

ISSN 2443-8022 (online)

Taxation of Household Capital in EU Member States: Impact on Economic Efficiency, Revenue & Redistribution

Savina Princen, Athena Kalyva, Alexander Leodolter, Cécile Denis, Adriana Reut, Andreas Thiemann and Viginta Ivaskaite-Tamosiune

DISCUSSION PAPER 130 | AUGUST 2020



European Economy Discussion Papers are written by the staff of the European Commission's Directorate-General for Economic and Financial Affairs, or by experts working in association with them, to inform discussion on economic policy and to stimulate debate.

DISCLAIMER

The views expressed in this document are solely those of the author(s) and do not necessarily represent the official views of the European Commission.

This manuscript was completed before 31 January 2020, before the economic impact of the COVID-19 pandemic reached Europe.

Authorised for publication by Mary Veronica Tovšak Pleterski, Director for Investment, Growth and Structural Reforms.

LEGAL NOTICE

Neither the European Commission nor any person acting on behalf of the European Commission is responsible for the use that might be made of the information contained in this publication.

This paper exists in English only and can be downloaded from https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications en.

Luxembourg: Publications Office of the European Union, 2020

PDF ISBN 978-92-76-11198-6 ISSN 2443-8022 doi:10.2765/490475 KC-BD-19-017-EN-N

© European Union, 2020

Non-commercial reproduction is authorised provided the source is acknowledged. For any use or reproduction of material that is not under the EU copyright, permission must be sought directly from the copyright holders.

CREDIT

Cover photography: © iStock.com/shironosov

European Commission

Directorate-General for Economic and Financial Affairs

Taxation of Household Capital in EU Member States Impact on Economic Efficiency, Revenue and Redistribution

Savina Princen, Athena Kalyva, Alexander Leodolter, Cécile Denis, Adriana Reut Andreas Thiemann and Viginta Ivaskaite-Tamosiune

Abstract

Taxation of capital, including the taxation of capital income and stocks, could play an important role in increasing revenue efficiency and making the tax system fairer. Recent international tax developments on automatic exchange of information and administrative co-operation have increased the capacity of Member States to raise taxes from mobile tax bases such as capital income. This paper first analyses the tax treatment of household capital income. It presents the theoretical features of the optimal taxation of capital income and describes the tax treatment of income from different capital assets in EU Member States. The paper then focuses on the taxation of owner-occupied housing and measures the impact of specific tax features on the cost of home ownership by using an indicator-based analysis. Then, it analyses specific issues in capital gains taxation and their macroeconomic effects. Finally, the paper explores the possibilities of increasing revenue efficiency through wealth transfer taxes, i.e. inheritance and gift taxes. It provides an up-to-date review of the theoretical arguments and the practical implementation of such taxes in EU Member States and tries to shed light on the reasons why these taxes contribute only little to raising revenues.

JEL Classification: D1, D2, D3, E6, H2, H21, J08, J2.

Keywords: labour taxation, capital taxation, inclusive growth.

Acknowledgements: The authors are grateful for valuable contributions of Estefania Vazquez Torres and comments received by Mary Veronica Tovšak Pleterski, Alexandr Hobza, Anne van Bruggen, Florian Wöhlbier, Philippe Demougin and Milena Mathe.

Contact: Savina Princen, European Commission, Directorate-General for Economic and Financial Affairs, savina.princen@ec.europa.eu.

CONTENTS

1.	laxa	laxation of household capital income						
	1.1.	Taxing household capital income – economic principles						
	1.2.	Tax treatment of household capital income and related tax expenditures in EU Member States11						
		1.2.1.	Measuring the budgetary and distributional impact of capital income related expenditures					
		1.2.2.	Income from immovable property	14				
		1.2.3.	Income from financial assets	16				
		1.2.4.	Income from private pension savings	18				
2.	Taxa	ation of	home ownership	20				
	2.1.	Tax tre	eatment of owner-occupied housing	20				
	2.2.	Impa	ct of taxation on housing investment decisions	22				
3.	Taxa	ation of	capital gains	26				
	3.1. T	he eco	nomics of capital gains taxation	26				
		3.1.1.	Revenue efficiency	26				
		3.1.2.	The lock-in effect	27				
		3.1.3.	The macroeconomic effects of capital gains taxation	28				
	3.2.	Revei	nues from capital gains taxes	30				
	3.3.	Tax tre	eatment of capital gains in selected EU Member States	30				
4.	Taxa	ation of	wealth transfers: inheritances and gifts	33				
	4.1.	Taxin	g inheritances and gifts: theoretical arguments	35				
		4.1.1.	Theoretical case in favour of taxing inheritances and gifts	35				
		4.1.2.	Distortive effects of inheritance and gift taxes	36				
	4.2.	Taxin	g inheritances and gifts: current practice in EU Member States	37				
		4.2.1.	Tax treatment of inheritance and gifts	37				
		4.2.2.	Revenues generated by inheritance and gift taxes	40				
	4.3.	Challe	enges in taxing inheritances and gifts	41				
		4.3.1.	Political economy	41				
		4.3.2.	International tax avoidance and evasion	42				
		4.3.3.	Tax design issues of inheritance taxes	44				
Cond	clusions	· · · · · · · · · · · · · · · · · · ·		46				

Introduction5

ANNEX	(1 – Ta	x treatment of household capital income	48
	Table	A1.1. Tax treatment of rental income (2017)	48
	Table	A1.2. Tax treatment of financial assets (2017)	51
	Table	A1.3. Tax treatment of private pensions (based on policy rules of 2017)	58
ANNEX	(2 – Ta	x treatment of household capital income - Further empirical results	65
	A2.1.	Budgetary effects of removing household total capital tax expenditures (in % of GDP)) 65
	A2.2.	Distributional effects of household total capital tax expenditures	65
	A2.3.	Budgetary impact of removing rental income tax expenditures (in % of GDP)	66
	A2.4.	Distributional impact of removing rental income tax expenditures	66
	A2.5.	Budgetary impact of removing tax expenditures on financial income (in % of GDP)	67
	A2.6.	Distributional impact of removing tax expenditures on financial income	67
	A2.7.	Budgetary impact of removing private pension income tax expenditures (in $\%$ of GDF	²)68
	A2.8.	Distributional impact of removing private pension income tax expenditures	68
ANNEX	(3 – Us	ser cost of owner-occupied housing	69
	A.3.1.	Methodology: Parameters, assumptions and hypotheses	69
		A.3.1.1. User cost of housing indicator (UCoH)	69
		A.3.1.2. Main parameters (sources and values)	
		A.3.1.3. Review of assumptions, scope and limitations	
	A.3.2.	Evolution of the value of the tax-adjusted UCoH and of the contribution of individual elements for all Member States, 1996-2017	tax 74
ANNEX	(4 - Ta	x treatment of inheritance and gift taxes	78
REFERE	ENCES		82

INTRODUCTION

While the tax structure is skewed towards labour in most EU Member States, there is space in many Member States to shift the tax burden to other tax bases, including capital. A tax structure heavily reliant on labour taxes can depress economic growth and employment. Therefore, many European economies still face the challenge of making their tax structure less growth-distortive and shifting taxes away from labour to less-distortionary tax bases. While recurrent property and consumption taxes as well as environmental taxes were identified as the least growth-distortive tax bases, other capital taxes¹ may also serve as an alternative tax base. Even more so as recent international tax developments on automatic exchange of tax information and administrative cooperation (e.g. the adoption of Council Directive 2011/16/EU on Administrative Co-operation (DAC), the implementation of the Anti-Tax Avoidance Directive (ATAD)) have made capital taxation more attractive as a revenue source.

Taxation of household capital income can make the tax system more redistributive. Although income inequality is, on average, still lower in the EU than in other advanced economies, the increased inequality in several Member States has fuelled a perception of an unfair burden-sharing within societies (European Commission, 2018a). The importance of tackling inequality has been stressed in the context of the European Pillar of Social Rights and has been underlined in the 2019 Annual Growth Survey. In general, distribution of capital income is much more unequal than that of labour income (Dao et al., 2017). Capital income inequality is due to differences in (accumulated) labour income and savings, as well as in inherited wealth. To address income inequality, Member States mainly rely on the benefit system, but the tax system plays a relevant role as well. While redistributive tax policy mostly focuses on labour income, capital taxation can also be of help.

Taxing household capital stocks (wealth) may also make the tax system more efficient and help addressing inequality issues. Besides inequality of income or of consumption, wealth inequality, inequality of opportunity and the transmission of inequality across generations matter. Based on their respective wealth databases, both the ECB and the OECD recently studied wealth inequality³ and found that wealth is about twice as concentrated as income (see Graph 0.1). Moreover, these studies show that wealth concentration is related to income concentration, but also to indebtedness and the lifecycle.⁴ Composition of the asset portfolio varies a lot with the size of the capital stock: immovable property makes up the largest share of gross wealth for most of the distribution, while financial assets are especially important at the top of the distribution.⁵ Taxing inheritances and gifts helps reduce

¹ Capital taxes include taxes on capital income from corporations, households and self-employed, as well as taxes on capital stocks (e.g. recurrent property taxes, inheritance taxes) or their transaction.

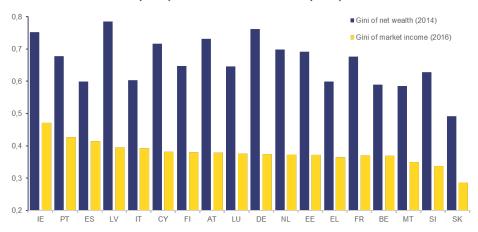
² Lower labour shares of income are strongly associated with higher income inequality as measured by the Gini coefficient. See Dao et al (2017).

³ Household and Finance Consumption Network (2016). Balestra, C. and R. Tonkin (2018).

^⁴ Wealth accumulates with age, since consumption smoothens across the lifecycle. Moreover, the rising wealth accumulation in the second half of last century adds a cohort effect to the age effect. This explains why the median wealth of the oldest households (whose reference person is older than 75 years), is actually comparable to the median wealth of households whose reference person is aged between 45 − 54 years (Household and Finance Consumption Network, 2016).

⁵ Financial wealth is very unequally distributed and is the main factor influencing overall wealth inequality. One interpretation is that wealth diversifies the more it increases. Wealth accumulation would start with some precautionary savings (cash or saving accounts), then extend to owner-occupied housing and to dedicated oldage savings, and finally – if total wealth is large enough – follow a full diversification strategy, including a wide variety of assets (also the ones giving the highest returns and entailing the highest risks).

wealth inequality and increase the equality of opportunities in society. At the same time, those taxes are considered to be among the least distortionary taxes, as they have little effect on the incentive of donors⁶ and can be targeted at high income-earners⁷. Moreover, in the context of an ageing population and of a general increase of wealth, the value of forthcoming inheritances is growing, which builds up momentum to reconsider inheritance taxes as a potentially more important revenue source and a way to help address inequality issues.



Graph 0.1. Gini of market income (2016) and Gini of net wealth (2014) in the euro area

Source: European Commission calculations based on EU-SILC data for market income and on the second wave of ECB's Household Finance and Consumption Survey for net wealth. Data are not available for Lithuania.

Note: Wealth data are from 2014 except for Estonia, Ireland, Malta, the Netherlands, Portugal and Finland where they are from 2013 and for Spain where they are from 2011.

All in all, the design of household capital taxation should be considered within the broader policy context and in light of country-specificities. To reconcile equity and efficiency, including addressing any existing market failures, and to increase neutrality across assets, it is important to consider the overall tax mix and structure of the tax system. In addition, the wage dispersion and employment level specific to each country are crucial, as they influence the relative share of labour and capital sources of personal income. Moreover, country-specificities and national preferences are an important consideration when analysing the overall design of the tax system and the tax treatment of capital income.

This paper analyses the design of household capital taxation with a view to enhancing economic efficiency, revenue and redistribution. This paper brings together the different notes on household capital taxation, which were presented in the Economic Policy Committee in 2018-19. The analysis in this paper has fed the discussions held in the Economic Policy Committee, where country delegates have commented and provided country-specific experience on the topic. The paper mainly focusses on taxation of household capital income, including the taxation of income from specific assets and of capital gains, but also studies the taxation of inheritances, which are a stock of capital (Graph 0.2). The paper is structured as follows: the first chapter analyses the tax treatment of household capital income. It presents the theoretical features of the optimal taxation of capital income and describes the tax treatment of income from different capital assets in EU Member States. The second chapter focusses on the taxation of owner-occupied housing and measures the impact of specific tax features on the cost

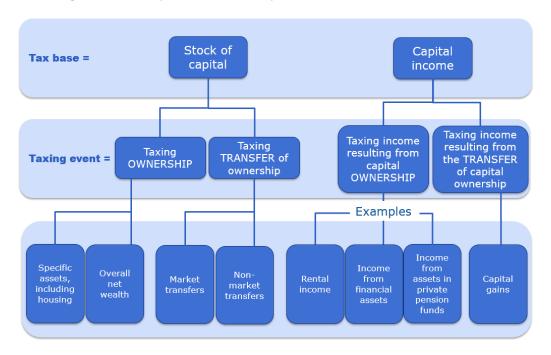
_

⁶ See Goupille-Lebret and Infante (2017) for France and Erixson and Escobar (2018) for Sweden.

⁷ See Elinder et al. (2016).

of home ownership by using an indicator-based analysis measuring the marginal cost of capital for owner-occupied housing. The third chapter explores capital gains taxation and its macroeconomic effects. Chapter four provides an up-to-date review of the theoretical arguments and the implementation of inheritance and gift taxes in EU Member States. It also sheds light on the obstacles that hinder a more extended use of this type of taxes.

Graph 0.2. Taxing household capital stocks and capital income



1. TAXATION OF HOUSEHOLD CAPITAL INCOME

Taxation of household capital income plays a crucial role in terms of economic efficiency of the tax system (Mirrlees, 1971). Capital income accumulation is strongly correlated with economic growth (although the causality link is not always obvious) and is sensitive to the after-tax return. Hence, the tax system can distort household investment decisions, i.e. decisions of households on how much to invest, when to invest and in what assets to invest (see Box 1.1 for a literature review). In the absence of market failures or externalities, resources are misallocated in so far as capital inputs are directed from their most productive uses – that is, those with the highest rates of return before taxes – to uses or locations where such inputs are less productive, but yield greater after-tax returns as a consequence of their relatively favourable tax treatment. Since capital taxation also affects the financing of the real economy, it is relevant to understand to what extent capital taxation influences private investment and capital allocation in the economy. Moreover, the way capital is taxed has an impact – among other factors – on disposable income of households, which can become particularly acute in periods of unemployment or retirement, when they can no longer rely on labour income.

Furthermore, there is momentum to reconsider household capital taxation as a revenue source. Given the mobility of international capital flows, capital taxes were long considered to be relatively more distortive revenue sources, as they would result in large behavioural shifts (and could easily be avoided). Many Member States, therefore, rely little on household capital taxation as a revenue-raising instrument⁸. Many countries tax dividends, interests and capital gains at a flat and lower rate than labour income, since retaining final withholding taxes prevents tax avoidance behaviour. This argument, however, may become less relevant taking into account recent developments on automatic exchange of information and anti-abuse measures which have increased the capacity of Member States to raise taxes from mobile tax bases. This makes capital taxation more attractive as a revenue source and offers the opportunity to design it in a way that favours inclusive growth.

This chapter focusses on how the design of household capital income taxation impacts on economic efficiency, revenue and re-distribution. Section 1 presents and discusses the general principles underlying the taxation of household capital income. Section 2 shows how personal income tax expenditures and favourable tax treatment of income from rented housing, financial assets and private pensions may impact on economic efficiency, revenue and re-distribution. This section also provides empirical results on the budgetary impact and distributional effects of household capital income tax expenditures. Annex 1 provides a detailed description of the tax treatment of these types of household income in EU Member States⁹.

Box 1.1. LITERATURE REVIEW - EFFECT OF CAPITAL TAXATION ON HOUSEHOLDS' INVESTMENT DECISIONS

Economic theory suggests that taxation has a potentially large impact on households' investment choice and portfolio composition (e.g. Domar and Musgrave, 1944; Mirrlees, 1971; Feldstein, 1976). It identifies two channels through which this impact occurs. The first relates to different (marginal) effective tax rates across households and across assets, which may lead to a portfolio specialisation. The second relates to the trade-off between risk and return, even if it is ambiguous how taxes and risk attitude influence each other.

-

⁸ Revenue from household capital taxation amounts to 1% of GDP on average in the EU in 2016. These revenue statistics on capital taxation only reflect the capital taxed outside the personal income tax system, although many Member States tax capital income through the personal income tax system.

⁹ The country-specific information in this note does not aim to be exhaustive and is not meant as a presentation of best practices. It aims at presenting the variety of tax policies used in Member States.

Empirical studies confirm the responsiveness of the households' investment choices and of their portfolio composition to simple or more complex tax reforms. Most empirical studies on how taxation affects portfolio choice look at the United States, dating back to the pioneering work of Feldstein (1976). The literature regarding EU countries is relatively new and covers tax reforms affecting different types of assets, like immovable property, financial assets or private pensions.

For immovable property, the literature shows that transaction taxes may lead to a shift from housing investment to higher-return commercial investment. However, they may also discourage the housing trade process and, in turn, the reallocation of housing to its most productive use. Based on administrative data, Best (2017) found that a temporary elimination of a 1% transaction tax increased housing market activity by 20% in the short run in the United Kingdom. The favourable tax treatment which is often granted to owner-occupied housing - imputed rent is untaxed and mortgage interest tax deductible - represents a tax expenditure that can lead to severe economic distortions, both in the 'tenure' choice and in the allocation of capital to different types of property, as in the accumulation of housing debt. Transaction taxes and tax subsidy to home ownership affect economic efficiency at a broader level by making geographical relocation of workers more costly.

For investment in financial assets, Alan and Leth-Petersen (2006) analysed the effects of a substantial tax reform in Denmark on the portfolio composition of households. The reform lowered the marginal tax rate on capital (bonds and stocks), while increasing the cost of debt. The study finds that the tax reform significantly incentivises households to restructure their balance sheets towards capital. Zoutman (2015) studied the effects of a capital income tax reform in the Netherlands, increasing the tax on financial assets as well as on owner-occupied housing. The study shows that the tax reform significantly impacted the share of the portfolio invested in financial assets. Schalck (2017) examined for five financial assets in France how a different tax treatment affects households' investment choice. Based on an autoregressive-distributed lag approach, the study finds a spill-over effect from taxation and observes asymmetric behaviour. These findings suggest that liquidity preference and loss aversion play a role in determining household reaction to capital taxation.

In terms of private pension investment, Jappelli and Pistaferri (2003) analysed for Italian life insurance contracts the impact of abolishing tax incentives for individuals with high marginal tax rates and of introducing incentives for those with low rates. The study concludes that the reform had no effect, neither on the decision to invest in life insurance or on the amount invested. A possible explanation is the lack of information and the lack of commitment to long-term investment.

OECD (2018a)'s cross-country analysis found that the marginal effective tax rates are often significantly higher than marginal statutory rates applicable to household capital income. This is mainly due to the heterogeneous tax treatment, the presence of multiple taxes on capital income (e.g. income taxes, capital gains taxes, transaction taxes etc.), the tax deferral effects and specific tax treatment of specific assets that reduces the tax base (e.g. tax expenditures).

1.1. ECONOMIC PRINCIPLES OF TAXING HOUSEHOLD CAPITAL INCOME

According to optimal tax theory, in the absence of market failures, a tax system should be neutral as regards when to save and consume (Mirrlees, 1971; Conesa et al, 2009). To maintain a stable consumption level over their life cycle, individuals invest some of their income to benefit from a return in the future. The moment to invest will very much depend on the personal situation and characteristics of the individual and on his/her intertemporal choice of lifetime consumption. A tax system should not distort these decisions ¹⁰. Moreover, a tax system should be neutral as regards what type of asset to invest into. According to theory (Mirrlees, 1971), a neutral tax treatment avoids distorting the resource allocation and possible tax-induced overinvestment by households in certain

_

¹⁰ Conesa et al. (2009) show that capital taxation can improve welfare, if financial markets are incomplete, such that individuals (excessively) accumulate precautionary savings.

types of assets¹¹. Achieving asset-neutrality would mean taxing income from all activities and sources in the same way (land, labour and capital). Under the comprehensive income definition¹², the taxable income is the total amount that an individual spends on consumption in a given period plus the increase in economic wealth. This includes cash flows, such as wages, interests, dividends and rents, as well as accrued capital gains and imputed rents from owner-occupied housing. Hence, under a comprehensive income tax, the tax base is defined as including capital income as well as labour income and all components of the tax base are taxed equally, using a single tax rate schedule¹³. This allows taking into account the total income of households when taxing capital. Accordingly, the costs incurred to obtain the income (including financial costs) are tax deductible. In this way, only the net return on investment is subject to taxation.

A comprehensive income tax is sometimes difficult to implement. A comprehensive income tax approach may give rise to some measurement issues (OECD, 2018a). For example, information is often missing on accrued capital gains, which leads only realised capital gains to be included in the tax base, i.e. the difference between the acquisition cost and the value at the date of disposal. ¹⁴ Also the value of imputed rents from owner-occupied housing is difficult to estimate, which may explain why imputed rents are seldom included in the tax base. Moreover, the mobility of capital income has made it more subject to tax planning and tax evasion and has made a comprehensive income tax approach more difficult to implement.

Therefore, the dual income tax system was suggested as an alternative to a comprehensive income tax system. A dual income tax system taxes capital and labour income separately. Labour income and benefits (e.g. unemployment benefits) are typically subject to one tax rate schedule, while capital income is taxed at a lower flat rate, usually the same as the corporate income tax rate. The advantage of a dual income tax system lies in its harmonised tax treatment of all capital assets, limiting tax planning opportunities and simplifying the tax system. Taxing capital income by a final withholding tax at a flat rate also significantly reduces tax compliance and collection costs. Moreover, the lower tax rate on capital as compared to labour encourages households to save or invest and does not penalise those who hold risky assets (Boadway, 2004). Given the lower tax rate for capital income, a dual income tax system grants a preferential tax treatment to capital income as compared to labour income. This may raise questions in terms of equity, as high-income households tend to earn more income from capital than low-income households. Moreover, a dual income tax system does not

¹¹ A distortion and a corresponding deadweight loss will occur when the tax system leads to changes in relative prices triggering changes in supply and demand that would not occur in the absence of tax.

¹² For more information on this 'Haig-Simons' definition of income, see Haig (1921) and Simons (1938).

¹³ Alternatively, if income from capital and the returns to savings are not taxed until they are used for consumption, then the resulting tax system will be based on a 'consumption tax'.

¹⁴ In all EU Member States, capital gains tax is charged on a realisation basis, at both the corporate and the individual level.

¹⁵ Separating capital and labour income by imputing a normal rate of return to capital investment is not an easy task since labour income may include economic rents, risk premia and windfall profits which may be regarded as capital returns rather than labour returns (see Eggert and Genser, 2005). The Mirrlees Review proposes a Rate of Return Allowance (RRA) alongside a nonlinear tax on earnings. In this proposal, risk-free returns on all assets are tax exempt, while excess returns on risky assets face a positive tax rate and a nonlinear income tax applies to earnings.

¹⁶ To achieve equity, a dual income tax system should be accompanied by a wealth transfer tax, like a gift or inheritance tax. The equity aspect could also be integrated by applying a progressive dual income system, as experimented by Norway (see Alstadsaeter, 2007).

always solve the measurement issues raised by a comprehensive tax approach (e.g. measurement of imputed rent).

The interaction with the corporate income tax system should also be considered. A dual income tax system requires considering taxation of household capital income in relation to corporate income taxation. To align the personal and corporate income tax system, the corporate income tax rate should be set equal to the flat tax rate on personal capital income (Boadway, 2004). A preferential tax treatment of certain asset types in the corporate compared to the personal income tax could lead to incentives to limit the tax burden by setting up a company and to shift income between capital and labour tax bases. A review of the empirical economic literature ranks income shifting between capital and labour sources as a major distortion (Nicodème, 2009).

1.2. TAX TREATMENT OF HOUSEHOLD CAPITAL INCOME AND RELATED TAX EXPENDITURES IN EU MEMBER STATES

The tax treatment of household capital income considerably differs across countries. The taxation of capital income paid to individuals is not harmonised at EU-level. Sweden and Finland apply a dual income tax system and fully decouple the taxation of capital and labour income. ¹⁷ Most other Member States apply a mixed tax approach, combining features of a comprehensive and dual income tax system by taxing some assets inside and others outside the personal income tax system (see Table 1.1).

Within a country, the tax treatment of household capital income often also differs across assets. A comparison of the tax treatment of different types of household capital income (immovable property, financial assets, private pensions) shows that the tax treatment varies considerably across and within EU Member States (see Table 1.1). While in most Member States rental income and private pension income are taxed within the personal income tax system, income from financial assets is taxed separately by the majority of countries. Moreover, within a country, different rates and various tax expenditures may apply across assets (see Annex 1 to 3).

To encourage investment, many Member States use tax expenditures to favour certain types of capital income. Tax expenditures include exclusions, deductions, credits and reduced rates for specific groups of tax payers or specific activities. EU Member States make ample use of tax expenditures with a wide variety of aims including employment creation, education, entrepreneurship, home ownership, income redistribution and investment. While defined as a reduction in tax revenue in the National Accounts, they are often economically equivalent to public expenditure. They could be considered as 'hidden subsidies' (Kalyva et al., 2014), since they grant a reduced tax liability to specific tax payers or activities.

Economically efficient taxation implies a broad tax base with limited use of tax expenditures. Limiting the use of tax expenditures contributes to the neutrality of the tax system as it reduces the extent to which the tax system distorts work, investment and consumption decisions. Broad tax bases also make revenue collection and tax compliance easier and therefore increase the efficiency of the tax system. In turn, increased revenue collection provides the necessary fiscal space to reduce marginal tax rates (OECD, 2010a, OECD, 2010b). However, where considerable market failures exist, the use of tax expenditures may be justified. When using tax expenditures to favour certain types of capital income, it is important to ensure that they are the most cost-efficient means of achieving given economic and social policy goals (Kalyva et al., 2014). A regular cost and benefit evaluation of tax expenditures will help optimise their use. This should be done cautiously because the actual effects of

¹⁷ The dual income tax was first implemented in the four Nordic countries (Denmark, Finland, Norway and Sweden) through a number of tax reforms from 1987 to 1993. The dual income tax is therefore also known as the Nordic tax system or the Nordic Dual Income Tax.

specific tax expenditures depend greatly on the particular context in which they are applied in individual Member States.

