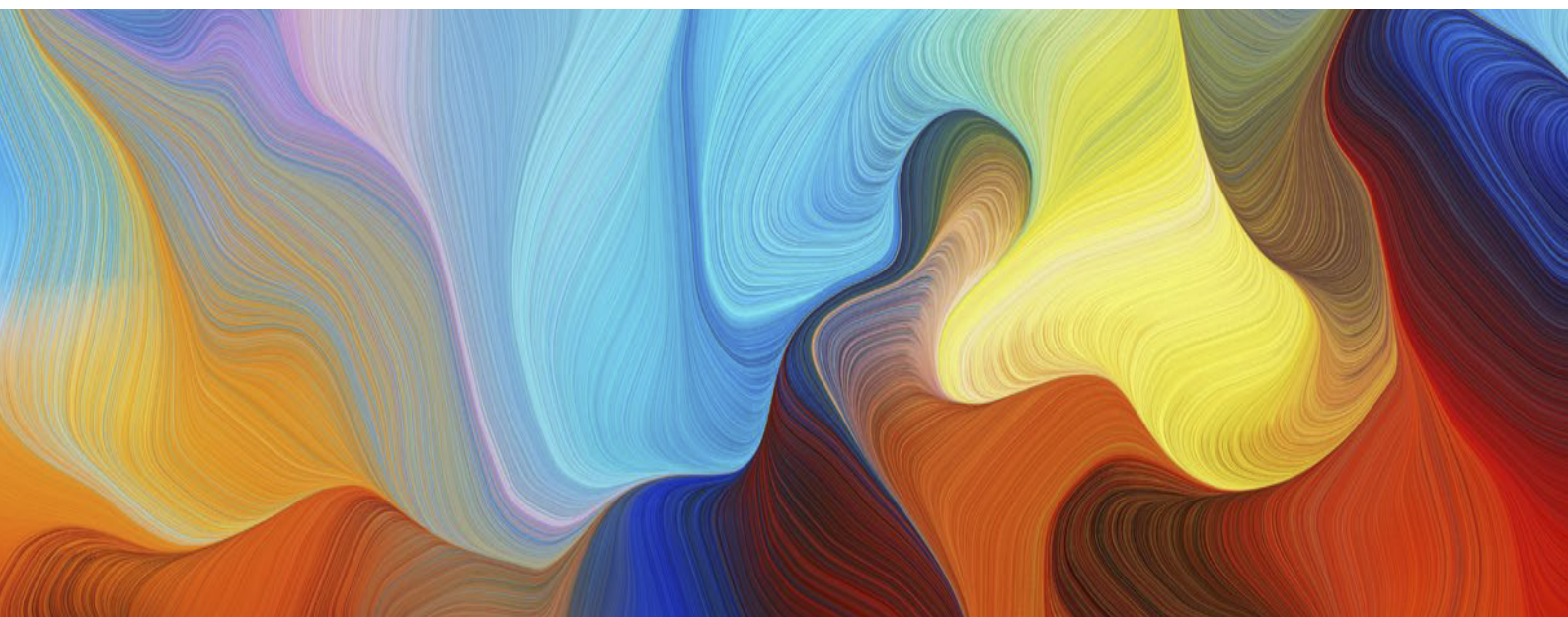




# Annual Report on Taxation 2021



*Review of taxation policies in the EU Member States*

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## Foreword

The COVID-19 pandemic has hit hard our societies and the global economic fabric. As stated by President von der Leyen in her State of the Union Address in September 2020, **'a virus a thousand times smaller than a grain of sand exposed how delicate life can be'**. In the face of the crisis, Europeans have demonstrated a remarkable solidarity and we have adapted our ways of working and living notably in view of a series of lockdowns. The EU and national authorities quickly recognised the gravity of the crisis hitting Europe and took decisive steps to tackle the pandemic and support jobs and business. NextGenerationEU, the **EU's temporary recovery instrument, will help repair the immediate economic, social and health damage brought about by the COVID-19 pandemic**. To that end, the Resilience and Recovery Facility, which is the centerpiece of NextGenerationEU, will make available unprecedented financial support to Member States to make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions.

As part of their response to the COVID-19 crisis, governments across the EU were quick to introduce tax measures to provide liquidity to both businesses and households. These measures were instrumental in cushioning the impact of the containment measures implemented by Member States. They contributed to reduce the impact of the crisis on company insolvency, employment and poverty. This decisive action was supported by the European Commission, which quickly acted to facilitate emergency taxation measures in the areas where it had competence.

While we continue our fight against the virus including through vaccination, we also need to set the right path that is environmentally sustainable, inclusive and socio-economic resilient, for the future. When the health situation allows, we should gradually move from emergency policy measures to those that support the recovery and create longer-term resilience. We need to avoid the economic consequences of the crisis lingering for too long and creating deep scarring employment and social effects. The Recovery and Resilience Facility, the cornerstone of the Recovery Plan for Europe, provides us with a unique opportunity to accelerate our economic recovery and to lay the foundations for a modern and more sustainable Europe.

Against this backdrop, taxation policies can be an integral part of policy measures to support the recovery after the COVID-19 crisis. An appropriately designed and effectively functioning tax system will be key in ensuring stable fiscal revenues and the sustainability of public finances, in fostering innovation and productivity and supporting inclusive growth. This also means ensuring that all pay their fair share.

In the context of the European Green Deal, taxation is a key tool to achieve the green transition to a clean, environmentally friendly economy. Environmental taxes can improve economic efficiency, generate public revenues and accelerate the shift towards a climate neutral economy. Environmental taxes may also stimulate productivity and innovation and encourage businesses to develop activities that are more resource efficient or do not cause harm. Through green taxes, it is possible to price social costs and incentivise changes in the behaviour of business and citizens, while taking account of any possible negative impact on those with lower incomes.

Reducing the tax burden and thus disincentives to work for low or second earners may also be important as evidence suggests they were hit harder by the health and economic crisis. Evidence is emerging that low-skilled and low-wage workers, including many in the services and entertainment sectors, were particularly affected by the containment measures imposed by Member States. In addition, second earners especially women took over additional caring responsibilities reducing working hours or losing their jobs. In this context, it will be crucial to reduce tax wedges on low and second earners, where they are still high.

We also need a decisive step-up in action to ensure a more effective EU-wide compliance with the principle of progressive tax. Tax policies and systems need to share the burden fairly among different taxpayers, particularly as there is evidence that the COVID-19 crisis has increased both income and wealth inequality. In this respect, tackling tax avoidance, tax evasion and tax fraud at both the EU and global level remains high on the **Commission's agenda. We must make sure EU rules are effectively enforced by all Member**

States and constantly work to further strengthen legal tools. At national level, the digitalisation of tax and customs systems and improved coordination between relevant national agencies and Member States may help increase compliance and collection. This is particularly relevant in light of the long term challenges we face, such as demographic change, which jeopardise the sustainability of EU tax systems more than ever before.

The fair and efficient taxation of all businesses is a priority for this Commission. The globalisation and digitalisation of our economies have a profound impact on our tax systems: many business are able to operate in several jurisdictions without a physical presence – and associated taxing rights – there, the concepts of value creation are challenged by the role of data and users, and productions relies more and more on intangible assets. These changes have also given rise to new aggressive tax planning opportunities and intensified tax competition worldwide, as countries compete to either retain or attract increasingly mobile tax base. In this context, the Commission is actively supporting the global negotiation led by the OECD/G20 to reform the international corporate tax framework.

The Annual Report on Taxation addresses these key objectives and challenges and presents an indicator-based analysis of the design and performance of the tax systems in the EU. **This report will contribute to the European Commission's assessment of** tax policies in the EU to support the recovery and tackle the challenges ahead of us. The report provides reference points and insights to measure progress towards making taxation in the EU fairer and more efficient. I am sure that this report will provide policy makers across the EU with clear insights and excellent evidence-based findings and information to take into account when designing and refining their tax systems for the future.

Gerassimos Thomas

Director-General

Directorate-General for Taxation and Customs Union

# Contents

Acknowledgements .....	3
Foreword .....	4
Contents .....	6
List of graphs .....	8
List of tables .....	10
Abbreviations and acronyms .....	11
Executive summary .....	12
INTRODUCTION .....	
GENERAL PRINCIPLES FOR FAIR AND EFFICIENT TAX SYSTEMS .....	
1.1 What makes a tax system fair and efficient? .....	16
1.1.1 Fostering innovation and productivity in support of Europe's economic growth .....	17
1.1.2 Paving the way for environmental sustainability and good public health for economies that are climate-neutral and more resilient .....	18
1.1.3 Fighting tax fraud, evasion and abuse so that everybody pays their fair share .....	19
1.1.4 Contributing to social fairness and prosperity by creating jobs and addressing inequalities .....	19
1.2 A tax mix in support of fair and efficient taxation .....	20
1.3 The tax mix in the EU – recent trends and forecasts <sup>0 0</sup> .....	24
1.3.1 Tax revenue forecast .....	30
PERFORMANCE OF NATIONAL TAX SYSTEMS .....	
2.1 Fostering innovation and productivity in support of Europe's economic growth .....	35
2.1.1 Effective marginal tax rates on corporate income .....	35
2.1.2 Debt bias in corporate taxation .....	37
2.1.3 R&D tax incentives .....	40
2.1.4 Improving tax administration .....	46
2.1.5 Increasing tax certainty .....	50
2.2 Paving the way for environmental sustainability and good public health .....	54
2.2.1 Environmental and climate challenges in the EU .....	54
2.2.2 The role of environmental taxation .....	57
2.2.3 Analysis of the performance of national green tax systems .....	59
2.2.4 Health taxes: saving lives and improving public health .....	65
2.3 Fighting tax fraud, evasion and abuse so that everybody pays their fair share .....	69
2.3.1 Estimates of tax avoidance .....	69
2.3.2 Financial activity .....	69
2.3.3 Overview of tax rules .....	76
2.3.4 Estimates of tax fraud and evasion .....	79
2.4 Contributing to social fairness and prosperity by creating jobs and addressing inequalities .....	82

2.4.1 Overall tax burden on labour .....	83
2.4.2 Tax burden on low-income earners.....	87
2.4.3 Tax burden on second earners .....	90
2.4.5 The role of taxation in fostering social mobility .....	96
RECENTLY IMPLEMENTED TAX REFORMS.....	
3.1 Tax reforms introduced or announced prior to the pandemic .....	100
3.1.1 Reforms affecting innovation and productivity.....	100
3.1.2 Reforms affecting the environment and health.....	101
3.1.3 Reforms affecting tax avoidance, evasion and fraud .....	102
3.1.4 Reforms affecting redistribution and social fairness .....	103
3.2 Tax measures introduced in response to the COVID-19 crisis.....	104
3.2.1 General policy response in the EU .....	104
3.2.2. Tax measures to support businesses and households.....	106
CRAFTING AN EFFECTIVE TAX POLICY RESPONSE TO THE COVID-19 PANDEMIC.....	
4.1 Fostering innovation and productivity .....	110
4.2 Ensuring a sustainable recovery.....	112
4.3 Fighting tax fraud, evasion and abuse to help fund the recovery .....	113
4.4 Supporting employment and help tackling inequality .....	115
Glossary .....	116
References .....	119
Annex .....	125

