a completely different picture in Denmark.[20]

2. Income tax, flat tax and globalisation

In the past, there has been considerable debate not only in Germany on how to reform the income tax system. And not only in Germany but also in many other countries has there been a number of more or less extensive changes in the design of income tax and the tax system. The most common pattern has been the reduction of the peak tax rate while broadening the tax base. The main catalyst has been the increasing pressure brought to bear on national tax revenues by the intensified competition for mobile bases of assessment. This has been, and continues to be, exacerbated by increased pressure on the expenditure side which many countries are facing on account of the ageing of society, high unemployment, a wide-ranging need to replace and upgrade infrastructure, and also soaring government debt etc.

Further reform considerations are geared to the goals of taxation set out above, i.e.

— more neutral and efficient taxation (the broadening of the tax base and reduction of tax rates also have an impact in this respect since they lower the welfare costs of taxation);

— maintaining and/or increasing the fairness of taxation (with regard to both uniformity and the distribution of net income), and

— greater simplicity.

Precisely the last point has become a burning issue in the face of the increasing integration of the global economy. The song remains the same: it is plainly difficult to implement a simple tax system in a complex economic system. If total income accrues from different sources in different countries, for example, it is inevitably complicated to determine the basis for taxation.

In practice, the countries have all followed very diverse reform paths. This is probably also attributable to the conflicting nature of the targets cited. To give an illustration: some Scandinavian countries have reformed their tax regimes in the direction of so-called dual income tax systems, while a raft of Central and Eastern European countries have transformed their systems in the direction of a flat tax.

Typical features of a dual income tax are that the (usually) progressive income tax scale for earned income remains intact while a separate proportional tax rate is levied on investment income. This extraction of income from the tax scale – so-called scheduling – leads primarily to a violation of vertical tax justice, but horizontal justice is affected as well. This can be seen by the fact, for example, that there is now an incentive to re-designate income (labour income becomes entrepreneurial income) in order to benefit from a lower tax rate (the catchphrase being “tax arbitrage”).

Unlike the dual income tax systems, flat tax systems enjoy the advantage that a – at least largely – uniform (synthetic) tax base remains intact. Note, though, that this does not apply to all existing flat tax systems. For, in practice, the designation “flat tax” tends to be understood more as an umbrella term for a series of differently designed one-step taxes which in some cases are combined with a

[20] The international comparability of progressivity measures is ultimately a problem because there is a difference in the underlying distribution of income from country to country.

substantial personal (basic) allowance.[21] So, in other words, not all flat taxes are the same. The flat tax recently introduced in the Czech Republic is a uniform tax rate for personal income tax but one that differs from that of the corporation tax and also from that of value-added tax. In Slovakia, by contrast, all the tax rates are identical.

Characteristics of selected flat-tax systems

	Year of introduction	Prior tax rate	Tax rate directly after introduction	Tax rate 2008	Change in basic allowance due to reform	Prior tax rate	Subsequent tax rate	Tax rate 2008
Estonia	1994	16 - 33	26	21	Mod. Incr.	35	26	21
Latvia	1995	25 & 10	25	25 (15 for bus. inc.)	Slight incr.	25	25	15
Lithuania	1994	18 - 33	33	Fr. 2003 DS* at 24 and 15	Subst. Incr.	29	29	15
Romania	2005	18 - 40	16	16	Incr.	16	16	16
Russia	2001	12 - 30	13	13	Mod. Incr.	30	37	24
Slovakia	2004	10 - 38	19	19	Subst. Incr.	25	19	19
Czech Rep.	2008	12 - 32	15	15	Not avail.	24	21	21
Ukraine	2005	10 - 40	13	15 (30 f. non-res.)	Incr.	25	19	25

*DS: Dual System

Sources: Keen et al. (2006) and diverse annual editions of Taxation Trends in the EU, DB Research analysis 3

Essentially, a flat tax is nothing more than a linear tax that is indirectly progressive (if a basic allowance is granted).[22] The uniform tax rate harbours a raft of benefits, including for example that income may increasingly be taxed at the source, which entails substantial simplifications and thus cost reductions for taxpayers and the government alike. Above all, though, there is less of an incentive to categorise income by specific period or person, which increases tax efficiency. The degressivity and/or regressivity of tax deductions also disappears.[23] An extensive tax base with few allowances and tax breaks, in particular, helps to lower complexity, which reduces the density of regulation.

