New Market-value based Property Tax in Germany?

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Key words: Local property tax, Tax-relevant assessment, Property tax models, Availability of data, Mass valuation

SUMMARY

Property-based taxes in Germany are since many years not founded on current market values. The tax-relevant property values reach about 10 - 30 % of market values. In 2006 the German Federal Constitutional Court required that the rules for property tax valuation have to be changed and based on current market values. The decision refers to the Inheritance Tax, but it is also relevant for the Local Property Tax (Grundsteuer). The new Inheritance Tax Act came into force on 01.01.2009, the revision of the Property Tax is still in discussion.

The new rules are corresponding to the standard valuation methods (comparative method, income capitalization method, depriciated replacement cost method), in Germany layed down in the Federal Valuation Ordinance. The differences in valuation methods will be explained. The financial administration is asked to use the market analysis results of the Official Valuation Committees (Gutachterausschüsse), and the Valuation Committees are asked to contribute the necessary data for valuation covering all parts of the country. Different reform models discussed for a new property tax in Germany are introduced and analysed in the paper.

Two aspects are most important for the financial authorities: It is not possible to estimate the value for each plot individually, mass valuation is necessary; nevertheless the results must be accurate enough, so that tax equability is guaranteed. Valuers and the Valuation Committees could play an important role and extend their competences when contributing the appropriate data and the assessment for property taxes.

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1. INTRODUCTION

The German tax system had been in discussion during the last century and there had been important changes almost every year. The main intention is given to the "big" taxes, e. g. the income tax, the corporation tax or the VAT. These taxes are most important for the revenues of the national state and the 16 German federal states.

The tax system also includes taxes which are calculated with property-related values. But up to now these values are not present market values. The local property tax is one of these taxes; it has to be paid by every land and property owner and it is benefitted to the municipalities. The importance of the property tax for the municipalities is not caused by the height of its annual amount but by the stability and countability of the revenue for the municipality's budget. In opposite to the local business tax the property tax revenue does not depend on the ups and downs of the economy.

The discussion about the property-related taxes – especially the Inheritance and Gift Tax (Erbschaft- und Schenkungsteuer) and the Property Tax itself (Grundsteuer) are caused by decisions of the Federal Constitutional Court in 1995 and again in 2006. The Constitutional Court stated that the tax burdens are very unequal for different kinds of tax objects, e. g. savings or shares in comparison to real properties; the real properties are not calculated with their current values while savings or shares are taxed according to their current monetary values. This is not in line with the Constitution. The Court's decision effects directly the tax rules for the valuation of real properties. Additional there is a political discussion concerning the land owners' fear that the Property Tax will increase twice or even triple. The German municipalities are chronically in debt and the German landowner is used to pay small amounts for property tax over many decades.

The new rules concerning the Inheritance Tax had been established in 2008 and came into force at 01.01.2009. The new valuation orders now converge much with the standard valuation methods according to market values. The discussion concerning the reform of the Property Tax is going on. The paper will explain the discussed solutions.

2. OVERVIEW PROPERTY TAX IN GERMANY

2.1 Taxes based on property values

For many years, up to 1996, four different taxes had been calculated according to property values:

- Local Property Tax (Grundsteuer)

- Wealth Tax (Vermögensteuer)
- Inheritance and Gift Tax (Erbschaft- und Schenkungsteuer)
- Local Trade Tax (Part: Real Assets Trade Tax (Gewerbekapitalsteuer))

The Property Tax has to be paid by every land owner, the Wealth tax was relevant for persons possessing big amounts of different assets e. g. landed properties, and the Inheritance Tax comes into force in case of heirship. The German Local Trade Tax consisted of two parts, the main part complies with the return of the business, the other part complies with the assets of the business, e. g. real estate. The property tax is a deductible expense for income or trade tax purposes. In case of rented properties the economic burden is transferred to the tenants because the property tax could be included in the incidential rental charges (Mütze et. al. 2007, p. 267).

The calculation of the taxes was based on an unitary valuation which is used for all these tax approaches; it is called unitary tax value of property (Einheitswert). Since the 1930s the unitary tax value of property (Einheitswert) was an efficient means for evaluating different types of taxes (Lehmbrock, Coulmas 2001, p. 17). The administrative responsibility for the tax procedures including the assessment of the unitary tax value of property (Einheitswert) was in the duty of the federal states. It is a big and powerful administration. A cooperation e. g. with the cadastral services or the valuation committees (federal states' authorities too) had not been established for a long time.

In 1996 the situation changed. In 1995 the Federal Constitution Court made two decisions that the Inheritance Tax and the Weath Tax calculation based on the unitary tax values of property (Einheitswerte) are not in line with the Constitution. The resolution critized that the tax basis' are very different between assets in property and non-property assets (shares, savings etc.); the differences are not in line with the principle of non-discrimination in the Constitution (Art. 3 GG). The differences especially originate from using the – very low - unitary tax values of property (Einheitswerte) in tax valuation of real properties. The financial authorities' concept of a common tax basis with the unitary tax value of property (Einheitswert) has failed. The legislator had to react to the resolutions and deliminated the Wealth Tax as well as the asset-depending part of the Trade Tax.