## List of graphs

Graph 1. TOTAL RECEIPTS FROM TAXES AND COMPULSORY ACTUAL SOCIAL CONTRIBUTIONS, EU-27 AND MEMBER STATES, 2009-2019, % OF GDP.....	24
Graph 2. BREAKDOWN OF TAX REVENUES, EU-27 AND MEMBER STATES, 2019, % OF GDP. ....	25
Graph 3. BREAKDOWN OF REVENUE FROM DIRECT TAXES, EU-27 AND MEMBER STATES, 2019, % OF GDP .....	25
Graph 4. BREAKDOWN OF REVENUE FROM INDIRECT TAXES, EU-27 AND MEMBER STATES, 2019, % OF GDP .....	26
Graph 5. STRUCTURE OF TAXATION BY ECONOMIC FUNCTION OF THE TAX BASE EU-27 AND MEMBER STATES, 2019, % OF TOTAL TAX REVENUES .....	27
Graph 6. EU-27 TAX REVENUES, 2004, 2009, 2014, 2019, as % OF TOTAL TAX REVENUES and as % of GDP .....	28
Graph 7. REVENUE FROM TAXES ON PROPERTY, EU-27 AND MEMBER STATES, 2019, % OF TOTAL TAX REVENUES .....	29
Graph 8. REVENUE FROM PIGOUVIAN TAXES, EU-27 AND MEMBER STATES, 2019, % OF TOTAL TAX REVENUES .....	29
Graph 9. EU-27 TAX REVENUE AND GDP (2013-2019), FORECAST (2020-2022) .....	30
Graph 10. EU-27 TAX REVENUE MAIN COMPONENTS (2013-2019), FORECAST (2020-2022) .....	31
Graph 11. EVOLUTION OF FISCAL AGGREGATES IN THE EU-27.....	33
Graph 12. SKILL EVOLUTION ACROSS MEMBER STATES .....	33
Graph 13. EVOLUTION OF GINI COEFFICIENTS ACROSS MEMBER STATES.....	34
Graph 14. (FORWARD-LOOKING) EMTRS (%), 1998-2020 .....	36
Graph 15. DEBT-EQUITY TAX BIAS IN CORPORATE FINANCING, 2010 and 2020 .....	38
Graph 16. R&D INTENSITY BY SECTOR, 2019 AND R&D INTENSITY TARGETS as % of GDP, 2020.....	41
Graph 17. R&D TAX INCENTIVES BY MEMBER STATE, 2019 .....	43
Graph 18. R&D: DIRECT public support and indirect government support through TAX INCENTIVES, 2018 (OR LATEST AVAILABLE YEAR) .....	44
Graph 19. IMPLICIT TAX SUBSIDY RATES FOR R&D (%), 2020 .....	45
Graph 20. HOURS PER YEAR NEEDED TO ENSURE TAX COMPLIANCE (MEDIUM-SIZED COMPANY), 2008-2018 .....	47
Graph 21. POST-FILING INDEX, 2018 .....	48
Graph 22. E-FILING OF PERSONAL INCOME TAX RETURNS (% OF TOTAL), 2009-2017 .....	49
Graph 23. TOTAL YEAR-END TAX DEBT / TOTAL NET REVENUE, 2016-2017.....	50
Graph 24. GREENHOUSE GAS EMISSION TRENDS AND PROJECTIONS IN THE EU-27, 1990-2050.....	55



Graph 25. GREENHOUSE GAS EMISSIONS BY SOURCE SECTOR, 2019 .....	56
Graph 26. OVERVIEW OF ENVIRONMENTAL POLICY INSTRUMENTS .....	57
Graph 27. ENVIRONMENTAL TAXES AS A % OF TOTAL TAXATION, 2009-2019.....	60
Graph 28. STRUCTURE OF ENVIRONMENTAL TAXES AS % OF GDP, 2019.....	61
Graph 29. NOMINAL TAX RATES ON PETROL AND DIESEL USED AS PROPELLANTS (PRIVATE USAGE), 2019.....	62
Graph 30. PROPORTION OF CARBON EMISSIONS PRICED AT EUR30/T CO <sub>2</sub> OR MORE, RESIDENTIAL AND COMMERCIAL SECTORS (2015) .....	64
Graph 31. TOTAL TAX BURDEN (INCLUDING VAT) ON CIGARETTES, % OF WEIGHTED AVERAGE PRICE .....	66
Graph 32. EXCISE DUTY ON A 700ML 37.5% BOTTLE OF SPIRITS (%).....	67
Graph 33. FDI POSITIONS, 2018 .....	70
Graph 34. PROPORTION OF OUTWARD AND INWARD DIRECT INVESTMENT STOCKS HELD THROUGH SPES, 2019 .....	71
Graph 35. CHARGES TO/FROM REST OF THE WORLD (ROW) FOR USE OF INTELLECTUAL PROPERTY (% OF GDP), 2018 .....	72
Graph 36. CHARGES PAID TO REST OF THE WORLD FOR USE OF INTELLECTUAL PROPERTY (€ MILLION) AND PROPORTION GOING TO OFFSHORE FINANCIAL CENTRES (%), 2018 .....	72
Graph 37. NET INCOME ON DEBT (INTERESTS) PAID/RECEIVED TO/FROM REST OF THE WORLD (% OF GDP), 2018 .....	73
<b>Graph 38. NET INTEREST ON DEBT PAID TO REST OF THE WORLD (€ MILLION) AND PROPORTION GOING TO OFFSHORE FINANCIAL CENTRES (%), 2018.....</b>	<b>74</b>
Graph 39. NET DIVIDEND INCOMES PAID/RECEIVED TO/FROM REST OF THE WORLD (% OF GDP), 2018.....	75
<b>GRAPH 40. NET DIVIDEND PAYMENTS TO REST OF THE WORLD (€ MILLION) AND PROPORTION GOING TO OFCS (%), 2018.....</b>	<b>75</b>
Graph 41. VAT GAP (% OF THEORETICAL VAT LIABILITY), 2017-2018.....	80
Graph 42. TOTAL REVENUE LOST IN THE EU DUE TO INTERNATIONAL TAX EVASION (€ BILLION) .....	81
Graph 43. FULL-TIME EQUIVALENT EMPLOYMENT RATES, 20-64 YEARS – TOTAL POPULATION, WOMEN AND LOW-SKILLED (%), 2019 .....	83
Graph 44. TAX RATES ON PERSONAL/LABOUR INCOME (%), 2019 AND 2020.....	84
Graph 45. TAX WEDGE FOR SINGLE PERSON EARNING AN AVERAGE WAGE, 2020 .....	85
Graph 46. TAX WEDGE COMPOSITION FOR A SINGLE EARNER ON THE AVERAGE WAGE, 2020 .....	86
Graph 47. LOW WAGE EARNERS (50 % & 67 % OF AVERAGE WAGE) COMPARED TO AVERAGE WAGES, IN 2020 .....	88
Graph 48. INACTIVITY TRAP FOR LOW INCOME EARNERS, 2020 .....	89
Graph 49. INACTIVITY TRAP FOR SECOND EARNERS, 2020 .....	91

Graph 50. LOW WAGE TRAP FOR SECOND EARNERS, 2020 .....	92
Graph 51. INCOME INEQUALITY, 2019.....	93
Graph 52. INCOME EQUALITY (2018) AND WEALTH INEQUALITY (2014) .....	94
Graph 53. INEQUALITY AND AT RISK OF POVERTY, 2018 .....	95
Graph 54. GOVERNMENT EXPENDITURE AND TAX REVENUE, 2019 .....	96
Graph 55. TAX PROGRESSIVITY: THE DIFFERENCE BETWEEN THE TAX WEDGE AT HIGH (167 %) AND LOW (50) EARNINGS (AVERAGE OF SIX FAMILY TYPES), 2019 .....	97
Graph 56. CORRECTIVE POWER OF TAX AND BENEFIT SYSTEMS (GINI INDEX), 2018.....	98

## List of tables

Table 1. OVERVIEW ASSESSMENT OF TAX CATEGORIES .....	21
Table 2. ALLOWANCES FOR CORPORATE EQUITY (ACES) <sup>0</sup> .....	40
Table 3. EXAMPLES OF ENVIRONMENTAL TAXES BY DIFFERENT ENVIRONMENTAL POLICY AREAS: .....	65
Table 4. SOFT DRINKS TAXES IN THE EU, 2020 .....	68
Table 5. WITHHOLDING TAXES (WHT) ON FLOWS TO NON-EU COUNTRY JURISDICTIONS, 2020.....	77
Table 6. INHERITANCE TAXES .....	99
Table 7 HEAT MAP – TYPE OF TAX MEASURES TAKEN BY MEMBER STATES .....	108

## Abbreviations and acronyms

COUNTRY ABBREVIATIONS		COMMONLY USED ACRONYMS	
AT	Austria	EU	European Union
BE	Belgium	EC	European Commission
BG	Bulgaria	EU-27	European Union (AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK)
CY	Cyprus	ETD	Energy Taxation Directive
CZ	Czechia	GDP	Gross domestic product
DE	Germany	R&D	Research and development
DK	Denmark	OECD	Organisation for Economic Co-operation and Development
EE	Estonia	CIT	Corporate income tax
EL	Greece	IP	Intellectual property
ES	Spain	PIT	Personal income tax
FI	Finland	VAT	Value-added tax
FR	France	WHT	Withholding tax
HR	Croatia	SSC	Social security contributions
HU	Hungary	TADEUS	Tax Administration EU Summit
IE	Ireland	STR	Statutory tax rate
IT	Italy	EMTR	Effective marginal tax rate
LT	Lithuania	EATR	Effective average tax rate
LU	Luxembourg	ETR	Effective tax rate
LV	Latvia	ITR	Implicit tax rate
MT	Malta	MABIS	Measurement and Analysis of Business Innovation Government Support Policies
NL	Netherlands	ATP	Aggressive tax planning
PL	Poland	OFC	Offshore financial centre
PT	Portugal	FDI	Foreign direct investment
RO	Romania	SPE	Special purpose entity
SE	Sweden	CFC	Controlled foreign corporation
SI	Slovenia	NOE	Non-observed economy
SK	Slovakia	pp	Percentage points

## Executive summary

This report describes and assesses progress by EU Member States in bringing their **tax policies in line with the EU's main tax** priorities to:

- foster innovation and productivity, thus supporting an EU economy that is fit for the digital and global challenges;
- pave the way for environmental sustainability and good public health, thus contributing to climate-neutral and more resilient economies;
- fight tax fraud, evasion and abuse, thus ensuring that everybody pays their fair share; and
- contribute to social fairness and prosperity, thus ensuring an economy that works for people and addresses their needs.

With those priorities in mind, this report identifies relevant indicators and potential improvements of tax systems in terms of tax design, implementation and compliance.

Tax systems need to keep up with the fast-paced structural changes occurring in our societies and economies. The green and digital twin transitions, combined with globalisation and population ageing, will have significant effects on the European social market economy, some already visible. These changes call for an adaptation of our tax systems and rules, in line with the principles of fairness and efficiency. These key principles, which do not have to be mutually exclusive, have to be considered with the fundamental objective of ensuring a socially fair transition by creating jobs and addressing inequalities.

Annual tax revenue in the EU was stable in 2019 across Member States and the distribution of tax revenues by tax type has not changed significantly over the last 15 years. The average tax burden on labour continued a slight trend downward, but with relatively small changes in most Member States. The average corporate income tax (CIT) rate in the EU followed a similar direction, with the average top CIT rate falling slightly from 21.9% in 2019 to 21.5% in 2020. However, in part due to tax base broadening measures, e.g. with regard to interest deduction limitation rules and loss provisions, this has not resulted in a decrease in tax revenues as a share of GDP.

Member States have continued to introduce new tax measures to support innovation and productivity, address the corporate debt bias, and reduce the time it takes to comply with taxes. As a result, the number of EU Member States that offer R&D tax incentives has never been higher. The Commission has helped Member States implement these new tax measures through several of its initiatives such as the MABIS project (Measurement and Analysis of Business Innovation Government Support Policies), the Code of Conduct on Withholding Tax, and TADEUS (the Tax Administration EU Summit).

Environmental taxation can be a useful policy tool to help accomplish climate and environmental policy goals and reboot the EU economy from the current crisis. Shifting away from labour taxation to environmental taxes that are fit for purpose, with due consideration of possible distributional effects, has the potential to stimulate employment and change behaviour in favour of more sustainable consumption and production. This report shows that environmental taxation is still underused in many Member States, despite being a potential key enabler for the transition to a greener economy.