Table 1.1. Tax treatment of different types of assets, 2017

	Oveall tax system	Tax treatment of different types of assets					
Country	Dual or comprehensive income taxation	Owner-occupied housing (imputed rent)	Rental income	Financial income		Private pension income	
				Interest	Dividend		
BE	Mixed	Untaxed	PIT	Separately	Separately	Separately	
BG	Mixed	Untaxed	PIT	Separately	Separately	Separately	
CZ	Mixed	Untaxed	PIT	Separately	Separately	Separately	
DK	Mixed	Untaxed	PIT	PIT	PIT	PIT	
DE	Mixed	Untaxed	PIT	Separately	Separately	PIT	
EE	Mixed	Untaxed	Separately	PIT	PIT	Separately	
IE	Mixed	Untaxed	PIT	Separately	PIT	PIT	
EL	Mixed	Untaxed	Separately	Separately	Separately	PIT	
ES	Mixed	Untaxed	PIT	Separately	Separately	Mixed	
FR	Mixed	Untaxed	PIT	PIT	PIT	PIT	
HR	Mixed	Untaxed	Separately	Separately	Separately	Separately	
IT	Mixed	Untaxed	Mixed	Separately	Separately	Separately	
CY	Mixed	Untaxed	PIT	Separately	Separately	PIT	
LV	Mixed	Untaxed	Mixed	PIT	PIT	PIT	
LT	Mixed	Untaxed	Mixed	Separately	Separately	PIT	
LU	Mixed	Untaxed	PIT	Separately	Separately	PIT	
HU	Mixed	Untaxed	Separately	Separately	Separately	Separately	
MT	Mixed	Untaxed	Mixed	Separately	Separately	PIT	
NL	Mixed	PIT	Separately	Separately	Separately	PIT	
AT	Mixed	Untaxed	PIT	Separately	Separately	PIT	
PL	Mixed	Untaxed	Mixed	Separately	Separately	PIT	
PT	Mixed	Untaxed	PIT	Separately	Separately	PIT	
RO	Mixed	Untaxed	Separately	Separately	Separately	Separately	
SI	Mixed	Untaxed	Separately	Separately	Separately	PIT	
SK	Mixed	Untaxed	PIT	Separately	Separately	Separately	
FI	Dual	Untaxed	Separately	Separately	Separately	Separately	
SE	Dual	Untaxed	Separately	Separately	Separately	PIT	
UK	Mixed	Untaxed	PIT	PIT	Separately	PIT	

Note: PIT stands for personal income taxation. For details see Annex Tables 1 to 3.

The revenue generated by household capital income taxes, applied outside the personal income tax system, is very heterogeneous across countries. Based on revenue statistics, capital taxes (8% of GDP) generate less revenue in the EU on average compared to labour (19% of GDP) or consumption taxes (11% of GDP in 2016). Within capital taxes (Graph 1.1), household capital income taxes are the smallest contributors, at least when not considering capital income taxed through the personal income tax system. ¹⁸

¹⁸ As a limitation, the revenue statistics on capital taxation only reflect the capital taxed outside the personal income tax system, although many Member States tax capital income through the personal income tax system.

14
12
10
8
6
4
2
10
LU BE FR UK IT MT CY DK EL PL ES FI NL PT AT DE SE IE CZ HU SK HR BG RO SI LT LV EE EU EA

Graph 1.1. Revenue from capital taxes as a percentage of GDP (2017)

Source: Commission Services

Income of corporations

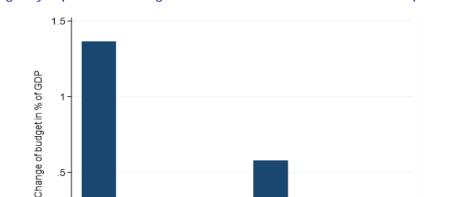
1.2.1. Measuring the budgetary and distributional impact of capital income related tax expenditures

Income of self-employed

Stock of capital

Income of households

The EUROMOD-EWIGE microsimulation model allowed to estimate the budgetary and redistributive effect of personal income tax expenditures related to household investment. To do so, the Joint Research Centre of the European Commission used EU-SILC data (Kuypers et al., 2017), extended to include the Household Finance and Consumption Survey (HFCS), household-level data on households' finances and consumption in euro area countries collected by the European Central Bank (2016 data). Capital-related tax expenditures (rental income, financial income and private pensions) have been identified first for six selected countries: Belgium, Finland, France, Germany, Spain and Italy. Simulations refer to June 2017 tax rules and assume no behavioural effects.



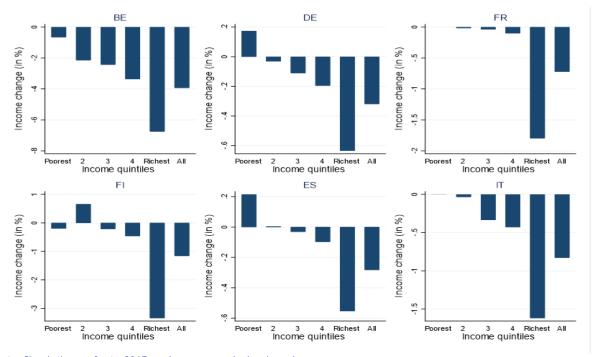
Graph 1.2. Budgetary impact of removing total household investment-related tax expenditures (in % of GDP)

Note: Simulations refer to 2017 and assume no behavioural responses.

BE

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

Budgetary and distributional effects are quantified by comparing the current tax system to a comprehensive tax system without tax expenditures (benchmark). In the tax expenditure-free scenario capital income is subject to a comprehensive personal income tax, i.e. all preferential tax treatments granted to capital income are abolished and capital income is taxed equally to labour income. Overall, results show that the budgetary impact of taxing household capital income comprehensively and removing capital-related tax expenditures - assuming no behavioural reaction - is relatively moderate: It ranges from close to 0.1 % in Spain to about 1.4% of GDP in Belgium. Among the different types of investment income (financial income, rental income or private pensions) tax expenditures related to financial income are quantitatively the most important ones in all six countries. The distributional impact of taxing household capital income comprehensively importantly differs across countries and results are mainly driven by financial income-related tax expenditures. All in all, the findings show that mainly high income taxpayers are affected by investment-related tax expenditures since a larger fraction of their total income stems from investments. These results have been confirmed by applying the same methodology, for 11 more Member States: Austria, Cyprus, Estonia, Greece, Hungary, Ireland, Luxembourg, Poland, Portugal, Slovenia and Slovakia (see Annex 2 for empirical results).



Graph 1.3. Distributional impact of total household investment related tax expenditures

Note: Simulations refer to 2017 and assume no behavioural responses.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

1.2.2. Income from immovable property

When analysing the tax treatment of immovable property, a distinction needs to be made between owner-occupied housing and rented housing. The capital aspect of housing - on which this paper focusses – is taxed differently for owner-occupied and rented housing. Chapter 2 discusses the taxation of home ownership in detail, while this chapter focusses on the taxation of rental income.

Most Member States tax income from rented housing under the personal income tax system, although the tax treatment is rather country-specific (see Table 1.1). Only Greece, Croatia, the Netherlands, Slovenia, Romania, Finland and Sweden tax the rental income separately from other personal income, often at a flat rate. Italy, Latvia, Malta and Poland have a two track system where the taxpayer can chose whether the rental income is taxed separately at a flat rate (without any deductions)

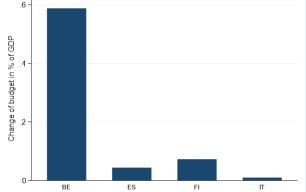
or computed with other income and taxed at personal income tax rates. Lithuania allows the taxpayer to choose a lump-sum tax for rental income not exceeding a certain threshold.

The tax base and tax deductions differ also from one country to another. Achieving tax neutrality would mean taxing the net rental income, i.e. the received rental income less all legitimate expenses. Almost all Member States use the received rental income as tax base. Belgium, however, uses (outdated) cadastral values as a proxy for the real rental housing market values¹⁹, while the Netherlands compute the taxable rental income on the basis of the value of the assets. Only thirteen Member States grant full tax deduction for expenses related to the rental activity (Czech Republic, Denmark, Germany, Croatia, Cyprus, Latvia, Luxembourg, Hungary, Austria, Poland, Slovenia, Slovakia, United Kingdom). Other Member States cap expense deductions or impose a fixed tax deduction (Bulgaria, Estonia, Ireland, Greece, Spain, France, Italy, Malta, the Netherlands, Romania, and Sweden). Not allowing full deduction of real expenses reduces the relative after-tax return of the property investment and may distort investment decisions (see Annex 1 Table A1.1).

Box 2. BUDGETARY AND DISTRIBUTIONAL IMPACT OF RENTAL INCOME-RELATED TAX EXPENDITURES

Apart from Belgium, the budgetary impact of rental income related tax expenditures appears to be limited (less than 0.1% of GDP). Graph 1.4 illustrates the budgetary impact of rental income related tax expenditures (in percent of GDP) when comparing the actual baseline with the tax expenditures-free benchmark scenario. Rental income-specific tax expenditures have been identified in four of the six countries. Their budgetary effect is very small in Spain, Finland and Italy (less than 0.1%). Belgium is the exception (0.58%), which is mainly due to taxing (much lower) cadastral values instead of real rental income combined with high (marginal) income tax rates (Annex 2 provides empirical results for some more countries).

Graph 1.4. Budgetary impact of removing rental income-related tax expenditures, as % of GDP, 2017



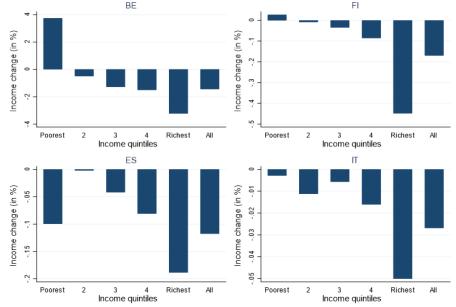
Note: No rental income-specific tax expenditures were identified for Germany and France. Simulations refer to 2017 and assume no behavioural responses.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

The overall distributional effect of rental income-related tax expenditures appears regressive (Graph 1.5), since high income earners benefit relatively more from rental income related tax expenditures. Under the Finish dual income tax system, rental income is subject to the separate taxation of capital income (at a 30%/34% tax rate). Therefore, tax payers who face a higher marginal personal income tax rate gain from the separate taxation of capital income. Italy partially exempts rental income from taxation by using the cadastral value or 95% of the contractual rent, whichever is higher. Spain applies a fixed tax deduction instead of allowing all real expenses to be deducted. Germany taxes rental income under the personal income tax system without applying any tax expenditure.

_

¹⁹ Commercial estate in Belgium is taxed according to the real rental value.



Note: Scaling (y-axis) differs across countries. Simulations refer to 2017 and assume no behavioural responses. The change in average equivalised disposable income due to the removal of tax expenditures is expressed in % of the average equivalised disposable income in the baseline. France applies a fixed tax deduction instead of allowing all real expenses to be deducted but this could not be simulated.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

1.2.3. Income from financial assets

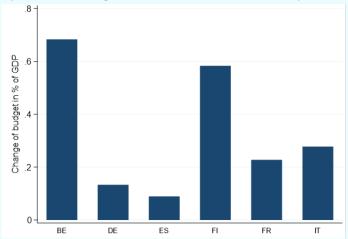
Member States operate different systems for taxing dividend income of individual shareholders. As for other types of capital income, two main approaches are used to tax the dividends received by the shareholder/individual. Some Member States integrate the dividends received in the personal income tax base together with the other income sources. Most Member States, however, tax dividends received outside the personal income tax system. This is done by applying a tax withheld by the payer of the dividend or by constituting a separate tax base in the hands of the recipient. In addition, different exemptions and deductions are applied across Member States (see Annex 1 Table A1.2).

To increase saving rates, some Member States exempt (part of) the interest derived from (specific) current or savings accounts. Low saving rates may hinder investment, the financial stability of households and economic growth. Tax incentives can help overcome short-sightedness when making intertemporal choices between immediate and future consumption (savings). Some Member States therefore apply a favourable tax treatment to interest received in order to promote savings. Belgium, for instance, exempts part of the interest income derived from a savings account. France and Germany also exempt up to a certain amount of financial income. While this type of tax expenditure may increase saving rates, it may also lead to economic distortions. It should therefore be assessed against its impact in terms of the short-run effects on employment and inflation, the medium-term effects on the rate of growth, and the long-term effect on the capital intensity of the economy.

Box 3. BUDGETARY AND DISTRIBUTIONAL IMPACT OF FINANCIAL INCOME-RELATED TAX EXPENDITURES

In line with OECD (2018a), the budgetary impact of removing financial income-related tax expenditures is found to be moderate, ranging from about 0.7% in Belgium and Finland to about 0.1% in Spain (Graph 1.6). Hence, tax expenditures granted to financial income have a moderate effect on the government's budget in the selected countries (Annex 2 provides empirical results for some more countries).

Graph 1.6 Budgetary impact of removing financial income related-tax expenditures, as % of GDP, 2017

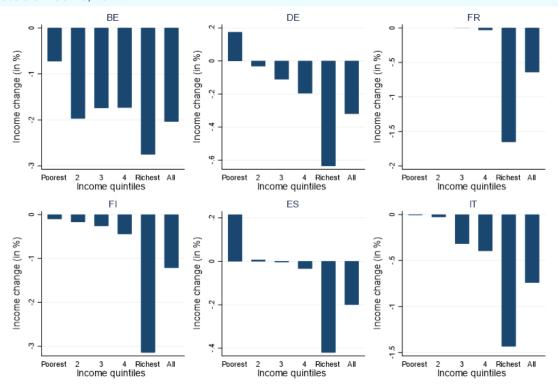


Note: The budgetary effect for Germany does not include private pension-related tax expenditures due to technical reasons. Simulations refer to 2017 and assume no behavioural responses.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

The distributional effects of financial income-related tax expenditures are found to be regressive (Graph 1.7). Most of the analysed countries tax financial income separately at flat rates below the highest marginal income tax rate (see Annex Table A1.2). Since financial income tends to be higher for high incomes, the corresponding tax advantage is also higher. The more financial income a taxpayer has, the more a taxpayer gains from separate taxation. For France, it should be noted that these simulations do not reflect the tax reform, which as of 1 January 2018 allows financial income to be taxed separately at a flat rate (plus social taxes). Moreover, all six countries apply a specific tax exemption granted to part of the financial income.

Graph 1.7 Distributional impact of removing financial income-related tax expenditures, change in disposable income, 2017



Note: Scaling (y-axis) differs across countries. The change in average equivalised disposable income due to the removal of tax expenditures is expressed in % of the average equivalised disposable income in the currently applicable tax system.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

This tax treatment often benefits high-income earners disproportionately. To promote savings among the most vulnerable households, the use of tax expenditures is rarely the most cost efficient instrument. Many tax expenditures are not means-tested and benefit all income levels. Moreover, high-income earners are often better able to take advantage of tax expenditures. Therefore, applying a favourable tax treatment to financial income does not necessarily have a positive impact on the income distribution and may even be regressive (see results Box 3).

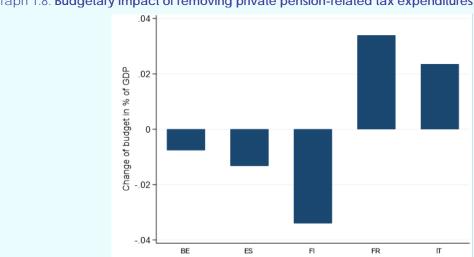
1.2.4. Income from private pension savings

Different systems regarding the taxation of pension contributions and pension income are in place in the EU (see Annex 1 Table A1.3). The most common system taxes both public and private pensions and follows the so-called EET approach (Exempt contributions, Exempt investment income and capital gains and Tax benefits). This approach is equivalent to a consumption tax (Kalyva et al., 2014 and Whitehouse, 2009) and the deductibility of the social contribution is justified in order to avoid double taxation. However, there are several exceptions and country-specific features in the taxation of pensions in the EU. This is the case in particular when social insurance contributions for pension schemes are taxed (fully or partially) or pension benefits are not taxed, fully or partially, by means of extra deductions and credits or reduced tax rates (Barrios et al., 2016).

Tax expenditures granting a favourable treatment to private pensions are widely used. In the context of an ageing population, private and funded pension systems are growing in importance. In this light, most Member States provide favourable tax treatment and various tax incentives to induce higher rates of private pension (i.e. third pillar) savings (see Annex 1 Table A1.3). The benchmark scenario used in this analysis is the EET approach and all deviations from that system are considered pension-related tax expenditures. The latter include among others: (a) exemption for some or all pension income often below certain thresholds, (b) a lower rate on pension income than ordinary labour income, (c) specific tax deductions and credits of pension contributions (which exceed those available to tax payers of working age) or (d) no application of social security contributions to pensions.

Box 4. BUDGETARY AND DISTRIBUTIONAL IMPACT OF PRIVATE PENSION-RELATED TAX EXPENDITURES

The budgetary effects of private pensions-related tax expenditures appear to be extremely small in the countries analysed (Graph 1.8). Removing tax expenditures would in fact reduce tax revenue in Spain and Finland. This is a result of the fact that private pension contributions, which are partially deductible in the current Spanish and Finish tax system, would become fully tax deductible under the benchmark scenario and lower taxable income (Annex 2 provides empirical results for some more countries).



Graph 1.8. Budgetary impact of removing private pension-related tax expenditures, in % of GDP, 2017

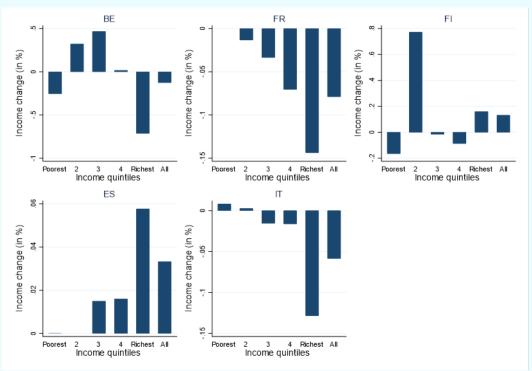
Note: For technical reasons the simulation was not performed for Germany. In Finland and Belgium simulation results are not statistically significantly different from zero. For France, deductions from contributions to the private pension

system are calculated as a share of net earnings and a ceiling applies. In the French benchmark scenario, 100% of actual contributions are tax deductible and the partial deduction of private pension benefits was removed. Spanish private pension contributions have been made tax deductible up to 8,000 EUR per year (in the policy system end of June 2017, used in the simulations). Applying the EET principle (benchmark system), private pension contributions should be fully tax deductible. Therefore, we consider this as a negative tax expenditure. Nevertheless, for Spain the numbers might still be a little overstated given reporting issues. For Italy, separate taxation of private pensions (flat at 20%) and upper limit for contributions to the private pension system have been removed in the benchmark system.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

The distributional impact of private pension-related tax expenditure seems to very much depend on the design in the country considered (Graph 1.9). Nevertheless, the average distributional impact of removing this type of tax expenditure is generally relatively small. When interpreting the simulation results, it is important to bear in mind that this analysis does not consider the overall effect of tax expenditures over the lifecycle. For instance, while working age individuals might suffer from negative tax expenditures due to private pension contributions not being fully tax deductible, pensioners might benefit from a partial tax deduction of private pension benefits. Hence, assessing the overall implication of private pension-related tax expenditures requires a model that takes into account the entire lifecycle of individuals, as well as work incentive policies.

Graph 1.9. Distributional effects of removing private pension-related tax expenditures, change in disposable income, 2017



Note: For technical reasons the simulation was not performed for Germany. Scaling (y-axis) differs across countries. Simulations refer to 2017 and assume no behavioural responses. The change in average equivalised disposable income due to the removal of tax expenditures is expressed in % of the average equivalised disposable income in the baseline.

Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

2. TAXATION OF HOME OWNERSHIP

Housing is often one of the most important assets of households and governments generally favour home ownership through the tax system. Enhancing home ownership is often a policy goal on the grounds of the broader benefits home ownership generates for society. These benefits include increased individual wealth accumulation and improved quality of life in local communities due to stronger community involvement. It is, however, debatable whether such support is justified on the grounds of potential drawbacks, such as the induced reduction in labour mobility, and thus employment levels, and the risk of over-investment in residential housing. The last two columns of Table 2.1 show the share of home ownership and the share of home ownership with a loan or mortgage. The tax system is one of the policy instruments used by most Member States to encourage home ownership, mainly through generous mortgage tax relief and/or tax exemption of imputed rent (Table 2.1).

2.1. TAX TREATMENT OF OWNER-OCCUPIED HOUSING

Owner-occupied housing is often subject to the same transfer and recurrent property taxes as rented housing. While showing a significant level of variation across Member States, transfer taxes on immovable property are still widely used in many Member States (Table 2.1). However, transfer taxes generate a more volatile revenue stream than recurrent property taxes and tend to discourage property sales and purchases, especially when statutory tax rates are high. Moreover, workers' mobility is restricted when the purchase of residential property is heavily taxed. Owner-occupied housing is often subject to recurrent property taxes, which are considered as a user charge reflecting the value of locally rendered public services. While this type of taxes was found to be among the taxes least detrimental to growth (Johansson et al., 2008), it is underused as revenue source in many Member States and even absent in some (Table 2.1). The case for increasing revenue generated by recurrent taxes on immovable property rests upon the relatively limited distortive effects they have on growth, compared to other taxes, notably taxes on income. Many Member States, however, have not updated property values for many years. In view of this, bringing the tax base into line with market values would not only lead to higher revenue, but would also correct the current distortions by making the tax liability reflect the current value of a property. Failure to update the tax base regularly risks causing erosion of the tax base — and thus of tax revenue — over time, while giving further support to rising property prices, particularly for housing.

Unlike rented housing, the capital aspect of owner-occupied housing (imputed rent) is untaxed in the vast majority of Member States. Taxing owner-occupied housing as capital asset would call for taxing the return on investment. Under neutral taxation of owner-occupied housing, imputed rent, i.e. the implicit rental income enjoyed by home owners, would be taxed as any other capital income, while the costs incurred to obtain it, including financial costs would be deductible. This, however, poses some challenges as the tax treatment of owner-occupied housing should ideally be considered in relation to the taxation of private pension savings. For owner-occupiers, housing property is a way to maintain standards of living after retirement, in particular as claims to the second pillar of pension systems might be subject to political risk. Therefore, most Member States do not tax the capital aspect of owner-occupied housing and do not include imputed rent in the personal income tax base. Imputed rent is only taxed in the Netherlands (Table 2.1), although even there the value of imputed rent that constitutes the taxable base is well below the corresponding market rental value. Exempting imputed rent from taxation, however, entails a significant fiscal cost. Recurrent property taxes can partly be used to compensate for the absence of imputed rent taxation.

Table 2.1. Housing tax elements in EU Member States, 2016-17

Country	Transfer tax rate*	Recurrent property tax revenue (%GDP)	Imputed rent untaxed	Mortgage interest deductibility	Rate of home ownership (%)	Rate of home ownership with mortgage or loan (%)
	2017	2016	2017	2017	2016	2016
BE	≥ 10%	1,3	X	Χ°	71,3	41,1
BG	<1%	0,3	X	Χ°	82,3	2,6
CZ	<5%	0,2	X	Χ°	78,2	19,4
DK	<1%	2,0	X	Χ°	62,0	47,7
DE	5-9%	0,4	X		51,7	26,2
EE	<1%	0,3	X	Χ°	81,4	19,5
IE	<5%	0,6	X		69,8	32,9
EL	<5%	2,8	X		73,9	13,9
ES	5-9%	1,2	X		77,8	30,9
FR	5-9%	3,3	X		64,9	31,0
HR	<5%	0,0	X		90,0	5,8
IT	5-9%	1,4	X	Χ°	72,3	15,9
CY	None	0,9	X		72,5	20,4
LV	<5%	0,9	X		80,9	9,8
LT	None	0,3	X		90,3	10,2
LU	5-9%	0,1	X	Χ°	73,9	43,3
HU	<5%	0,4	X		86,3	16,3
MT	None	0,0	X		81,4	21,1
NL	<5%	0,9		X	69,0	61,0
AT	<5%	0,2	X		55,0	25,2
PL	<5%	1,2	X		83,4	11,6
PT	None	0,8	X		75,2	36,7
RO	<5%	0,6	X		96,0	0,9
SI	<5%	0,5	X		75,1	10,6
SK	None	0,4	X		89,5	11,8
FI	None	0,8	X	Χ°	71,6	42,0
SE	<5%	0,8	X	X	65,2	54,8
UK	<1%	3,1	X		63,4	35,5

Note: * Transfer tax rates are those used in the indicator estimation. ° indicates that there is a ceiling on the nominal amount of interest and/or on the maximum tax rate at which mortgage interest can be deducted.

Source: European Commission Services and Eurostat (ilc).

Nevertheless, in several Member States owner-occupiers can, fully or partly, deduct mortgage interest payments from their income, incentivising (private) debt creation. Despite imputed rent being untaxed, several Member States allow mortgage interest payments to be deducted (Table 2.1). Tax systems that offer tax relief on mortgage interest payments are clearly biased in favour of debt-financed house purchases. The generosity of the tax relief on mortgage interest payments, and, in some cases, also on capital repayments, varies significantly across Member States. In general, this type of tax relief has been cut back in recent years or is being phased out. Exempting imputed rent while allowing mortgage interest deductibility, may have relevant macroeconomic implications. The existence of mortgage interest deductibility can contribute to rising house prices and increased leverage by lowering the cost of debt, especially if supply is inelastic. One also has to take into account the capitalisation effects of the preferential tax treatment of owner-occupied housing, whereby tax increases may lead to a corresponding decline in housing prices and tax reductions may lead to increases in prices. In addition to this, capital gains from the sale of a primary residence are typically exempt from capital gains tax.

Preferential tax treatment of owner-occupied housing tends to be regressive. The absence of imputed rent taxation, the deductibility of mortgage interest and the exemption of capital gains taxation lead to a bias towards home ownership in all EU Member States. While social policy goals may justify this favourable tax treatment, neutrality and efficiency would call for removing this preferential tax treatment of home ownership. Also distributional reasons argue in favour of removing this favourable tax treatment to ensure the equal treatment of home-owners and renters (OECD, 2011; OECD, 2018b). Moreover, mortgage interest deductibility tends to benefit high-income earners disproportionately, as the advantage often depends on the tax payer's marginal tax rate. Hence, tax payers who face a high marginal tax rate benefit to a larger extent from mortgage interest deductibility. Moreover, it is not unlikely that this type of tax relief will cause prices to rise, particularly when supply is rigid²⁰, thus ultimately making it more difficult for people to become homeowners, especially younger and less well-off households. Correction for this home ownership bias and taxing net imputed rent in the personal income tax system was shown to have no adverse effects on income inequality (Figari et al., 2017). Other factors, like the distribution of home ownership across the population, largely contribute to the distributional impact of taxing imputed rent.