The Inheritance Tax rules – especially the valuation rules - were changed after long political discussions; now its calculation is based on the standard ground values determined by the Valuation expert committees. The cooperation between valuation committees and financial administration increased; the financial authorities had to delegate an expert in tax valuation into each valuation committee. But the Federal Constitution Court was not satisfied; in 2006 a new resolution of the Court against the Inheritance Tax voted that the tax is not yet in line with Constitution because of low property tax values; the Court required again that real assets have to be taxed according to their current market value (BVerfG 2006). At the beginning of 2009 a second reform of the Inheritance Tax came into force. In consequence the valuation committees will be involved more and more in tax valuation matters, preparing and providing data, etc. Some additional rules in the German Federal Building Code concerning the duties of

the valuaution committees came into force in July 2009 in order to coincide the cooperation with the tax authorities.

Today only the local property tax is still based on the unitary tax value of property (Einheitswert), the former common basis for different types of taxes. Up to now there had been now resolution of the Constitution Court on the property tax itself but the experts are rather sure that it would result similar to the decisions on the Inheritance Tax. Some of the Federal financial authorities have developed reform concepts concerning the property tax since 1999.

2.2 Current relevance of the local Property Tax

Germany is a federal organized state. The tax revenues are spread over three federal levels. The "big taxes" normally are shared between the national level and the 16 federal states. An important exception is the allocation of Income Tax, devided into 15 % to the municipalities and 42,5 % to national and states' level each. The Inheritance Tax is granted to the Federal States (with an increasing amount of about 4 billion € p.a. (2007)). The partitions of the local taxes (property tax and local trade tax) are less than 10 % of total tax revenues (comp. Fig. 1, 2007). The amount of the German propety tax seems to be unimportant, it only shares with 2°% or about 10,5 billion € p. a. (2007) at the tax revenues; the revenues increased with + 20 % in 10 years (8 billion € (15,5 billion DM) in 1997, Federal Statistical Office, Josten 2000, p. 7). The property tax contributes with 10 -20 % to the municipal tax revenues, 3rd important tax after Income Tax share and Trade Tax. (Lehmbrock, Coulmas 2001, p. 23).