Flat tax can contribute to greater horizontal and...

Is a flat tax fairer? A tax base changed to this effect is likely to contribute to a more uniform method of taxation, and thus greater horizontal justice. However, this only works if tax breaks granted for economic and social-policy reasons are cut back. There would just be less scope left to take personal circumstances into account.

... vertical tax justice

As regards vertical justice, the question that arises is how a transition from direct progression to indirect progression will impact income distribution in a given country. This hinges strongly on the size of the basic allowance and the scope of the reform (e.g. whether revenue neutral). In a revenue-neutral transition, the higher the basic allowance is, the greater the significance attached to the redistribution concept. The lower the allowance, by contrast, the greater the pinch will be felt by the low and middle-income earners and the less will be felt by the high earners.

At the end of the day, the consideration of efficiency gains and fair distribution of the tax burden becomes an empirical question, though one which can only be answered with difficulty. Recently published

[21] Originally, the term “flat tax” was linked with a specific tax base geared to consumption (to be more precise: a country-of-origin-based value-added tax of the consumption type).See also Keen, Michael, Yitiae Kim and Ricardo Varsano (2006), p. 4f. The term has meanwhile become firmly anchored in the literature, and also in political debate though more as an umbrella term for taxes with a uniform (moderate) proportional rate.
[22] See summary overview “What makes a tax schedule progressive?”
[23] See also: Wissenschaftlicher Beirat beim BMF (2004), p. 4ff.

simulation calculations for Germany[24] suggest that flat tax reforms in combination with a broadening of the tax base could amplify tax inequity at the expense of the middle class – according to the applied design, at any rate. A broadening of the tax base alone without a flat tax combined (i.e. retaining direct progression) can, by contrast, reduce inequity in the context of the analysis. Slightly positive efficiency gains on the above-mentioned flat tax reform are set against greater inequity. However, this report is not able to take all the dynamic longer-term growth effects (in the corporate sector in particular) into consideration. Over the short term, what remains against the backdrop of these results is the choice between more equity (in the form of greater equity of net income) and efficiency gains.

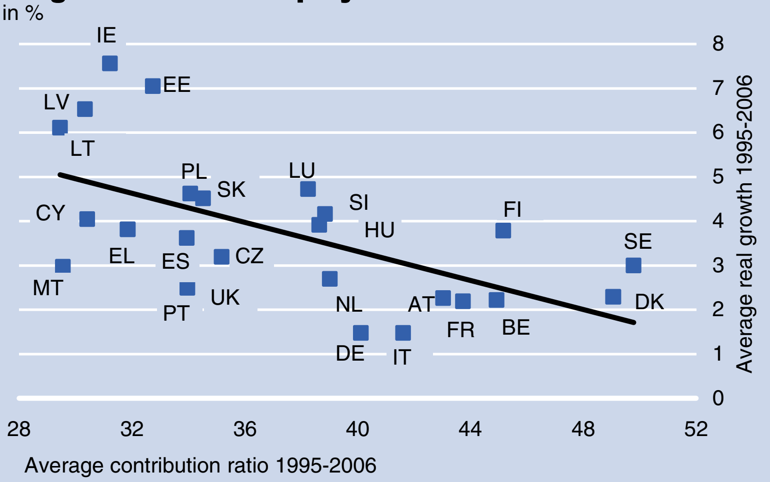
Empirical models offer no clear evidence on merits of flat tax

Comparable simulation calculations for a host of Western European countries[25] arrive at results backing those for Germany. At least in several countries lining the Mediterranean (Greece, Portugal and Spain), though, a reform could boost both tax equity and efficiency, the main reason being that these countries have virtually no well-developed middle class in the first place. In areas where there is such a middle class, the introduction of a flat tax comes at the price of more inequity, especially in the middle class. The authors draw the conclusion that this is probably the actual reason that such reforms have so far not yet been implemented in Western Europe (except for Iceland).