Several EU Member States have raised their health taxes in recent years to improve public health. These rate changes concern all of the health taxes covered in this report, namely **taxes on tobacco, alcohol, and soft drinks**. Within the context of Europe's Beating Cancer plan<sup>(1)</sup>, the Commission is examining to what extent certain EU tax directives can achieve even more ambitious public health objectives.

Most Member States have introduced some measures to tackle aggressive tax planning, but much remains to be done, notably in view of the current crisis. Figures still show financial flows coming from and going to certain Member States that are

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<sup>(1)</sup> For more information, see: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_342](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_342)

abnormally high relative to the size of **the country's GDP**. Such indicators are not conclusive in determining whether a country is being used for tax avoidance purposes but provide important indicative evidence. The crisis has made the fight against tax abuse even more **urgent, as Member States'** public finances have been severely strained by lower tax revenues and higher spending.

The year 2020 was dominated by the COVID-19 pandemic and its significant economic and social consequences. As a result of the pandemic, economic activity in the EU suffered a severe shock in the first half of the year. Following a rebound in the third quarter as containment measures were gradually lifted, the resurgence of the pandemic resulted in new public health measures and thus additional economic disruption. The EU economy was therefore forecast to contract by 7.4% in 2020 before recovering with growth of 4.1% in 2021 and 3% in 2022<sup>(2)</sup>. However, projections over the forecast horizon are subject to a high degree of uncertainty and risks, and much may depend on the deployment of vaccines and more effective diagnostics and treatment.

Member States and the EU were quick to react with an unprecedented scope of measures, including tax measures and direct support for households, businesses and the health sector. Policy measures taken by Member States, together with initiatives at EU level, have helped to cushion the impact of the pandemic. Many measures have been aimed at providing liquidity to the hardest hit businesses and households. These measures have had a key role in mitigating the adverse economic impact of the public health confinement measures introduced by Member States. In terms of taxation, measures have included tax deferrals for corporate income tax (CIT), personal income tax (PIT), property tax, value-added tax (VAT) and social security contributions (SSCs), as well as a favourable tax treatment of losses, an extension of the tax-filing deadlines or even in some cases tax cuts for businesses.

The European Commission has also taken action in order to make sure that taxation policy helps mitigate the effects of the pandemic and supports the recovery strategy. Notably, it quickly published a decision to temporarily suspend customs duties and VAT on protective equipment, testing kits and medical devices such as ventilators. In addition, Member States could exempt the sales of COVID-19 vaccines and testing kits to hospitals and medical practitioners from VAT. It also adopted a temporary framework for State aid measures to support the economy, postponed the entry into application of the VAT e-commerce package by 6 months and deferred certain deadlines for filing and exchanging information under the Directive on Administrative Cooperation (DAC). Furthermore, it encouraged Member States to implement targeted taxation support measures and adopted an ambitious new tax package to ensure that EU tax policy supports Europe's economic recovery and long-term growth.

**The report finds that taxation can play a key role in supporting Europe's recovery.**

The COVID-19 pandemic has created a severe crisis in Europe and the world. Citizens face an increased risk of poverty, our public health systems have been put under stress, many companies are over-leveraged, and tax revenue is likely to decrease in the coming years due to the pandemic. Member States should take the recovery as an opportunity to reform their fiscal framework and to address challenges brought by climate change, environmental degradation, ageing of population, digitalisation and globalisation. A well-designed tax policy response can help to increase fairness and generate much needed and sustainable revenue to recover from this crisis. It can also help foster innovation and productivity to improve the resilience of our economies and restore a more solid capital structure. By evaluating **European tax policies in the light of the European Commission's priorities of investment, environmental sustainability, the fight against tax abuse, tax certainty and fair taxation**, this

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<sup>(2)</sup> See: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_2021](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2021)

report informs the reader about certain aspects of taxation under the Recovery and Resilience Facility, which is at the centre of the NextGenerationEU instrument<sup>(3)</sup>.

The report is structured as follows:

- Chapter 1 sets out what makes a fair and efficient tax system and explains in more detail the four tax priority areas set out above. It provides a brief overview of recent taxation trends, discusses the potential impact of the COVID-19 pandemic on **Member States' tax revenues and looks briefly at the long-term potential impact of population ageing**;
- Recognising that challenges are country-specific, Chapter 2 gives an overview of how **national taxation systems perform against the Commission's tax priorities. Through a review of tax indicators and best practices, the report informs on reform options available to Member States in innovation and productivity, environmental sustainability, the fight against tax fraud, evasion and abuse, and in supporting employment and helping to tackle inequality. It aims to help Member States find the best way of addressing their own specific tax challenges**;
- **Chapter 3 reviews Member States' most recent tax reforms, discussing both reforms implemented before and after the onset of the pandemic**; and
- Chapter 4 discusses possible tax policy responses to the COVID-19 pandemic.

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<sup>(3)</sup> In addition, the Commission is providing targeted and tailor-made technical support to the EU countries for tax policy reforms through Its Structural Reform Support Programme 2017-2020 and the Technical Support Instrument 2021-2027.

# INTRODUCTION

The *Annual Report on Taxation 2021* examines how EU Member States' tax systems **help to achieve the EU Commission's priorities**, most notably: ensuring that the digital transition works for all; developing, modern, resource-efficient economies that are climate-neutral; creating a more attractive investment environment; and stimulating growth that helps to reduce poverty and inequality.

These priorities can be translated into the following four strategic areas for tax policy:

- fostering innovation and productivity;
- paving the way for environmental sustainability and good public health;
- fighting tax fraud, evasion and abuse; and
- contributing to social fairness and prosperity.

The report uses a wide range of indicators to assess trends along these dimensions and describes the tax policies implemented by Member States in line with EU priorities. On this basis, the report looks at observed or potential improvements of tax systems in terms of tax design, implementation and compliance. It assesses, for example, how taxation supports businesses, research and development (R&D) and recent business taxation reforms; it analyses how taxation is or can be used as an environmental policy instrument to achieve the goals of the Green Deal; it provides an overview of recent EU tax initiatives in the fight against tax avoidance and tax evasion; it looks at whether and how labour taxation can support employment; and it looks at the influence of the overall tax mix on poverty and inequality in the EU.

The analysis described in this report is used in the context of the European Semester and more widely for policy assessment and development, as it provides useful insight into current and future challenges for taxation systems.

**Needless to say, this year's report also looks at the impact of the COVID-19** pandemic, which has had an unprecedented socio-economic impact in the EU and across the globe. At EU level, the health crisis and resulting public health measures reduced business activity, investment, consumption and transport in virtually all sectors in all Member States – although some Member States were hit harder than others due to their economic structure and degree of openness. The urgency of the situation pushed Member States to quickly introduce unprecedented policy measures, including in the field of taxation. The Commission has also directly acted in the areas of taxation policy where it has competence. The report will describe these measures.

The report discusses the possible role of tax policies in shaping our future economies and societies by looking at structural challenges such as globalisation, digitalisation, climate change and population ageing in combination with the current crisis. The report identifies the possible trade-offs in designing an optimal tax system which also takes into account national circumstances and preferences.

# 1

## GENERAL PRINCIPLES FOR FAIR AND EFFICIENT TAX SYSTEMS

This chapter sets out what makes a fair and efficient tax system and introduces in more detail the four tax priority areas put forward in the introduction. It gives an overview of recent tax revenue structures in the EU and then looks at the forecast impact of the COVID-19 pandemic on these revenue structures (see Section 1.3.1). It concludes with a brief discussion on the impact of an ageing population on future tax revenues.

### 1.1 What makes a tax system fair and efficient?

The primary **purpose of taxation is to fund government's spending by reallocating** funds from taxpayers (citizens/businesses) to government to maximise social welfare<sup>(4)</sup>. The general aim of collecting public revenue is to secure funding for welfare-improving public goods, in particular in areas that tend to see significant market failures<sup>(5)</sup> (e.g. education, healthcare, social protection, infrastructure, pollution, and climate change). **However, tax collection is costly in itself and taxes can affect people's decision making-** (e.g. in taking up a job, renting versus buying a house, investing money in x or y). Hence, it is pertinent to ask: how can we collect a certain level of tax revenue in a way that maximises social welfare, minimises possible unwanted distortions and induces desirable behaviour (e.g. reducing tobacco consumption or buying less polluting cars)? While there are trade-offs between a tax system that is fair and a tax system that is efficient, these goals are not necessarily mutually exclusive, as can be seen in this report.

There are four channels through which taxation can influence behaviour and social welfare:

1. Taxation can influence/distort economic decisions – in the absence of market failure, the need to raise public revenue via taxation can distort otherwise efficient economic decisions, leading to sub-optimal outcomes. The levying of taxes can affect decisions regarding, among others:
  - a) the scale, location and sector of investment;
  - b) how to finance investment, e.g. debt versus equity;
  - c) the supply and demand of labour; and
  - d) the nature and timing of consumption.

Tax systems should therefore be designed to minimise these distortions and the **resulting 'deadweight loss', which would imply raising taxes on price-inelastic goods and services.**

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<sup>(4)</sup> Social welfare can be measured in various ways, e.g. as the (weighted or unweighted) sum of utility functions of all individuals in a given society.

<sup>(5)</sup> Market failure occurs where a market, when left to its own devices, results in resource allocations that do not maximise social welfare. The causes include positive externalities (e.g. from education), negative externalities (e.g. pollution), incomplete/asymmetric information (e.g. in health markets) and public goods (e.g. many types of infrastructure, or police and national defence). Public goods are characterised by the fact that:

- consumption by one individual does not preclude consumption by another (non-rivalry); and
- it is economically or technically impossible to restrict consumption by anyone and it is impossible for anyone to refuse its consumption (non-excludability).



2. Taxation design is influenced by social preferences and affects income redistribution – taxation can be a powerful instrument for redistribution, determining the extent to which overall income is shared among members of a society. Depending on social preferences and policy goals, redistributive taxes can be powerful at enhancing social welfare.
3. Taxation can help address market failures – when market failures are present, economic decision-making may be neither efficient nor fair. For example, events or actions with associated negative externalities which are not internalised by **consumers or businesses can be detrimental to society's welfare. In such cases,** taxation can play a role in correcting the economic inefficiencies to the benefit of the society as a whole. For instance, where there is:
  - a) activity that is bad for the environment or public health (e.g. smoking, selling unhealthy products, driving polluting cars, production sites that pollute the environment). This may have an impact on the economy, general welfare or activities that can lead to an unfair burden-sharing across generations. Taxes have the ability to correct market-failures in a cost-effective way, based on market signals embedded in the higher price of affected products or activity; and
  - b) too little activity that benefits others, e.g. investment in research, development and innovation or spending on education, which is a key driver of economic growth and upward social mobility<sup>(6)</sup>.
4. Uniform taxation can help take account of cross-border spillovers – allowing **for more efficient choices from a global perspective. For example, one country's** taxing of greenhouse gas emissions provides environmental benefits for other **countries and helps to reduce emissions overall. If another country 'free-rides'** by taxing emissions less, the result is an unfair burdensharing between countries. In such cases, a mechanism to ensure that all countries/regions take account of the overall benefits and tax greenhouse gas emissions could be welfare-improving overall.
5. Administrative costs – levying taxes is costly for administrations and taxpayers. Efficient tax administration should minimise these costs.

With this in mind, a coherent tax design, combined with effective and efficient administrations and effective legislation can ensure that taxation works as intended, that all taxpayers abide by common rules and pay their fair share and that the distortions and costs of taxation are minimised.

The following subsections look at the four strategic tax priorities presented in the introduction.