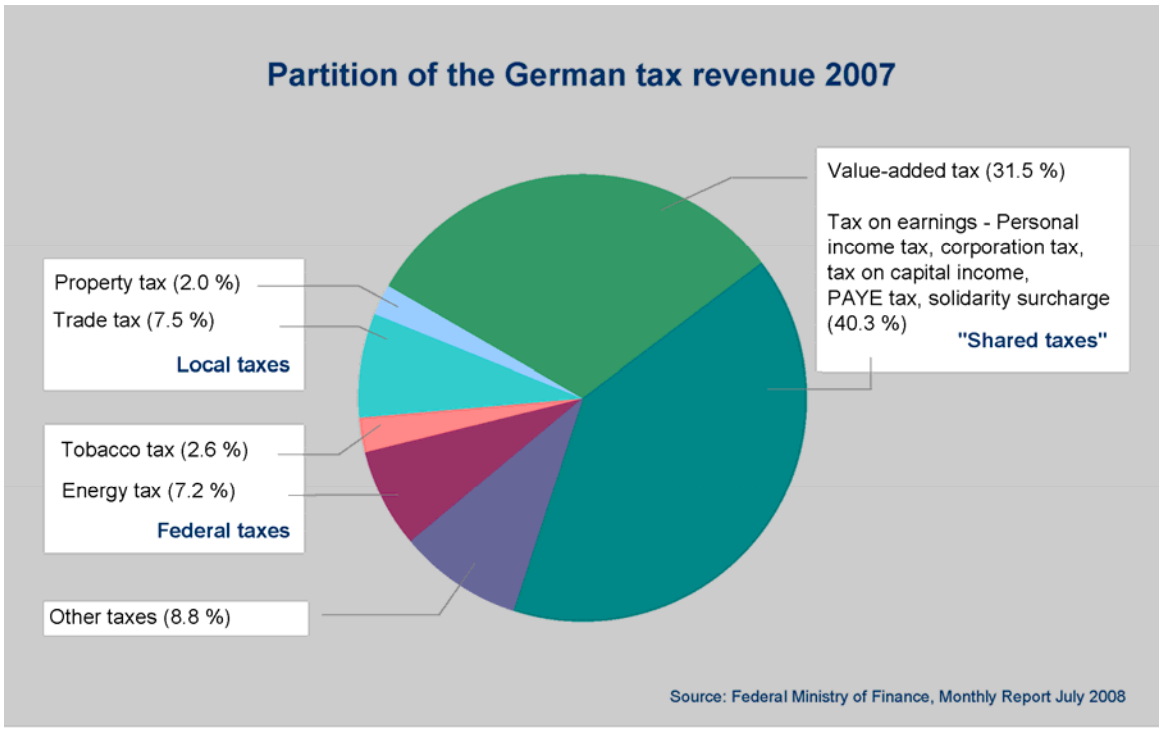


Figure 1: Partition of the German tax revenue 2007

A report of the Institute of Public Economics of Cologne University compares the tax levels in Germany and OECD countries, based on OECD statistics of 2005 (Fuest/Thöne 2008). 100°%-revenues figures in this survey includes the payments for the social security systems. Fig. 2 shows an overview of the property taxes in 24 OECD-countries. The importance of the property tax as a local tax revenue is very different; its contribution to the municipal tax budget varies between 9 % and less in the Skandinavian countries and Luxembourg (less than 1 % in Sweden), 10 – 20 % in Austria, Swiss, Germany and Italy, around 50 % in Portugal, France, Netherlands and South Korea and 90 -100 % in New Zealand, Australia, Canada, Ireland und UK; OECD-24-average was 46 % (2005). The proportion of property tax to the total tax revenues of a country varies between 1,3 % in Germany and Austria, about 5 % in Ireland, New Zealand Netherlands or Italy up to 12 % in UK, US and South Korea (100 % incudes social security paymants); OECD-24-average was 6,4 % in 2005 (comp. Figure 2). The German property tax is in the lower third of the OECD countries. Of course there are important differences in the budgeting of the local level, especially in view to the anglo-saxian countries (UK, US). Even if it will be mentioned that German and other's countries property owners have to pay extra for local services as waste disposal, waste water disposal or road cleaning in comparison to most of the anglo-saxian land owners (in Germany about 150% of the amount of property tax), the burden of property tax and local services in Germany only will rise to 3,2 % of total tax revenues or one third of the local tax revenues (Fuest/Thöne 2008, p. 131).

Figure 2:

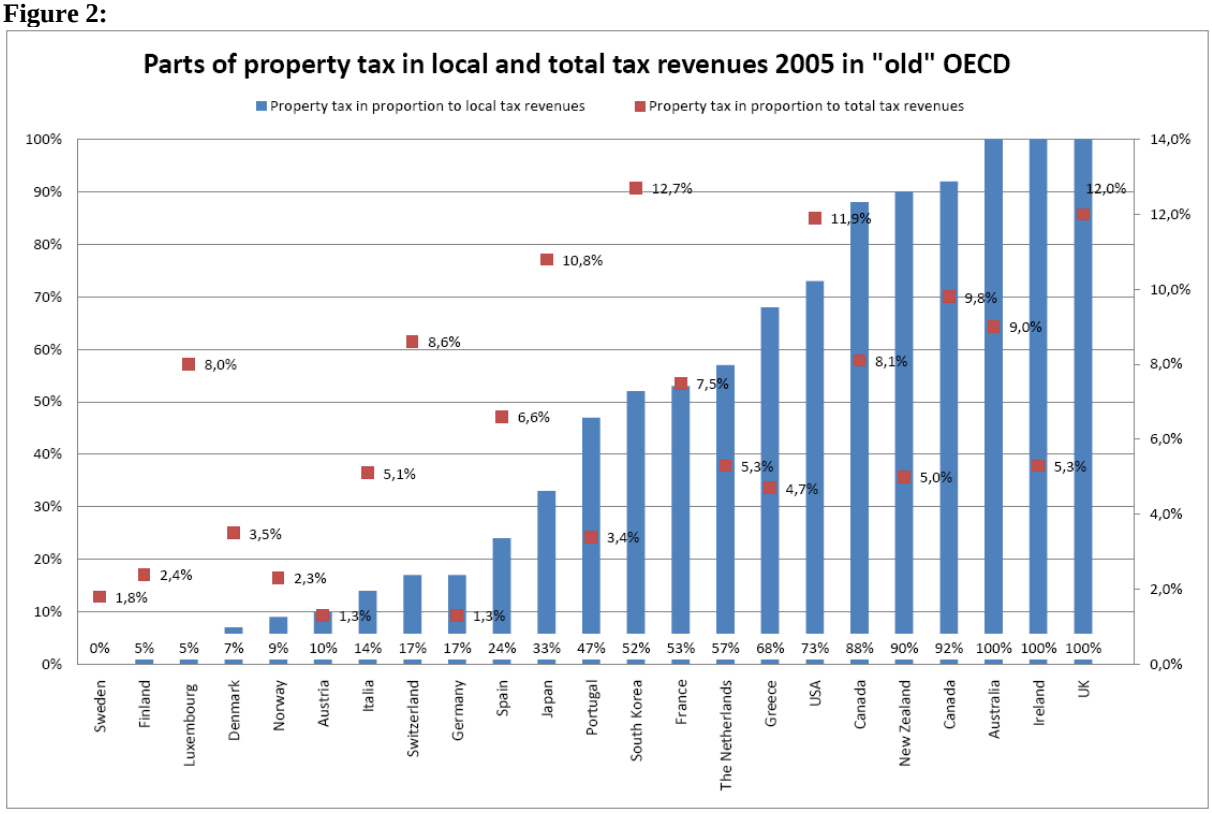


Figure 3 takes a look at the partition of asset-relevant taxes in total tax revenues. From 1990 to 2004 the proportion in EU-15 increased and advanced to the level of OECD-24 of about 5 – 6%, while the proportion of the asset-relevant taxes in Germany decreased in the same period down to 2 – 2,5 %. The mentioned report prepared by order of the Federal Ministry of Finance derives that there is a good potential in the Germany's property tax to increase.