2.2. IMPACT OF TAXATION ON HOUSING INVESTMENT DECISIONS

The 'user cost of housing (UCOH)' indicator measures the marginal cost of capital for owner-occupied housing. When considering home ownership as an investment decision, its cost can be estimated by applying neo-classical investment theory, which is similar to calculating the internal rate of return of the housing investment decision. This internal rate is the rate that would equate the actualised value of housing services with the initial investment and current value of future expenses. In such a framework, an equilibrium relationship is derived between the imputed rental income accruing to homeowners and the cost associated with home ownership, which in turn identifies the marginal cost of purchasing additional housing services. The user cost of owner-occupied housing is thus a measure of the annual cost of - alternatively return or benefit from - owning one's own dwelling, expressed as a percentage of the additional euro invested in own housing (see Annex 3.1 for details of the estimation methodology). Except for very specific (and rather deviant) cases where the user cost approaches zero or even becomes negative, no importance is to be given to the *absolute* value of the indicator. The estimation framework is best suited to compare alternative investment decisions.

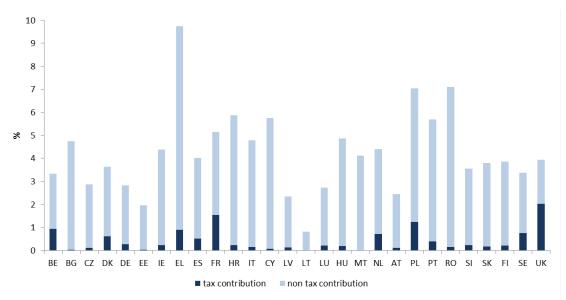
The indicator is related to new housing investment mainly financed through mortgage debt. It provides one estimate for each country and each year, using 2017 data (see Annex 3.1 for details). The estimated user cost of owner-occupied housing assumes rationality in housing investment decisions, meaning that for the last euro invested in own housing, the (actualised) costs equal the (actualised) returns over the lifetime of investment. The estimates are related to housing investment mainly financed through mortgage, since depending on country-specific circumstances, a relatively large proportion of owner-occupied housing is debt-financed (see Table 2.1). In addition, past swings in the housing cycle and the ensuing crises were largely driven and fuelled by debt-financed housing investment. This analysis focusses on the conditions applying to *new* investments in a particular year, as those are the ones driving the investment decisions in a particular year and country. However, house

_

²⁰ For a discussion of the macroeconomic implications of the tax subsidies granted in respect of housing, see European Commission (2015).

²¹ Data series run from 1996 to 2017. Due to data availability, the series for the Member States which have accessed the EU since 2004 (Bulgaria, the Czech Republic, Estonia, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia and Slovakia) start in 2001 only, while series for Belgium start in 2005 and for the Netherlands in 1997. For data sources and assumptions, see European Commission – Joint Research Centre (2018) Final report on the tax treatment of housing and the user cost of owner-occupied housing (UCOH) database.

prices are not part of the estimation formula, neither at the purchase value nor in anticipation of the future house price. Moreover, the calculation is done at equilibrium and does not account for the formation of bubbles. The formula simply uses the consumer price index as a deflator. Graph 2.1 shows the total estimated user cost of housing and its breakdown in tax and non-tax components for all EU Member States²². The lion share of the user cost of housing is due to non-tax components, like interest costs and risk premia. In 2017, the user cost of housing varied between less than 1% (Lithuania) and nearly 10% (Greece) with most values between 3 and 5%.



Graph 2.1. User cost of owner-occupied housing, tax and non-tax contributions, 2017

Source: Joint Research Centre of the European Commission

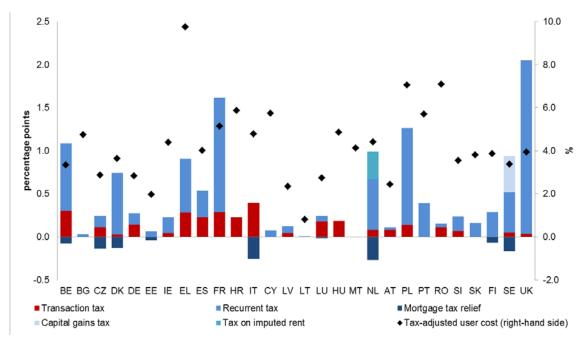
The indicator can also be used to measure the impact of various tax elements on owner-occupied housing. Following Poterba (1984; 1992), the Joint Research Centre of the European Commission developed a methodological framework to integrate the various tax elements and to measure how they influence the user cost of owner-occupied housing. The cost of capital framework expresses the tax parameters in great detail²³. Graph 2.2 shows the contributions made by each housing tax element. The contribution of each tax is obtained by calculating the difference with the user cost in which that specific tax parameter is set to zero. Given that not only the house purchasing price but also the transaction taxes need to be financed, the user cost formula includes a potential interaction between the transaction tax and the other parameters and therefore the sum of all tax contributions is not necessarily equal to the tax component shown in Graph 2.1. The total contribution of the tax component exceeds 1% in Belgium, France, Poland and the United Kingdom and the EU average is close to 0.5%. Recurrent property taxes contribute the bulk of the tax payments, although for some countries and over the lifetime of the investment the contribution of transaction taxes is larger than the one of recurrent taxes (this is the case for Croatia, Italy, Luxembourg, Hungary and Romania). Finally,

 $^{^{22}}$ The non-tax component presented on the graph has been calculated by putting all housing-specific taxes equal to zero, while keeping ty - the tax rate on interest income - at its value.

²³ An alternative measure is the marginal effective tax rate (METR), which is applied to different investment projects in several other studies, including the recent OECD (2018a).

mortgage tax relief still reduces the user cost of housing for new investments in 9 out of 28 Member States²⁴.

Graph 2.2. Contribution of different taxes to the marginal cost of owner-occupied housing as a percentage of an additional euro of house value, 2017



Notes: The bars (left-hand scale) depict the contribution of taxes to the user cost of an additional euro of house value (right-hand scale). Indicator based on 2016 house price data or data from the latest available year updated with the consumer price index. The tax code rules used are those in place in 2017.

Source: Joint Research Centre of the European Commission.

In most countries, the tax system seems to favour housing investment as compared to an alternative risk-free investment. The user cost of housing indicator is useful when monitoring or comparing different situations over time. For instance, an implicit (tax) subsidy can be calculated by comparing two estimates of the user cost of owner-occupied housing financed by mortgage: under current tax policy and under a 'neutral tax scenario' (see Fatica and Prammer, 2017 for a recent and detailed example of such a calculation²⁵). Graph 2.3 compares the tax-adjusted user cost of owner-occupied housing to the user cost of owner-occupied housing in a tax-free scenario (no mortgage interest deduction, nor recurrent or transfer property taxes, nor taxation of imputed rent, nor taxation on interest income of risk-free savings). It shows that, in 21 out of 28 Member States, the estimated user cost of housing is below the one estimated in a tax-free scenario. This result has to be interpreted with caution as it depends on all the assumptions of the model. As such, it would mean that, in those 21 countries, the tax system is more favourable to investing in owner-occupied housing than in a risk-free savings instrument.

_

²⁴ Bulgaria applies some mortgage tax relief in very specific and limited circumstances. That was, however, not taken into account in the general estimation model used here.

²⁵ In a comparable model making use of the "Household Finance and Consumption Survey" data, they explicitly compare the user cost calculated for owner-occupied housing financed through mortgage to a 'reference user cost', i.e. calculated under a (tax neutral) alternative policy scenario where (1) specific tax incentives for mortgage would be abolished, and where (2) imputed rents would be taxed under the income tax system (tax on net rental income, i.e. rent minus charges). They find that non-taxation of imputed rent makes the major part of

BE BG CZ DK DE EE IE EL ES FR HR IT CY LV LT LU HU MT NL AT PL PT RO SI SK FI SE UK

Tax-free UCOH • UCOH

Graph 2.3. Estimates of contribution of housing tax elements to the user cost of housing, 2017

Source: Joint Research Centre of the European Commission.

Over time, the user cost of housing and the contribution of the various tax elements evolved significantly in all countries. Annex 3.2 gives the detailed time series of the user cost of housing. Overall, the user cost of housing has a decreasing trend over time, which is particularly marked for some countries. However, after the crisis years, Ireland, Greece, Spain and Portugal have seen an increase (or rather a stabilisation in the case of Spain) of the user cost of housing. This is also the case for Croatia and Latvia, where it remains relatively more costly to buy housing than in other countries, possibly owing to national limitations and relatively high charges on properties. Other countries have been less affected by this general decreasing trend and display a relatively stable user cost (the Czech Republic, Cyprus, Hungary, Slovenia, Slovakia) or exhibit a trend linked to specific national conditions (Romania²⁶). Also the contributions of various tax elements have evolved quite a lot. Overall, the use of mortgage tax relief for new loans has decreased, while recurrent property taxes have increased, indicating a more growth-friendly tax structure. However, transfer taxes are still substantial in many Member States.

All in all, changes in the user cost of housing may be due to changes in macro-economic conditions, in the housing market and in related tax policies. It is difficult to exclusively relate the evolution of the user cost of housing to policy changes. The evolution of the contributions of various tax elements reflects some housing tax reforms, as they entail changes in the presence and order of magnitude of the different tax elements. In addition, main changes in economic conditions, like changes in interest rates and housing markets brought about in the building and unfolding of the 2008 crisis, directly influence the parameters and assumptions used to compute the indicator.

the subsidy and estimate that the favourable tax treatment leads to an overconsumption of own-occupied housing estimated to 7.8% and to an excess share of residential investment in households portfolio estimated to 30%.

26 Recent history and massive transfer of property at the beginning of the period explain the specific pattern in

²⁶ Recent history and massive transfer of property at the beginning of the period explain the specific pattern in Romania with an only recently established housing market.

3. TAXATION OF CAPITAL GAINS

While revenues from capital gains taxes are rather limited in most Member States, they can have an important role for the efficiency and redistributive capacity of national tax systems. Low revenues are generally not due to the fact that Member States do not levy any taxes on capital gains or as a result of low nominal tax rates. Instead, they result from the often widespread use of tax exemptions, notably for capital gains from the sale of the principal private residence. Rebalancing the tax system, including by broadening the base, could contribute to stronger growth without undermining fiscal sustainability. Higher revenues might be used in some Member States to finance reductions in other possibly more distortionary taxes, such as taxes on labour. Capital gains taxation can help protect the income tax base. If capital gains are not taxed or taxed at preferential tax rates, taxpayers have an incentive to try to convert part of their taxable income into capital gains. However, efficient tax design is important to limit possible negative effects on savings and investment decisions.

This chapter assesses the impact of taxation of capital gains on revenues, economic efficiency and inequality. Section 1 examines how the tax treatment of capital gains can affect the allocation of capital, savings and investment, as well as on its possible impact on equity. Section 2 looks into revenue trends and levels. Section 3 discusses elements of the tax treatment of capital gains in selected EU Member States.

3.1. ECONOMIC PRINCIPLES OF CAPITAL GAINS TAXATION

3.1.1. Revenue efficiency

A capital gain is the increase in the value of an asset between its acquisition and its disposal. In general, the positive return on an investment can take the form of a current income or a capital gain. If the return on an investment is (partly) paid out as current income, such as dividends for equity investments, the capital gain on the investment is expected to be lower. On the other hand, the value of a business that reinvests all its earnings, e.g. to finance its expansion, would accrue a capital gains' return. Capital gains can also arise from other circumstances that generate fluctuations in asset values. Such events include increases in asset prices because of lower interest rates or a rise in inflation, a rise in land value because of community development and an increase in share prices due to the capitalisation of higher expected future income.

The need to tackle tax evasion and tax planning are important reasons to tax capital gains. If capital gains are not taxed, taxpayers have an incentive to try to convert their taxable ordinary income (wages, rents, interest and distributed profits) into capital gains. Companies would, for example, retain earnings or buy back shares instead of distributing profits to shareholders. The equivalence between ordinary income and capital gains is consistent with the comprehensive income definition (see also Section 1.1). This implies that taxpayers should be subject to income tax on accrued capital gains on financial and non-financial assets.

Taxing capital gains on an accrual basis would contribute to tax neutrality and economic efficiency. Capital gains taxes can be raised either on an accrual basis, when the increase in the value of the asset occurs or on realisation at the time of the disposal of the asset. Taxing capital gains at realisation undermines economic efficiency, because the tax treatment of different investment returns should be neutral and not affect portfolio investment decisions. Therefore, tax theory calls for capital gains to be taxed at the same time and in an equivalent way to the other forms of returns to investment such as dividends, rents or interest income, namely on an accrual basis rather than on realisation. A

related benefit of accrual-based taxation is that it reduces the potential for tax avoidance through problems caused by the selective realisations of capital losses. If the capital gain is negative, the investor has an incentive to avoid the deferral of the capital gain and to realise it immediately.

In practice, capital gains are taxed when they are realised. Accrual taxation is only applied to some financial market instruments through the 'marked-to-market' accounting rules²⁷. While easy to apply to publicly traded equity, accrual based taxation is difficult to apply for non-traded assets whose market values may not be known. In such cases, accruals taxation would require regular valuation of assets and would substantially increase the costs of tax compliance and collection. Accrual taxation also creates liquidity problems for those taxpayers who lack liquid financial resources and might require selling their assets in order to pay taxes on the accrued capital gains.

The administrative burden of capital gains taxation can be high. For example, determining the capital gain made on a selling transaction may be problematic for tax administrators due to the difficulty in determining the purchase price of the shares that have been sold. The same applies to other financial investments. In the case of immovable property, estimating the capital gain might arguably also need to take into account past tax depreciation and renovation costs, including their past tax treatment, and to differentiate them from ordinary, deductible, maintenance costs.

3.1.2. The lock-in effect

Realisation-based capital gains taxation creates a lock-in effect that can distort decisions on sales of assets. By postponing the realisation of capital gains, taxpayers benefit from delaying the tax payment from the time the asset value increases to the time it is sold. Realisation-based taxation favours holding assets that generate returns in the form of capital gains over assets that generate returns in the form of cash income. Therefore, taxpayers may choose to hold on to assets for a prolonged period instead of realising capital gains or transferring them to the next generation before their death. This effect is referred as the 'lock-in' effect.

The lock-in reduces the taxpayers' effective tax burden. The taxpayer retains the accrued capital gains tax for a longer period, which can be seen as an interest-free loan from the government. The lock-in by asset holders in the case of progressive tax rates is reinforced by the fact that investors would be subject to higher marginal tax rates if the capital gain is accrued over many years and paid in a single year when the asset is sold.

The lock-in effect may lead to sub-optimal diversification of investment portfolios. An investor is unlikely to adjust the composition of his portfolio to reduce the level of risk if this does not fully compensate for the additional capital gains tax paid when selling assets in his portfolio. In this context, the lock-in effect may distort the allocation of capital across productive assets at the macroeconomic level. In particular, an investor may be reluctant to invest in an asset that offers a higher expected pretax return if the capital gains tax payable on the sale of assets from his existing portfolio (to finance the purchase of the more profitable asset) is greater than the present value of the additional expected return from switching assets. Therefore, the lock-in effect may distort the portfolio choice of individual investors, which may lead to overinvestment by those investors with lock-in positions in certain firms (OECD, 2006).

²⁷ According to this principle, the value of securities and other assets should be recorded at their current market value, rather than their book value (i.e. the cost of the asset less the estimated accumulated depreciation).

3.1.3. Macroeconomic effects

3.1.3.1. Effects on asset realisations and government revenue

Revenues from capital gains taxes depend on the tax rates applied and the realised capital gains. Compared to other taxes on income, the liability for capital gains tax is easier to avoid, at least in the short term, by postponing the sale of assets. Changes in tax rates on capital gains affect the incentive to realise capital gains on appreciated assets. For example, a higher tax rate is expected to lead to an immediate drop in the number of realisations, locks capital, and hence may dampen tax revenue in the short term. The greater the response of capital gains realisations to tax rate increases, the lower the revenue from capital gains taxes.

The response of gain realisations to a lower tax rate can be strong in the short term but weak in the long run. Sales of corporate equity appear relatively sensitive to changes in tax rates. Lower capital gains taxes were found to contribute to a more active equity market and to increased tax revenue (Burman, 1999). A temporary tax reduction decreases the tax liability from an immediate sale of assets, providing the investors the opportunity of gaining from timing. Several studies show that permanent changes in tax rates are not expected to lead to a permanent response of capital gains realisations (Auerbach, 1989).

In the short run, lower realisations of capital gains are expected under a transitory increase in the tax rate, compared to the effect from a permanent increase. A temporary tax increase raises the tax savings from postponing the immediate sale of assets. By contrast, a permanent tax increase raises the tax cost of selling assets at any time in the future, thereby reducing the gains from postponing the realisation of assets in the near term.

Overall, empirical evidence on the elasticity of realisations suggests that higher capital gains tax rates increase tax revenue in the medium and long run. The drop in asset realisations in response to an increase in the rate is expected to be temporary, as explained above. But even if the elasticity of permanent realisations were close to 1, the overall tax revenue could still increase because taxpayers would have less incentive to convert other sources of income into capital gains. Therefore, while tax revenue from capital gains taxes may remain relatively constant in the short term, revenue from taxes on other income sources would increase such that the total effect of a rise in the capital gains tax rate is an increase in total government revenue.

3.1.3.2. Effects on asset prices

Capital gains taxes and changes in rates may impact the demand for and the supply of assets and affect asset prices and equity trading volumes. Empirical evidence on the reduction in the capital gains tax rate shows that changes in the long-term capital gains tax rate affect assets prices and equity trading volumes (Dai et al., 2006). Two countervailing effects on equity trading can be observed: a demand side capitalisation effect and a supply-side lock-in effect. In the event of a tax reduction, the 'capitalisation effect' consists of an increase in the asset price and the current rate of return on the investment. This is driven by investors' willingness to pay a higher price to purchase the assets, because they expect higher after-tax cash flows in the future²⁸. By contrast, the supply-side

²⁸ Asset prices tend to increase just before the entry into force of an announced cut in capital gains, but are likely to drop shortly after the tax cut becomes effective. This is because the capitalisation effect appears to dominate the lock-in effect in the week leading up to the reduction in the capital gains tax rate, as buyers take into account the future reduction. In the case of the 1997 tax rate cut in the US, asset prices were found to be 8% higher than the normal weekly returns in the week before the tax cut became effective. On the other hand, the lock-in effect

effect, referred to as the 'lock-in effect', results in a drop in the price of equity and in the current rate of return on the investment when the capital gains tax is reduced. This effect is a result of current investors being willing to sell the assets at lower prices as they have to pay less tax on capital gains. The net effect of tax changes depends on the magnitude of the two effects.

3.1.3.3. Effects on saving, investment and capital allocation

While its effectiveness is uncertain, preferential tax treatment for capital gains typically aims at increasing savings and investment. On the one hand, lower capital gains taxes can act as an incentive to increase saving due to the higher post-tax rate of return on different forms of household investments, such as self-employment profits, equity, bonds and other financial instruments (a substitution effect). On the other hand, the opportunity to earn higher returns on investments may lead households to choose to save less and increase their consumption levels (the income effect). Ultimately, the magnitude of these two effects determines the net effect of capital gains taxes on private savings. The substitution effect is likely to prevail for high-income households and during periods of rapid economic growth, whereas the income effect is expected to be stronger for low-income households and during periods of subdued economic conditions (Burman, 1999).

High rates of capital gains tax can discourage saving and investment, acting in a way similar to other taxes on capital income (e.g. taxes on savings and dividends). As mentioned above, high capital gains tax rates and the lock-in effect discourage the realisation of gains and encourage investors to hold sub-optimal investments or forego more profitable and productive investment opportunities with higher before-tax returns relative to their current investment. At the same time, low rates of capital gains taxes may be beneficial to investment by encouraging the allocation of capital to the most productive activities. However, if capital gains tax rates are below those on other sources of income, they may promote investment schemes that are designed to avoid higher tax rates.

3.1.3.4. Effects on entrepreneurship

High capital gains taxes may have a more harmful effect on small and medium-sized enterprises (SMEs) than on larger companies. Entrepreneurs expect to be compensated for risking their own capital when a business generates financial returns. High tax rates on capital gains reduce the expected returns and, therefore, the reward for risky entrepreneurial activities. In small private companies with a limited number of shareholders who also manage the business, the prospect for compensation primarily takes the form of potential capital gains on their equity stake, and not of the management salaries offered by large and established corporations (Clemens et al., 2015). As a result, by reducing the incentives to provide entrepreneurial effort, high capital gains taxes have a particularly negative impact on SMEs, especially on start-ups.

3.1.3.5. Horizontal and vertical equity

Capital gains taxation is often justified on grounds of horizontal and vertical equity²⁹. Capital gains taxation may support horizontal equity by ensuring that those making capital gains are taxed in a similar way to those earning income from wages, self-employed labour, rents and dividends. Since

dominates in the period following the actual tax cut, when equity prices were found to be 1 or 2% lower. This also suggests that regular tax changes are expected to lead to higher volatility in asset prices and in the after-tax returns on investment.

²⁹ While horizontal equity refers to the equivalent treatment of taxpayers earning the same amount of income from different sources, vertical equity requires those who are able to pay higher taxes due to a higher income, to contribute more than those with lower income.

capital gains accrue mostly to higher income individuals, increased taxation on capital gains is expected to lead to a higher share of tax payments from those earning high incomes and with larger stocks of wealth. This use of the tax to support equity objectives should be examined in relation to other aspects such as the economic inefficiency costs of realisation-based capital gains tax, other taxes paid by wealthier households, and the economic effects of capital gains taxes on entrepreneurship, savings and investment.

3.2. REVENUES FROM CAPITAL GAINS TAXES

Capital gains taxes are generally included in the personal income tax system. This limits data availability. Detailed data on revenue from different types of income is only available for some Member States. In the few Member States, for which OECD data on the capital gains tax on individuals is available, revenue is rather low³⁰. In 2016, revenue varied from 0.01% of GDP in Slovenia to 1.69% in Sweden.

In general, revenue from capital gains taxes is subject to large fluctuations and the relationship with the business cycle appears unstable. The most important bases for capital gains taxes are housing and financial assets, which may follow a different cycle compared to aggregate economic activity. Also, the tax treatment and tax rates differ considerably between Member States and are subject to regular changes.

3.3. TAX TREATMENT OF CAPITAL GAINS IN SELECTED EU MEMBER STATES

The tax treatment of capital gains varies significantly across Member States. These differences range from the absence of taxes on capital gains, the application of reduced rates and (other) tax expenditures, to the application of the full tax rates as charged on other sources of income. Specific tax treatment of capital gains is often proposed as a policy to increase tax revenue or to increase saving and investment and thereby stimulate short- and long-term economic growth. However, in line with the tax neutrality principle, aligning all tax rates across various sources of capital income, including capital gains, reduces the distortions implied by different tax rates of capital gains and other capital income and simplifies the tax system. This suggests a trade-off between lower and higher rates of capital gains tax.

In all EU Member States, the capital gains tax is charged on a realisation basis. The taxable capital gain is commonly the difference between the acquisition cost and the asset value at the date of its disposal. However, some Member States have accrual-based elements in their taxation of capital gains to address the lock-in effect. Capital gains taxation varies considerably across Member States, reflecting the heterogeneity of income tax systems and the different preferential rates and exemptions granted across the EU (see Annex 1, Tables A1.1, A1.2).

In many Member States, capital gains are included in the taxable income of taxpayers. Under a comprehensive income tax system, realised capital gains and other forms of income are in principle taxed at the same rate, in line with the tax neutrality principle. By contrast, dual income tax systems apply different tax schedules to capital income and to labour income (see discussion in Section 1.1). While capital gains by individuals are sometimes subject to a separate capital gains tax, they are included in the taxable income of the taxpayer in the majority of Member States (see also Table 1.1 for

³⁰ In the OECD Revenue Statistics database, capital gains of both individuals and corporates are classified separately whenever the revenues could be separately identified (this is the case for few countries).

the differences in tax systems in Member States). The former is consistent with the comprehensive income definition and therefore reduces the incentive for taxpayers to try to convert their taxable labour and investment income (e.g. interest, dividends, rents) into capital gains.

Discrepancies in the tax rates for labour and capital income may provide an incentive for income conversion. When applied under a dual income tax system - taxing labour and capital income separately (see Section 1.1) - an important policy issue is whether to apply the more favourable tax regime on capital gains to the full return on capital or only to a 'normal' rate of return. When the dual income tax was first introduced in the Nordic countries, the more favourable income tax was intended to fall on the full return of capital. This created an incentive for income shifting. To counter this incentive, an alternative version of the dual income tax applies the more favourable tax regime on capital gains only for "normal" returns, while subjecting the above normal returns to a tax burden that is close to the top marginal tax rate on labour income. In some Member States special anti-abuse provisions are applied to avoid income conversion to tax-exempt or tax favoured capital gains. Efforts to secure government revenue by including capital gains in the tax base can involve aligning the effective tax rate on capital gains with the one for other forms of income.

Most Member States apply specific tax exemptions on the disposals of immovable assets, in particular for owner-occupied housing. Under a comprehensive income tax system, capital gains on disposals of housing would be taxed. In practice, most Member States provide a full tax exemption for private residences conditional on a holding test. A few Member States offer the possibility to postpone the tax liability on realised gains on the primary residences through the so-called rollover relief. This enables taxpayers to defer payment of capital gains tax if the proceeds from the sale are used to purchase another residence. Some Member States tax capital gains from sales of substantial shareholding to counter tax planning strategies. Such tax planning aims at converting taxable income into tax-exempt capital gains. Some Member States tax capital gains on the disposal of certain categories of assets at separate, preferential tax rates (see also Annex 1, Tables A1.1 and A1.2).

Some Member States try to mitigate the possible lock-in effect by lower or no taxation of the capital gains on assets that have been held for a long time. This preferential taxation of long-term capital gains after a holding threshold may deepen the lock-in effect for the period in which full tax rates are applied (e.g. Austria, France, Finland). Once the threshold period is reached, it weakens the incentives for taxpayers to further hold to their assets for tax reasons. These types of treatment often aim at reducing short-term speculative trading. The sale of an asset after a short holding period only is generally interpreted as speculative trading and capital gains are often subject to higher taxation. On the other hand, some Member States try to address the lock-in effect by introducing accrual-based concepts in their taxation of capital gains or by simplifying the tax system (e.g. simpler form of taxation on capital gains accruing from non-substantial shareholding).

In several Member States, specific provisions in the taxation of capital gains aim at encouraging household savings and promoting long-term investment (e.g. Estonia, Spain, Sweden, United Kingdom, Ireland, Bulgaria, Cyprus). Some Member States encourage household savings through tax free savings vehicles. In other Member States, tax arrangements target the development of domestic capital markets and of equity financing of local businesses or apply a beneficial tax treatment to start-ups and SMEs.