#### 1.1.1 **Fostering innovation and productivity in support of Europe's economic growth**

Taxation is an important element of a well-functioning business environment that supports investment and innovation. As noted above, taxes that change prices or costs can affect access to finance and discourage equity investment, in particular for young and innovative companies. Tax policies can also play a role in reducing entrepreneurial risk and the costs of entrepreneurial activity and correcting market failures, e.g. tax subsidies can address under-provision of R&D investment or the lack of risk finance. In economic terms, a tax system is said to encourage profitable investment by keeping the effective marginal tax rate low. This does not mean that tax rates have to be reduced: other ways to bring down

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<sup>(6)</sup> In addition, OECD findings suggest that excessive inequality can be detrimental to long-term growth (e.g. by hindering human capital accumulation), so that redistributive policies can be justified from a growth angle.

effective marginal taxation include faster depreciation schedules or allowing for the deductibility of equity financing costs.

By reducing tax compliance costs, Member States can encourage business activity and productivity. Tax compliance costs such as the time and money needed to fill in tax returns or accounting and legal support can discourage businesses, notably SMEs and start-ups, as these costs account for a relatively higher share of their total costs than for large companies. Compliance costs can also incentivise the informal economy and damage **businesses' and countries' competitiveness and attractiveness (as compliance costs are a factor in determining the ease of conducting business)**. Compliance costs can be minimised through simple, stable tax systems and efficient, effective tax administrations. This means being organised in a way that encourages voluntary compliance and ensures that non-compliant behaviour is likely to be detected. The former involves making paying taxes as **easy and simple as possible and requires high taxpayer 'morale' (willingness to pay taxes)**. This in turn is easier where people perceive the tax system as fair and have a high level of trust in government. Legal and tax certainty, stability, predictability and the simplicity of tax **rules also affect businesses' and investors' decisions**.

### 1.1.2 Paving the way for environmental sustainability and good public health for economies that are climate-neutral and more resilient

European Commission President Ursula von der Leyen called for and presented a European Green Deal<sup>(7)</sup>, committing to make the EU the first climate-neutral continent. In December 2020 the European Council endorsed a binding EU target of a domestic reduction of at least 55% in net greenhouse gas emissions by 2030 compared to 1990<sup>(8)</sup>. This increased target will put the EU on track for climate neutrality by 2050 and for meeting its **Paris Agreement obligations. The Commission's proposal for the first European Climate Law**<sup>(9)</sup> proposes a legally binding target of net zero greenhouse gas emissions by 2050. In this context, environmental taxation is deemed underused in many Member States.

Environmental taxation can help to achieve environmental policy goals. Indeed, certain economic activities are not resource efficient or cause harm (e.g. pollution) but these aspects are not considered in the private cost functions of businesses and individuals. **Through 'green taxes', it is possible to give a price to these social costs and therefore internalise these negative externalities in the decision-making process, incentivising businesses and individuals to change their behaviour.** In addition to the implementation of economic instruments (often complementing command and control legislation), **environmental taxes, through which the principle of 'polluter pays'**<sup>(10)</sup> can be implemented, are however not harmonised at the EU level and remain with Member States.

The distributional impact and political acceptability of environmental taxes need to be considered. Indeed, when no compensation mechanisms are envisaged, environmental taxes can be regressive, i.e. they affect lower-income households more. Unless the regressive impact of such environmental taxes is softened with other policy measures, such as financial support/provision of less environmentally harmful substitutes, taxpayers may resist their use.

Health taxes can improve public health and save lives and hence contribute to a healthy and productive workforce. While health taxes are used across the EU and have discouraged consumption of products harmful to health such as alcohol and tobacco, there is scope to improve the role of these taxes in improving public health. In addition, the COVID-

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<sup>(7)</sup> See: [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en).

<sup>(8)</sup> See: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_1599](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1599).

<sup>(9)</sup> See: [https://ec.europa.eu/clima/policies/eu-climate-action/law\\_en](https://ec.europa.eu/clima/policies/eu-climate-action/law_en)

<sup>(10)</sup> The 'polluter pays principle' is a principle of EU environmental law enshrined in Article 191 of the European Treaties. It calls for pricing the negative externalities of polluting or other damaging activities.

19 pandemic has also shown how health taxes may be important to help Member States support health systems during a health crisis.

#### 1.1.3 Fighting tax fraud, evasion and abuse so that everybody pays their fair share

Fighting tax avoidance and evasion is high on the EU agenda, and the current crisis has only increased its importance. First, Member States will need to raise revenues to fund the measures taken in response to the crisis and reduce budget deficits that may have drastically widened as a result (see *Section 1.3.1*). Second, fighting fraud, evasion and abuse, or in other words ensuring a fair taxation of all economic actors, plays a central role **in people's willingness to pay taxes and overall trust in the tax system.**

Tackling tax evasion and fraud and removing loopholes and mismatches that facilitate aggressive tax planning<sup>(11)</sup> are essential for securing much needed tax revenues. Reducing untaxed profits would provide non-negligible revenue sources to Member States without increasing the fiscal pressure on willing-to-comply companies, workers or households. While it is hard to measure revenue lost, given the complexity of the phenomenon, studies estimate (Dover, et al., 2015; Álvarez-Martínez, 2018; Tørsløv, et al., 2018) the revenue lost in the EU to be between EUR 35 billion and EUR 70 billion a year. Moreover, as shown by the studies quoted above, some of the Member States most severely affected by the current crisis (Spain, France and Italy) are also the same ones who lose the most revenue from aggressive tax planning. More generally, tax receipts can be used for higher public spending (on e.g. education, healthcare and welfare) and/or to reduce the tax burden of honest taxpayers. Effective collection also helps to level the playing field between companies. Lastly, a solid taxation system also limits criminals' **capacity to exploit the** financial system to launder the proceeds of their illegal activities.

Measures aimed at fighting VAT fraud and at closing the VAT gap<sup>(12)</sup> can also provide additional revenue with limited increased tax pressure on honest taxpayers. While decreasing, the VAT gap is still significant in the EU as a whole: it was estimated to be near EUR 140 billion in 2018, while cross-border VAT fraud alone amounted to about EUR 50 billion a year in recent years. Prioritising this policy area, including through digital improvements in public administrations and a better sharing of information, could prove crucial for national budgets to avoid a loss of tax revenues through fraudulent cross-border VAT refunds.

#### 1.1.4 Contributing to social fairness and prosperity by creating jobs and addressing inequalities

The way labour taxation is designed can help support employment, most notably for low earners and/or second earners. Labour taxation may be particularly relevant when labour costs are high and can discourage recruitment (i.e. labour demand) or where the monetary incentive to work (wages) is low and does not make work attractive (work does not pay) (i.e. labour supply). Targeted labour tax reductions coupled with the tapered withdrawal of benefit payments, jointly designed to avoid high marginal tax rates, can help to raise the employment levels of people further away from or at the margins of the labour markets, and as a result reduce poverty and social exclusion. In addition, changes to tax

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<sup>(11)</sup> Aggressive tax planning (ATP) consists of taxpayers reducing their tax liability through arrangements that may be legal but are in contradiction with the intent of the law.

<sup>(12)</sup> The VAT Gap, which is the difference between expected VAT revenues and VAT actually collected, provides an estimate of revenue loss due to tax fraud, tax evasion and tax avoidance, but also due to bankruptcies, financial insolvencies or miscalculations.

design can make some groups, e.g. second earners, very responsive to such changes and thus encourage labour market participation or additional hours of work.

Taxation also plays a central role in reducing inequality and fostering social cohesion. The overall structure of the tax system, together with the ability to secure the right mix of revenues to finance public expenditure, can mitigate inequalities and support social mobility and intergenerational fairness. In addition, taxation represents the most important shock absorber to prevent the transmission of market income shocks to **households' net income. To this end, it is important to have a coherent tax-benefit system** which combines effective progressivity of the overall tax burden faced by taxpayers according to their income sources with well-designed policy packages.

## 1.2 A tax mix in support of fair and efficient taxation

To deliver on the four tax priorities, governments must design a tax mix that takes into account efficiency, distributional considerations and aspects of tax administration and compliance. In 2008, the Organisation for Economic Cooperation and Development (OECD) published several working papers on taxation and growth (Johansson, Heady, Arnold, Brys, & Vartia, 2008; Arnold J. , 2008), which assessed the effect of taxes on growth. Income taxes are considered more detrimental for growth than consumption taxes. Environmental taxes and especially recurrent property taxes are reported to have the smallest effect on growth. However, some recent economic literature qualifies this view, pointing to a heterogeneity of responses, non-linear effects and the different amplitude of short- and longterm effects (Baiaardi, Profeta , Puglisi, & Scabrosetti , 2019; Xing, 2012). It appears that the specific tax design is at least as important as the tax type and the interaction of taxes with other factors. In order to fully assess the efficiency implications and the distributional implications of tax policies, tax and benefit systems have to be analysed as a whole (Brys, Perret, Alastair, & O'Reilly, 2016). In addition, it is important to consider dynamic effects, such as the impact of consumption tax increases on prices and wages.

Table 1 gives an overview of tax types with regard to their efficiency, distributional implications and administration/compliance. This is discussed in more detail in Chapter 2. In addition to the dimensions covered in the table, one should consider the long-term viability and sustainability of specific taxes. For example, the sustainability of labour taxation, as a revenue source and a tool for redistribution, may be affected by the transformation of labour markets, driven by digitalisation, the emergence of non-standard employment and population ageing (see *Box 1.1.*). Table 1 is primarily from a Member **State's perspective and omits certain issues arising from the stronger global economic integration and digitalisation.** For example, the existing international corporate tax framework does not fully align with the way business activity is conducted today (e.g. large multinationals conducting their activity in countries where they do not necessarily reside), and as such it is seen as unsustainable from a cross-country/global burden-sharing perspective. It may also distort investment and hampers competition between companies (see Chapter 4), ultimately impacting on sustainable and inclusive economic growth.

TABLE 1. OVERVIEW ASSESSMENT OF TAX CATEGORIES

	Efficiency	Distributive effects	Administration/compliance
Labour income taxes	<ul style="list-style-type: none"> <li>May distort labour demand through increased labour costs and labour supply through reduced work incentives.</li> <li>However, empirical research suggests very low labour supply elasticities, with the exception of low-income and second earners.</li> </ul>	<ul style="list-style-type: none"> <li>If designed progressively, they represent the primary tax instrument for redistribution, <b>taking into account the 'ability to pay' principle</b><sup>(13)</sup>.</li> <li>Specific design features (e.g. joint taxation) might discourage second earners (still primarily female) from taking up work, which bears the risk of maintaining a wide gender gap in employment rates, thus exacerbating the gender pay gap.</li> </ul>	<ul style="list-style-type: none"> <li>Withholding taxes (WHTs) on labour substantially facilitate tax administration and compliance.</li> <li>Non-standard employment and the rise of (online) platform work create challenges for the efficient administration of earned income.</li> <li>However, technology (in particular, platforms) may also provide opportunities for more efficient tax administration.</li> </ul>
Corporate income taxes (CITs)	<ul style="list-style-type: none"> <li>May distort capital formation, investment decisions and productivity in several ways.</li> <li>Distortions may vary considerably with certain features, e.g. destinationbased cash-flow taxation does not distort behaviour (including investment decisions) but falls only on domestic residents.</li> <li>Economic integration and digitalisation pose particular problems for the international CIT framework, as they distort investment location and magnitude, and the playingfield between businesses.</li> </ul>	<ul style="list-style-type: none"> <li>CIT is often seen as an instrument for taxing <b>corporations' profits, thereby contributing to a more progressive burdensharing</b> among taxpayers.</li> <li>The challenges of international corporate taxation contribute to a shift of the tax burden to less mobile tax bases (e.g. labour, consumption), with consequences in terms of inequality and burdensharing.</li> </ul>	<ul style="list-style-type: none"> <li><b>Companies' compliance costs are high</b>, especially for SMEs due to complex accounting standards and tax provisions (e.g. deduction rules)<sup>(14)</sup>.</li> <li>In particular, compliance is increasingly complex for businesses operating across borders due to different tax rules.</li> <li>Loopholes in and mismatches between corporate tax systems create substantial opportunities for tax avoidance.</li> </ul>
Capital income taxes (households)	<ul style="list-style-type: none"> <li>May distort investment decisions if different forms of capital income (e.g. from dividends, interest, sale of capital shares) are not taxed in the same way.</li> <li>May discourage savings and investment.</li> <li>As dividends are often taxed both at company and shareholder level, the tax burden may be higher than in the case of other capital income (<b>'economic double taxation'</b>).</li> </ul>	<ul style="list-style-type: none"> <li>Typically, capital income increases as a proportion of total personal income towards the top of the income distribution.</li> <li><b>Under the 'ability to pay' principle, all personal income from different sources (labour, capital etc.) should be taxed to the same degree.</b></li> </ul>	<ul style="list-style-type: none"> <li>Taxing capital income at source (WHT) e.g. through banks or companies issuing shares reduces the risk of fraud or evasion.</li> <li>But WHT leads to a high administrative burden related to reclaim procedures.</li> <li>A well-calibrated common, standardised, EU-wide system for withholding tax relief at source would ease the administrative burden for tax authorities and cross-border investors.</li> </ul>
Taxes on	<ul style="list-style-type: none"> <li>If designed as <i>recurrent</i> taxes, the distortive</li> </ul>	<ul style="list-style-type: none"> <li>Distributional implications depend on</li> </ul>	<ul style="list-style-type: none"> <li>Valuation can be complex but is considered less</li> </ul>