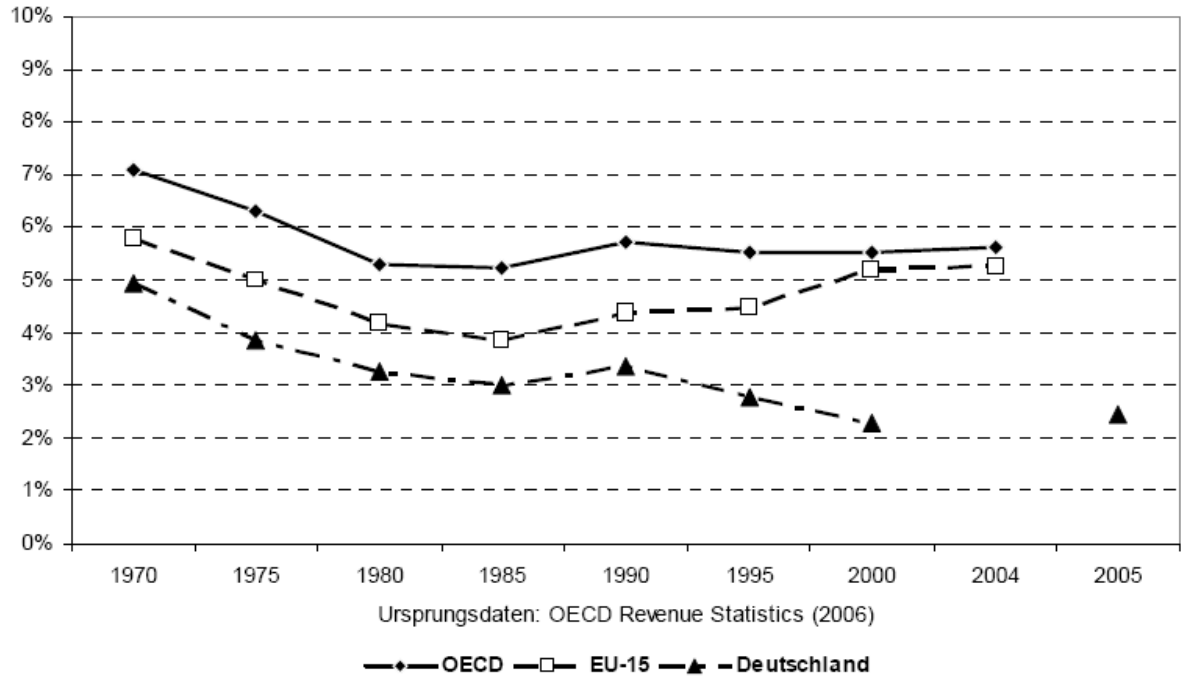


Figure 3: Tax revenue from asset-relevant taxes in proportion of total tax revenues (1970-2004/5) (Source: Fuest/Thöne 2008, p. 69)

2.3 Calculation of the property tax

The property tax is an annual or quarterly payment of the property owner to the municipality. All domestic landed properties are subject to the tax; tax exemptions are possible (e. g. real estates for public institutions, public facilitites, churches) (Mütze et al. 2007, p. 266).
The property tax is determined in a two-step administrative procedure and calculated in three steps.

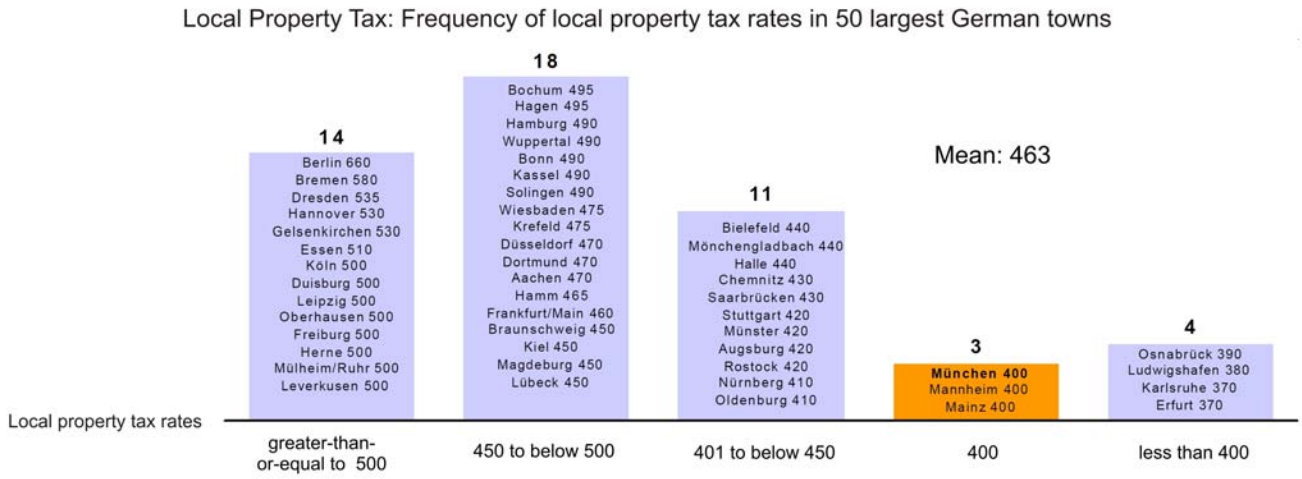
- Step 1 (federal financial authorities): Starting point is the assessment of the unitary tax value of property (Einheitswert).