Several Member States also justify taxation of capital gains on grounds of equity (e.g. Sweden, Spain, Denmark). This aspect might merit careful consideration especially in Member States in which the distribution of income from capital gains is heavily skewed towards the higher income earners, and in particular when this skew is more pronounced than that for other sources of income. Differences across the EU Member States in the distribution of income from capital gains relative to the distribution of income excluding capital gains seem to exist (Roine and Waldenström, 2010).

All in all, a number of tax design considerations appear to merit close attention and possibly more in-depth analysis. Capital gains taxation may support reform efforts to shift taxation to less

growth distortive tax bases. It can also help protect the income tax base by reducing the incentive for taxpayers to convert ordinary taxable income into capital gains. However, the design of capital gains taxes faces the challenge of possible inefficiencies resulting from the lock-in effect. Many Member States attempt to mitigate this effect by charging lower or no taxes on the capital gains on assets that have been held for a long time or by using accrual-based concepts. Moreover, the careful design of capital gains taxes may support an investment-friendly environment especially for SMEs. Finally, equity considerations might merit careful consideration, especially in those Member States where the distribution of income from capital gains is skewed towards the higher income earners.

4. TAXATION OF WEALTH TRANSFERS: INHERITANCE AND GIFTS

Inheritance and gift taxes are a specific type of wealth taxes, which can help increase the economic efficiency of the tax system and reducing wealth inequality. Wealth taxes differ from other taxes because of their tax base, which are stocks of assets rather than economic flows. They should not be confused with the taxation of income derived from capital (e.g. interest, dividends). While the general case for taxing wealth along income and consumption is sometimes disputed, wealth taxes may be useful to signal contributory capacity (ability-to-pay), in particular for top deciles, when income becomes difficult to observe (Piketty et al., 2013b). It can also be linked to the utility directly derived from being wealthy. Finally, wealth taxes could be considered as an opportune way to reduce wealth inequality³¹. Some wealth taxes tax the ownership of assets, like immovable property or financial assets and are often levied on an annual basis (e.g. recurrent immovable property taxes, annual taxes on net wealth). Other wealth taxes are levied on transfers, whether they are market-based, like sales and acquisitions, or non-market transfers, like inheritances and gifts. Inheritance and gift taxes are event-triggered taxes, payable upon gratuitous transfers of wealth, which mainly occur across generations. In addition, some wealth taxes are specific to certain assets, in particular immovable property, while other taxes attempt to cover the whole net worth.³² These different types of wealth taxes have different characteristics in terms of ease of administration, their distortive impact and the potential for tax avoidance and evasion (see Table 4.1).

This chapter discusses how reforming inheritance and gift taxes can generate more revenue and impact on re-distribution. It is organised as follows. Section 4.1 presents and discusses the theory underlying the taxation of inheritances and gifts. Section 4.2 describes the tax treatment of inheritances and gifts in the different EU Member States and the revenues generated by these types of taxes. Section 4.3 discusses the obstacles to reform and to use inheritance and gift taxes more extensively. Annex 3 provides a detailed description of inheritance and gift taxes in EU Member States³³.

³¹ See Astarita (2015) for a discussion of how wealth taxes can help reducing wealth inequality.

³² Such a classification is used for instance in: Ernst and Young (2014)

³³ The country-specific information in this note does not aim to be exhaustive. It is not meant as a presentation of best practices but documents the variety of tax policies used in Member States.

Table 4.1. Classification of wealth taxes

	Taxing weal	th ownership	Taxing wealth transfers			
		-	Market transfers	Non-market transfers		
	Specific assets	Overall net wealth	Specific assets	Specific assets	Overall net wealth	
Definition & examples	Recurrent taxes on immovable property or - more rarely - on other assets (financial assets or luxury goods)	Recurrent net wealth taxes	Transaction taxes (e.g. financial transaction tax) Taxes on acquisition of real estate (e.g. stamp duties)	Gift taxes	Inheritance and estate taxes (inheritance taxes are based on the value of the inheritance; estate taxes are calculated on the net value of the property owned by the donor/deceased)	
Distortionary effects on + Intertemporal allocation + Savings and investment and entrepreneurship	Ambiguous	Inefficient (econ. theory: tax the capital income exceeding normal returns) Distort the lifetime consumption-savings cycle	One-off & potential liquidity problems Incidence unclear Effect on speculation unclear, in particular for less liquid assets. Potential hinder to mobility	n.a.	No effect on intertemporal choice of consumption. Donor's uncertainty on remaining lifetime does not allow him/her to dissave accurately.	
Administrative ease	Easy	Difficult (tax evasion, tax avoidance)	Easy	Relatively easy	Easy	
Design issues	Valuation (outdated cadastral values)	Tax base valuation; art and other difficult to value assets	Limited	Limited	Very complex rules incl. exemptions	
Use	Common, also for other purposes (local tax to finance community services)	Rare (and rarer)	Rather common	Rather common	Rather common	
Distributive impact	Housing is more equally distributed than other assets. Also less correlated with income.	Wealth more concentrated than income	n.a.	Positive effect on reducing inequality		

4.1. ECONOMIC PRINCIPLES OF TAXING INHERITANCES AND GIFTS AND POSSIBLE DISTORTIONS

4.1.1. Theoretical case in favour of taxing inheritances and gifts

Inheritances and gifts extend the lifetime consumption possibilities of the recipients and should therefore be taxed according to the comprehensive income tax framework. Boadway and Pestieau (2018) discuss the integration of wealth taxes into a comprehensive tax framework, alongside income and consumption taxes. The comprehensive income tax base is equivalent to the sum of labour income, capital income, and inheritances and gifts in present value terms. From the recipient's viewpoint, wealth transfers are to be included as an additional source of income/consumption possibilities, and therefore are to be taxed. In contrast, Boadway and Pestieau (2018) find that annual net wealth taxes are only a poor proxy for taxing the income derived from capital.

Inheritance and gift taxes may be economically more neutral than other types of wealth taxes (Mirrless, 1971). Compared to recurrent taxes on wealth, inheritance and gift taxes have little effect on the intertemporal choice between consumption and saving. To maintain a stable consumption level over their life cycle, individuals invest some of their income to benefit from a return in the future. The moment to invest will very much depend on the personal situation and characteristics of the individual and on his/her intertemporal choice of lifetime consumption. In the absence of market failures (Conesa et al., 2009), a tax system should be neutral as regards when to save and to consume and what type of asset to invest into (Mirrelss, 1971). The donors – maximising individual consumption over the lifetime - would save and consume their savings, independently of the prospect of inheritance taxation and with the objective of near zero wealth at the end of life. If the only purpose of savings were to smooth consumption over time, taxing inheritances would then mainly correspond to taxing accidental bequests, since the donor's uncertainty about his or her remaining lifetime would not allow them to 'dissave' accurately. In that case, no economic distortion would occur, which would make inheritance taxation optimal (see also 4.2.1 below).

In addition, taxing inheritances and gifts might be an effective way to address the issues of wealth concentration and inequality. In the short run, inheritances may reduce wealth inequality, because the ratio of inheritances on existing wealth is higher for the poorest households (OECD, 2018a). At the same time, however, inheritances increase wealth inequality, because wealthier households have a higher probability of inheriting and receive higher inheritances³⁴. The latest wave of the OECD Wealth Distribution Database also shows that the distribution of received inheritances and gifts is even more concentrated than the wealth distribution. All in all, the influence of inheritances on wealth distribution might therefore be mixed (Elinder et al., 2016). Hence, carefully designed taxes on inheritance and gift can help reduce wealth concentration and inequality.

Inheritance taxes may have a special role to play in the dynamics of wealth concentration. Poorer recipients consume most of their inheritance, while the richest nearly save it all (Elinder et al., 2016). This effect, visible already one year after the inheritance, dilutes the equalising effect of the inheritances and contributes to building 'dynastic' wealth. Alvaredo et al. (2017) estimate the share of inherited wealth in total private wealth to be 50% - 60% - and rising - for the four European countries (Germany, France, Sweden and the United Kingdom) for which long data series are available (Piketty, 2011). The taxation of wealth transfers – and especially of large

-

³⁴ These findings are documented in the Swedish and Danish cases, on the basis of tax and administrative data. See Elinder et al. (2016), for Sweden using a population-wide tax register called Belinda; and Boserup et al. (2016) for Denmark.

transfers – would affect 'dynastic' wealth that builds up across generations and that the older generation may not want to give out fully to the next generation during their lifetime because of the desire to retain control.

Inheritance taxes can also contribute to increasing inter-generational equity. The rise in household wealth, together with guaranteed income and affordable care after working age and with savings patterns not fully adapting to these changes, result in a higher and increasing size of inheritances. Increased inheritances in turn will also influence future wealth distributions, making them more concentrated. Inheritance taxes, by limiting the build-up of wealth inequality, contribute to higher equality of opportunities (Meade, 1978) and can hereby achieve what is perceived as higher fairness of the tax system and contribute to economic and social sustainability as well as macroeconomic stability.

Finally, inheritance and gift taxes are relatively easy to administer. An economically efficient approach implies a tax system entailing low administrative costs. This suggests a broad tax base with a limited use of tax expenditures and relatively low tax rates. Given that some administrative action is needed to identify and validate wealth transfers, inheritance and gift taxes can more easily be levied than other wealth taxes based upon ownership.³⁵ Immovable property is also easy to tax, as it cannot be relocated, but might be more difficult to valuate. Inheritance and gift taxes are also easier to administer than a net wealth tax, to which various administrative problems are related that make tax compliance and collection costly (Boadway et al., 2018).

4.1.2. Possible distortive effects of inheritance and gift taxes

Inheritance taxes are likely to change the behaviour of those affected, donors and recipients. Like most taxes, inheritance taxes create behavioural effects. These potential effects have been studied by the empirical literature. This section discusses the potential effects on donors and recipients of inheritances and gifts.

4.1.2.1. Effects on the behaviour of donors

A donor can bequeath either intentionally or accidentally, as the donor's lifespan is uncertain. The donor will of course only take taxation into account when the bequest is intentional. To the extent that potentially tax free gifts can be made before death (inter vivos), inheritance tax is sometimes seen as a voluntary tax.³⁶ Kopczuk and Lupton (2007) use a lifecycle model and panel data from four waves between 1993 and 2000 to measure household saving between survey years. They estimate that both people with and without children have the intention to bequeath and that about half of household wealth is passed on intentionally, while the other half is passed on accidentally.

When willing to bequeath, donors can be subject to two behavioural effects, a substitution effect and a level effect. The substitution effect implies that donors might reduce their saving efforts during the course of their lifetime and look for ways to substitute for the wealth that will be taxed away and hence not passed on to the recipients. They might, for example, work less and reallocate towards spending time with their future recipients. The level effect implies that donors

-

³⁵ Note that the use of shell companies and trusts may directly counter this characteristic of inheritance taxes by changing the ownership structure and possibly enabling anonymity. Such constructions are instrumental to (off-shore) tax evasion (see 4.3.2).

³⁶ Considering inheritance taxes more or less voluntary, Kopczuk and Lupton (2007) advocate an inheritance tax that is easy to circumvent in reality, so that only accidental bequests are taxed, while intentional bequests will not suffer from the distortion the tax brings up.

might have the desire to pass on a certain level of monetary value. Therefore, they might save even more when inheritance tax has to paid compared to a situation with no inheritance tax. Moreover, inheritance and gift taxes might give rise to tax avoidance and evasion (see section 4.3.2).

Overall, the empirical literature suggests that behavioural responses by donors are limited. Goupille-Lebret and Infante (2017) for France and Erixson and Escobar (2018) for Sweden show that donors' behavioural responses are either non-existent or negligible in size. Moreover, often the level effect prevails over the substitution effect.

4.1.2.2. Effects on the behaviour of recipients

Independently of taxation, inheritances are found to reduce the labour supply of the recipient (the "Carnegie conjecture"). Inherited wealth is suspected to hamper the work efforts of recipients and indeed, various pieces of empirical evidence suggest that receiving an inheritance increases the probability of labour market exit and retirement, as has been shown for Sweden by Elinder et al. (2011), for France by Garbinti and Georges-Kot (2017) and for Germany by Kindermann et al. (2018).³⁷ This probability seems to increase with the size of the inheritance (Brown et al., 2010). Furthermore, the negative labour supply effect seems to be more sizable for unexpected inheritances, indicating the existence of significant anticipation effects of receiving an inheritance (Brown et al., 2010; Elinder et al., 2011).

Inheritance taxes may counter the positive effect of inheritances on entrepreneurship, risk-taking and investment. By reducing the need for credit financing and by implicitly accepting more risk, inheritances may encourage entrepreneurship, risk-taking and investment. In theory, family wealth (and received or anticipated inheritances and gifts) could indeed be used as investment capital or collateral and high inheritance taxes may counter that mechanism. This may however raise the question of equality of opportunities and of the potentially missed opportunities, in particular when the access to credit and equity suffers from imperfections.

4.2. TAXING INHERITANCES AND GIFTS: CURRENT PRACTICE IN EU MEMBER STATES

4.2.1. Tax treatment of inheritance and gifts

The tax treatment of inheritances and gifts considerably differs across countries. Inheritance and gift tax provisions are very complex in most countries, given the use of different tax rate schedules, as well as of varying exemptions, thresholds and conditions for specific assets and relationships. Table 4.2 provides an overview of the main characteristics of the inheritances and gift taxes applied in EU Member States on 1 January 2018.

Two thirds of EU Member States tax inheritances and gifts. 18 EU Member States tax inheritances and gifts, while the Czech Republic, Latvia and Slovakia do not tax inherited wealth or assets in any way. Cyprus³⁸, Malta, Austria, Portugal and Romania do not have a general inheritance tax, but tax the inheritance of immovable property. Estonia and Sweden only tax capital gains resulting from the sale of inherited property.³⁹ Inheritance tax was abolished in

_

³⁷ Less recent studies coming to very similar conclusions are for example Holtz-Ekain, Joulfaian and Rosen (1993) and Joulfaian and Wilhelm (1994).

³⁸ In Cyprus children are exempt and relatives only face a rate of 0.1%.

³⁹ However, in Estonia many types of property, most importantly residences, summer houses and personally used movable property are exempt from this capital gains tax.

Slovakia (2004), Portugal (2004), Sweden (2005), Austria (2008), and in the Czech Republic (2014).

Table 4.2. Inheritance and gift taxes in EU Member States

			Inheritance ta	x			Gift tax	
		Rate se	che dule	Specific tax	treatment		Rate se	che dule
Country	Inhe ritance tax	According to size of inheritance	According to relationship between donor and recipient	For immovable property	For family- owned businesses	Gift tax	According to size of gift	According to relation to recipient
BE	Yes	Progressive	Progressive	Yes	Yes	Yes	Progressive	Progressive for immovables; flat for movables
BG	Yes	Flat	Progressive	No	No	Yes	Flat	Progressive
CZ	No	-	-	-	-	Yes	-	-
DK	Yes	Progressive	Progressive	Yes	Yes	Yes	Progressive	Progressive
DE	Yes	Progressive	Progressive	Yes	Yes	Yes	Progressive	Progressive
EE	No°	-	-	-	-	No	-	-
IE	Yes	Flat	Progressive (allowances)	No	Yes	Yes	Flat	Progressive (allowances)
EL	Yes	Progressive	Progressive	Yes	No	Yes	Flat	Progressive
ES	Yes	Progressive	Progressive (allowances)	Yes	Yes	Yes	Progressive	Flat
FR	Yes	Progressive	Progressive	Yes	Yes	Yes	Progressive	Progressive
HR	Yes	Flat	Progressive	No	No	Yes	Flat	Progressive
IT	Yes	Flat	Progressive	No	Yes	Yes	Flat	Progressive
CY	No	-	-	Yes*	-	No	-	-
LV	No	-	-	-	-	Yes	-	-
LT	Yes	Progressive	Flat	No	No	Yes	-	-
LU	Yes	Progressive	Progressive	No	No	Yes	Flat	Progressive
HU	Yes	Flat	Progressive	Yes	No	Yes	Flat	Progressive
MT	No	-	-	Yes*	-	No	-	-
NL	Yes	Progressive	Progressive	No	No	Yes	Progressive	Progressive
AT	No	-	-	Yes*	-	No	-	-
PL	Yes	Progressive	Progressive	Yes	Yes	Yes	Progressive	Progressive
PT	No	-	-	Yes*	-	No	-	-
RO	No	-	-	Yes*	-	No	-	-
SI	Yes	Progressive	Progressive	Yes	No	Yes	Progressive	Progressive
SK	No	-	-	-	-	No	-	-
FI	Yes	Progressive	Progressive	No	No	Yes	Progressive	Progressive
SE	No°	-	-	-	-	No	-	-
UK	Yes	Flat	Flat	Yes	Yes	Yes	Flat	Flat

Note: For detailed information see Annex 4. * indicates inheritance taxes are only levied on immovable property; ° indicates capital gains resulting from inheritances and gifts are taxed. In Slovenia the basic exemption does not apply to immovable property and in Denmark a stamp duty is applicable for all transfers of immovable property including inherited immovable property.

In the majority of Member States applying an inheritance tax, the tax rate depends on the size of the inheritance and the donor-recipient relationship. In the other Member States, like Spain, certain features of the inheritance tax, such as the basic tax-free amount, are dependent on the relationship between donor and recipient. Of the remaining Member States with inheritance taxes, some have a flat inheritance tax rate which does not depend on the size of the inheritance, namely Bulgaria, Ireland, Croatia, Italy, Hungary and the United Kingdom. Yet, in all these countries there is a minimum threshold below which inheritances are exempt from tax (basic tax-free amount), which adds an element of progressivity to the inheritance tax. Almost all of the Member States with a flat rate system as regards the size of the inheritance have a rate that is progressive depending on the relationship between donor and recipient. The only exception with a rate that neither changes with the size of the inheritance nor with the relationship between donor and recipient is the United Kingdom.

Some Member States apply specific rules for taxing the inheritance of immovable property and family-owned businesses. In eight Member States, inherited immovable property by closely related recipients enjoys a partial or total tax exemption. In some Member States, this exemption is limited to housing or residential property.⁴⁰ Moreover, some Member States, which do not apply a general inheritance tax, tax the inheritance of immovable property⁴¹ (see also section 4.3.3.2). As for the transfer of family-owned businesses, eight Member States have specific rules reducing the inheritance tax liability. Often, this special tax treatment is dependent on certain conditions such as the continuation of the business for a certain amount of time after the transfer (see also section 4.3.3.3).

All the Member States that tax inheritances also levy gift taxes. Taxing gifts usually happens in the form of a separate gift tax. ⁴² Latvia and the Czech Republic are the only Member States not taxing inheritances but taxing gifts under certain conditions. Several approaches of taxing gifts are applied throughout the EU: gifts are either perceived as 'extraordinary' income (with reference to the comprehensive income definition) or as 'advance' inheritances or as both income and inheritances. When gifts are seen as 'advance' inheritance, the design of the gift tax is close to the one of the inheritance tax. The tax designs for inheritance and gift taxes are even identical in Germany, Croatia, Italy, Poland and Slovenia. A reduced exemption threshold, however, may apply to the gift tax to take into account the possibility to repeat or to fraction the gifts over time, which is obviously not possible for inheritances. Finally, some Member States⁴³ facilitate transfers before death by granting a more favourable tax treatment to gifts than to inheritances, for example through an increased tax exemption threshold or a reduced tax rate.

4.2.2. Revenues generated by inheritance and gift taxes

Overall, revenues from inheritance and gift taxes only account for a very small share of total tax revenues. The share of all property taxes in total tax revenues varies from less than 1% in Estonia, to more than 12% in the United Kingdom (see Graph 4.1). Revenues from taxes on inheritances and gifts constitute only a fraction of total property taxes, as taxation of immovable property, whether recurrent or collected upon market transfer, constitutes the lion's share of wealth taxes in most Member States (Graph 4.2). Hence, revenues from inheritance and gift taxes only generate a very small share of revenues (0.2% of GDP on average in the EU).

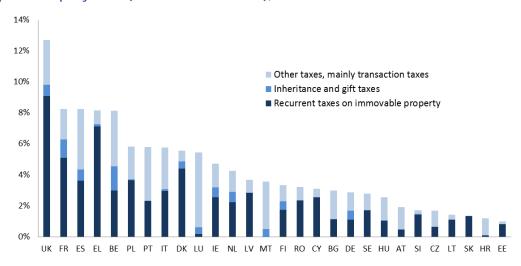
⁴⁰ In Germany and Belgium (Wallonia and Brussels regions), this exemption is only provided for family homes; in France and Spain only for principal residences and in Hungary and the United Kingdom only for residential property.

⁴¹ Cyprus, Malta and Austria have an inheritance (transfer) tax for immovable property. In Romania such a transfer tax for immovable property applies only if the inheritance is not finalised after two years. In Portugal, gifts or inheritances of immovable property to spouses, unmarried partners and descending and/or ascending relatives are exempted from the 10% stamp duty on immovable property.

⁴² With the only exceptions being the Czech Republic, Latvia and Lithuania, where gifts are included in overall taxable income and the United Kingdom, where gifts being transferred at up to 7 years before the death of the donor are captured by inheritance tax.

⁴³ Belgium, Ireland, the Netherlands and France partially.

Graph 4.1. Property taxes (% of total tax revenues), 2016



Note: The different types of wealth taxes outlined in Table 4.1 are classified as "Taxes on property" in statistical classifications. Revenues from all wealth taxes ("Taxes on property") are further split in three groups: (i) "Recurrent taxes on immovable property", (ii) "Inheritance and gift taxes", and (iii) "Other wealth taxes, mainly transaction taxes". The European Commission Taxation Trends report distinguishes "Recurrent taxes on immovable property", and "Other taxes", which is the sum of (ii) and (iii) above. "Inheritance and gift taxes" revenues (D.91A code in ESA2010) are then separated from the revenues from the other taxes on wealth. in the Taxation Trends report, "Taxes on capital stock" also include, in addition to "Taxes on property" (that is, all the taxes on wealth ownership or wealth transfers), other taxes "necessary to engage in production", which would usually be classified under 5200 Licences in the OECD classification.

Source: 2018 National Tax Lists (https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/data-taxation_en).

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% CZ DE Е ш ES Æ ¥ \vdash \sim ≥ ╘ \exists ₽ ΑT Ы Н 2 S Š BE BG ₹ Ħ

Graph 4.2. Inheritance and gift tax revenues as a share of total property tax revenues, 2016

Source: 2018 National Tax Lists.

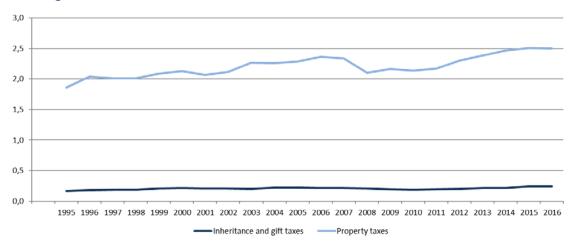
■ Inheritance and gift taxes

Revenues of inheritance and gift taxes have increased only slightly over time. Graph 4.3 analyses the evolution of revenues generated by inheritance and gift taxes vs. those generated by overall wealth taxes over the past 20 years. It shows that while the share of total wealth taxes (as % of GDP) steadily increased across time, the share of inheritance taxes is only slightly increasing. This may be explained by the fact that several countries abolished their inheritance tax (see section 4.2.1), despite the increasing wealth/income ratio and wealth concentration over the same period.

■ Recurrent immovable property taxes

Other, mainly transaction taxes

Graph 4.3. Evolution of inheritance and gift tax revenues vs. total property tax revenues, weighted EU average, as % of GDP, 1995-2016



Source: OECD and Commission services

Note: Averages do not include Bulgaria, Croatia, Cyprus, Malta and Romania. Estate taxes are included under inheritance and gift taxes.

Raising additional revenues from inheritance and gift taxes could for example be used to make the tax structure more growth-friendly and to increase the efficiency of the tax system. There are several ways of increasing revenues of inheritance and gift taxes: from introducing such taxes when they are absent to broadening the tax base by reducing the level of the tax-free thresholds and avoiding inefficient tax expenditures. Also increasing the tax rates or the progressivity of inheritance and gift taxes may generate additional revenues.

4.3. Challenges in taxing inheritances and gifts

Despite favourable tax features, several obstacles seem to impede the taxation of inheritances and gifts. Although the taxation of wealth transfers could contribute to more economic efficiency and equality of opportunity, inheritance taxes appear to be currently underused in the EU. Political reluctance and (international) tax avoidance and evasion are the main cited reasons behind the limited use and even abolition of existing inheritance taxes in some Member States. Specific design issues of inheritance and gift taxes also affect their budgetary potential and may create avenues for tax avoidance and evasion.

4.3.1. Political economy

The limited use of inheritance and gift taxes is linked to the unpopularity of such taxes. A recent survey in the United Kingdom (YouGov, 2015) finds inheritance tax to be perceived as the most unfair tax (among eleven different taxes including income tax, VAT and recurrent property tax). For Sweden, Hammar et al. (2006) find that the inheritance and gift tax is the least popular tax after real estate taxes.

Political preferences about redistribution and self-interest of taxpayers contribute to explain this unpopularity. Political preferences about redistribution seem to play an important role to explain the reluctance towards inheritance taxes.⁴⁴ Moreover, results from a German survey (Bischoff and Kusa, 2015) show that the support for inheritance taxation also directly

-

⁴⁴ Hammar et al. (2006) show political attitudes to be highly significant for Sweden, while Bischoff and Kusa (2015) confirm the importance of redistributive preferences for Germany. In both cases, the studies control for the income level when identifying the effects of political attitude or preferences.

depends on self-interest of taxpayers. Yet for Sweden, Hammar et al. (2006) find no clear and robust effect of the wealth level, which could be seen as a proxy for personal interest.

The effects of age on the support for inheritance taxes seem unclear. While there seems to be a widespread belief that inheritance tax is even less popular among the older, the empirical literature provides mixed evidence. Whereas Hammar et al. (2006) find an ambiguous effect for Sweden, Prabhakar (2012) and Profeta et al. (2014) find inheritance tax to be more unpopular with the older generations in the United Kingdom and other G7 countries. Contrary to this, results from a survey in Germany find that the inheritance tax is more unpopular among younger people (Bischoff and Kusa, 2015).