This raises the question of whether macroeconomic benefits, i.e. higher income for all, more growth and less unemployment, could in the longer run justify greater tax inequity. Besides, it is not directly possible to see how "fair" the existing tax system really is. For this reason in particular it is important when assessing the degree of fairness or justice in an economy, regardless of the tax system, to look not only at the tax system but also at the social-security system.

Contribution burden and economic growth: Large contributions play a role

in %



Sources: EUROSTAT, DB Research calculations **4**

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[24] See Fuest, Clemens et.al. (2008), p. 87ff in particular.
[25] See Paulus, Alari and Andreas Peichl (2008), p. 18ff. in particular.

3. The tax system should not be considered in isolation

The tax reforms conducted in the countries of Central and Eastern Europe have been extremely diverse in nature. This applies to both the level of the tax rate and of the basic allowance as well as the scope of the tax base and the degree of integration in other reforms (e.g. of the social-security system and indirect taxation).[26] Another reason why there is no such thing as a uniform flat tax is the pronounced differences between the respective contexts in which they would be applied. This also means that the experience gained with tax policy in one country can only be transferred to other countries within limits.

Tax redistribution reduces income differentials...

In practice, Germany's income tax has a progressive impact and reduces income differentials. This becomes manifest not only in the blunt assertion that 10% of Germany's taxpayers (from the upper income bracket) account for more than 50% of income tax revenue; this statement is also backed by calculations based on extensive data from the income tax statistics and Germany's Socio-economic Panel.[27] As to fairness in the current system, though, it has to be borne in mind that the erosion of the tax base is relatively pronounced. Taking as a yardstick the difference between gross income and net income (net income in the German tax system being the taxable income to which the tax scale is applied) as calculated from the deductions from the tax base set out in the first chapter, this gap totals about 50% on average. This means that a gross income of 100 produces a taxable income of 50.[28]

... but social-security contributions have regressive impact ...

... relativising the progressivity of the overall tax and contributions burden

The redistribution of income by means of income tax is only one part of the overall revenue and expenditure machinery, though. True, on the one hand the substantial progressivity[29] of income tax outlined in the last paragraph is amplified even more by the regressivity of transfer payments, because they lessen the inequity of incomes. On the other hand, though, income tax accounts for only a bit more than one-third of all tax revenues taken together. A significant share is borne by the consumer – depending on how the tax is passed on – through the value-added tax (approx. 32%) and other excise taxes (12%). Personal circumstances are not taken into account here except for the reduced tax rate for certain goods; the tax rate is linear (flat tax), with the tax burden presumably regressive. In Germany, in particular, the tax burden is exacerbated by large contributions to the social-security system and related benefits. The burden of these social-security contributions also follows a regressive pattern since the contribution rates are linear and especially since income ceilings limit the impact[30]. This means that

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[26] For a more detailed overview please refer to Keen, Michael, Yitiae Kim and Ricardo Varsano (2006), p. 35ff. in particular.

[27] For details on this topic and on the following calculations see Bach, Stefan et al. (2008), pp. 12 und 19f. in particular.

[28] No account is taken of tax evasion.

[29] Simulation calculations show that in comparison with other countries the redistribution effect achieved by income tax in Germany is relatively pronounced. See Peichl, Andreas and Thilo Schaefer (2008), p. 21f. in particular.

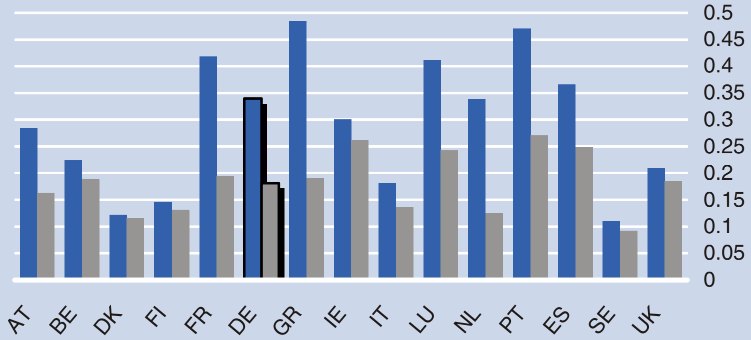
[30] The size of the contributions to healthcare, long-term care, pension and unemployment insurance is linked to wages and salaries. In other words, the contributions increase in line with income. However, this increase is limited because only the income that falls under the so-called *Beitragsbemessungsgrenze* (income ceiling) is factored in. Any wage or salary income above this ceiling does not attract any further contribution deductions. Up to the income ceiling there is a redistribution effect mainly for statutory healthcare and long-term-care insurance (where the ceiling is EUR 43,200) benefiting lower-income recipients. Beyond the