<sup>(13)</sup> The 'ability to pay' principle maintains that taxes should be levied according to taxpayers' financial standing.

<sup>(14)</sup> See, for example, Graph 2.11 in the 2018 edition of the *Tax Policies in the EU Survey*, which shows SMEs' compliance costs for direct and indirect tax (European Commission, 2018a).

	Efficiency	Distributive effects	Administration/compliance
immovable property	<p>impact is limited compared to other taxes.</p> <ul style="list-style-type: none"> <li>• If designed as <i>transaction</i> taxes, they may create a lock-in effect that reduces labour mobility.</li> </ul>	<p>distribution of property ownership and specific design of the tax.</p>	<p>costly than in the context of net wealth taxes.</p> <ul style="list-style-type: none"> <li>• Due to visibility and immobility, evasion and avoidance opportunities are limited.</li> </ul>
Net wealth taxes <sup>(15)</sup>	<ul style="list-style-type: none"> <li>• May discourage savings.</li> <li>• May decrease the level of investment.</li> </ul>	<ul style="list-style-type: none"> <li>• If designed with appropriate thresholds and (possibly) progressively, may make a significant contribution to reducing wealth inequality.</li> </ul>	<ul style="list-style-type: none"> <li>• May encourage people to move their wealth offshore.</li> <li>• Substantial avoidance opportunities, particularly for the very rich.</li> <li>• Difficult to trace ownership; annual valuation of privately held wealth is costly.</li> <li>• However, appropriate design and technological progress can cut valuation costs and administrative complexity substantially.</li> </ul>
Inheritance/gift taxes	<ul style="list-style-type: none"> <li>• Can reduce the incentive to save among those who may want to leave an estate to the next generation, or on the contrary can increase savings by donors to pass on a sufficient estate to the next generation.</li> <li>• Incentives increase for heirs to work and save, in view of a lower inheritance.</li> <li>• Can have positive effects on economic growth, e.g. as inheritance taxes may induce an increase in consumption, leading to an increase in aggregate demand</li> </ul>	<ul style="list-style-type: none"> <li>• Can help reduce wealth inequality.</li> <li>• Can support social mobility by reducing the extent to which wealth inequalities are transmitted from one generation to another.</li> </ul>	<ul style="list-style-type: none"> <li>• Since assets are valued only once, administrative costs are less than those for net wealth taxes.</li> <li>• Avoidance and evasion opportunities depend on the design and the scope of exemptions.</li> </ul>
Value-added tax (VAT)	<ul style="list-style-type: none"> <li>• Considered to be among the less distortive taxes, as it does not directly distort the choice of production technique.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced rates are not effective in terms of redistribution, as they cannot target a specific (e.g. low-income) population. Nevertheless, low rates for basic foods are often used to support low income groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Considerable scope for tax evasion and fraud (e.g. VAT gap), notably due to the break in the fractioned collection of VAT when it comes to intra-EU business-to-business (B2B) transactions.</li> <li>• Reverse charge mechanisms may help tackle certain types of VAT evasion and fraud, but they may also create new opportunities for VAT evasion and fraud.</li> </ul>

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<sup>(15)</sup> There are concerns regarding economic double taxation when it comes to net wealth or inheritance/gift taxes, as the stock of wealth has probably already been subject to some form of income taxation. However, that concern would then also apply to taxes on consumption typically financed by personal or capital income that has already been subject to taxation.

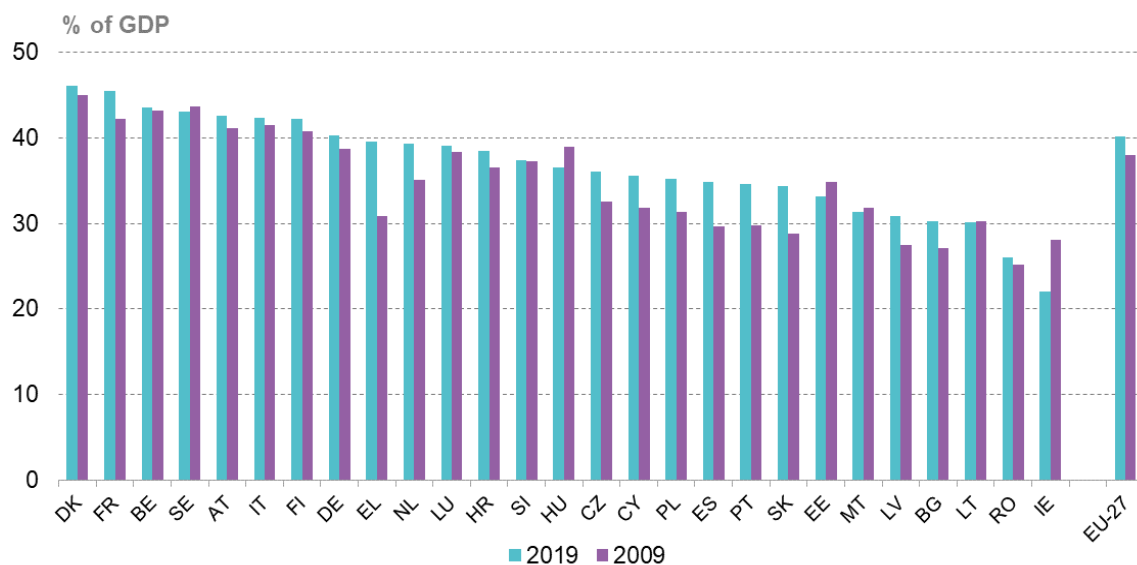
	Efficiency	Distributive effects	Administration/compliance
Environmental taxes	<ul style="list-style-type: none"> <li>• If appropriately designed, considered to be among the least distortive of taxes.</li> <li>• One of the main objectives is to incentivise behavioural change in order to internalise negative externalities and thereby create overall welfare gains.</li> <li>• Concerns over carbon leakage (domestic reductions in greenhouse gas emissions are counterbalanced by increases elsewhere) and competitive disadvantages for domestic firms following unilateral action in a given country; can therefore justify international coordination.</li> </ul>	<ul style="list-style-type: none"> <li>• Many types of environmental taxes are typically regressive, so their increased use should be accompanied by mitigating policy measures. However, environmental taxes can support intergenerational fairness, as behavioural change will probably reduce costs for future generations of mitigating the impact of climate change.</li> </ul>	<ul style="list-style-type: none"> <li>• The level of administrative complexity defines the feasibility of environmental taxes.</li> <li>• Ideally, would take the form of a tax on each unit of measured emissions (e.g. CO<sub>2</sub>, NO<sub>x</sub>) according to social cost.</li> <li>• However, depending on the pollutant and type of tax, the information requirements can be very high. As a result, taxes are often imposed on a proxy for the pollutant, e.g. volume of fuel placed on the market.</li> <li>• Difficult to evade.</li> </ul>
Health taxes	<ul style="list-style-type: none"> <li>• Primary objective is to correct behaviour to internalise negative externalities and thereby create overall welfare gains.</li> <li>• Concerns over illicit trade / evasion</li> </ul>	<ul style="list-style-type: none"> <li>• Health taxes are typically progressive, provided the health burden and healthcare costs are factored in.</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance costs for health taxes on alcohol and tobacco products are low and often arise from compliance with the overall excise duty provisions.</li> </ul>

### 1.3 The tax mix in the EU – recent trends and forecasts<sup>(16)</sup> <sup>(17)</sup>

In 2019, annual tax revenue<sup>(18)</sup> in the EU, measured as a percentage of GDP (the tax burden), was stable at 40.1% of GDP<sup>(19)</sup>. This represents a 2.2 percentage points (pp) increase from the value recorded in 2009 (38%), in the middle of the financial crisis. The EU's tax burden is relatively high compared with other advanced economies (the OECD average was 34.3% in 2018).

Since 2009, the tax burden has increased in most Member States. However, the level of total taxation differs considerably between countries: in 2019, the tax to GDP ratio varied between 22.1% in Ireland and 46.1% in Denmark.

GRAPH 1. TOTAL RECEIPTS FROM TAXES AND COMPULSORY ACTUAL SOCIAL CONTRIBUTIONS, EU-27 AND MEMBER STATES, 2009-2019, % OF GDP



Source: Eurostat (online datacode: gov\_10a\_taxag).

Note: This graph excludes taxes assessed but unlikely to be collected. For more information on tax debt, see Section 2.1.5. of this report.

Total tax revenues can be broken down into direct and indirect taxes and social contributions. On average, each account for around a third of the total tax revenues in the EU. Denmark has the highest proportion of direct taxes (66.5 %) <sup>(20)</sup>, Croatia the highest proportion of indirect taxes (52.7 %) and Slovakia the highest proportion of social contributions (43.7 %). Graph 2 shows the contribution of each component to total tax revenues.

<sup>(16)</sup> For more information on taxation trends and figures, see 'Taxation Trends in the European Union' (<https://op.europa.eu/en/publication-detail/-/publication/c0b00da7-c4b1-11ea-b3a4-01aa75ed71a1>), which contains a detailed statistical and economic analysis of the tax systems of the EU Member States, plus Iceland and Norway (European Commission, 2020a).