- Step 2 (federal financial authorities): The unitary tax value is multiplied with the applicable basic federal rate (Steuermesszahl) which is standardized and usually is 3,5 ‰. Result is the base value (Steuermessbetrag).

- Step 3 (municipalities): The final step includes the local aspect of the tax. Each municipality has a local property tax rate (Hebesatz) which is applied to the assessed base value.

The local tax rates vary in a wide range within the municipalities (in 2008: 200 % up to 660 % (Stat. Bundesamt: Hebesätze der Realsteuern 2008)). The German municipalities increased the local property tax rates during the last decades (in 30 years (1965 – 1995) about 60 % increase of average local property tax rates; increase in land values accumulated in the same period to 750 %) (Federal Statistical Office, Josten 2000, p. 22).

Figure 4:



Source: http://www.ris-muenchen.de/RII/RII/DOK/SITZUNGSVORLAGE/622064.pdf am 16.06.2009

Although the valuation rules of the Tax Valuation Law include some simplifications the operating expenses of the tax authorities are very high: there are about 33 million properties in Germany and about 10 % per year are strucked by tax-relevant changes. Finally the unitary tax values of property (Einheitswert) are today necessary for one tax only, the property tax.

2.4 Today's Valuation on Property tax purposes

The guidelines for appraising market values are specified in the Federal Valuation Ordinance (WertV 1988). The valuation rules concerning property-relevant taxes are fixed in a special law, the Bewertungsgesetz (Tax Valuation Law) which already came into force 1952 - the initial version is from 1925. There had been important changes of the law in consequence of the resolutions of the Federal Constitution Court 1995 and 2006, latest coming into force at 1.1.2009.

The Tax Valuation Law today contains different assessment rules according to the different property-related taxes. Although the valuation methods are named in the same way as used for estimating market values – comparative method, income capitalization method and depriciated replacement cost method - the way the methods are used differ substancial. Another very important difference is caused by the determination of the valuation date.

According to Local property tax the Tax Valuation Law prescribes different valuation methods for

- agricultural and forestry land: a standardized culculation of the outcome from farming is used,
- farm buildings for resedential use: income capitalization method, reduced with 15 %; (for assessing market values the replacement cost method is prefered),
- undeveloped land and developed land, not built-up: the comparative method is used,
- built-up properties: most of the built-up properties are assessed with the income capitalization method, e. g. properties in commercial use, in mixed use, rented properties in residential use, detached house with one or two families (for appraising market values the comparative method or replacement cost method are prefered in case of individuell detached houses),
- other built-up properties: the depriciated replacement cost method is used, e. g. condominiums, properties in industrial use; (for assessing market values the comparative method would be prefered in case of condominiums); the replacement cost method is also used for the main group of built-up properties if informations about rents or capitalization factors are not reliable.

Nevertheless, the valuation procedures in tax purposes are not in correspondance to the Federal Valuation Ordinance **(WertV)** which includes the standards for determining market values. The rules in the Tax Valuation Law contain essential simplifications and nationwide standardizations. This leads to different results.

The most important difference between tax values and market values of real properties is caused by different **valuation dates**. The Tax Valuation Law defines that the property tax value should be updated each 6 years, starting at 01.01.1964.

Up to now the financial administration has not succeeded in renewing the calculation basis for the unitary tax value of properties (Einheitswerte) within a 6-year-period all over the country. The first assessment of the unitary tax value of all properties valid to 1964 finally took about 10 years. The legislator decided to keep the valuation date of 1964 and met this development by adding a general surcharge of 40%. Meanwhile the plot values had clearly increased all over the country. The surcharge was not consistened with the increase in property values in the years of “Wirtschaftswunder” (economic miracle) in Germany – and the surcharge was not adopted to property tax but to the other taxes using the unitary tax value of property (Einheitswert).

The confusing situation started in these years. Up to now the basis value of property tax (unitary tax value of property (Einheitswert)) represents the value of 1964; in the east German states the reference date is 01.01.1935, because there had been no assessment since than.
It is not surprising and well known that assets in property are taxed on a basis much lower than their market value. Another question is if property assets should be taxed to a higher amount in absolute terms; the proportion of tax revenues from porperty asset would increase. This is a political question. The political discussion today assumes that the total tax revenue

from property tax should be kept on the current level; the above mentioned figures shows that property taxation in Germany is below OECD-average.

2.5 Discrepancies to market value

The discrepancies between the market value and the tax value had been studied in a number of investigations. They are considerable as has been proved. The deviations depend on the valuation method, the type of use and the age of the buildings. The tax value of a property assessed by replacement cost method comes in average at a level of 20-30% of the market value, while tax values of properties assessed by income capitalization method reach 12-20% of market value. The biggest divergences arise with not built-up and undeveloped land (approx. 10% of the market value level) and with agricultural land (less than 5%) (Josten 2000, p. 21).

3. REFORM MODELS OF PROPERTY TAX

3.1 Requirements on a new Property Tax

Different aims and requirements are on demand for the new property tax.