the progressivity of the overall burden of taxes and contributions is likely much smaller than the progressivity of income tax observed on its own would seem to suggest.

Recent simulations also support this empirically[31], as can be seen in the following chart.

Substantial differences

Progressivity: income tax vs. taxes & contributions



Yardstick: Suits Index of Tax Progressivity. This can accept values between -1 and 1. -1 equals extreme regressivity of a scale and 1 equals extreme progressivity.

Progressivity of income tax scale   Progressivity of taxes & contributions

Source: Peichl and Schaefer (2008)   5

Against this backdrop, demands for greater simplicity, fairness[32] and related reforms have to be viewed in differentiated fashion. Incidentally, if an income tax triggers a high redistribution effect this usually implies a fairly uneven distribution of income before contributions.[33] However, this is not only attributable to the tax and transfers system; other factors such as education and further training also play a part.

What are the potential avenues for action?

Radical revamp of the contribution system neither sensible nor necessary

Concrete policy recommendations are predicated on whether the objective is a radical revamp of the system or “merely” changes in individual components. A radical revamp of the entire contribution and transfer system, as would be achieved for example with the introduction of the citizen’s income concept or an unconditionally granted basic income is not very realistic and would also not make much sense in view of the examples given here, for the incentive effects arising from these models are extremely dubious.[34]

Considering the overall burden of taxes and contributions in Germany it ultimately does not matter whether the burden results

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income ceiling, though, the regressive effect kicks in, i.e. the percentage of the burden on income caused by social-security contributions decreases. Removing the current income ceiling is no solution, for this would result in a one-sided burden on labour as a factor of production.

[31] For more on the specific calculation methodologies see Peichl, Andreas and Thilo Schaefer (2008). Incidentally, in simulations of the EU-15 (2001) the regressivity of social-security contributions is most pronounced in Germany.

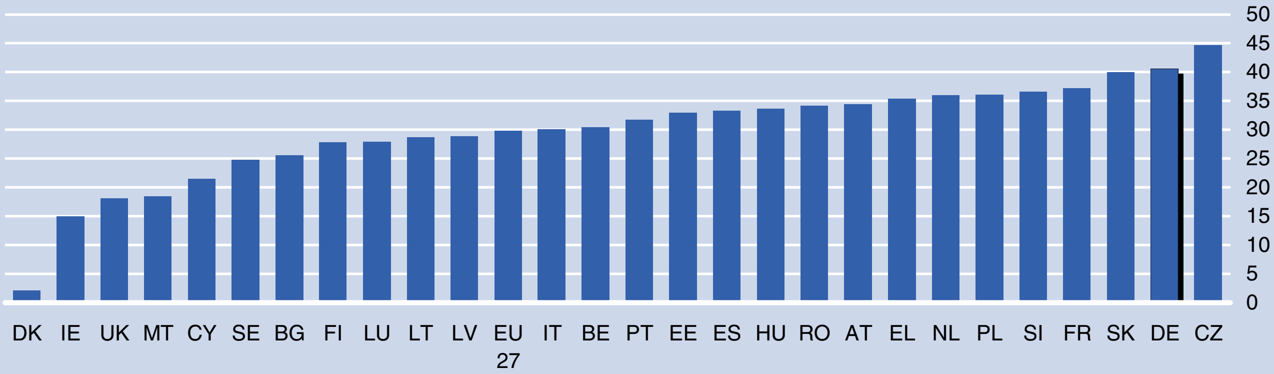
[32] In recent surveys conducted by the Institut für Demoskopie Allensbach it emerges, for instance, that 78% of Germans consider the tax system to be unjust and 77% of them assume that tax evasion is very widespread. See IfD (2008).