<sup>(17)</sup> For more extensive information from national finance ministries on their tax systems, see the Taxes in Europe database [https://ec.europa.eu/taxation\\_customs/tedb/taxSearch.html](https://ec.europa.eu/taxation_customs/tedb/taxSearch.html)

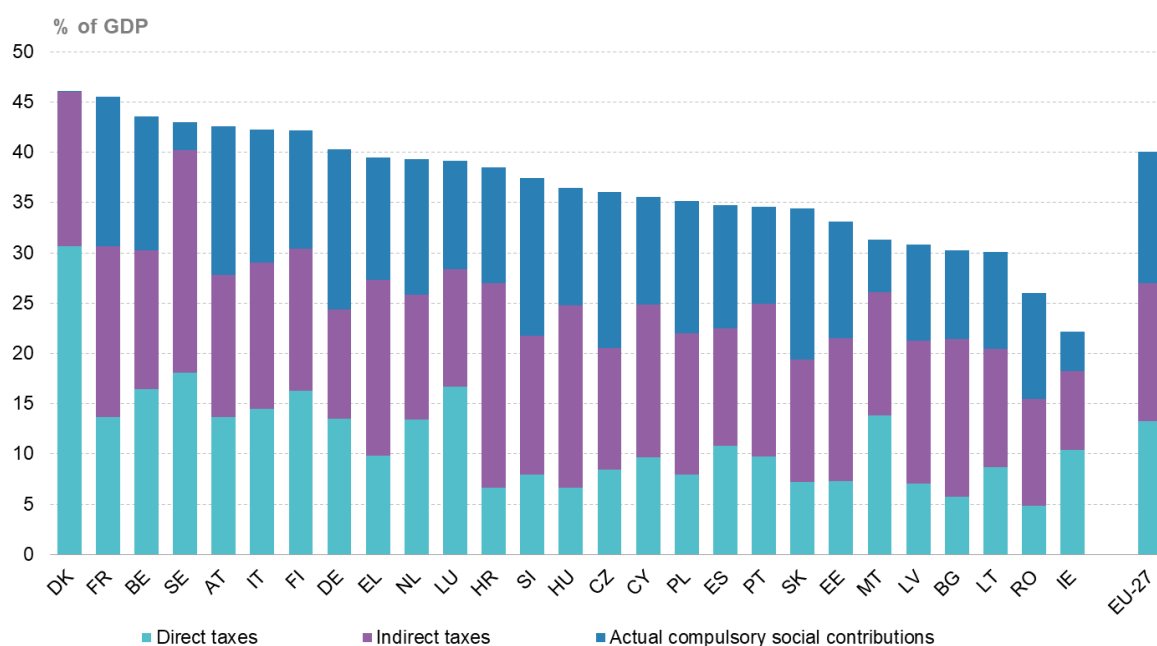
<sup>(18)</sup> There are different indicators to measure tax revenue. For this report the indicator of reference is the 'Indicator 2' of tax revenue that includes compulsory and actual social contributions. For more details on the different indicators on tax revenue check the page [https://ec.europa.eu/eurostat/statistics-explained/index.php/Tax\\_revenue\\_statistics#General\\_overview](https://ec.europa.eu/eurostat/statistics-explained/index.php/Tax_revenue_statistics#General_overview)

<sup>(19)</sup> The tax burden for the EU-27 represents the ratio between all tax revenues collected in the EU and the whole GDP of the EU. This is equivalent to the GDP weighted average of national tax burden.

<sup>(20)</sup> Denmark finances social protection largely through personal income taxes rather than social contributions; this explains the relatively high level of revenue from personal income taxes and thus direct taxes.



GRAPH 2. BREAKDOWN OF TAX REVENUES, EU-27 AND MEMBER STATES, 2019, % OF GDP.



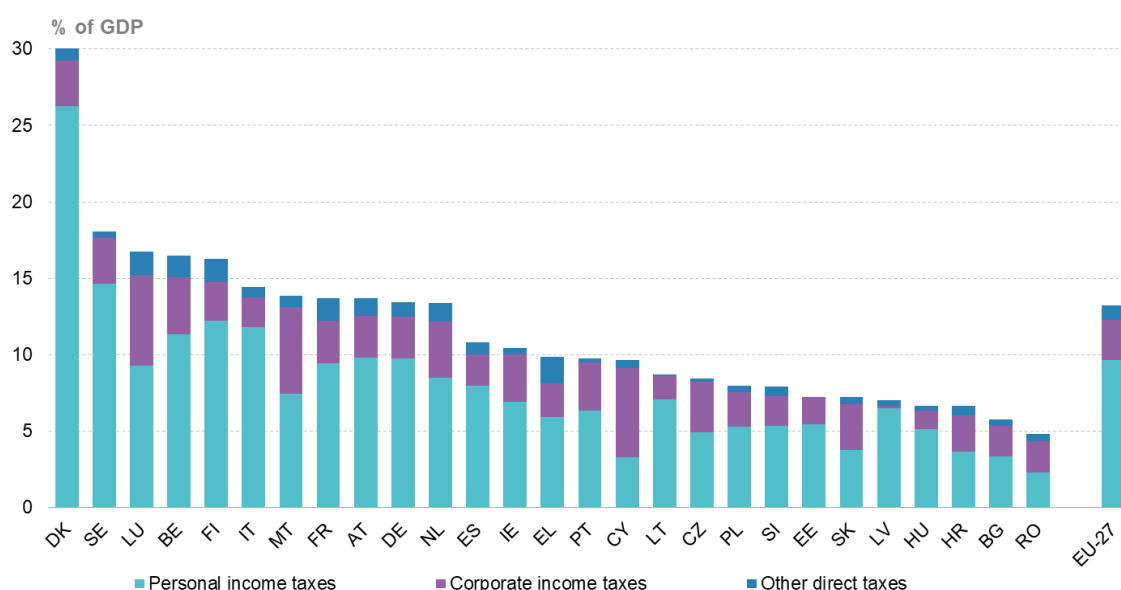
Source: Eurostat (online datacode: gov\_10a\_taxag), TAXUD calculations.

Direct taxes can be further broken down into:

- personal income taxes;
- corporate income taxes; and
- other direct taxes (for example, capital taxes).

A large proportion of revenue from direct taxes (over 70% in the EU as a whole) comes from personal income taxes. Cyprus is the only Member State where revenue from corporate income taxes is higher than revenue from personal income taxes.

GRAPH 3. BREAKDOWN OF REVENUE FROM DIRECT TAXES, EU-27 AND MEMBER STATES, 2019, % OF GDP



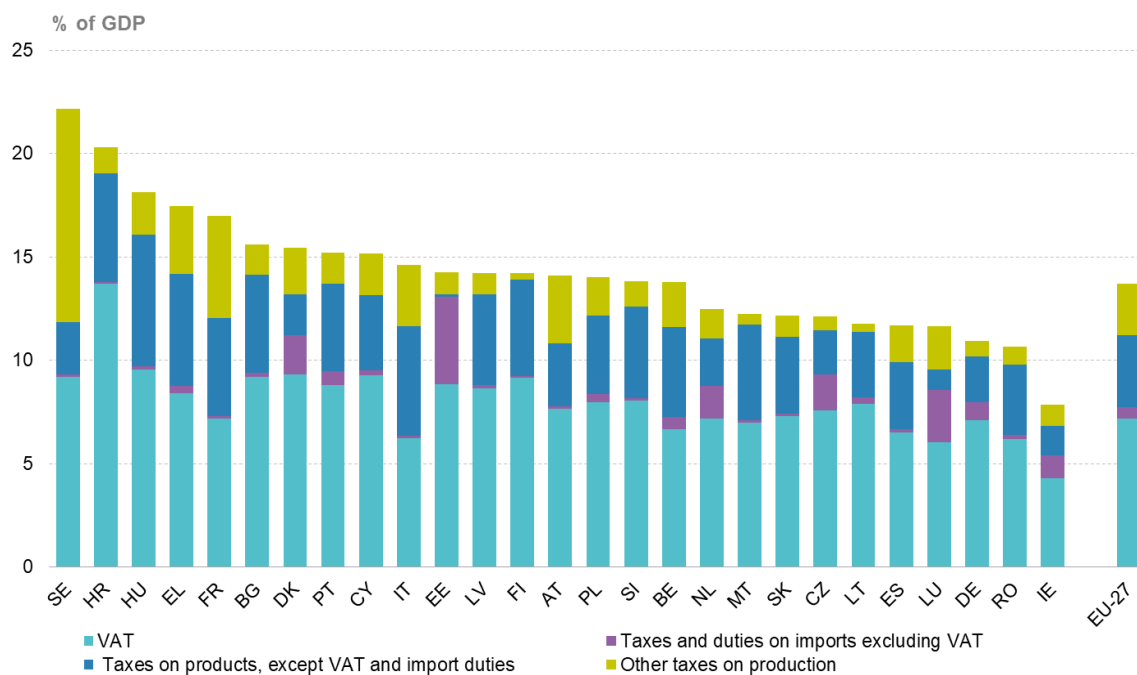
Source: Eurostat (online datacode: gov\_10a\_taxag), TAXUD calculations.

Indirect taxes can be further broken down into:

- VAT;
- taxes and duties on imports, excluding VAT;
- taxes on products, except VAT and import duties; and
- other taxes on production.

Over half of the revenues from indirect taxes in the EU (52%) are from VAT.

GRAPH 4. BREAKDOWN OF REVENUE FROM INDIRECT TAXES, EU-27 AND MEMBER STATES, 2019, % OF GDP

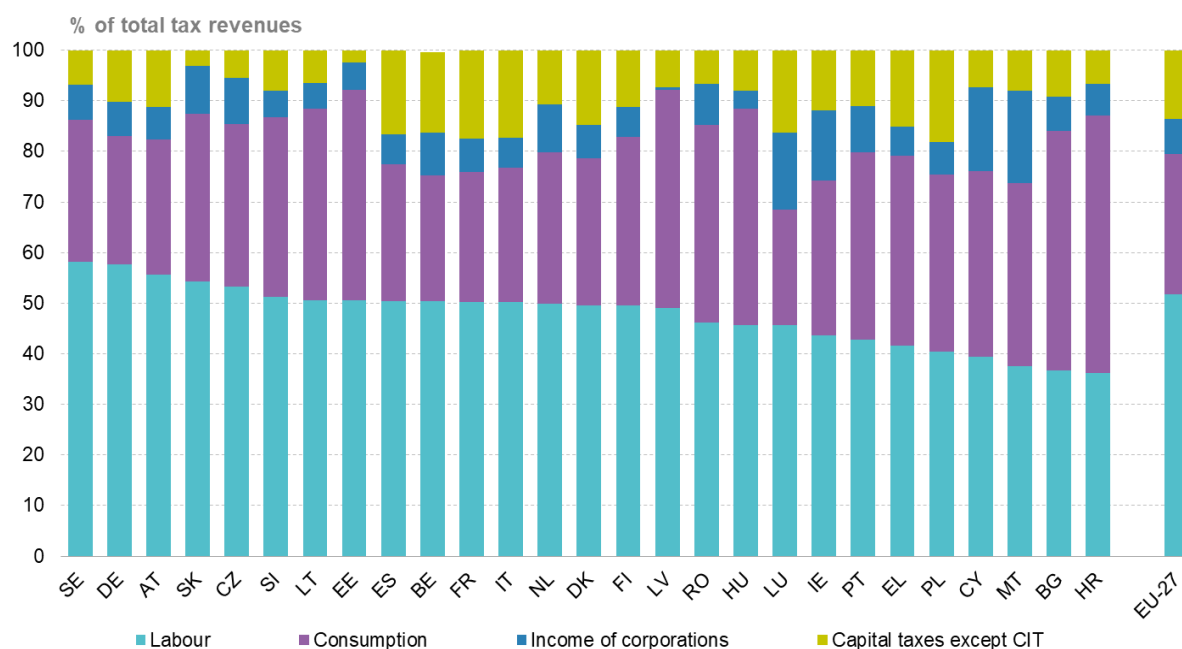


Source: Eurostat (online datacode: gov\_10a\_taxag), TAXUD calculations.

The tax structure can also be broken down by economic function of the tax base. The following graphs distinguish between taxes on labour (including social contributions), corporate income, capital taxes other than corporate income, and consumption taxes.

**The design of Member States' tax systems differs according to tax rates and what activities are taxed.** Graph 5 shows the structure of taxation by economic function, illustrating the variation between countries.

GRAPH 5. STRUCTURE OF TAXATION BY ECONOMIC FUNCTION OF THE TAX BASE EU-27 AND MEMBER STATES, 2019, % OF TOTAL TAX REVENUES



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.

Notes:

(1) For the purpose of this graph, 'capital' taxes' includes all categories not classified as labour, corporate or consumption tax.