- Simplification of adminstrative processes

  The process must be easy and automated as far as possible. Today about 4.000 persons are involved in the states' financial authorities to determine Step 1 (unitary tax value (Einheitswert)) and Step 2 (base value) of the property tax; this is about 6,2 % of the authorities' manpower (Josten 2000, p. 25). Each plot is handled in particular. The Federal states would like to transfer the responsibility for the assessment to the municipalities, but their administrative power is not sufficient to handle high operating expenses.

- Fairness of the tax distribution, i. e. accuracy of the valuation

  Fairness of the tax distribution means that the scale of the distribution has to be comprehensible. The Federal Constitution Court strengthened the need a valuation according to the market value of properties. The Court stated a difference of 20 % as acceptable (usual valuation tolerance). The appropriate valuation methods (individual or mass methods) should keep this limit.

- Land policy effects, e. g. mobilisation of unappropriate used land

  Developed land which is hold off from market or sparsely populated land in central areas should be taxed higher to support the mobilization of the land and the efficiency of public facilities.

- Acceptability of the new tax, i.e. tax redistribution following the current tax burden

The political discussion about the property tax is important. It is discussed that the envisaged reform would be largely revenue-neutral; the aim is a steady tax revenue at today's level. Even the divergences in the different types of use and properties should be as small as possible.

The unitary tax value does not play a part in the discussions. It is proposed to take a new point of reference with a combination of parameters, e. g. including standard ground values, usable floor space or building types.

3.2 Discussed reform models of property tax

Different reform suggestions have been discussed over the last 10 years. Basically four reform models are in the centre of discussion. All models address the first step of the calculation of property tax which determines the basis of the tax. Steps 2 and 3 are not discussed to be changed, i. e. uniform basic federal rates and the individual local property rates will be maintained. Models A – D include the following aspects (comp. Lehmbrock/Coulmas 2001, p. 30ff., Reform der Grundsteuer 2004; Broekelschen/Maiterth 2008):

Model A is independent from land and property values ("area-related model"). The assessment needs the data "plot size" of the ground and "floor space" of the building.

Model A

Property Tax amount (€)
=
[Basic federal rate for land (0,1 €/m²) x Plot size (m²)
+
Basic federal rate for buildings (0,5 €/m²) x Floor space (m²)]
x
Local property tax rate (%)

Buildings and land are weighted by the Basic federal rate in relation 5 : 1. The model realizes a simple procedure, an assessment of the property value is not necessary. The importance of the local property tax rate increases. Assuming similar property tax rates model A results in equal tax burdens for the property owner in a metropolitan town and in a rural municipality.

Model B ("value-related model") needs separate values of land as well as buildings. The assessment of both values is intended to be standardized as far as possible to keep correspondance with a fair tax distribution and an appropriate accuracy of the valuation.

Model B (2001)

Property Tax amount (€)
=
[Standard ground value (€/m²) x Plot size (m²) x Percentage
(70% built-up land/ 100% not built-up land)
+
Standardized building value (€/m²) x Floor space (m²) x Age reduction]
(1% p. a., max. 50 a)
x
Basic federal rate (0,001 not built-up land/ 0,0005 built-up land)
x
Local property tax rate (%)

Standard ground values are a regularly published result of the German Valuation Expert Committees (Gutachterausschüsse). Standard ground values are derived from a systematic collection and analysis of all purchase contracts (purchase price collection). The valuation expert committees identify the average values of the land within different zones (standard ground values (Bodenrichtwerte)) and publish them in periods of 1 or 2 years. The standard ground values are registered in maps and in online presentations (Voss 2008, p. 3; Wanzke 2009). The model includes land policy aspects because of the different percentages for not built-up land and built-up properties.

The value of the buildings is intended to be standardized in 5 categories from 1000 €/m² down to 200 €/m² floor space. Another information needed is the age of the buildings; the age reduction amounts to maximum 50 %.

Model B from 2001 was favoured by the conference of the finance ministers of the states. In 2004 the federal states of Bavaria und Rhineland-Palastine published a modificated version of model B. Especially the age reduction was eliminated in Modell B (2004).

Model C orientates completely at land values ("land-value-related model"). This model does not depend on information about buildings. The quality of the loction is in the center of interest. The most important data are the standard ground values.

Model C

Property Tax amount (€)
=
Standard ground value (€/m²) x 80% x Plot size (m²)
x
Basic federal rate (0,001)
x
Local property tax rate (%)

The effect of the pure land tax consists in the same property tax amount for a not built-up property and a very close built-up plot. This model prefers the mobilisation aspect against "hoarding" of land. The original model included a general reduction of the standard ground values of 20 %. Today the Constitutional Court requires a market value orientated taxation of properties; a reduction will not be adequate any more.

Model D is similar to model C but includes an additional component ("combined model"). The necessary data are the same as in model C. In model C the tax burden declines with the distance from the city center because land values will decline with distance. Suburbanisation is promoted. Model D improves the spatial effect of the tax by using a plot size depending additional component. The German Institute of Urban Affairs', Berlin (Difu) suggested model D (Lehmbrock, Coulmas 2001, p. 36).

Model D

Property Tax amount (€)
=
[Standard ground value (€/m²) x 80% x Plot size (m²)
x
Basic federal rate (0,0005)
+
Plot size (m²) x Plot rate (0,075)]
x
Local property tax rate (%)

The basic federal rate amounts to half of that in model C. The additional component only depends from plot size, not from land values.