Limited knowledge on the design and the incidence of inheritance taxation might explain why inheritance taxes are not more popular. Overestimation of both the percentage of the population affected by the tax (for example in the form of underestimation of basic exemptions) and of the rates applied seems to be widespread. In addition, individuals tend to overestimate the future size of their wealth. Moreover, inheritance taxes are often considered particularly unfair, as they are viewed as mainly the transfer of what has been achieved through one's own work. Yet, around half of today's inheritances are from already inherited wealth (Alvaredo et al., 2017). A final factor adding to the lacking popularity of inheritance taxes may be the fact that inheritance taxation implies relatively large tax liabilities at one single point in time. Therefore, liabilities might be seen as higher than those of an annual capital income or net wealth tax with lower but annual liabilities. Grégoire-Marchand (2018) identifies a low information level on inheritance taxes as well as certain misperceptions in France, while also finding that the aversion to the taxation of wealth transfers is independent of personal inheritance prospects. Providing information on the actual incidence of inheritance tax significantly increased the support for it.⁴⁶

4.3.2. International tax avoidance and evasion

The possibilities of tax avoidance and evasion also help explain the low acceptance of inheritance taxes. The large variation and complexity of national taxation of wealth transfers is likely to give rise to international issues of double taxation (see Box 2). However, also double non-taxation of wealth transfers across generations arises through mismatches between national tax codes (e.g. differences in the tax treatment of trusts⁴⁷ and the use of shell corporations). This and other transnational channels are used to plan the transfer of wealth across generations and to avoid taxation, distorting the level playing field among taxpayers. Henrekson and Waldenström (2016) indicate tax avoidance as one of the main factors in the shifting of the Swedish political debate towards rejection of inheritance tax.

Estimates of missing revenues due to evasion of inheritance taxation are non-negligible. A recent strand of literature has tried to estimate the level of tax evasion related to off-shore wealth held by individuals. Pioneering work by Zucman (2013) uses the statistics of the Swiss Central Bank on the amount of offshore wealth managed by Swiss financial institutions. More recently, Alstadsaeter et al. (2017, 2018) use novel data sources in addition to random audit data to estimate the personal wealth held offshore. For 2007, and based on information by the Bank for

_

⁴⁵ There seems to be a strong case for this perception bias in consumer spending (Raghubir and Srivastava, 2009). The denomination effect suggests that individuals are less likely to spend when money is in the form of a single large denomination (e.g. a EUR10 bill) relative to many smaller denominations (e.g. ten EUR 1 bills). Tax payments might be perceived similarly.

⁴⁶ See Grégoire-Marchand (2018) and Bischoff and Kusa (2015).

⁴⁷ A trust is a fiduciary relationship in which one party, known as a trustor, gives another party, the trustee, the right to hold a title to property or assets for the benefit of a third party, the beneficiary.

International Settlement (BIS), the authors estimate the worth of financial wealth⁴⁸ held in tax havens equivalent to \$5.6 trillion or about 10% of global GDP. While the value of offshore wealth relative to national GDP differs substantially across countries, there is no easy explanatory factor behind the observed variation (Alstadsaeter et al., 2017 and 2018)). Finally, a forthcoming study, commissioned by the European Commission, aims at estimating international tax evasion by individuals (providing for each Member State an estimate of tax revenue losses, including those due to the avoidance of inheritance and gift taxes) (ECOPA/CASE, 2019, forthcoming).

Box 4.1. INTERNATIONAL ASPECTS OF INHERITANCE AND GIFT TAXES

The tax treatment of inheritances and gifts largely differs across EU Member States and also as compared to non-EU Member States (OECD, 2018c): Member States levy inheritance and gift taxes on different bases (such as the residence, domicile or nationality of the deceased or of the recipients, or the location of assets). Where tax is levied on the same basis, definitions differ (such as those relating to movable and immovable property, or the location of assets). In this line, double (or multiple) taxation may occur.

In fact, EU Member States are not obliged to harmonise or even coordinate their policies on inheritance taxes. In an EU context, they only have to respect the EU Treaties, which means that Member States, when imposing inheritance taxes, are not allowed to discriminate among EU citizens based on distinctions between purely national and cross-border situations. Several principles relating to non-discrimination in the field of inheritance taxation have already been fixed by jurisprudence (ECJ).

Two or more Member States can however impose their taxes in parallel. The general response to this general problem is tax treaties (double-tax agreement or DTA) based on the OECD Model Tax Convention to mitigate the effects of double taxation in cross border cases of transfers of capital etc. Such treaties may cover a range of taxes including income taxes, inheritance taxes etc. The articles of the Model Convention may provide a solution to the problems most commonly encountered concerning double taxation of estates, inheritances and gifts on a uniform basis.

However, the approach based on DTAs and the Model Tax Convention does not solve all potential issues. Firstly, the Model Tax Convention does not include a detailed definition of inheritance or gift taxes. Secondly, the tax treaties do not always determine if and in which way a wealth transfer should be taxed, and leave this decision to the domestic law of each tax jurisdiction or contracting State. Thirdly, where the tax treaty allows a jurisdiction to tax wealth transfers, this right applies to the entire transfer and not only to the part thereof that has accrued after the entry of a treaty into force. Finally, the number of DTAs dealing with inheritance taxes is very limited (only 33 bilateral double tax treaties between EU Member States out of a possible total of 351).

The Commission has worked on eliminating double taxation on cross-border inheritances. In 2011, the Commission adopted a Communication⁴⁹ and presented a Recommendation⁵⁰ regarding relief for double taxation of inheritances.

Avoidance and evasion of wealth taxes increase wealth inequality. Alstadsaeter et al. (2017) investigate in particular the link between wealth and tax evasion in the case of Scandinavian countries. The fraction of wealth held offshore is not constant across the wealth distribution. On the contrary, only the wealthiest individuals make use of tax consultancy services. They find that because tax evasion is much more concentrated at the top, adding concealed offshore wealth to reported wealth substantially increases the inequality of the wealth distribution, in particular for European countries.

⁴⁸ Financial wealth excludes real estate and other non-financial assets like jewellery or art collections.

 $[\]underline{\text{https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:} 2011:0864:FIN:EN:PDF}$

⁵⁰https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/personal_tax/inheritance/c_2011_8819_en.pdf

Recent EU and international initiatives tend to counter tax avoidance and evasion by increasing transparency, which would also contribute to reducing wealth inequality. The EU's Savings Directive, ATAD (Anti-Tax Avoidance Directive), FATCA (Foreign Account Tax Compliance Act) and automatic exchange of tax information are examples of such initiatives. However, in order to address issues of mismatches between tax systems and loopholes which facilitate tax avoidance, coordinated multilateral action is required (Konrad and Stolper, 2016).⁵¹

4.3.3. Tax design issues of inheritance taxes

The existing design of inheritance and gift taxes may reveal implicit trade-offs between revenue-raising objectives, perceived fairness, and political economy considerations.

4.3.3.1. Tax rates

It seems to be generally accepted to set tax rates according to the proximity between donor and recipient. ⁵² As described in section 4.2.1, in many Member States rates are progressive with the family 'distance' between donor and recipient and in some Member States a specific treatment allows spouses (e.g. France) and children to be completely exempted, at least for common inheritances.

To address wealth inequality and to increase political acceptance, a progressive tax rate schedule is used. A progressive tax rate schedule has the advantage of increasing the fairness of inheritance and gift taxes. Progressivity could also increase the revenue generated by inheritance and gift taxes.

4.3.3.2. Tax treatment of family-owned businesses

While some Member States provide a favourable tax treatment to the inheritance of family businesses, there are arguments against this special treatment. As described in section 4.2.1, several Member States exempt the transfer of small businesses from inheritance taxes, if conditions of retained ownership over several years are fulfilled. These exemptions are usually substantiated by concerns about liquidity and viability of small family businesses (Brunetti, 2006). Also, family succession might deserve favourable treatment as it might reduce agency problems, facilitate firm-specific investment and the transfer of knowledge and also might imply that the management has a more long-term focus. However, the general efficiency argument favours broad tax bases with few or no exemptions. Moreover, some authors such as Pérez-González (2006), Villalonga and Amit (2006) and Bloom and Van Reenen (2007) find that the performance of the firm decreases when descendants take on the management of the firm. In addition, exemptions for business assets may create opportunities for tax avoidance and evasion through the conversion of other assets into business assets. Although this could possibly be settled by restrictive conditions, it would be at the expense of simplification and could create cross-border effects.

_

⁵¹ In particular, the authors analyse the fight against tax avoidance as the outcome of a many player coordination game, and call for coordinated multilateral actions rather than piecewise sequential measures

⁵² Only the United Kingdom and Ireland do not have a preferential treatment for children

4.3.3.3. Tax treatment of immovable property

Several reasons can justify a specific tax treatment of inherited immovable property. As described in section 4.2.1, several Member States provide specific tax rules for the inheritance of immovably property. Immovable properties are less prone to tax concealment, they are more equally distributed than other assets and their taxation can lead to liquidity problems. In addition, and for some of these reasons, the market transfer of immovable property is usually taxed. Given that family dwellings are among the most equally distributed assets across the wealth distribution and the general preference for passing on the family home to the spouse or children undisturbed, a basic allowance that includes the value of an average family house is likely to remain part of those national tax laws where it is already present.

4.3.3.4 Gift taxation

Inheritance taxation should be accompanied by gift taxation at the moment of the wealth transfer. As described in section 4.2.1, all countries that tax inheritances, tax gifts in a comparable way. However, often a lower exemption threshold is applied for gifts, as they can occur many times in a lifetime, whereas a bequest only happens once and includes all of the donor's wealth.

By favouring gift over inheritance taxes, earlier transfer of wealth can be incentivised. As described in section 4.2.1, in some countries tax rules appear to favour gifts over inheritances. This leads to advanced tax revenues, but also increases the recipient's wealth and opportunities earlier in life. Indeed, due to raising life expectancy, inheritances usually take place at a time where the recipient has already reached a higher age than in the past and is often close to his or her retirement period. This timing is neither optimal from the recipient's individual viewpoint, nor from the general perspective of economic efficiency and stability.⁵³ This logic seems particularly explicit in the Netherlands, where dedicated gifts to children below 40 are exempt within certain limits.⁵⁴

-

⁵³ See Arrondel and Masson (2013), further developed in Astarita (Ed.) (2015).

⁵⁴ In the Netherlands, parents can give a certain amount tax-free each year to a child that is 18-40 years old. They can give a larger amount if the child buys immovable property and for educational purposes.

CONCLUSIONS

Taxation of household capital plays a crucial role in terms of economic efficiency of the tax system (Mirrlees, 1971). Capital income accumulation is sensitive to the after-tax return and the tax system can, therefore, distort household investment decisions. In the absence of market failures or externalities, capital taxes can lead to misallocation of resources when capital inputs are directed from their most productive uses to uses or locations where such inputs are less productive, but benefit from favourable tax treatment. Moreover, the way capital is taxed has – among other factors – an impact on households' disposable income, which can become particularly acute in periods of unemployment or retirement, when they can no longer rely on labour income.

Taxing household capital income and stocks also help address inequality issues. Capital income inequality is due to differences in (accumulated) labour income and savings as well as in inherited wealth. Besides inequality of income, inequality of opportunity and the transmission of inequality across generations matter. In general, the distribution of capital income is much more unequal than that of labour income. Moreover, the composition of the asset portfolio matters, as it varies a lot with the size of the capital stock. Immovable property makes up the largest share of gross wealth for most of the distribution, while financial assets are especially important at the top of the distribution.

Recent international tax developments build up momentum to reconsider capital taxation as a revenue source. Given the mobility of international capital flows and the related tax avoidance behaviour, many Member States rely little on household capital taxation as a revenue raising instrument. This argument, however, may become less relevant taking into account recent developments on automatic exchange of information and anti-abuse measures, which have increased the capacity of Member States to raise taxes from mobile tax bases. This creates the opportunity to reconsider capital taxation in terms of economic efficiency, revenue and redistribution.

All Member States tax at least some capital income separately from labour income, inducing economic distortions. To avoid possible tax-induced overinvestment by households in certain types of assets, income from all activities and sources should be taxed in the same way. This implies taxing all components of the tax base (labour and capital) equally, using a single tax rate schedule. However, such a comprehensive income tax is sometimes difficult to implement and all Member States tax some capital income separately and at a lower tax rate than labour income. This makes the tax treatment of capital income rather country-specific in terms of tax expenditures and tax rates applied.

Empirical evidence suggests that, overall, capital income-related tax expenditures tend to favour high-income earners. EUROMOD-EWIGE microsimulations quantified the budgetary and distributional impact of taxing income from rented housing, financial assets and private pension savings differently from labour income. Empirical results show that granting a preferential tax treatment to capital income through the use of tax expenditures may raise questions in terms of equity, as they tend to favour high-income households. While well-designed household capital tax expenditures can be justified and enhance positive spill overs and welfare, it is important to ensure that they do not cause economic distortions and that they are the most cost-efficient policy tool.

Housing is often one of the most important household investments and governments generally favour home ownership through the tax system. Given the broader benefits home ownership generates for society, most Member States use the tax system to encourage home ownership, mainly through tax exemption of imputed rent and/or generous mortgage tax relief. The user cost of housing indicator allows to identify how different housing tax elements influence households' investment decisions and to isolate these contributions from the evolution of other factors such as interest rates. It shows that housing taxation, and in particular recurrent

property taxes, increase the user cost of housing for all countries, but that home ownership is still incentivised in a majority of countries.

Over time, the contribution of the various housing tax elements evolved significantly in all countries. Throughout the last decade, the user cost of housing indicator has shown an important reduction of mortgage tax relief for new loans. Moreover, the indicator shows that overall the use of recurrent property taxes has increased, indicating a more growth-friendly tax structure, but that some countries still do not apply recurrent taxes on immovable property. The indicator also shows that the use of capital gains taxes is limited, but that transfer taxes are still substantial in many Member States, hampering the functioning of the housing market.

While preferential tax treatment of capital gains typically aims at increasing savings and investment, its effectiveness is uncertain. Taxing capital gains comprehensively helps protect the income tax base by reducing the incentive for taxpayers to convert ordinary taxable income into capital gains. By reducing the potential of tax avoidance through the selective realisation of capital losses, taxing capital gains on an accrual basis contributes to tax neutrality and economic efficiency. In practice, however, capital gains are taxed when they are realised and may create possible inefficiencies resulting from a lock-in effect. Many Member States attempt to mitigate this effect by charging lower or no taxation on the capital gains on assets that have been held for a long time. While aimed at increasing savings and investment, this type of preferential tax treatment of capital gains may lead to sub-optimal diversification of investment portfolios.

The design of capital gains taxes can support an investment-friendly environment. Several Member States use a variety of exemptions and taper relief measures to support businesses and encourage entrepreneurship. Some tax arrangements specifically target the development of domestic capital markets and of equity financing of local businesses. However, capital gains taxes should be carefully designed to avoid harmful effects on small and medium-sized enterprises. Also equity considerations should be taken into account, given that the distribution of income from capital gains tends to be skewed towards higher income earners.

Reforming inheritance and gift taxes may increase the efficiency of the tax system and generate additional revenue. After recurrent immovable property taxes, inheritance and gift taxes are amongst the most efficient taxes. They are considered less distortive than most other taxes, as they do not interfere with lifetime savings patterns and as the related behavioural responses are small. For an inheritance tax to be effective, it has to be accompanied by a gift tax, whose design could incentivise earlier transmission. To ensure revenue efficiency, reforms of inheritance and gift taxes also have to take into account potential off-shore tax avoidance and evasion.

While inheritance and gift taxes could contribute to addressing wealth and generational inequality, tax design is important to ensure their acceptance. The taxation of large wealth transfers affects 'dynastic' wealth that builds up across generations. By limiting the build-up of wealth inequality, inheritance taxes contribute to higher equality of opportunities. A careful design of inheritance and gift taxes is important to prevent further wealth concentration. Hence, there seems to be a consensus to make inheritance taxation progressive and to set tax rates according to the proximity between donor and recipient. However, the available evidence does not seem to support the tax exemption of business assets. Finally, providing information on the actual design and incidence of inheritance and gift taxes seems to be of particular importance to favour their public acceptance.

ANNEX 1 – TAX TREATMENT OF HOUSEHOLD CAPITAL INCOME

Table A1.1. Tax treatment of rental income (2017)

MS	Rental income				Capital gains ¹
	Tax base	Deductions ²	Tax rate	Taxed separately ³	Tax rate
BE	Cadastral values	Deduction of mortgage interest payments and capital redemptions	Same rate schedule as labour income: progressive from 25% to 50%	No	0%, 16.5% or 33% ⁴
BG	Rental income received	10% statutory deduction as expense allowance	Same rate schedule as labour income: 10%	No	10%
CZ	Rental income received	Based on real expenses or fixed deduction of 30% of gross rental income (capped at CZK 300,000)	Same rate schedule as labour income: 15%	No	15%
DK	Rental income received	Based on real expenses ⁵	Same rate schedule as labour income: progressive from 41% to 56%, incl. labour market contribution and the "AM" tax of 8%.	No	8% and 15%
DE	Rental income received	Based on real expenses	Same rate schedule as labour income: progressive from 0% to 45%	No	25% excl. solidarity surcharge
EE	Rental income received	No deductions ⁶	20%	Yes	20% (capital gains are included in taxable income)
IE	Rental income received	Based on real expenses. Deductions for interest on loans for purchase, improvement or repair are restricted to 80% of the interest (for such interest accruing on or after 1st of January 2017).	Same rate schedule as labour income: Up to 33,800€: 20%; Above 33,800€: 40%	No	33%, 40% (gains on certain disposals of development land)
EL	Rental income received	For landlords (individuals), the tax deductible expenses are limited to 5% of amounts paid for repairs, renovation etc.	Up to 12,000€: 15%; Above 12,001€- 35,000: 35%; 35,001 and above :45%	Yes	15%
ES	Rental income received	Based on real expenses. Fixed reduction of 60% of net rental income (after deductions)	Same rate schedule as labour income: progressive from 19% to 45% incl. surcharges.	No	Progressive rates of 19%, 21% and 23%
FR	Rental income received	Fixed deduction of 30% of the gross income ⁷	Same rate schedule as labour income:	No	19% excl. social taxes

			progressive from 0% to 45%		Exemption if a property's sale price is below EUR 15,000; up to 100% of capital gains may be exempt depending on the time the property was held. Taxable gains above EUR 50,000 (except for the sale of building land) are subject to a progressive surtax, ranging from 2% to 6%
HR	Rental income received	Based on real expenses	12% (excl. city surcharges)	Yes	25%
IT	Cadastral value or contractual rent reduced	Flat deduction of 30% of taxable income ⁹	(a) Progressive from 23% to 43%.	(a) No	Progressive from 23% to 43% ¹²
	by 5% of the rental value8	Up to 20% deduction of acquisition /construction price, equally split over 8 years ¹⁰	Alternatively (b) 21% ¹¹	(b) Yes	
СҮ	80% of rental income received	Based on real expenses	Same rate schedule as labour income: progressive rates from 0% to 35%, plus Special Contribution Tax of 3% on 75% of the gross rental income	No	20%
LV	Rental income received	(a) Based on real expenses (b) None	(a) 23% (b) 10%	(a) No (b) Yes	15%
LT	Rental income received	None	Same rate schedule as labour income: 15% For rental income not exceeding EUR 45,000 annually the taxpayer can also choose a lump-sum tax established by municipalities.	No	15%
LU	Rental income received	Based on real expenses ¹³	Same rate schedule as labour income: progressive from 0% to 42%	No	Progressive from 0% to 42%
HU	Rental income received	Based on real expenses	15%	Yes	15%
MT	Rental income received ¹⁴	(a) Interest, rent and licence fees paid, as well as maintenance allowance of 20% of the residual rental income (b) None	(a) Progressive from 0% to 35% (b) 15%	(a) No (b) Yes	8%
NL	Until 2016, 4% of the net value of the residence. As	No deductions	30%	Yes	Not taxed

	of 2017, based on the value of the asset				
AT	Rental income received	Based on real expenses	Same rate schedule as labour income: progressive from 0% to 55%	No	30% (capital gains derived from the sale of principal residence are exempt)
PL	Rental income received	(a) Based on real expenses	(a) Progressive rates of 18% and 32%	(a) No	19%
		(b) None	(b) 8.5%	(b) Yes	
RO	Rental income received	40% expense allowance from gross rental income	16%	Yes	3%, 2% and 1% ¹⁵
SI	Rental income received	Based on real expenses or 10% lump-sum deduction	25%	Yes	25%
SK	Rental income received exceeding €500	Based on real expenses (reduced proportionally to the share of exempted income)	Same rate schedule as labour income: progressive from 19% to 25%	No	19%
FI	Rental income received	Based on real expenses.	Up to 30,000€: 30%	Yes	Up to 30,000€: 30%
			Above 30,000€: 34%		Above 30,000€: 34%
SE	Rental income received	Based on real expenses. Fixed deduction of 40,000 SEK (divided 20,000 per spouse) plus 20% of the gross rental income ¹⁶	30%	Yes	30%
UK	Rental income received	Based on real expenses ¹⁷	Same rate schedule as labour income: progressive rates of 20%, 40% and 45%	No	10% on gains up to the taxpayer's basic rate band and at 20% in excess of that limit

Note: Tax applying for the tax year of 2017, for a single, resident taxpayer. Unfurnished residences. (1) Country specific holding periods for immovable property may affect the tax rate. Some Member States do not tax capital gains from the sale of the primary residence. See Ares (2015)5638310. (2) Deductions "based on real expenses" may vary between Member States, but generally include expenses such as maintenance costs, operating expenses, *depreciation* and interest payments. (3) "No" means that the rental income is computed with other personal income in the tax base. (4) Capital gains realised on the owner-occupied residence are not taxable. Capital gains from the sale of other immovable property are taxed at a flat rate of 16.5% or 33% depending on the time the property was held. (5) The tax value of interest deduction which exceeds DKK 50,000 for singles (DKK 100,000 for married couples) is reduced from 33.5% to 25.5%. (6) The taxpayer can chose to declare his income as investment income or as business income. In the case of business income, only the net income after expenses is included. But the amount is also subject to social security contributions. In the case of investment income, the gross income is included in the taxable base, but no social security contributions are levied. (7) Annual revenue below €15,000 ("Régime micro-foncier"). Moreover, in France, the landlord will need to pay an extra tax on the furniture based either on the contractual share of the rent, providing the contract has been registered, or 40% of the total rent. (8) Whichever is higher. (9) Qualifying rentals of dwellings located in major cities. (10) Qualifying properties purchased or constructed before 1 January 2018, being subsequently rented out for at least 8 years, subject to conditions. (11) Residential property income can be subject to the ordinary personal income regime or be taxed at a flat rate. A reduced rate of 10% applies on income deriving from residential properties a) rented for use as dwellings and b) located i

Source: IBFD, European tax handbook 2017.

Table A1.2. Tax treatment of financial assets (2017)

	Capital incor	me	Capital gains			
MS	Assessed capital income	Deductions/ tax credits	Tax rate	Taxed separately ¹	Deductions/ specific tax treatment	Tax rate
	Interest	Deduction of interests up to EUR 1,880 from certain savings accounts	30% (15%)²	Yes	(a) General tax-exemption of capital gains realised by individuals not engaged in	
BE	Dividends	-	30% (5%, 10%, 17%, 20%) ³	Yes	business activity (b) Capital gains from certain (speculative) activities: taxed at 33%; Gains from business liquidation (if conditions are met): taxed at 16%	0%, 16.5% or 33%
BG	Interest	Exempt: interest on government securities, municipal bonds, corporate bonds and debentures	Interest paid by a cooperative to its members: 10% Interest from bank accounts: 8% Other interest: 10%	Yes (apart from "other interest")	Exempt: Gains from shares sold through a stock exchange	10% (added to other income except for gains on shares as a result of corporate restructuring)
	Dividends		5% final withholding tax	Yes		
	Interest	-	15%	Yes ⁴		
CZ	Dividends	-	15%	Yes	Capital gains from securities are tax-exempt up to CZK 100000 per year and also beyond this limit under certain conditions. Capital gains on the sale of movable non-business property are tax-exempt.	15 %.

	Interest	Exempt up to 2,000 DKK, applied to total capital income. ⁵	10.08% and an additional 15% for interest income exceeding DKK 479600.	No		Capital gains on shares are taxed as income from shares (at 27% or 42%).
DK	Dividends	Exempt up to 2,000 DKK, applied to total capital income. ⁵ General tax credit of DKK 4,536. Does not apply to dividends taxed at 27%.	Income from shares and dividends: 27% for shares not exceeding DKK 51700 and 42% for income above this amount.	No	-	Gains from bonds and other debts claims exceeding DKK 2,000: 10.08% and 15% (included to the tax base of capital income)
	Interest	Annual allowance of up to EUR 801, applied to total capital income	25%, excl. solidarity surcharge	Yes	(a) Tax-exempt if total capital gains are below EUR 600	
DE	Dividends	Annual allowance of up to EUR 801, applied to total capital income	25%, excl. solidarity surcharge	Yes	(b) Allowance of up to EUR 9,020 for capital gains derived from the sale of shares in a company, subject to conditions (c) Exceptional allowance up to EUR 45,000 for capital gains derived from sale or	25%, excl. solidarity surcharge ⁶
					liquidation of a business, if being aged 55+ or unable to work	
EE	Interest	Exempt: All interests not from "investment accounts" (accounts used for consumption), interest that is completely independent of the value of the security, deposit, currency or other financial instrument and also in some other cases.	20%7	No	Exempt: sale of movable property in personal use, exchange of shares in course of mergers, divisions or other reorganisations and in some other cases.	20%
	Dividends	-	0%7	No	other cases.	
IE	Interest	Interest on savings certificates by the Ministry of Finance are exempt, up to a maximum specified by the Minster	Interest from deposits from banks and other deposit takers: 39% (will be reduced to 33% until 2020).	Yes	Exempt: First EUR 1,270 of net gain, gains arising from certain government stocks and stocks issued by certain state-sponsored authorities	33%
	Dividends	-	standard rates of 20% and 40%	No	etc.	

EL	Interest	Exempt: interest from bond loans and treasury bills of the Greek state, interest from bonds issued by the EFSF	15%	Yes	-	15%8	
	Dividends	-	15%	Yes			
	Interest	(b) Long-term savings: Deduction of income from a long-term savings plan? (c) Regional income tax credit (50% of income from Ceuta and Melilla) ¹⁰	Progressive rates of 19%, 21% and 23%	Yes	(a) Rollover relief (sale of participations in qualifying collective investment institutions or recently created firms, subject to conditions) when re-investing in similar		
ES	Dividends	a) Related expenses: Deduction of commissions paid for the custody of shares (b) Regional income tax credit (50% of income from Ceuta and Melilla) (c) Tax credit for investment in new firms ¹¹	Progressive rates of 19%, 21% and 23%	Yes	assets, subject to certain conditions. (b) Tax exemption of gains arising from transfer of dwelling to discharge debt (secured by a mortgage on that dwelling). (c) Partial tax deduction of gains arising in Ceuta and Melilla. ¹⁰	Progressive rates of 19%, 21% and 23%.	
	Interest	-	Progressive rates of 0% to 45%	No	(a) Deduction for capital gains derived from the sale of		
FR	Dividends	(a) 40% of dividends of resident companies ¹² (b) Regional tax deduction: Direct investment in French Overseas Departments ¹³	Progressive rates of 0% to 45%	No	shares for income tax purposes ¹⁴ (b) Rollover relief (for gains from merger, division or exchange of shares, subject to conditions)	Progressive rates of 0% to 45%	
	Interest	Interest on current accounts, on securities issued pursuant to special laws and collected pursuant to court rulings is exempt.	Interest on savings accounts: 12% ¹⁴ Other interest: 40%	Yes	Gains from the sale of movable property and	12% plus city surcharge (10-30%) for gains from financial instruments held for less than 3 years.	
HR	Dividends	-	Dividends: 12% final withholding tax ¹⁵	Yes	securities and from financial instruments held for longer than 3 years are not taxed.		