[33] However, this is not backed by clear empirical evidence. As regards the passing on of the tax burden, it is conceivable that employees may demand higher gross wages in anticipation of a heavy burden from taxes and contributions.

[34] The Wissenschaftlicher Beirat (Advisory Council) of the German Ministry of Finance (2008) offers a detailed overview of the models.

from social-security contributions or taxes, since social-security contributions may be regarded as (linear) quasi-taxes. Social-security contributions play a prominent role in Germany also by international standards, as is shown in the following chart.

Germans pay large contributions to social security
Social-security contributions as % of total revenues (social security and taxes), 2006



Sources: European Commission, Eurostat 6

Reform of social-security system could reduce burdens...

It therefore appears sensible to target first and foremost a more sustainable reform of the social-security system (statutory health insurance and long-term-care insurance, in particular) and reduce the burden in this manner.[35] Lower and middle incomes in particular are likely to benefit more from a reduction of social-security contributions than from a tax cut. An unmarried person, for example, with a gross income of about EUR 40,000 (EUR 60,000 for a married couple with one breadwinner) currently has to shoulder a heavier burden from social-security contributions than taxes. Such a reform may be achieved partly by cutting back social benefits (as long as these are not vested rights). Furthermore, state welfare coverage is a matter for the taxpayer and not the contribution payer, as long as no genuine insurance benefits are provided (e.g. family members included in the statutory health plan). Note though that with more tax funding it is important to maintain the pressure to push through reforms within the social-security system (health insurance, in particular).

... and flatten the income-tax rate scale

The still existing diverse components of a basic safety net ought to be redesigned in clearer fashion. As for income tax, the objective should be to tax income in as uniform a way as possible and thus more evenly in order to minimise incentive effects. A very much broader tax base with generally lower tax rates (i.e. an extended and flatter scale of tax rates without a “bulge”) would then be possible. With lower tax rates one does not have to be as picky with the net principle everywhere in the tax system. It would then be possible to allow more lump-sum calculations. Moreover, it is easier with lower tax rates to better integrate corporate taxation into the overall tax system. There is no guarantee of this at present with Germany’s new definitive (flat-rate) tax on investment income. By the same token, lower tax rates can also alleviate the problem of “cold” progression, even though only steady indexing of the tax scale to

[35] Incidentally, even identical tax rates, as with a flat tax, cannot prevent the incentives to shift income. For as long as social-security contributions are collected on labour income, it remains of interest to re-designate income as investment income.

Potential for a broadened tax base

The latest issue of the Discussion Papers on the abolition of subsidies published by the Kiel Institute for the World Economy lists EUR 25 bn in tax breaks for income tax and corporation tax for 2007 alone. The partial broadening of the tax base as a consequence of abolishing these tax breaks could enable Germany's income tax rates to be lowered by 10% on average, i.e. the bottom tax rate could fall to 13% and the peak rate (excluding the "tax on the rich") to 38%.

inflation (assuming there are no erratic tax cuts) can largely and systematically block this phenomenon.

Not only if one believes – as many do – that a directly progressive scale of tax rates reflects the desired degree of income redistribution is there much to suggest that government spending should be funded to a greater degree from income tax and not so much from social-security contributions. Their redistribution effects are not nearly as clear as those of income tax. A broader tax base in the framework of a synthetic income tax ensures more equitable taxation, and thus greater efficiency in the system, as well as less tax avoidance.[36] The differing progressivity of income tax and social-security contributions depicted here would probably achieve the identical redistribution effects (in terms of the progressivity of total taxes and contributions) even if the tax scale were less progressive. This would only hold, of course, as long as income tax contributed a greater share of funding and social-security contributions less. When all is said and done, redistribution is not an end in itself. Rather, it is all a matter of how government spending is best (i.e. efficiently and justly) funded for the benefit of the people. In this respect, income tax has more going for it than its current "reputation" would suggest.

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[36] It may be assumed that in this event tax evasion would also decline. Nonetheless, if it has reached substantial proportions, it will negatively impact the actual efficiency and redistribution effects.

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