3.3 Are the models in line with the required aims?

There had been tests of the models with real data in different municipalities. The test calculations estimated the impact of a new property tax according to the required aims

(German Institute of Urban Affairs', Berlin (Difu); Lehmbrock, Coulmas (2001); Lehmbrock (2004)).

Simplification of adminstrative processes:
The simplification of adminstrative procedures above all depends from the availability of the data necessary in the models. The number and availability of the data are very different in the models (comp. Fig. 5). The plot size is registered in cadastre for each plot and in the land register for each ownership. Standard Ground Values are a legally prescribed and reliable product of the Valuation Experts' Committees to provide transparency on the land market. They are available all over Germany and are determined at least each two years, in many states in an annual period. The tests offered good availability and easy handling of the standard ground values; they are important in three of the models. In a small number of cases there might be some questions to be solved, e. g. in neighborhoods without market transactions or places with unusual land use. The figures related to the buildings are more difficult to get. The floor space, the age of buildings and the changes of use are not registered in well structured databases; there is a hugh diversity of data in different public authorities.

Necessary data	Model **A**	Model **B** (2001)	Model **B** (2004)	Model **C**	Model **D**
Standard ground value		**X**	**X**	**X**	**X**
Plot size	**X**	**X**	**X**	**X**	**X**
Floor space	**X**	**X**	**X**		
Standardized Building value		**X**	**X**		
Age of building or Year of construction		**X**			

Figure 5: Overview on necessary data in the models A - D

According to the simplification of the administrative process the tests showed the lowest expenses in Model C. Model A is less effective because the usable floor space has to be determined; this turned out to be very problematic. The most difficult figure to implement is the standardized building value per square meter floor space necessary in Model B; the main part of the building stock will be categorized in the top level of 1000 €/m^2, the rest should be categorized in 4 groups, the value will decrease by 200 €/m^2 per group. The chosen category depends from the typ of use (residential, commercial, leisure, agricultural etc.). The operating expenses of this part are expected to be high and the accuracy of the tax basis may not be

sufficient. Model B is prefered by the Conference of the finance ministers although it will cause operating expenses at a high level because the tax burdens are expected to be distributed similar to the current property tax.

Land policy effects:
It is expected that the land-value-orientated models will reduce the "hoarding" of land already designated for buildings. The tests showed that the increase in tax burden has to be very high if the mobilization effect for such properties should become operative. As far as a revenue-neutral new property tax is assumed the land policy effects will not be strong enough (Lehmbrock/Coulmas (2001), p. 20).

Acceptability of the new tax:
It is assumed that a tax redistribution following the current tax burden will be easily accepted by the tax payers. The aim of the legislator is to distribute the revenues and to burden the tax payers in similar extent than today. The judgement concentrates on who are the winners and losers of the models. Figure 6 shows the effects of the models, the volume of differences as well as the affected type of properties.