	Interest	Deduction of income from a long-term investment plan (piano di risparmio a lungo termine)	26% (12.5% on interest from state bonds)	Yes	(a) Substantial participation in a company: Partial deduction		
IT	Dividends	(a) Partial deduction of investment in start- ups or qualifying SMEs ¹⁶ (b) Partial deduction of dividends from substantial participations ¹⁷ (c) Deduction of income from a long-term investment plan (piano di risparmio a lungo termine)	26%	Yes	of gains from sale (50.28% of gains tax-exempt) ¹⁸ (b) Capital gains not qualifying for partial deduction	(a) Progressive from 23% to 43%. (b) 26%	
СУ	Interest	-	No tax but special defence contribution of 30% for interest not accruing from ordinary business activities	-	-	0% in general ¹⁹	
	Dividends	-	No tax but special defence contribution of 17% for dividends	-			
LV	Interest	-	10%	Yes		15%	
LV	Dividends	-	10%	Yes		1370	
LT	Interest	Interest income from deposits of credit institutions or securities issued by a public authority are exempt up to 500 € per year	15%	No	Tax-free amounts: EUR 500 per year for gains from financial instruments, EUR 2500 per year	15%	
	Dividends		15%	No	for gains from movable property.		
	Interest	Credit interest on savings accounts is exempt if paid once a year and if it does not exceed EUR 250. Interest paid out by home savings institutions to individuals is fully exempt.	Credit interest: 20% final withholding tax	Yes	Deduction of EUR 500 for all		
LU	Dividends	50% exemption for dividends paid by a fully taxable resident company. Fully exempt: Dividends paid by private wealth management companies and investment funds.	15% withholding tax ²⁰	Yes	capital gains. Deduction of EUR 50.000 for gains with a holding period longer than 6 months or if it is not a case of substantial participation in a company.	Taxed as part of aggregate income with progressive rates from 0% to 42% plus surcharge. ²¹	

ни	Interest Dividends	-	15%. Interest on separately held long-term "qualified investment": 10% (at least 3 years), 0% (at least 5 years)	Yes		15% Gains on separately held qualified long-term investment: 10% (at least 3 years), 0% (at least 5 years)
	Dividenas	- 		Yes		
МТ	Interest	-	15% final withholding tax ²² or alternatively ordinary income tax rates (from 0% to 35%)	Yes	-	15% final withholding tax ²²
	Dividends	Subject to certain conditions dividend income from a company registered in Malta is exempt from income tax.	15% final withholding tax ²²	Yes		
NL	Interest	Basic allowance of EUR 25,000 is deducted from the taxable base for all investment income (including dividends and interest)	25% for interest and dividends from "substantial shareholdings" Otherwise effective tax rate	Yes	-	0% (for regular, non- entrepreneurial, individual taxpayers capital gains are usually not taxable)
	Dividends	other than those on "substantial shareholdings"	of 0.861%, 1.38% or 1.617% depending on net value of assets ²³	Yes		25% for capital gains derived from "substantial shareholdings"
	Interest	-	25%/27.5% ²⁴	Yes		
AT	Dividends	Exempt: Dividends from newly issued shares in resident companies (other than stateowned) engaged in production activities	27.5%	Yes	-	27.5% ²⁵
	Interest	-	19%	Yes		
PL	Dividends	-	19%	Yes	-	Standard progressive tax schedule with 2 rates (18% and 32%) Capital gains from shares and other securities are taxed separately at 19%.

PT	Interest Dividends	Long-term savings: 1/5 of income between years 5 and 8 and 3/5 after year 8 is exempt. Interest derived from retirement savings accounts is exempt as long as the balance does not exceed EUR 10,500.	28% ²⁶	Yes	-	Subject to general progressive tax rates between 14.5% and 48% (plus surtax and extraordinary surtax) Stock market capital gains are taxed at 28% ²⁷	
RO	Interest	Exempt: interest on state and municipal bonds	16% final withholding tax	Yes		16%: Gains from disposal of securities and other transactions with financial instruments and	
RO	Dividends	-	5% final withholding tax	Yes		from transfers with financial gold. ²⁸	
SI	Interest	Interest on bank deposits paid by a bank situated in Slovenia or outside the EU is taxable only for the part that exceeds EUR 1,000.	25% final withholding tax	Yes	-	25%, reduced by 5 pp per each 5 years of holding. 40% final tax rate for derivatives disposed again within 12 months	
	Dividends	-	25% final withholding tax	Yes		29	
	Interest	-	19%30	Yes		Standard progressive tax schedule with 19% and 25% Gains from sale of option rights or shares: 19% 32	
SK	Dividends	-	7%31	Yes			
-	Interest	-	Progressive tax (on total capital income): Up to 30,000€: 30% Above 30,000€: 34%	Yes	Capital gains are taxed as	Progressive tax (on total capital income): Up to 30,000€: 30% Above 30,000€: 34%	
FI	Dividends	Partial deduction of dividends ³³	Progressive tax (on total capital income): Up to 30,000€: 30% Above 30,000€: 34%	Yes	capital income.		
	Interest	Investment in small and newly started	30%				
SE	Dividends	companies: Deduction from capital income (including dividends and interest) equal to 50% of acquisition cost of investment (maximum SEK 650,000 per year)	There is no municipal income tax on capital income.	Yes ³⁴		30%35	

UK	Interest	Savings such as dividends and interest are not taxed up to GBP 5000 of total (also nonsavings) income. There is a special savings allowance amounting to between EUR 500	Normal progressive income tax schedule with rates of 20, 40 and 45%	No	-	10% for capital gains below GBP 33500 if total taxable income falls into basic rate band (below GBP 33500), otherwise 20%
	Dividends	and EUR 1,000. Interest on individual savings account income is exempt. ³⁶	Progressive rate schedule of 7.5%, 32.5% and 38.1%	Yes		Annual exempt amount of GBP 13,000 36

Note: Tax applying for the tax year of 2017, for a single, resident taxpayer. (1) "No" means that the capital income is computed with other personal income in the tax base. (2) The reduced rate is levied e.g. on income derived from ordinary savings accounts. Taxpayers may choose to be subject to the general progressive tax rates (25% up to 50%). (3) The lower tax rates may be granted if conditions are met, e.g. for certain dividends from SMEs. Taxpayers may choose to be subject to the general progressive tax rates. (4) Except from interest on securities, term deposits and non-business current and savings accounts. (5) Capital income up to DKK 42800 is disregarded when calculating the total income subject to the additional rate of 15% (basic rate 10.08%), (6) Capital gains from sale of shares and financial instruments are treated as investment income. (7) The tax on interest is a non-final withholding tax. It is creditable against PIT which also has a flat rate of 20% but includes also a basic tax allowance. For dividends, companies are subject to distribution tax.) (8) A transfer tax of 0.20% is added for shares listed on the Athens Stock Exchange. Listed shares acquired after 1 January 2009 are exempt from the 15% capital gains tax if the seller owns less than 0.5% of the share capital of the company. (9) Income generated under a longterm savings plan is exempt from income tax, given that the taxpayer does not withdraw capital within the first 5 years. (10) Income tax due attributable to income (including capital gains) arising in the Spanish cities of Ceuta and Melilla in Northern Africa may be reduced by a 50% credit. (11) For up to 20% of investments in new firms, given that requirements are met (max.: EUR 50,000), (12) Dividends distributed by resident companies to resident individuals, (13) Direct investments in certain French Overseas Departments made by December 2017 entitle taxpayer to a deduction of invested amounts from her aggregate income. (14) Up to 85% of capital gains may be tax exempt (not from social taxes, however), depending on the holding period of the asset. Capital gains derived from the sale of a SME by the director/owner at retirement may benefit from a tax allowance of EUR 500.000 (abolished in December 31, 2017). Gains from the disposal of business assets by an individual may be tax exempt, given that conditions are fulfilled. (15) 24% for profit shares income of management board members or employees obtained via own shares or share purchase option. (16) 30% of investments in innovative start-ups or qualifying SMEs may be credible against tax liability (max.: EUR 300,000 p.a.). (17) Holding a substantial participation (not in a business capacity) in a company may entitle individuals to deduct 41.86% of dividends from the taxable income. (18) Capital gains relating to assets used in business activity are included in the business income. Specific rules apply to gains derived from the disposal of business owned for 5 year or longer. (19) 20% for gains from the disposal of shares of companies not listed on a stock exchange which own immovable property in Cyprus and companies that indirectly own immovable property in Cyprus and derive at least 50% of their market value from it. (20) There was a flat rate of 23% until 1 January 2018. (21) Domestic dividends paid out of earnings received before 1 January 2018 are taxed at a 10% final withholding tax. (22) Can alternatively also be taxed under the ordinary progressive income tax rates (from 0% to 35%) Capital gains are exempt under certain conditions such as when from transfers of securities listed on the Malta Stock Exchange. (23) The effective tax rates are results of a flat tax of 30% on a weighted notional yield on net assets. (24) Interest on deposits and other debt claims: final withholding tax rate of 25%. Interest on certain securities, from participation in investment funds and similar participations and on securities issued by international institutions after 30 September 1992: final withholding tax rate of 27.5%. Capital income can also be taxed at the progressive rate schedule between 0% and 55% if the option is exercised. (25) Only applies to portfolio shareholdings and fund units purchased after 31 December 2010 and sold after 31 March 2012. Otherwise capital gains are only taxable if realised within the so-called speculative period. Only applies to capital gains from other capital market products if acquired after 31 March 2012. Otherwise, capital gains from other capital market products are taxed differently ("old regime"). The withholding tax does not apply to certain gains such as resulting from private loans. (26) Final withholding tax, unless the taxpayer elects to credit it against personal income tax, in which case 50% (dividends) or 100% (interest) is aggregated with other taxable income. (27) The taxpayer may elect for aggregation to other personal income categories. (28) Exempt: certain gains such as on financial instruments that attest state public debt. (29) Capital gains from derivatives purchased before 15 July 2008 and venture capital investments are exempt from capital gains tax. (30) Standard deductions for PIT do not apply for interest and other yield from securities, interest on bank deposits and current accounts, interest and gains on credit and loans, income from state bills and state treasury bills. (31) No tax on profits from between 2004 and 2016. (32) Exempt: gains from sale of movable property, from sale of shares and other securities up to EUR 500 per year. Income from transfers of securities, options and from derivatives exempt under certain conditions (33) 75% of dividends from unlisted companies are tax-exempt up to EUR 150,000; 15% of the excess are tax-exempt. 15% of dividends from publically listed companies are tax-exempt. (34) Jointly taxed with capital income, but separately from other income (dual tax system). (35) Gains from property used for private purposes are only included in capital tax to the extent that they exceed SEK 50000. (36) Interest on "National Savings Certificates" is also exempt. Different investment incentive reliefs make for further exemptions. (37) Further exemptions for among others government stock, gualifying corporate bonds (QCB). For chattels (tangible, movable property): no capital gains tax for under GBP 6000, for amounts exceeding GBP 6000 there is restricted capital gains tax. Further exemptions through different investment incentive reliefs.

Source: IBFD, European Tax Handbook 2017.

Table A1.3. Tax treatment of private pensions (based on policy rules of 2017)

The taxation of pensions can take place in three possible points in time, namely when a) contributions to the fund are paid (out of earned income), b) investment income and capital gains accrue to the fund and c) benefits are received from the fund. In general, the following systems are applied:

TEE system (taxed, exempt, exempt) and EET system (exempt, exempt, taxed)

In a TEE-system earned income financing contributions is taxed whereas returns to the fund and pension payments are tax exempted. In an EET-system contribution payments qualify for a tax deduction, returns to fund are tax exempt but pension payments are taxed. With a flat PIT rate, these two systems are equivalent in effect and neutral between consumption now and in the future. They deliver the same net present value of revenues to the government although the timing is different. Revenues are deferred until retirement under EET, but received immediately under TEE. In a progressive personal income scheme, when a tax payer is confronted with different marginal tax rates before and after retirement, a tax payer with higher marginal tax rate before retirement will benefit from the EET scheme.

TTE system (taxed, taxed, exempted) and ETT system (exempted, taxed, taxed)

In these models capital gains accrue to the fund are also taxed. This makes the tax treatment in the two alternatives equivalent to a (comprehensive) income tax, neutral between consumption and saving but not neutral between consumption now and consumption in the future. This implies a disincentive to save.

Overall, most Member States encourage retirement savings by providing special tax regimes for private pensions funds. Low or non-existing taxation of returns to pension savings is regarded as tax expenditures under an income tax benchmark (all forms of income are treated the same), but not under a consumption tax benchmark (investment income and capital gains are exempted). Pensions are savings for future consumption and a neutral treatment of consumption over time is only respected by the consumption tax systems (TEE and EET). However, such a treatment would generally provide a tax advantage over other forms of saving such as interest bearing accounts, direct holdings of equity, or intermediated products such as unit trusts or investment trusts as these capital returns are typically taxed.

As private pensions are considered as a (supplementary) insurance against longevity, the concept of capital gains does not seem to be appropriate and was excluded from this analysis.

MC	Private pensions								
MS	Assessed private pensions	Deduction of contributions ¹	Tax rate	Taxed separately ²					
BE	(a) Accumulated capital as long-term savings for pension savings accounts (b) Private pensions received	(a) Tax credit of 30% of private pension contributions up to EUR 940 ³	(a) 10%, 16.5%, 33% ⁴ (b) 10% or 33% (depending on the date of payment)	Yes					
BG	Private pensions: not taxed	Deducted from employment income: life insurance premiums paid by the employer Deductible up to a limit of 10% of aggregate taxable income: Voluntary social security contributions including pension insurance and certain life insurance premiums.	0%: Payments received on the basis of voluntary pensions in the case of retirement are exempt (such as mandatory pensions too). 10% final withholding tax: on income from voluntary social security before retirement, life insurance premiums paid in the case of early redemption or non-occurrence of the insurance event ⁵	Yes (in special cases of early redemption where they are in fact taxed)					
CZ	Private pension and life insurance payments received	Up to CZK 50,000 of the total premiums paid by an employer on behalf of an employee (i) to a state-contributory supplementary pension fund and for a qualifying voluntary pension saving scheme, and (ii) for a private life insurance are exempt income for the employee under certain conditions. Contributions paid to a state-contributory supplementary pension fund as well as to contractual pensions are deductible over the period during which the pension will be received (average life expectancy of the taxpayer).6	Private pension in the sense of state-contributory supplementary pension insurance and life insurance are taxed separately at 15%. Contractual pensions under civil law are taxed at the flat income tax rate (15%).	Yes (except for contractual pensions under civil law)					
DK	Private pension received (insurance and saving schemes)	Contributions to private lump-sum pension schemes made by employers are exempt up to DKK 49300 per year. Contributions to private schemes which pay out the pension for at least 10 years are deductible up to DKK 53,500. Premiums paid to private lump-sum schemes are not deductible. Premiums to the optional retirement savings plan (Aldersopsparing) are not deductible. Life insurance premiums are deductible given certain conditions.	Progressive with rates of 10.08%, 13.08% and 28.08%. The yield to the optional retirement savings plan is taxed at 15.3%.	No (but additional tax bracket of 13.08% is only for pension income)					

DE	74% of Private pension received ⁷	84% of public and qualifying private pension contributions (max.: EUR 19,624 p.a.) or 100% of private pension contributions (max.: EUR 2,100 p.a.)8	Progressive from 0% to 45%	No
EE	Private pension received	Premiums that the employer or the employee pays to certain voluntary annuity pension schemes, as well as payments to acquire investment certificates of qualifying pension funds (for the employee), are annually exempt from tax up to EUR 6,000 or 15% of the employee's taxable salary, whichever is lower.	General PIT flat tax rate of 20% Pensions from certain annuity pension schemes (compulsory or voluntary) are subject to a lower tax rate of 10% (final withholdings tax) 0% (tax-exempt) for certain pensions and insurance proceeds and other payments received from insurance contracts	No (unless taxed at special rates)
IE	Private pension received	Tax relief for contributions to personal pensions. Limits to the relief range from 15% of earned income for under-30-year-olds to 40% for over-60-year-olds. The total yearly earnings limit is EUR 115,000.	Taxed progressively at 20 and 40%. Law allows for partial commutation to a tax-free lump-sum. The lifetime limit for the tax-free lump sum is EUR 200000. Up to EUR 500000 the tax rate is 20%, after that 40%.	No
EL	Private pension received	-	Taxed progressively at rates from 22% to 45%. Pensions and reliefs granted to war veterans and war victims are exempt.	No
ES	(a) Private pensions received (b) Annuities from life insurances9	(a) Deduction of private pension contributions up to EUR 8,000 p.a.(b) Partial tax-exemption of life and term annuities¹⁰	(a) Progressive from 19% to 45%, incl. surcharges(b) Progressive rates of 19%, 21% and 23%	(a) No (b) Yes
FR	Private pension received ¹¹	Deduction of contributions to the popular pension savings plan (PERP) ¹²	Progressive from 0% to 45%	No
HR	Private pension and life insurance receipts Not taxable to the extent that premiums were not deductible	Insurance premiums are deductible under certain conditions. No other employment-related expenses are deductible.	Final withholding tax of 12%	Yes ("income from insurance")
ΙΤ	Private pension received	Deduction of contributions to qualifying pension plans up to EUR 5,165 p.a.	(a) 26% (b) 9% to 15% ¹³	Yes

СҮ	Private pension or annuity received	Pension and insurance premiums are deductible. Overall limit: 1/6 of taxable incomes. Specific limit for life insurance: 7% of insured capital sum. Contributions to insurance companies' pension scheme can also be claimed as tax-deductible expense upon approval.	Lump sums received by way of retirement gratuities or commutation of pension are tax-exempt. Capital sums arising from pension, provident (lump sum) or other insurance funds are also tax-exempt.	No
LV	Private pension and life insurance receipts	Premiums paid by an employer on behalf of an employee to an approved pension plan in respect of a private pension fund are exempt if they do not exceed the lower of 10% of the employee's annual income and EUR 426.86 per year. Pension contributions paid to private pension funds and life insurance premiums are deductible. The aggregate of these payments may not exceed the lower of 10% of the taxpayer's taxable income and EUR 4,000 a year.	23% Income from investments in private pension funds is subject to tax at a 20% rate.	No
LT	Private pension received	Exempt: life insurance contributions and contributions to pension funds (subject to conditions) paid by the employer on behalf of an employee. These exemptions are subject to limitations. The total deduction of the expenses shall not exceed EUR 2,000. All deductions from any type of taxable income, except from income earned under a business certificate, in total may not exceed 25% of the aggregate taxable income of the tax year.	Taxed at general flat rate of 15% Exempt: pension annuities received from life insurance companies, pensions received from private pension funds or life insurance companies, pensions received from a pension fund under certain conditions	No
LU	Private pension received	Payments to voluntary pension schemes are deductible to a maximum of EUR 3,200 per year.	Added to annual aggregate income which is taxed progressively at rates between 0 and 42%. Yet, pensions from private pension schemes benefit from a 50% exemption if certain conditions are fulfilled.	No
ни	Pensions are not taxed	Pension fund contributions and insurance premiums are not deductible. 20% of contributions to voluntary mutual pension and self-support insurance funds, 'advance savings accounts' for pension purposes and pension insurance contracts are refunded to the taxpayer. The maximum refund is between HUF 100,000 and 150,000 p.a. for each contribution type and HUF 280,000 for all the refunds aggregated. Certain rebates against income tax for pension receivers under certain conditions.	0%. (Pensions, including pensions by a private pension fund, are tax-exempt.)	-

MT	Pensions, annuities or annual payments including life insurance payments	-	Taxed progressively at rates from 0% to 35%.14	No
NL	Private pension and annuities on the basis of a private insurance received	Pension premiums paid for qualifying pension schemes (both by employer and employee) with pension funds or approved insurance companies are fully deductible.	Progressive from 36.55% to 52%	No
Αĭ	Private pension received. Only 25% of pension payments are taxable if the former employee contributed to the pension fund themselves. Life insurance payments are taxable income under certain conditions (lump-sum, short-term, for pension purposes).	Retired persons may receive a special tax credit of EUR 400 (EUR 764 under certain conditions).¹⁵ The credit is phased out for pension income between EUR 17,000 and 25,000. Life insurance premiums are deductible as special expenses up to 730 €.	Progressive from 9% to 55%	No
PL	Private pension received	The contributions to individual pension accounts are deductible for income tax purposes up to a limit of PLN 5,115.60 in 2017.	Pension benefits received on the basis of contributions to individual pension accounts are taxable at the progressive tax rates (18% and 32%). Pension benefits received on the basis of the employee/employer contributions to voluntary private pension funds, such as occupational pension plans and group life insurance plans, are not taxable.	No
PT	Private pension received Capital element of life annuity	20% of annual contributions to private pension plans are creditable, up EUR 400 for taxpayers younger than 35 years old, EUR 350 for taxpayers aged between 35 and 50, and EUR 300 for taxpayers older than 50 years. The capital element of a temporary or life annuity paid on the basis of an insurance policy is deductible. Where the capital element cannot be determined, only 15% of the gross annuity is treated as taxable income.	Subject to general progressive rates of 14.5% to 48% incl. basic tax allowance of EUR 4104.16 Benefits in the form of a lump-sum payment (a total or partial redemption of the policy) are taxable as investment income at the special final rate of 20% on two-fifths of the amount.	No
RO	Private pension received	Contributions to private pension schemes by employers on behalf of their employees are exempt from taxable salary income within the limit of the Romanian currency equivalent of EUR 400 per year. Contributions to voluntary pension schemes are deducted from employment income within a limit of EUR 400 per year.	Pensions are subject to a 16% final withholding tax, levied on the gross amount, less the individual health contribution and a monthly exempt amount of RON 2,000. ¹⁷	Yes

SI	Private pensions received	EUR 2,819.09, for persons committed to voluntary pension insurance. Special rules apply where also the employer contributes to voluntary pension insurance.	Taxed progressively at rates from 16% to 50%.	No
SK	Private pension or life insurance payments received	Contributions to private pensions are deducted from taxable income. Contributions to private life or pension insurance by employers are not subject to tax either.	Private life or pension insurance, payments from the state supplementary pension insurance: 19% final withholding tax	Yes
FI	Private pension received ¹⁸	Deduction of contributions up to EUR 5,000 (EUR 2,500 if paid by employer) ¹⁹	Up to 30,000€: 30% Above 30,000€: 34% ²⁰	Yes
SE	Private pension received	Private pension premiums are deductible if the individual is not provided with his employer's own pension plan. The deduction is limited to 35% of employment income, the maximum deduction being SEK 448,000. Pensions received on the basis of life insurance are tax free.	Progressive at 0, 20% and 25% (bracket thresholds differ from employment income)	No
UK	Private pension received, purchased life annuity payments received	Contributions are tax-exempt up to an allowance limit (GBP 40,000 in the tax year 2017/18). For incomes over GBP 150,000 the allowance is reduced by GBP 1 for every GBP 2 of additional income until it reaches GBP 10,000. The lifetime limit for tax-free amounts from pension funds is GBP 1 mn in 2017/2018. Pension contributions in excess of the lifetime limit are taxed at 55% if the pension is taken as a lump sum and 25% otherwise. Regarding purchased life annuities only the income element but not the capital element is taxed. Life insurance proceeds are usually not texed. Life insurance premiums are generally not deductible.	Taxed progressively at 20, 40 and 45%	No

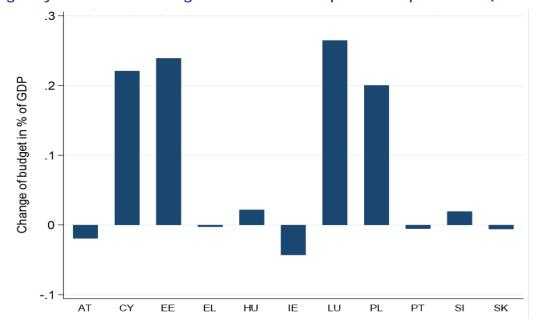
Note: Tax applying for the tax year of 2017, for a single, resident taxpayer. Occupational pension plans are only considered if they interact with private pension plans with respect to tax implications. Income from foreign sources is often taxed differently, which is not mentioned here. (1) Unless otherwise noted contributions mentioned are those paid by the individual. (2) "No" means that the income from private pensions is computed with other personal income in the tax base. (3) Regional limits apply to life insurance premiums. The tax credit is granted if a holder of life insurance schemes or special pension savings accounts makes use of the advance tax on long-term savings, generally payable when turning 60. If the tax on long-term savings has been levied, no further income tax is due at later stages. (4) Depending on the date of deposit or premium payments and the date of payment of the insurance or savings benefit. (5) In case the individual has received tax relief. The rate is reduced to 7% for life insurance with a term exceeding 15 years. (6) Premiums in excess of CZK 12,000 per year paid to a state-contributory supplementary pension fund or in respect of a qualifying voluntary pension saving scheme are deductible up to a maximum of CZK 24,000 per year. (7) The taxable share of private pensions will be gradually increased from 74% in 2017 to 100% in 2040. It is applied to certain capital-based private pension schemes (monthly pension payment not starting before taxpayer reaches 60; livelong annuity). Regarding income from other private pensions, only its profit share ("Ertragsanteil"), varying by a taxpayer's life expectancy, i.e. when receiving the first payment (60 years:

22%, 69 years: 15%), is subject to taxation. Pensions derived from certified private pension plans, the contributions to which qualified for deductions or cash grants, are fully subject to income tax ('Riester-Rente'). (8) Contributions made by taxpayers being subject to the statutory pension scheme to additional certified pension plans are deductible up to EUR 2,100 p.a. (7) Under the long-term savings plan (LTSP), income from life insurances, deposits and financial contracts funding the LTSP are exempt from income tax, if conditions are fulfilled. (10) The taxable share of life and term annuities ranges from 40% to 8%. (11) The tax base includes, apart from public and occupational pensions, proceeds from retirement savings schemes concluded before 30 June 1999 and life annuities for no consideration. Included income is net of deductible social security contributions, less a 10% notional deduction of up to EUR 3,715. Life annuities acquired for consideration are partially subject to income tax, depending on age (below 50: 70%, 50-59: 50%, 60-69: 40%, 70+: 30%). (12) Premiums paid are deductible up to 10% of earned income (previous year) or eight times the annual social security ceiling. (13) Certain annuities from qualifying pension plans are taxed at 26% (income from capital). Periodical payments made by pension funds on the basis of private insurance policies are taxed at 15%, reduced by 0.3%-points for each year of a taxpayer's participation in pension plan exceeding 15 years (min.: 9%). (14) War disability pensions and war widows' pensions are exempt. Any capital sum received by commutation of pension (up to a maximum of 30% of the total pension) is exempt from tax. Pensioners whose pension does not exceed the minimum wage are in general exempt from personal income tax. (15) However they are not entitled to the lump-sum deduction of EUR 132 for expenses connected with employment. (16) In case of early termination of a private pension contract the excess over contributions is taxed as investment income with

Source: IBFD, European tax handbook 2017 and OECD (2015).