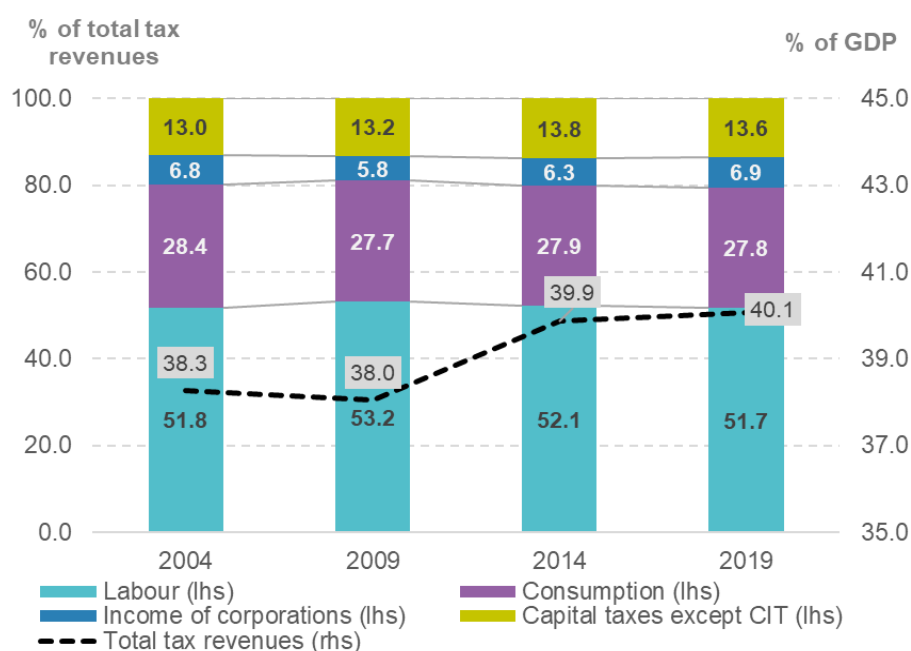
(2) Labour taxation includes employers' and employees' social contributions.

(3) This graph excludes taxes assessed but unlikely to be collected.

The distribution of tax revenues by type of tax base has not changed over the last 15 years (see Graph 6). After the economic crisis in 2009, there were some changes in the distribution of tax revenues, due to the drop in revenues from taxes on corporate income. However, by 2014 these changes were partially reverted and in 2019 the distribution of tax revenues is similar to the one of 2009.

Overall tax revenues as a percentage of GDP decreased between 2007 and 2010 during the years of the financial crisis, after a gradual increase between 2000 and 2007. With the economic recovery, tax revenues as a percentage of GDP started to rise again in 2011, and by 2014 they were above the pre-crisis levels, reaching 40.1% of GDP in 2019.

GRAPH 6. EU-27 TAX REVENUES, 2004, 2009, 2014, 2019, AS % OF TOTAL TAX REVENUES AND AS % OF GDP



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.

Notes:

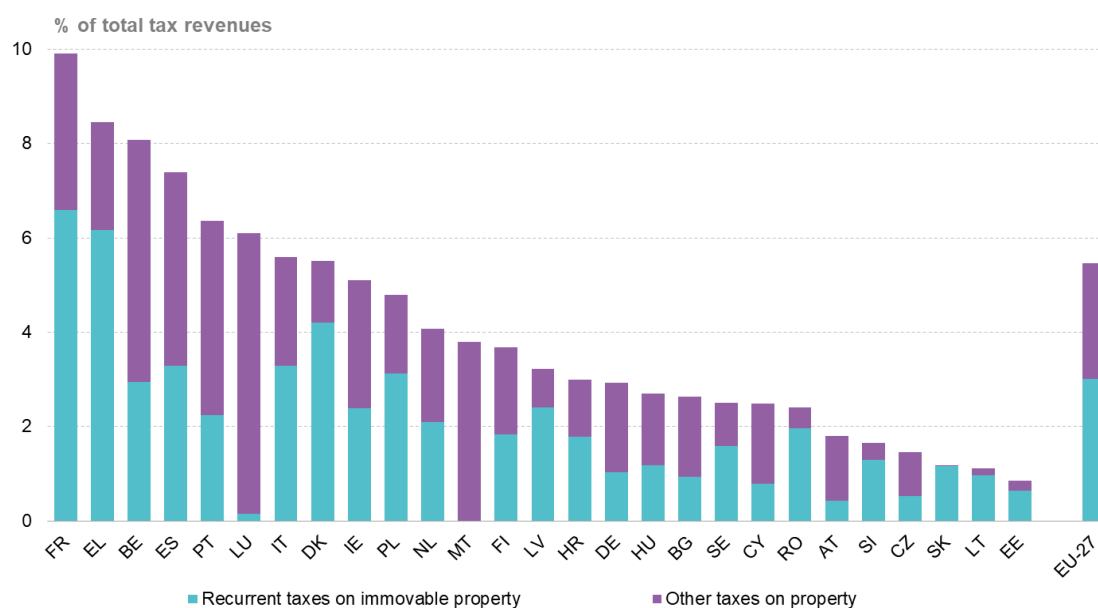
(1) For the purpose of this graph, 'capital taxes except CIT' include other categories not classified as labour, corporate or consumption tax. Labour taxation includes employers' and employees' actual compulsory social contributions.

(2) This graph excludes taxes assessed but unlikely to be collected.

As shown above, total tax revenues can be broken down by type of tax (direct, indirect and social contributions) or by type of tax base (labour, consumption, corporate income taxes and capital taxes). On top of these broad classifications, there are additional sub-categorisations for specific taxation areas such as environmental taxes, taxes on tobacco and alcohol, and taxes on property. Property taxes, for example, are largely direct / capital taxes, whereas environmental taxes, and taxes on tobacco and alcohol are largely indirect / consumption taxes. These are shown below.

Graph 7 shows property taxes as a percentage of total taxation, broken down into recurrent taxes on immovable property and other property taxes, including transaction taxes.

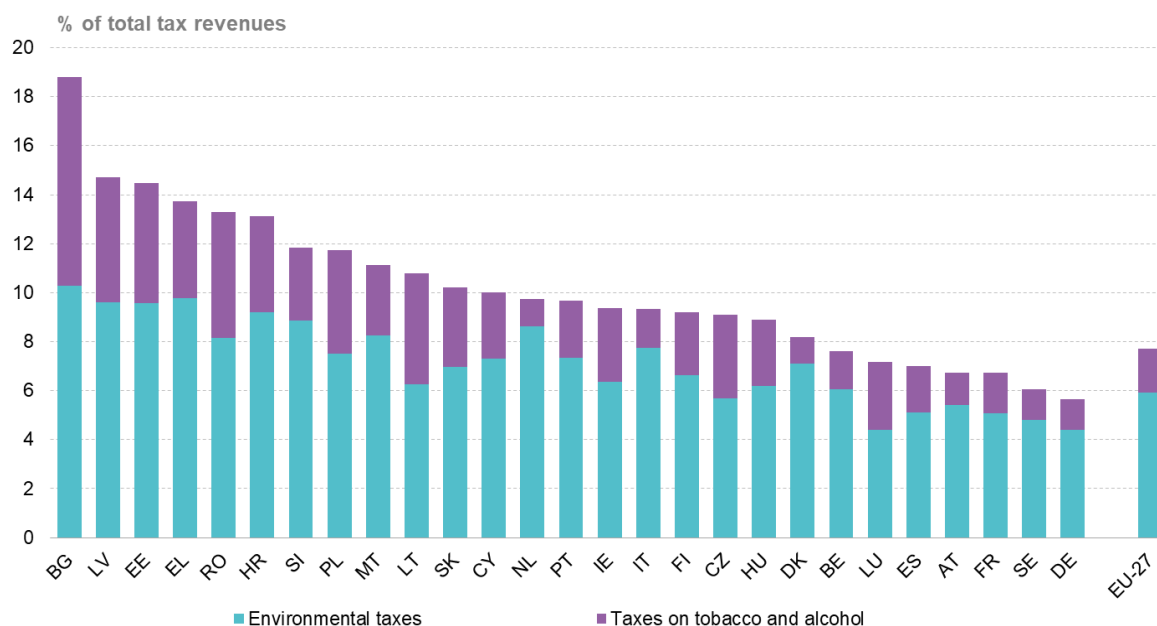
GRAPH 7. REVENUE FROM TAXES ON PROPERTY, EU-27 AND MEMBER STATES, 2019, % OF TOTAL TAX REVENUES



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.

Most **environmental, tobacco and alcohol taxes are 'Pigouvian taxes', i.e.** their primary objective is to change behaviour (see also Section 1.1). A tax may be very effective in that respect, while generating relatively little revenue due to the erosion of the tax base as a result of behavioural changes. Accordingly, the revenue data for such taxes should be assessed somewhat differently than the revenue data for other taxes, as reducing the negative externalities is the primary objective.

GRAPH 8. REVENUE FROM PIGOUVIAN TAXES, EU-27 AND MEMBER STATES, 2019, % OF TOTAL TAX REVENUES

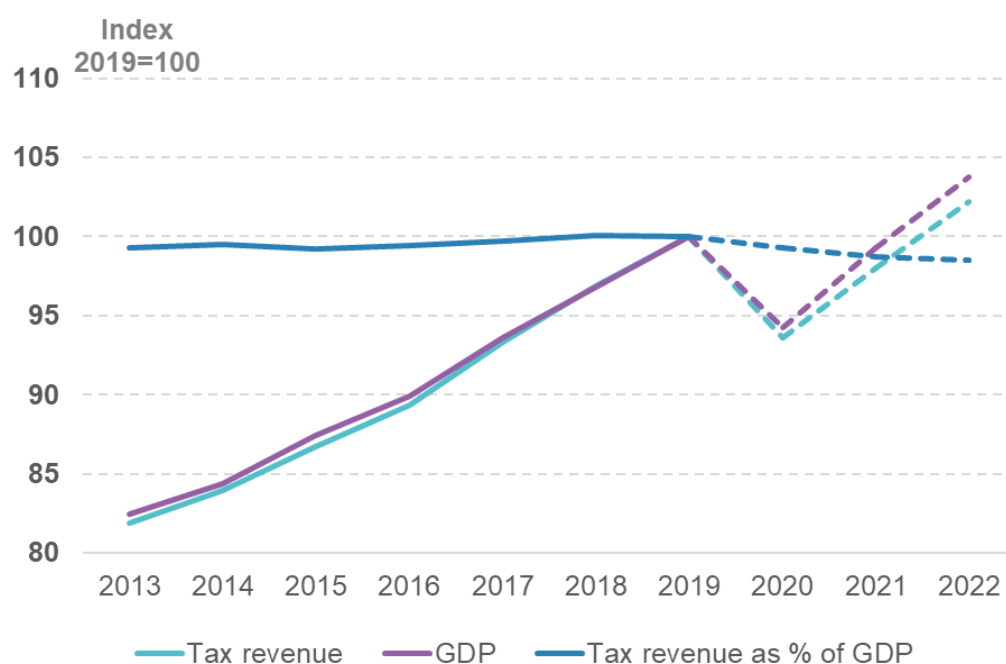


Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.

### 1.3.1 Tax revenue forecast

Tax revenues are expected to decrease in the coming years<sup>(21)</sup>. Due to the COVID-19 crisis, the drop will be quite significant in 2020 (8.1% in real terms according to the European Commission Autumn 2020 Economic Forecast). The expected decrease will be slightly faster than the drop in GDP, and for that reason tax revenues measured as a percentage of GDP are likely to decrease during the forecasted period (2020-2022). In 2022, tax revenues (in current prices) are forecasted to be above the 2019 level, but when measured as a percentage of GDP, they will still be more than half a percentage point below their 2019 value.