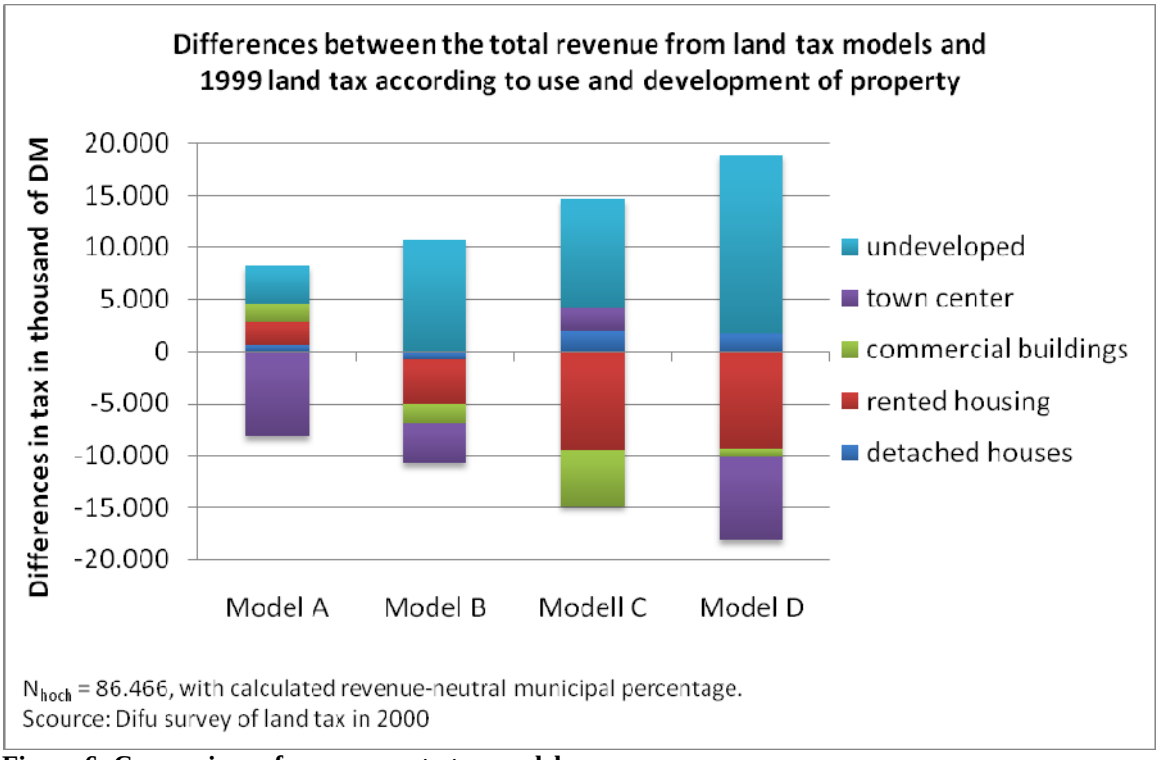


Figure 6: Comparison of new property tax models

The changes of the tax burdens will be less in models A and B than in model C and D. In all models the undeveloped land will be taxed more than today. If the tax burden is economically relevant this could be an expected contribution to mobilize land and increase density in land use as well as reduce land consumption. The highest increase of tax for undeveloped land is expected in Model D. Properties in town centers will be discharged – except Model C ("pure

land value tax"). The biggest discharge will take place for rented housing properties in Models B, C and D. The detached house owners will be faced with very small changes. The discussed models are not able to serve all the aims. While the acceptance is expected to be best in model A the other aims are not solved satisfying. The simplifications for the administration will be best in models C and D, also a possible land policy effect, but the acceptance of the models are expected to be difficult because the variations in comparison to the current tax burden are distinctive. Further variations and combinations of the models has been discussed (Lehmbrock 2004). Finally there was no decision for one of the models. In 2006 the Federal Constitutional Court made clear again in its resolution concerning the Inheritance Tax that a property tax has to be calculated on the basis of market values. Today new considerations are done to be able to manage the bulk business of assessing the properties according to tax requirements.

4. NEW APPROACH FOR TAX-RELEVANT PROPERTY ASSESSMENT

Online-Real-Estate-Price-Calculator (IPK) in Lower Saxony:
Since 2008 the Valuation experts' committees in Lower Saxony offer an online computer assisted valuation for built-up and non-built-up properties. Kertscher reported about the new development, based on price analysis with multiple regression functions (Kertscher 2009). The system is qualified for mass valuation tasks according to the most important residential market sectors. It is possible to calculate the estimated value of standard types for detached houses and condominiums online, terraced houses and semi-detached houses are prepared for operation.

The Committees continously are going public with online services, started in 2000 with the internet service of downloading standard ground values, followed in 2003 by annual real estate market reports and by an online information service from the purchase price collection in 2006 (Kertscher 2009, p. 2).

The online-real-estate-price-calculator (IPK) provides the possibility to calculate the approximated value of a individual property based on the type of residential property and four data:

- Location / address: the system connects the location with the database of the standard ground values which represents the average current price level of building land in this location
- Year of construction of the premises
- Living space/ floor space of the premises
- Plot size.

The approximated property value is calculated in two steps, firstly the value of the ground according to the standard ground value and, secondly, the value of the buildings by using

multiple regression functions. The regression functions are previously determined for representative areas with the property purchases registered in the official purchase price collection. Thus, the comparative method is used. This version will be enlarged in the near future in order to include also properties for twin houses and terraced houses (Kertscher 2009, p. 3).

In Northrhine-Westphalia a similar product has been developed, named "Standard real estate price information system" (IRIS). In this procedure a direct access to the official purchase price collection and the selection of comparable purchases is established; pre-calculated regression functions are not used. Access to the system is available in combination with the standard ground value online-service BORISplus.NRW (Wanzke 2009).

The programme based on regression calculation in Lower Saxony determines a price level for nearly every developed residential standard property. It is estimated that about 90 % of the residential properties could be assessed for taxation with the IPK in Lower Saxony. The comparison with the models A – D shows this solution similar to model B. But there is an important advantage: The accuracy of the assessment will more appropriate because IPK uses market analysis to determine the building's estimated value. The problem of the disposal of floor-space-data is here the same as explained in model B.

5. CONCLUSIONS

Examples of using mass valuation procedures according to property tax items can be studied in different countries, e. g. US, Sweden, Austria, the Netherlands etc. (Kauko, d'Amato 2008, Hofrén 2009, Op 't Veld 2008). In the Netherlands since 1995 the local property tax is calculated by assessing the market value in procedures of mass valuation (OZB - Onroerende zaak belasting). The starting point for implementing tax procederes are different in each country because the available data, the rules about data protection or the administrative organisation may be very different.

A group of German states is preparing a new approach for tax-relevant property assessment. The experiences of the Dutch system are very important for the project. The approach is based on the IPK in Lower Saxony, an online-real-estate-price-calculator for buildings in residential use (comp. chap. IV.). The assessments are going conform to the requirements of the Federal Constitutional Court to focus property-related taxes on market values. A new market-value based property tax in Germany has to be evaluated according to the discussed aims (comp. chap. III). Up to now it is no modell known which meets all these requirements. The reform model of the property tax will be a political compromize within the aims.

The tax assessment of property in Germany converges more and more with the valuation of market values. The efficiency of the processes of the financial authorities, municipalities and valuation committees could be strenthened (no redundant data, common use of databasis etc.). A market-value based property tax assessment prepared in the responsibiliy of surveyors and valuers will be an excellent chance for their branch in Germany.

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