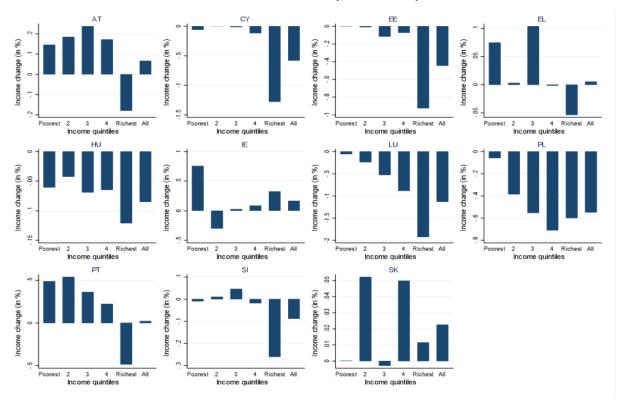
ANNEX 2 – TAX TREATMENT OF HOUSEHOLD CAPITAL INCOME – FURTHER EMPIRICAL RESULTS

A2.1.Budgetary effects of removing household total capital tax expenditures (in % of GDP)



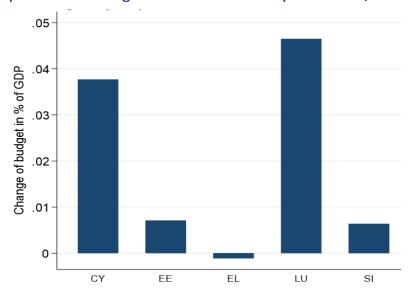
Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.2. Distributional effects of household total capital tax expenditures



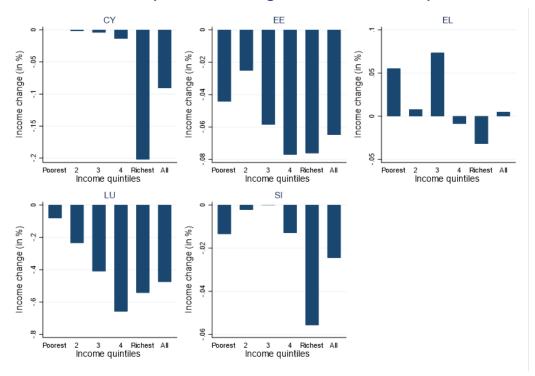
Notes: The scaling of the y-axis differs across countries. Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.3. Budgetary impact of removing rental income tax expenditures (in % of GDP)



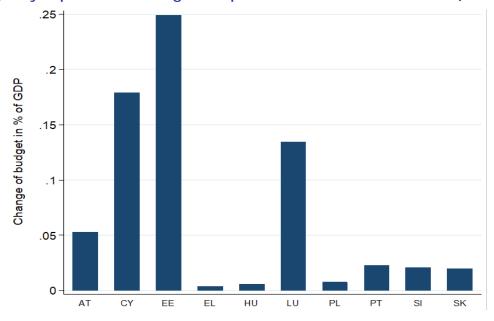
Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.4. Distributional impact of removing rental income tax expenditures



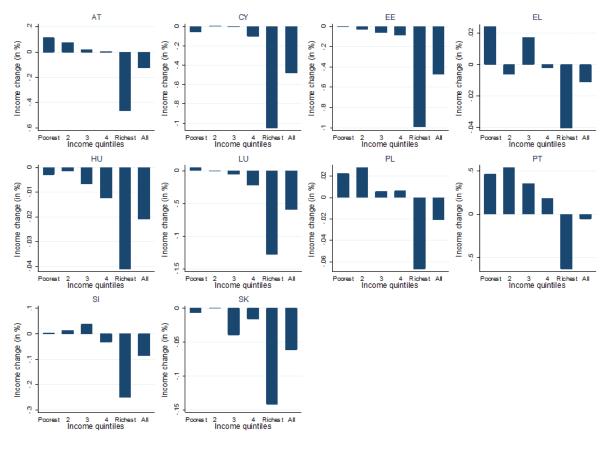
Notes: The scaling of the y-axis differs across countries. Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.5. Budgetary impact of removing tax expenditures on financial income (in % of GDP)



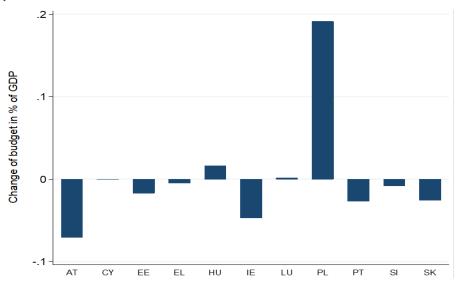
Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.6. Distributional impact of removing tax expenditures on financial income



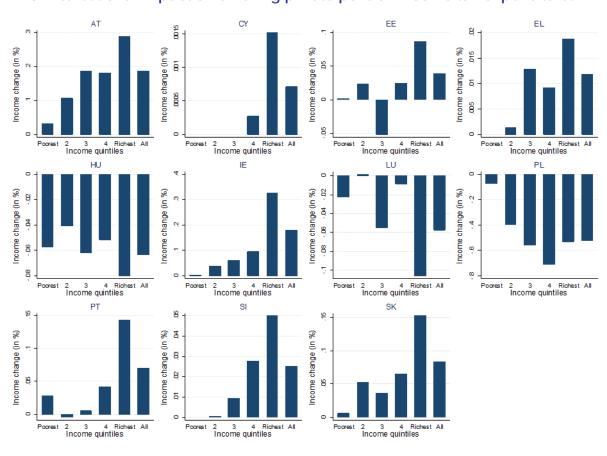
Notes: The scaling of the y-axis differs across countries. Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.7. Budgetary impact of removing private pension income tax expenditures (in % of GDP)



Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

A2.8. Distributional impact of removing private pension income tax expenditures



Source: Joint Research Centre, European Commission, based on EUROMOD-EWIGE.

ANNEX 3 – USER COST OF OWNER-OCCUPIED HOUSING

A.3.1. Methodology: Parameters, assumptions and hypotheses

The "Final report on the tax treatment of housing and the user cost of owner-occupied housing (UCOH) database" by the European Commission – Joint Research Centre, 2018, details the method, parameters and assumptions used in the estimation of time series of UCoH presented in this note. The JRC has built a database using national experts' contributions.

A.3.1.1. User cost of housing indicator (UCoH)

$$c = (i(1 - tM\varphi)\lambda + tp + \beta(1 - ty) + m + \delta - \pi(1 - tcapgain) + (1 - \lambda)i(1 - ty))(1 + ttrans) + tIR$$

A.3.1.2. Main parameters (sources and values)

i: Long term interest rate – 10 years government bond yields (Eurostat)

A variant exists where a common central value is used for all countries (see Annex Ib).

π : Consumer price index (CPI - Eurostat)

Note that CPI is used in the formula as an estimate for future annual increase of house prices. In addition this is the deflator used to replace missing values for other price parameters throughout the database.

A variant exists where a common central value is used for π for all countries.

m:Maintenance costs,

β: (before-tax)Risk premium,

δ : Economic depreciation rate

Common values for all countries and years are used for these parameters. The values are based on Poterba and Sinai (2008):

m – maintenance cost is 0.015 for all years all countries

 β - pre-tax risk premium is 0.02 for all years all countries

 δ - economic depreciation rate is 0.01 for all years all countries

For comparison, Browne et al. (2013, op. cit) in the Irish dynamic housing market context and allowing for future price expectations, use rather different values: they do not attempt to estimate the risk premium β (and implicitly keep it to zero wrt the rate of interest on domestic bank deposit), and evaluate the combined maintenance and depreciation cost to 0.005 (half of a percent).

λ: Loan-to-value (LTV) ratio

LTV ratios differ greatly country by country and can vary over time. Some Member States have set binding rules for the maximum LTV limits for residential mortgage lending (e.g., Estonia, Cyprus, Ireland, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Romania, Finland, Sweden), while others only

have recommendations (e.g., Denmark, Czech Republic, Poland, Slovakia)⁵⁵. Moreover, countries differ a lot by the share of loans taken with maximum LTV ratios. The focus has been on maximum LTV limits (whenever possible) as the assumption is that an individual interested in purchasing a dwelling would aim to benefit from the biggest loan she could get.

Values used in the calculation vary from 55% (from 1995 to 2007 included, in Italy) to 125% (from 2001 to 2007 in the Netherlands). The median value (80% up to 85% in recent years) is used for Bulgaria and in the variant where a common value is used for all countries.

tp: Recurrent property tax rate

An implicit tax rate is used, given the complexity of the tax code. It is calculated as the ratio of (property taxes) revenues collected from households over the net stock of dwellings (households).

Information on the net stock of dwellings (households) is taken from the EUROSTAT database with the exception of Bulgaria (provided by the expert), Romania (proxy) and Sweden and Ireland, where this information is taken from the first and second waves of the Household Finance and Consumption Survey (HFCS).⁵⁶

Ideally, the numerator, i.e. revenues from recurrent property taxes, should only include taxes collected from households. However that breakdown is not generally available from the EUROSTAT database. This would lead to an over-estimation of the property tax rate for all countries, the more so for the countries where the actual share of taxes collected from the households is very small. The alternative is to use revenues collected from households' recurrent taxes on immovable property available in the OECD database, which leaves out 10 out of 25 countries (Croatia, Malta and Hungary⁵⁷ do not have recurrent property taxes). Experts from Denmark, Ireland, Portugal and Lithuania extracted this information from the national statistics. For the remaining six countries the information on the taxes for the whole economy was adjusted using the share of taxes paid by the households over total taxes. Tax revenues for 2017 were not yet available when the calculations were performed - 2016 values updated via CPI were used instead.

ttrans: Transfer tax rate

_

The rates were provided by experts' survey. It is assumed that the conditions (duration, etc.) are met to benefit from the minimum rate. In case of a progressive tax rate schedule, the rate applied is based on the house value.

⁵⁵ European Systemic Risk Board (ESRB), 2016, A Review of Macroprudential Policy in the EU in 2015, p.11.

⁵⁶ For the countries for which net dwelling stock value was available in both databases (EUROSTAT and HFCS), the HFCS estimates were constantly higher that the ones from EUROSTAT. Therefore, a correcting coefficient of 0.66 was applied to bring HFCS net dwelling values for Ireland and Spain closer to EUROSTAT's estimates. As HFCS had only two waves, for these countries, the net dwelling stock had to be interpolated using the yearly house price change calculated on the basis of the HouseLev dataset (Bricongne, Turrini and Pontuch (2018), Assessing house prices: Insights from HouseLev, a new dataset of prices in levels, European Commission discussion paper).

⁵⁷ There is no property tax levied. However since 2015 it is at the discretion of the municipalities to introduce a local tax (building or land tax). As in 2016-2017 only around 17% of municipalities' had a building tax, the recurrent property tax is not calculated.

⁵⁸ The assumption on these shares was drawn from the OECD for the countries having information both on the property taxes collected from whole economy and only from households. The share of recurrent property taxes collected from the households among the total taxes on property is 0.5 for the 'old' Member States and up to 0.2 for the 'new' Member states. These shares were used to get a proxy of the recurrent property taxes paid by households for the countries where this information was missing from the OECD database.

tcapgain: Capital gains tax rate and rules

The rates were provided by experts' survey. It is assumed that the conditions (duration, use, etc.) are met to benefit from the minimum rate.

ty: Interest income tax

The rates were provided by experts' survey. In case of a progressive tax rate schedule, the rate applied is based on the house value. When possible, the information received from the experts was validated with ZEW estimates.⁵⁹

tIR: Taxation of imputed rent

The rules and values were provided by the experts' survey. For the Netherlands, the imputed rent is deemed equal to 0.649% of the house price in 2017.

Mortgage interest deduction (MID) $tM\phi$

The rules were provided by the experts' survey. In general:

Loan = House price*LTV ratio

Constant payment amount per period (A) (A= principal + interest):

$$A = P \frac{r(1+r)^{n}}{(1+r)^{n} - 1}$$

where A is the constant payment amount per period (capital and interest), P is the loan, r is the interest rate, and n is the total number of payments per period (i.e. n=12*loan duration = x payments)

Monthly interest payment = [A * 12 * loan duration - Loan] / (12 * loan duration)

Annual interest payment= Monthly interest payment * 12

tM is the rate at which the relief is granted on mortgage payments; φ being the fraction benefitting from the tax subsidy. When there are several PIT rates applicable, the top rate is used. In some cases we needed to calculate tax dues, for this we used a salary of a single person earning 167% of gross average wage (information from the EUROSTAT/OECD Taxing wages database).

Together with the tax rules information, the calculations include number of assumptions, which are explained in detail below:

Loan duration (maturity)

In line with the information on the LTV ratios above, we are using the information from different sources with the underlying assumption that an individual interested in purchasing a dwelling would aim to benefit from the longest possible loan duration.

-

⁵⁹ ZEW (Christoph Spengel, Dieter Endres, Katharina Finke, Jost Heckemeye), 2014. Effective Tax Levels Using the Devereux/Griffith Methodology. Final Report 2014 Project for the EU Commission TAXUD/2013/CC/120, pp. A-25 – A-28.

House price

Nominal house prices are very different across Member States. Until very recently, there were no comprehensive time series on the house price levels for the EU countries. Bricongne et al.(2018) present the HouseLev dataset⁶⁰ which is used for computing time-series using house prices per square meter expressed in EUR.

In order to calculate the house price per typical size dwelling in EU Member States, we use the information on the average dwelling size which is bought with a loan or mortgage from the EUROSTAT database. As the information is available only for 2012, we assume that the dwelling size remains the same throughout the years.

The house price is not directly used for the calculations of the user cost of owner-occupied housing (UCOH) indicator, but is needed for the calculation of the mortgage interest deduction mainly. In some cases it is used to derive the effective tax rates (e.g., for transfer tax, when the progressive schedule is used or when there is a constant component and a rate; for imputed rent tax).

A.3.1.3. Review of assumptions, scope and limitations

In putting a value on parameters choices have to be made. The emphasis is clearly on getting precise and accurate values for the tax part of the UCoH rather than for the more traditional drivers of investment decision: rate and risk premium, for which default values are used. This seems an adequate focus if the main purpose is to calculate the implicit subsidy given to owner-occupied and/or debt-financed housing according to current tax design. However, more precise values of the UCoH indicator would require going beyond default values: using implicit rates instead of 10y bond rates, or letting the risk premium associated to housing investment vary instead of a 2% default value. For other parameters as well, like loan-to-value ratio, data more in line with observed ratios could be used in a sensitivity analysis.

In the estimation setting presented here, only one UCoH value is estimated for each country, while the (tax) situation of households as regards investment in own housing potentially varies with their income (and therefore the marginal tax rate to be used for potential mortgage tax relief and potential taxation of imputed rent) and wealth (housing value and/or total wealth if global wealth taxation). House prices and taxes are also very likely to vary with the location of the residence.

Country-specific vs common assumptions for economic conditions parameters

In order to ensure an easier comparability of results with the previous calculation we give below the estimations results for 2017 when following as much as possible the assumptions used for the results presented in the European Commission 2014 and 2015 Taxation Trends reports.

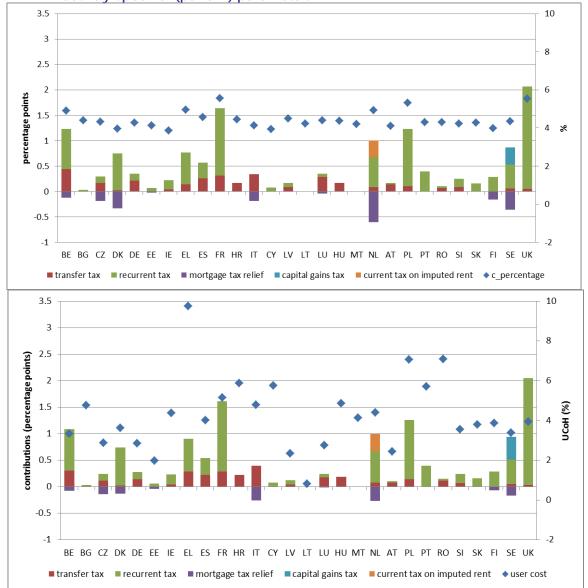
The changes of parameters value with respect to the estimates presented in the main note are the following. In previous estimation releases

- π the same CPI [1.5%] is used for all Member States (actual 2017 values range from 0.3% in Ireland to 3.7% in Lithuania)
- i the same rate [1.571%] is used for all Member States, corresponding to the simple average of country-specific rate for 10y bonds (actual 2017 values range from 0.31% in Lithuania to 5.98% in Greece).
- Loan duration -20 years used for all Member States (actual country-specific values for 2017 range from 20 years in Greece, Italy, Latvia to 60 years in Sweden)
- LTV -0.75 is used for all Member States (actual country-specific values for 2017 range from 0.7 in Germany, Malta and Spain to 1.01 in the Netherlands).

_

⁶⁰ Bricongne, Turrini and Pontuch (2018), Assessing house prices: Insights from HouseLev, a new dataset of prices in levels, European Commission discussion paper.

Graph A3.1: Estimated User Cost of Housing capital and Contribution of taxes (percentage points), 28 Member States, 2017: Comparison between the use of "common" (panel 1) and "country-specific" (panel 2) parameters.

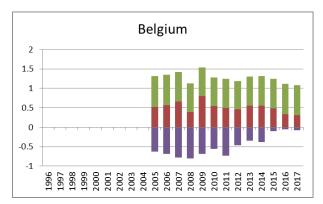


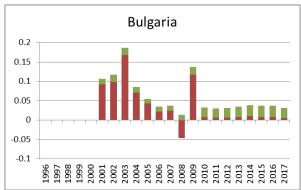
Source: Joint Research Centre, European Commission.

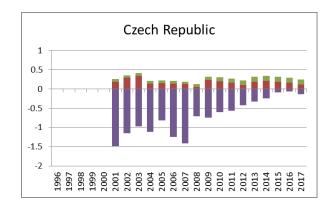
The two panels in graph A1.1 compare the estimation results for 2017 under the two sets of parameters. The estimated user cost of housing depends fundamentally on the interest rate and therefore the increased dispersion in the second panel merely reflects the existing large variation in 10-year bonds yields across EU. Perhaps more interestingly, the choice of commun assumptions for loan duration and loan-to-value ratio changes the estimated reduction in user cost stemming from mortgage tax credit.

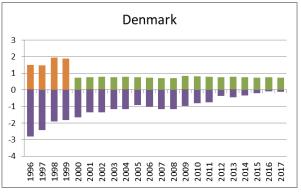
A.3.2. Evolution of the value of the tax-adjusted UCoH and of the contribution of individual tax elements for all Member States, 1996-2017

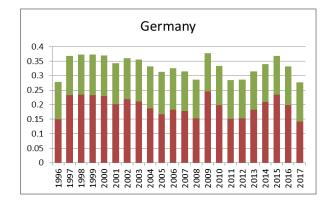


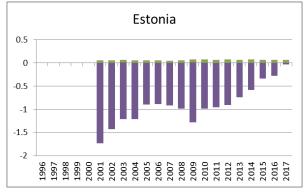


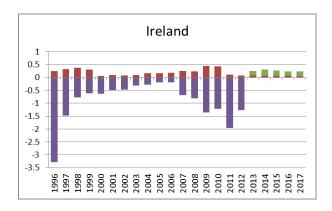


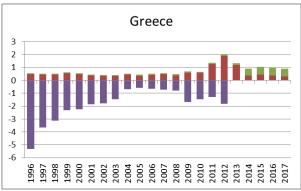


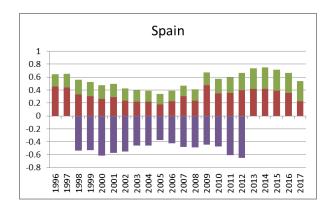


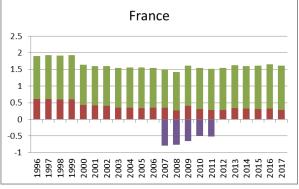


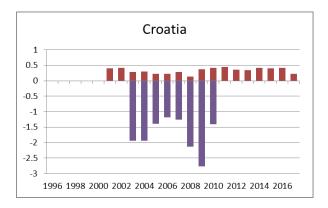


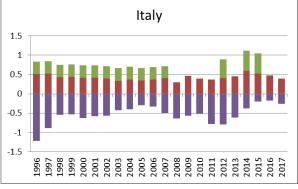


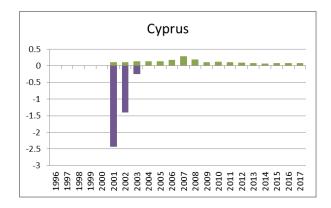


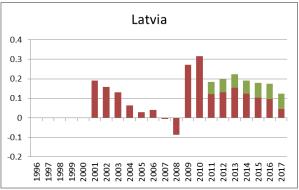


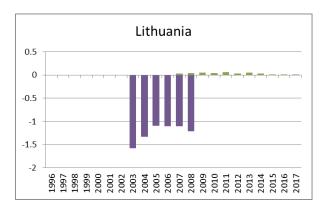


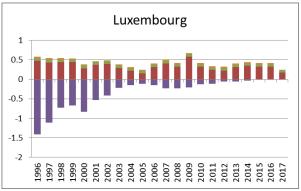


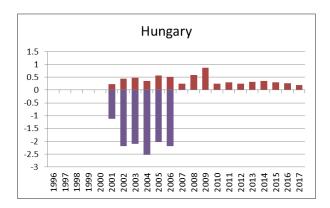


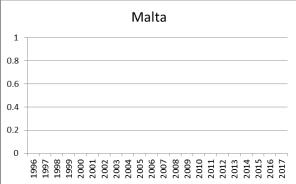


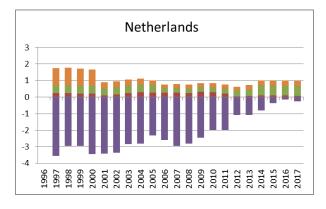


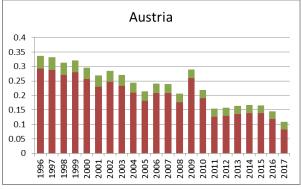


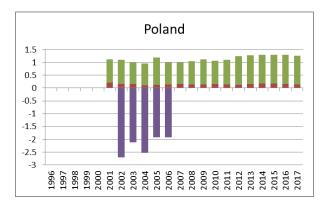


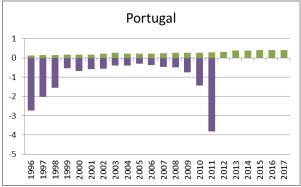


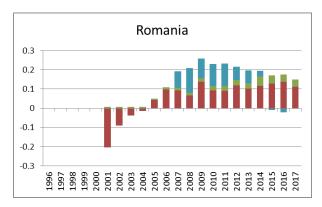


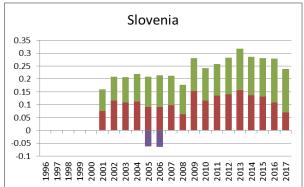




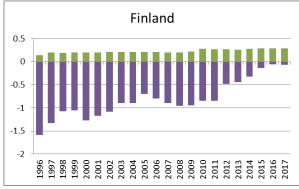


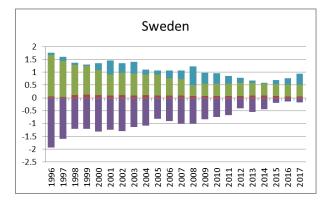


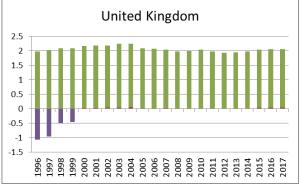












Source: Joint Research Centre, European Commission.

ANNEX 4 - TAX TREATMENT OF INHERITANCE AND GIFT TAXES

			Inheritance tax			Inherita	ice tax rate spou	se/children/non-re	elative		Gift	tax	
		Rate s	che dule	Specific tr	eatment			tes at selected le				Rate schedule	
Member State	Inheritance tax	According to size of inheritance	According to relationship between donor and heir	For immovable property	For family-owned businesses	General exemption threshold (EUR or national currency)	Minimum rate (%)	Marginal tax rate (%) at EUR 250,000 (*)	top marginal rate (%)	Gift tax	According to size of inheritance	According to relationship between donor and heir	Difference to inheritance tax (rates, exemptions)
BE (Brussels capital region)	Yes	Progressive	Progressive	Family dwelling exemption /	3%(direct line) or 7% (others) flat rate or exemption if gift	EUR 15,000 / EUR 15,000/ EUR 1,250	3% / 3% / 40%	18-24% / 18-24% / 80%	30% / 30% / 80%	Yes (if registred gift)	Progressive	Progressive for immovables; flat for movables	Immovables: 3 / 9-18 / 27 for spouse & child; 10 - 40 for strangers Movables: 3% / 3% / 7%
BE (Flanders)	Yes	Progressive	Progressive	immovable parts of the	3%(direct line) or 7% (others) flat rate or exemption if gift	None. But a tax reduction of maximum EUR 500 is granted if inheritance is below EUR 50,000.	3% / 3% / 45%	9-27% / 9-27% / 65%	27% / 27% / 65%	Yes (if registred gift)	Progressive	Progressive for immovables; flat for movables	Immovables & building land: 3 / 9-18/ 30 for spouse & child; 10 - 40 for strangers Movables: 3% / 3% / 7%
BE (Wallonia)	Yes	Progressive	Progressive	Family dwellings are exempt for spouses and taxed with a reduced rate for children as recipients.	Exemption	EUR 12,500 / EUR 12,500 / EUR 620	3% / 3% / 30%	18-24% / 18-24% / 80%	30% / 30% / 80%	Yes (if registred gift)	Progressive	Progressive for immovables; flat for movables	Immovables: 3 / 18/ 30 for spouse & child; 20 - 50 for others. For family dwellings: 1 to 30% Movables: 3,3% / 3,3% / 5,5%
BG	Yes	Flat (set by the municipalities within the limits of the law)	Progressive	No	No	BGN 250,000	0 / 0 / 3.3-3.6%	0 / 0 / 3.3-3.6%	0 / 0 / 3.3-3.6%	Yes	Flat (set by the municipalities within the limits of the law)	Progressive	No allowance
CZ	No (In legal terms, income from inheritance is subject to income tax, but is fully exempt from it.)	-	-	No	-	na	na	na	na	No, but gifts are subject to income tax under certain conditions, e.g. if they are not from closely related individuals and exceed CZK 15 000 (= EUR 578.97)."	-	-	Income tax system of 1 flat rate (15%) for non- exempted income
DK	Yes	Progressive	Progressive	inherited or gifted immovable property. The stamp duty may exceed DKK 1,660 for estates other than family houses	Inheritance tax rate (or rather estate duty) is to be gradually reduced from 15% to 5% between 2016 and 2020 when transferring active family owned businesses to the next generation.		0/15%/25%	0/15%/36.25%	subject to ordinary income and capital gains tax, if value exceeds DKK2,839,100 excluding residence	Yes	Progressive	Progressive	Rates apply to different groups and basic exemption levels are different
DE	Yes	Progressive	Progressive	Family homes inherited or received as a gift by spouses/partners or if less than 200 m² also by children are exempt.		EUR 500,000/ 400,000 / 20,000	0%/0%/30%	0%/0%/30%	30%/30%/50%	Yes	Progressive	Progressive	No (but always rolling 10- year period)
EE	No, but capital gains resulting from inheritance fall under income tax (20% flat rate)	-	-	Capital gains from residences and summer houses are exempt.	-	na	na	na	na	No, but capital gains resulting from gifts fall under income tax (20% flat rate)		-	

			Inheritance tax			Inherita	nce tax rate spou	se/children/non-re	elative		Gift	tax	ĺ
		Rate s	sche dule	Specific to	reatment			tes at selected le				Rate schedule	
Member State	Inheritance tax	According to size of inheritance	According to relationship between donor and heir	For immovable property	For family-owned businesses	General exemption threshold (EUR or national currency)	Minimum rate	Marginal tax rate (%) at EUR 250,000 (*)	top marginal rate (%)	Gift tax	According to size of inheritance	According to relationship between donor and heir	Difference to inheritance tax (rates, exemptions)
	Yes ("Capital acquisition tax")	Flat	Progressive (only allowances)	No	The value of business and (active) agricultural properties is reduced to 10% (in case of ownership of at least 6 years)	full exemption / EUR 310,000 / EUR 16,250	- / 33% / 33%	- / 0% / 33%	- / 33% / 33%	Yes	Flat	Progressive (only allowances)	Gift of a dwelling to a dependent is exempt
EL	Yes	Progressive	Progressive	Special exemptions for a dwelling or plot of land if beneficiary does not have full ownership, usufruct or residence rights	No	EUR 150,000 / 150,000 / 6,000	1%/1%/20%	1%/1%/30%	10%/10%/40%	Yes	Flat	Progressive	Different rate structure.
ES	Yes	Progressive, rates also dependent on net wealth of recipient	Progressive (only allowances)	relatives: 95% of the real estate value, up to an	Yes. A reduction, up to 95% of the shares' value, is applicable, provided that a number of requirements are met.	15,956 - 47,858	children and 15.3 18.36 for non- relatives) based	children and 51.00% - 61.20% for non-relatives	34.00% - 40.80% for spouses and children and 68% 81.6% for non- relatives based on donee's wealth	Yes	Progressive, rates also dependent on net wealth of recipient	Flat	No allowances deducted from tax base
FR	Yes	Progressive	Progressive	20% of value are exempt for principal residences (& always a flat registration duty of 0.70%)	Yes, 75% of shares under certain conditions	al/EUR 100,000/EUR 1,594	0 / 5% / 60%	0% / 20% / 60%	0% / 45% / 60%	Yes	Progressive	Progressive	Between spouses and civil partners only inheritances but not gifts are exempt. Gifts have additional allowances on top of the ones for all gratuitious transfers (inheritances and gifts).
HR	Yes	Flat	Progressive	No	No	HRK 50,000 for movable property, cash, monetary claims and shares	0% / 0% / 4%	0% / 0% / 4%	0% / 0% / 4%	Yes	Flat	Progressive	No
IT	Yes	Flat	Progressive	No	Exempt concerning firms or shares in companies or partnership and stocks, allowing company control, if the recipient is a descendant or spouse, carries on the main activity of the firm and keeps the company control for at least 5 years.		4% / 4% / 8%	0% / 0% / 8%	4% / 4% / 8%	Yes	Flat	Progressive	No
CY	No	-	-	Transfers of immovable property by way of donation: 0%/ flat tax of 0.1%/progressive tax of 3, 5 and 8%	-	na	na	na	na	No	-	-	-
LV	No	-	-	No (no property transfer tax)	-	na	na	na		No, but gifts are subject to income tax if they are not from closely related individuals and if they exceed EUR 1,425 or, in case they come from the employer, if they exceed EUR 15 p.a.	-	-	Income tax system of 3 progressive rates (20, 23, 31.4%) for non-exempted income

			Inheritance tax			Inhe rita	nce tax rate spou	se/children/non-r	elative	į	Gift	tax	I
		Rate s	schedule	Specific to	reatment			ates at selected le				Rate schedule	
Member State	Inheritance tax	According to size of inheritance	According to relationship between donor and heir	For immovable property	For family-owned businesses	General exemption threshold (EUR or national currency)		Marginal tax rate (%) at EUR 250,000 (*)	top marginal rate (%)	Gift tax	According to size of inheritance	According to relations hip between donor and heir	Difference to inheritance tax (rates, exemptions)
LT	Yes	Progressive	Flat	No (no property transfer tax)	No	na / na / EUR 3,000	0/0/5%	0 / 0 / 10%	0 / 0 / 10%	No, but gifts are subject to income tax if they do not come from spouses, (adoptive) children, (adoptive parents), grandparents or grandchildren and if they exceed EUR 2,500 p.a.	-		Rate structure, exemption, wider circle of relatives exempted from inheritance tax than income tax for gifts
LU	Yes	Progressive	Progressive	No	No	-/-/EUR 1,250	exempt / exempt / 15%	exempt / exempt / 28.5 - 33%	exempt/ exempt/ 48%	Yes	Flat	Progressive	Different rates and Sspecific rules for immovable property (transfer tax applies)
HU	Yes	Flat	Progressive	Rate is only 9% for residential property	No	na/na/HUF 300,000	0 / 0 / 18%	0 / 0 / 18%	0 / 0 / 18%	Yes	Flat	Progressive	Basic exemption is only HUF 150,000 and only applies to movable property
MT	No	-		Property transfer tax of 5% of value.If ordinary residence of deceased: exemption of EUR 35,000. If occupied by recipient: reduced rate of 3.5% until value of EUR 185,000		na	na	na	na	No		-	
NL	Yes	Progressive	Progressive	No	No	EUR 643,194 / EUR 20,371 / EUR 2,147	10% / 10% / 30%	20% / 20% / 40%	20% / 20% / 40%	Yes	Progressive	Progressive	Exempt per year: - / EUR 5,363 and either EUR 25,731 once or EUR 53,602 once for education or EUR 100,800 once for residence / EUR 2,147 otherwise
AT	No	-	-	For gratuitous transfers of immovable property, progressive rates apply: 0.5% for the initial EUR 250,000, 2% for the next EUR 150,000 and 3.5% for all subsequent amounts	-	na	na	na	na	No	-	-	-
PL	Yes	Progressive	Progressive	Tax relief shall apply to acquisition of ownership (co ownership) of a residential house or a living accommodation constituting a separate property, if the acquirer fulfils the conditions listed in the act.	descendants, ascendants,	PLN 9,637 / PLN 9,637 / PLN 4,902		7% (0 if declared)/ 7% (0 if declared)/ 20%		Yes	Progressive	Progressive	No
PT	No			Flat stamp duty of 10% for inheritances of immovable property. Spouses, unmarried partners and descending and/or ascending relatives are exempt.	No	No	0 / 0 / 10%	0 / 0 / 10%	0 / 0 / 10%	No			Additional duty of 0.8% for gifts of immovable property.

	Inheritance tax					Inheritance tax rate spouse/children/non-relative				Gift tax			
		Rate s	schedule	Specific t	reatment		Ra	ates at selected le	vels			Rate schedule	
Member State	Inheritance tax	According to size of inheritance	According to relationship between donor and heir	For immovable property	For family-owned businesses	General exemption threshold (EUR or national currency)		Marginal tax rate (%) at EUR 250,000 (*)	top marginal rate (%)	Gift tax	According to size of inheritance	According to relationship between donor and heir	Difference to inheritance tax (rates, exemptions)
RO	No	-	-	1% transfer tax for inheritance of immovable property, but only if the inheritance is not finalized within 2 years from death of deceased	-	na	na	na	na	No	_	_	-
		Progressive	Progressive	1) no basic allowance of EUR 5000 for immovable property 2) 80 % of generalized market value se by mass valuation or market value set by an individual valuation		EUR 5,000			14% / 14% / 39%	Yes	Progressive	Progressive	No
SK	No	-	-	No	-	na	na	na	na	No	-	-	-
FI	Yes	Progressive	Progressive	No	No	EUR 110,000/80,000 (if under 18 and closest beneficiary)/ EUR 20,000	7% / 7% / 19%	16% / 16% / 31%	19% / 19% / 33%	Yes	Progressive	Progressive	Different rates/brackets and only exemption of EUR 5,000
SE	No, but capital gains resulting from inheritance are taxed as investment income (30% flat rate).		-	No	_	na	na	na		No, but capital gains resulting from gift are taxed.	_	_	-
UK	Yes	Flat	Flat	additional nil-rate band when a residence is passed on death to a direct	100% reduction for transfer of interest in unincorporated business. Also 50% or 100% reduction for certain other transfers of business property.	GBP 325,000	The nil rate band is at GBP 325,000 (=EUR 365,196) and thus above EUR 250,000.	0/0/0	40/40/40%	No, but inheritance tax is also levied on certain gifts up to 7 years before death		Flat	20% rate instead of 40%, gifts of up to GBP 3,000 per year are exempt

Note: "Spouse" extends to public-registered partners. Gifts and bequests to charities and public bodies are generally exempt. When tax bracket ends at 250 000€, both rates are provided. The differentiation of allowance size by family relationship level in Spain definitely applies to the allowances set by the central government, which apply when the appropriate autonomous region has not set its own allowances. For allowances set by the regions, such a differentiation by relationship level might not be the case. In Lithuania, inheritance tax depends both on the size of the inheritance and the family relationship between donor and recipient, but if the inheritance exceeds a threshold of EUR 150.000, then the total inheritance and not only the part exceeding the threshold is taxed at the higher rate of 10%. In Bulgaria, the rates may vary between 0.4 and 0.8% on inheritances received by relatives other than those in direct line and between 3.3 and 6.6% for other recipients; spouses and relatives in direct line are exempt. Only in the case of the United Kingdom the same rate and minimum threshold for exemptions both apply for all inheritances regardless of the family relationship between donor and recipient. Information applying specifically to agricultural property is not included.

Source: IBFD, European Tax Handbook 2018.

REFERENCES

Alan, S. and S. Leth-Petersen (2006), "Tax Incentives and Household Portfolios: A Panel Data Analysis", Centre for Applied Microeconometrics Working Paper 13.

Alstadsaeter, A. (2007), "The Achilles Heel of the Dual Income Tax: The Norwegian Case," Finnish Economic Papers, Finnish Economic Association, 20(1), 5-22, Spring.

Alstadsaeter, A., Johannesen, N. and G. Zucman (2017), "Tax Evasion and Inequality", NBER Working Paper 23772.

Alstadsaeter, A., Johannesen, N. and G. Zucman (2018), "Who owns the wealth in tax havens? Macro evidence and implications for global inequality", Journal of Public Economics, 162: 89-100.

Alvaredo, F., Chancel, L., Piketty, T., Saez, E. and G. Zucman (2017), "Global Inequality Dynamics: New Findings from WID.world", *NBER Working Paper* 23119, National Bureau of Economic Research, Cambridge MA.

Alvaredo F., Garbinti, B. and T. Piketty (2017), "On the Share of Inheritance in Aggregate Wealth: Europe and the USA, 1900–2010", Economica (2017) 84, 239–260.

Arrondel, L. and A. Masson (2013), "Taxing more (large) family bequests: why, when, where?", PSE Working Paper 2013-17.

Astarita, C. (Ed.) (2015), "Taxing Wealth: Past, Present, Future – Workshop Proceedings", European Commission's Directorate-General for Economic and Financial Affairs Discussion Paper 003.

Auerbach, A.J. (1989), 'Capital Gains Taxation and Tax Reform' National Tax Journal, Vol. 42, No3.

Balestra, C. and R. Tonkin (2018). "Inequalities in household wealth across OECD countries: Evidence from the OECD Wealth Distribution Database", *OECD Statistics Working Papers*, 2018/01, OECD Publishing, Paris.

Barrios, S., Figari, F., Gandullia, L. and S. Riscado (2016), "The fiscal and equity impact of tax expenditures in the European Union, JRC working papers on taxation and structural reforms, 1.

Best, M.C. and H.J. Kleven (2017), "Housing Market Responses to Transaction Taxes: Evidence from Notches and Stimulus in the U.K.", Review of Economic Studies, 85, 157–193.

Bird, R. M. (1991), "The Taxation of Personal Wealth in International Perspective", Canadian Public Policy/Analyse de Politiques, 17 (3), 322-334.

Bischoff, I. and N. Kusa (2015), "Policy preferences for inheritance taxation", MAGKS Joint Discussion Paper in Economics 31:2015.

Bloom, N. and J. Van Reenen (2006), "Measuring and Explaining Management Practices across Firms and Countries", NBER Working Paper 12216.

Boadway, R. (2004), "Dual income tax", CESifo DICE Report 3/2004.

Boadway, R. and P. Pestieau (2018), "The Dubious Case for Annual Wealth Taxation", ifo DICE Report 16 (2), 3-7.

Boserup, S. H., Kopczuk, W. and C. T. Kreiner (2016), "The Role of Bequests in Shaping Wealth Inequality: Evidence from Danish Wealth Records", American Economic Review, 106 (5): 656-661.

Brown, J. R., Coile, C. C. and S. J. Weisbenner (2010), "The effect of Inheritance Receipt on Retirement", The Review of Economics and Statistics, 92 (2): 425–434.

Brunetti, M. J. (2006). "The estate tax and the demiese of the family business", Journal of Public Economics 90 (10-11): 1975-1993.

Burman, L (1999). Labyrinth of Capital Gains Tax Policy: A Guide for the Perplexed ', Brookings Institute.

Clemens, J., Emes, J., Veldhuis, N. (2015), 'Entrepreneurship, Demographics and Capital Gains Tax Reform', Fraser Research Bulletin, on Poterba, J. (1989), 'Venture Capital and Capital Gains Taxation'.

Conesa, J. C., Kitao, S. and D. Krueger (2009), "Taxing Capital? Not a Bad Idea After All!", American Economic Review, 99:1, 25–48.

Dai, Z., Maydew, E., Shackelford, D. and Zhang, H. (2006), 'Capital gains taxes and asset prices: capitalization or lock-in', NBER Working Paper.

Dao, M. C., Das, M., Koczan, Z. and Weicheng Lian (2017). "Why is Labor Receiving a Smaller Share of Global Income? Theory and Empirical Evidence." IMF Working Papers, WP/17/169.

Domar, E. D., and R. A. Musgrave (1944) "Proportional Income Taxation and Risk-Taking", Quarterly Journal of Economics, 58, 388-422.

Drometer M., Frank, M., Hofbauer Pérez, M., Rhode, C., Schworm, S. and T. Stitteneder (2018), "Wealth and Inheritance Taxation: An Overview and Country Comparison", ifo DICE Report 16 (2), 45-54.

ECOPA/CASE, 2019 (forthcoming). "Measuring Offshore Tax Evasion of Individuals" Final Report to European Commission DG Taxation and Customs Union.

Eggert, W. and B. Genser (2005). "Dual Income Taxation in EU Member Countries", in: CESifo DICE Report 3(1), 41-47.

Elinder, M., Erixson, O. and H. Ohlsson (2011). "Carnegie visits Nobel: Do inheritances affect labor and capital income?", Uppsala University Working Paper 2011:5.

Elinder, M., Erixson, O. and D. Waldenström (2016). "Inheritance and Wealth Inequality: Evidence from Population Registers", Centre for Economic Policy Research Discussion Paper 11191.

Erixson, O. and S. Escobar (2018). "Inheritance tax planning at the end of life", Uppsala University Working Paper 2018:5.

Ernst and Young (2014). Cross-country review of taxes on wealth and transfers of wealth, Specific contract no. 8 TAXUD/2013/DE/335 based on framework contract no. TAXUD/2012/CC/117, revised final report, October 2014.

Ernst and Young (2018), "Worldwide Estate and Inheritance Tax Guide", https://www.ey.com/Publication/vwLUAssets/ey-worldwide-estate-and-inheritance-tax-guide-2018.pdf

European Commission (2015), Housing taxation: from micro design to macro impact. Quarterly report on the euro area, 14(1).

European Commission (2018a), Report on public finances in EMU 2017, European Economy, Institutional paper 069.

European Commission – Joint Research Centre (2018b) Final report on the tax treatment of housing and the user cost of owner-occupied housing (UCOH) database

Fatica, S. and D. Prammer (2017). Housing and the tax system: how large are the distortions in the euro area? ECB Working paper 2087, July 2017.

Feldstein, M.S. (1976), "Personal Taxation and Portfolio Composition: An Econometric Analysis", Econometrica, 44, 631-650.

Figari, F., Paulus, A., Sutherland, H., Tsakloglou, P., Verbist, G., & Zantomio, F. (2017). Removing homeownership bias in taxation: the distributional effects of including net imputed rent in taxable income. Fiscal Studies, 38(4), 525–557.

Garbinti, B. and S. Georges-Kot (2017), "Time to smell the roses? The role of labor market attachment and risk aversion on the retirement effect of inheritance receipt", INSEE CREST Working Paper.

Goupille-Lebret, J. and J. Infante (2017), "Behavioral responses to inheritance tax: Evidence from notches in France", INSEAD Working Paper 2017/76.

Grégoire-Marchand, P. (2018) "La fiscalité des héritages: connaissances et opinions des Français", France Strategy Document de Travail 2018-02.

Haig, R. M. (1921), 'The Concept of Income – Economic and Legal Aspects', The Federal Income Tax. New York: pp. 1–28.

Hammar H.k, Jagers, S. C. and K. Nordblom (2006), "What explains attitudes towards tax levels? A multi-tax comparison", NIER Working Paper 225.

Henrekson, M. and D. Waldenström (2016). "Inheritance taxation in Sweden, 1885–2004: the role of ideology, family firms, and tax avoidance", The Economic History Review 69, 1228-1254.

Holtz-Ekain, D., Joulfaian, D. and H. S. Rosen (1993), "The Carnegie Conjecture: Some Empirical Evidence", Quarterly Journal of Economics, 108 (2), 423-435.

Household and Finance Consumption Network (2016), "The Household Finance and Consumption Survey: results from the second wave", ECB Statistics Paper, 2016(18), ECB, Frankfurt am Main.

Iara, A. (2015), "Wealth Distribution and Taxation in EU Members", European Commission's Directorate-General for Taxation and Customs Union Taxation Paper 60.

International Bureau of Fiscal Documentation (IBFD) (2018), "European Tax Handbook 2018".

Jappelli, T. and L. Pistaferri (2003), "Tax Incentives and the Demand for Life Insurance: Evidence from Italy. Journal of Public Economics, 87, 1779–1799.

Johansson, A., Heady, C., Arnold, J., Brys, B. and L. Vartia (2008), Taxation and Economic Growth, OECD Economics Department Working Paper 620, OECD Publishing.

Joulfaian, D. and M. O. Wilhelm (1994). "Inheritance and Labor Supply", Journal of Human Ressources, 29 (4), 1025-1234.

Kalyva, A., Astarita, C., Bauger, L., Fatica, S., Mourre, G. and F. Wöhlbier (2014), "Tax expenditures in direct taxation in EU Member States", European Commission Occasional Papers 207. http://ec.europa.eu/economy finance/publications/occasional paper/2014/pdf/ocp207 en.pdf

Kindermann, F., Mayr, L. and D. Sachs (2018), "Inheritance Taxation and Wealth Effects on the Labor Supply of Heirs", Human Capital and Economic Opportunity Working Group Working Paper 2018-067.

Konrad, K. and T.B.M. Stolper (2016), "Coordination and the fight against tax havens", Journal of International Economics, 103(C), 96-107.

Kopczuk, W. (2012), "Taxation of intergenerational transfers and wealth", NBER Working Paper 18584.

Kopczuk, W. and J.P. Lupton (2007), "To Leave or Not to Leave: The Distribution of Bequest Motives", Review of Economic Studies, 74 (1), 207–235.

Krenek, A. and M. Schratzenstaller (2014), "Sustainability-oriented Future EU Funding: A European Net Wealth Tax", Fairtax Working Paper 10.

Kuypers et al. (2017), EWIGE – European Wealth data InteGration in EUROMOD, JRC Working Papers on Taxation and Structural Reforms 4/2017.

Kuziemko, I., Norton, M.I., Saez, E. and S. Stantcheva (2015), "How Elastic Are Preferences for Redistribution? Evidence from Randomized Survey Experiments", American Economic Review, 105 (4), 1478-1508.

Meade, J. (1978), "The structure and reform of direct taxation." Allen and Unwin, London.

Mirrlees, J. (1971), "An Exploration in the Theory of Optimum Income Taxation," Review of Economic Studies, 38, 175–208.

Nicodème, G. (2009) Corporate Income Tax and economic distortions, European Union Taxation Papers.

OECD (2006) 'Taxation of Capital Gains of Individuals' OECD Tax Policy Studies, No. 14.

OECD (2010a). Tax Expenditures in OECD Countries, OECD Publishing, Paris.

OECD (2010b). Choosing a Broad Base – Low Rate Approach to Taxation, OECD Tax Policy Studies 19.

OECD (2011) "The evolution of homeownership rates in selected OECD countries: Demographic and public policy influences", OECD Economic Studies.

OECD (2015), The tax treatment of funded private pension plans. OECD and EU country profiles, stocktaking report.

OECD (2018a), "Taxation of household savings", OECD Tax Policy Studies N. 25.

OECD (2018b), "Statutory Tax Rates on Dividend, Interest and Capital Income", OECD Taxation Working Paper N. 34.

OECD (2018c), Revenue Statistics 2018, OECD Publishing, Paris. https://doi.org/10.1787/rev_stats-2018-en

Pérez-González, F. (2006), "Inherited Control and Firm Performance", American Economic Review 96 (5), 1559 - 1588.

Pestel, N. and E. Sommer (2015) "Shifting Taxes from Labor to Consumption: More Employment and more Inequality" ZEW Discussion Papers, No. 15-042

Piketty, T. (2011), "On the Long-Run Evolution of Inheritance: France 1820–2050", The Quarterly Journal of Economics 126 (3), 1071-1131.

Piketty, T. and E. Saez (2013a), "A theory of optimal inheritance taxation", Econometrica, 81 (5), 1851-1886.

Piketty, T., Saez, E. and G. Zucman (2013b), "Rethinking capital and wealth taxation", Paris School of Economics and UC Berkeley Working Paper.

Poterba, J. M. (1984), "Tax Subsidies to Owner-Occupied Housing: An asset-Market Approach." The Quarterly Journal of Economics, 99(4):729-752.

Poterba, J. M. (1992), "Taxation and Housing: Old Questions, New Answers." American Economic Review, 82(2):237-242.

Prabhakar, Rajiv (2012), "What do the public think of taxation? - Evidence from a focus group study in England", Journal of European Social Policy, 22 (1), 77-89.

Profeta, P., Scabrosetti, S. and S.L. Winer (2014), "Wealth Transfer Taxation: An Empirical Investigation", International Tax and Public Finance, 21 (4), 720-767.

Raghubir, P. and J. Srivastava (2009), "The Denomination Effect," Journal of Consumer Research, 36 (4), 701–13.

Roine, J., and D. Waldenström (2010), 'On the Role of Capital Gains in Top Incomes', Uppsala Center for Labor Studies Working Paper 2011:8.

Schalck, C. (2017), "Tax Measures and Household Financial Behaviour: Evidence from France", The Quarterly Review of Economics and Finance, 66, 127–135.

Scheve, K. and D. Stasavage (2012), "Democracy, War and Wealth: Lessons from Two Centuries of Inheritance Taxation", American Political Science Review 106 (19); 81-102.

Simons, H. (1938), Personal Income Taxation: the Definition of Income as a Problem of Fiscal Policy. Chicago.

Villalonga, B. and R. Amit (2006), "How do Family Ownership, Control and Management affect Firm Vaue?", Journal of Financial Economics 80 (2), 385–417.

Whitehouse, E. (2009), "The tax treatment of funded pensions", OECD. https://search.oecd.org/finance/private-pensions/2391559.pdf.

YouGov (2015), "Voters in all parties think inheritance tax unfair", https://yougov.co.uk/topics/politics/articles-reports/2015/03/19/inheritance-tax-most-unfair

Zoromé, A. (2007), "Concept of Offshore Financial Centers: In Search of an Operational Definition", IMF WP 07/87.

Zoutman, F. (2015), "The Effect of Capital Taxation on Households' Portfolio Composition and Intertemporal Choice", Cesifo Area Conference on Public Sector Economics Paper.

Zucman, G. (2013), "The Missing Wealth of Nations: Are Europe and the U.S. net Debtors or net Creditors?", The Quarterly Journal of Economics, 128 (3), 1321–1364.

EUROPEAN ECONOMY DISCUSSION PAPERS

European Economy Discussion Papers can be accessed and downloaded free of charge from the following address:

https://ec.europa.eu/info/publications/economic-and-financial-affairs-

publications en?field eurovoc taxonomy target id selective=All&field core nal countries tid selective=All&field core date published value[value][year]=All&field core tags tid i18n=22617.

Titles published before July 2015 under the Economic Papers series can be accessed and downloaded free of charge from:

http://ec.europa.eu/economy_finance/publications/economic_paper/index_en.htm.

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct Information Centres. You can find the address of the centre nearest you at: http://europa.eu/contact.

On the phone or by e-mail

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by electronic mail via: http://europa.eu/contact.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: http://europa.eu.

EU Publications

You can download or order free and priced EU publications from EU Bookshop at: http://publications.europa.eu/bookshop. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see http://europa.eu/contact).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu.

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en/data) provides access to datasets from the EU. Data can be downloaded and reused for free, both for commercial and non-commercial purposes.