GRAPH 9. EU-27 TAX REVENUE AND GDP (2013-2019), FORECAST (2020-2022)



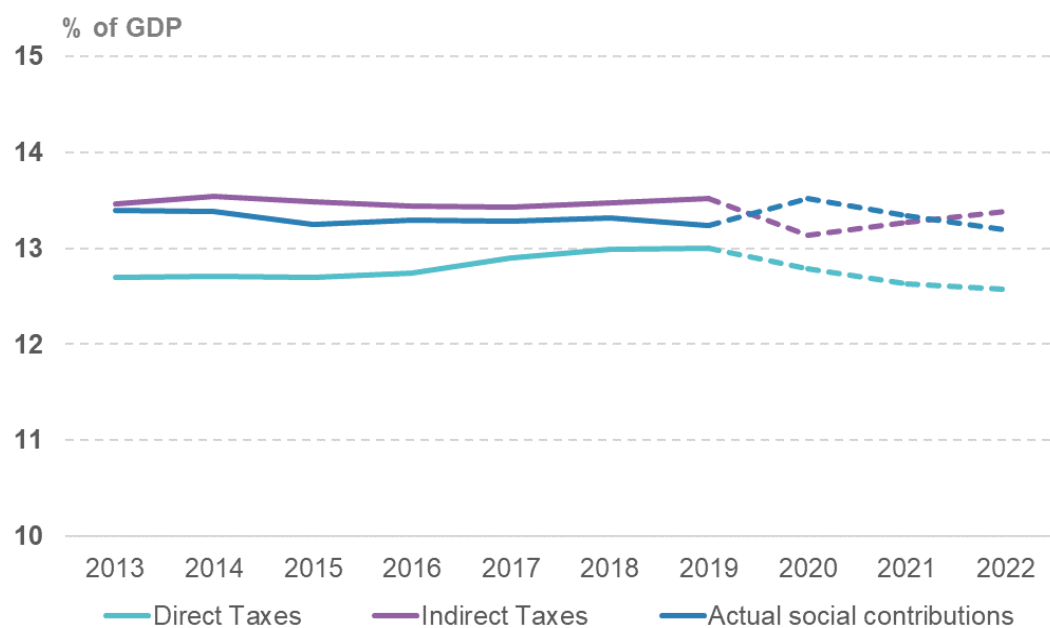
Source: European Commission, DG ECFIN, AMECO, data.

Note: Dashed lines indicate forecasts. Tax revenues **excluding** imputed social contributions (Ameco code: 'UTAT'). Tax revenue and GDP in current prices.

The COVID-19 crisis is expected to affect the relative weight of the main components of tax revenues. In 2020, the Commission forecast indicates an expected increase in the relative size of social contributions. At the same time, the relative size of revenues from direct and indirect taxes will likely decrease in 2020. Total revenues (as a share of GDP) from indirect taxes are expected to start increasing in 2021, while the revenues (as a share of GDP) from direct taxes will continue to decrease, as shown in Graph 10.

<sup>(21)</sup> The latest Commission forecast when this report was drafted was the 'Autumn 2020 Forecast', [https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/autumn-2020-economic-forecast\\_en](https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/autumn-2020-economic-forecast_en)

GRAPH 10. EU-27 TAX REVENUE MAIN COMPONENTS (2013-2019), FORECAST (2020-2022)



Source: European Commission, DG ECFIN, AMECO.

Note: Dashed lines indicate forecasts. Direct taxes do not include capital taxes.

### *Box 1.1: The future of taxation in changing labour markets*

Structural changes like population ageing pose a challenge to taxation systems. As the COVID-19 crisis necessarily turns our attention to the present and near future, there are, however, important changes, including climate change, environmental degradation, globalisation, digitalisation of the economy and demographic change, which induce long-term structural changes in our economies. These can jeopardise the sustainability of tax systems in the distance future. For example, they may change the tax base for certain taxes (e.g. *ceteris paribus* by reducing the working age population). It is, therefore, important not to lose sight of these important changes when looking at the sustainability of tax systems.

A sustainable tax system and sustainable tax revenues create the fiscal space for governments to deliver a basket of publicly-funded services (education, healthcare, **pensions, various income support schemes, employment services, transport, infrastructure...**). To be viable long-term, the tax system has to embody and reinforce such an underlying social contract. A tax system is sustainable if the public perceives it as legitimate and fair and if high levels of tax compliance and fair burden sharing are coupled with innovation, competitiveness, productivity growth and job creation as well as quality public services and reduced inequalities. The expenditure side of the budget is equally influenced as the revenue side by ongoing changes (e.g. climate change and environmental degradation mitigating measures, ageing of population impacting health and pension related expenditures etc.).

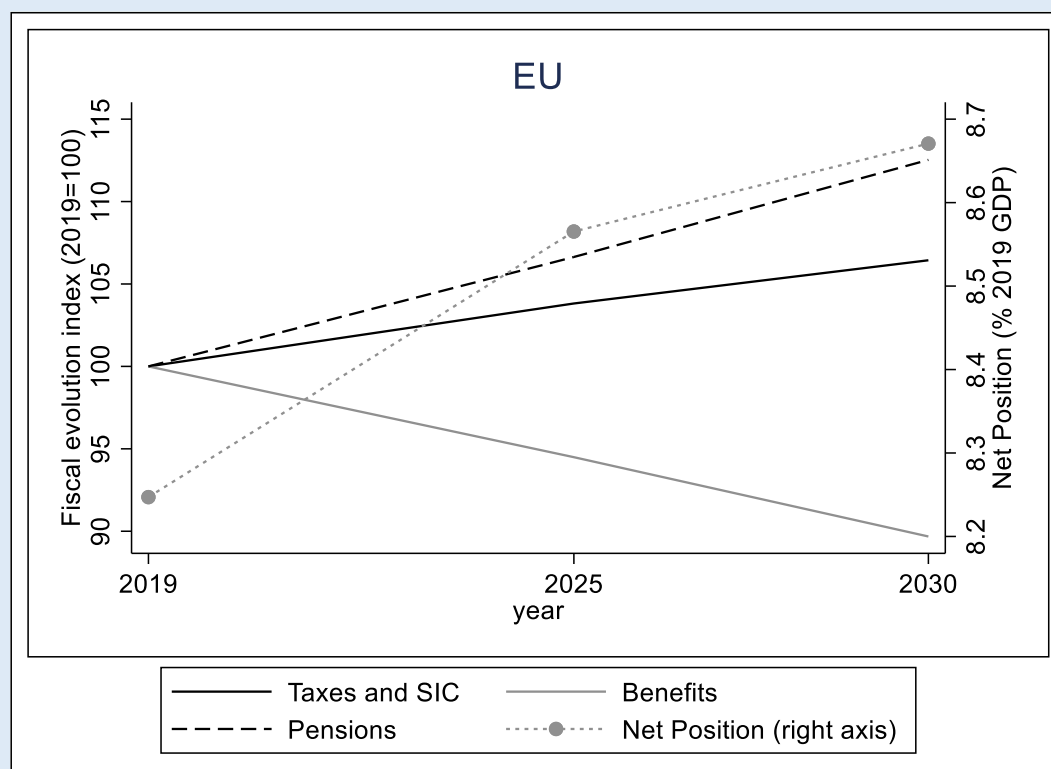
To meet those challenges, a forward-looking holistic tax policy, based on sound empirical evidence is required, even if medium to long-term forecasts come with considerable uncertainties and only a few empirical estimates on the quantitative implications of these mega-trends on tax revenues are available. So what can the impact of an ageing population and changing labour markets in EU Member States be on tax revenue? An empirical study by the European Commission quantifies the impact of demographic and labour market change on tax revenues (Christl, Livanos, Papini, & Tumino, 2020). The study, which is the basis for this box concludes that the tax-benefit systems of most EU Member States are well equipped to cope with the demographic challenges, although specific concerns exist for some countries.

The study uses the EUROMOD simulation model to predict tax revenues for the years 2019, 2025 and 2030 under the respective projections for the age structure of society and the skills distribution in the labour market. The population projections are provided by EUROSTAT. The European Centre for the Development of Vocational Training (CEDEFOP) produced the projections of the employed (low, medium and high skilled) and the unemployed. The simulation takes a *ceteris paribus* approach, which means that only the age-distribution and labour market conditions change in each point of time. The simulation does not consider possible changes to, for example, pension systems that would increase the working age population.

Populations are ageing in most EU Member States, leading to increasing dependency ratios and shrinking workforces. According to the CEDEFOP estimates, this leads to a drop of the unemployment rate (from almost 6,9% in 2019 to about 5,5% by 2030 for the EU-27). Government spending on benefits are projected to decrease due to lower unemployment rate while higher employment levels increase revenues from taxes and social contributions. This suffices to compensate for strongly increasing pension payments so that the net position of public budgets improves in the EU-27. This is illustrated in Graph 11. There is considerable heterogeneity across the EU with some Member states experiencing no change or even a decline in the net position of their public budgets (BG, CZ, FI, IT, MT, NL, PL).



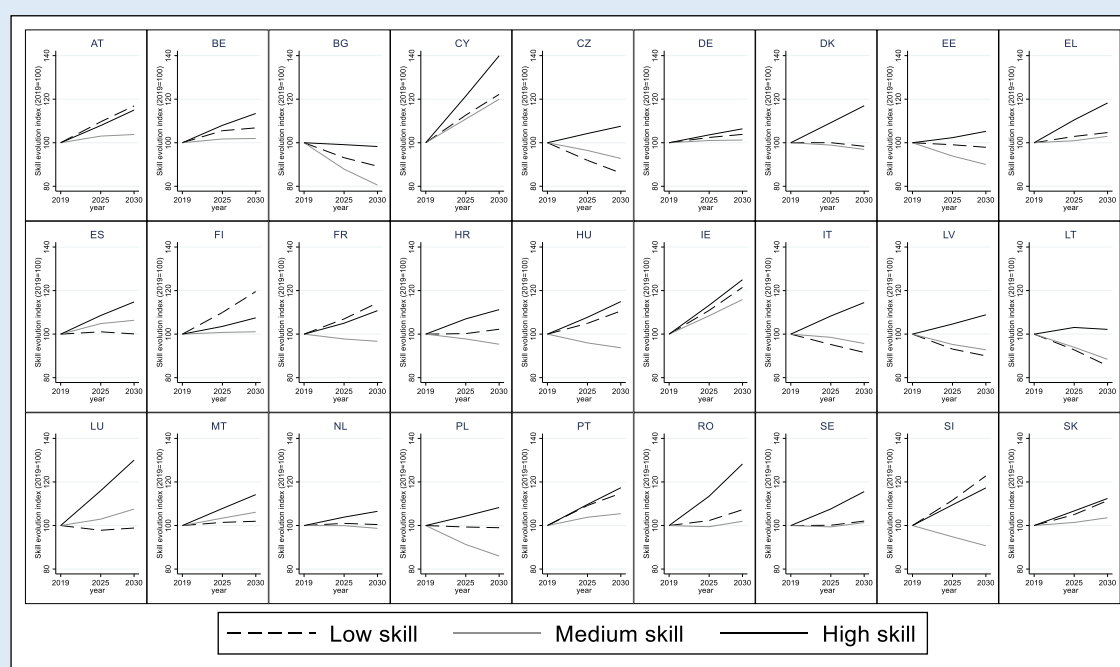
GRAPH 11. EVOLUTION OF FISCAL AGGREGATES IN THE EU-27



Source: European Commission, Joint Research Centre, based on the Euromod model

The magnitude of the impact depends on changes in the labour market, notably in terms of the skills level of the active population. The predictions, depicted in Graph 12, suggests the existence of a polarisation trend in EU labour markets, with larger increases in the number of high- and low-skill jobs compared to medium-skill occupation in all but five countries (CZ, ES, IT, LV, LT). It is assumed that the job polarisation is driven by a rapid growth of jobs at the bottom of the wage distribution, together with a drop in medium-skill physical tasks and an increase in more social and intellectual tasks.

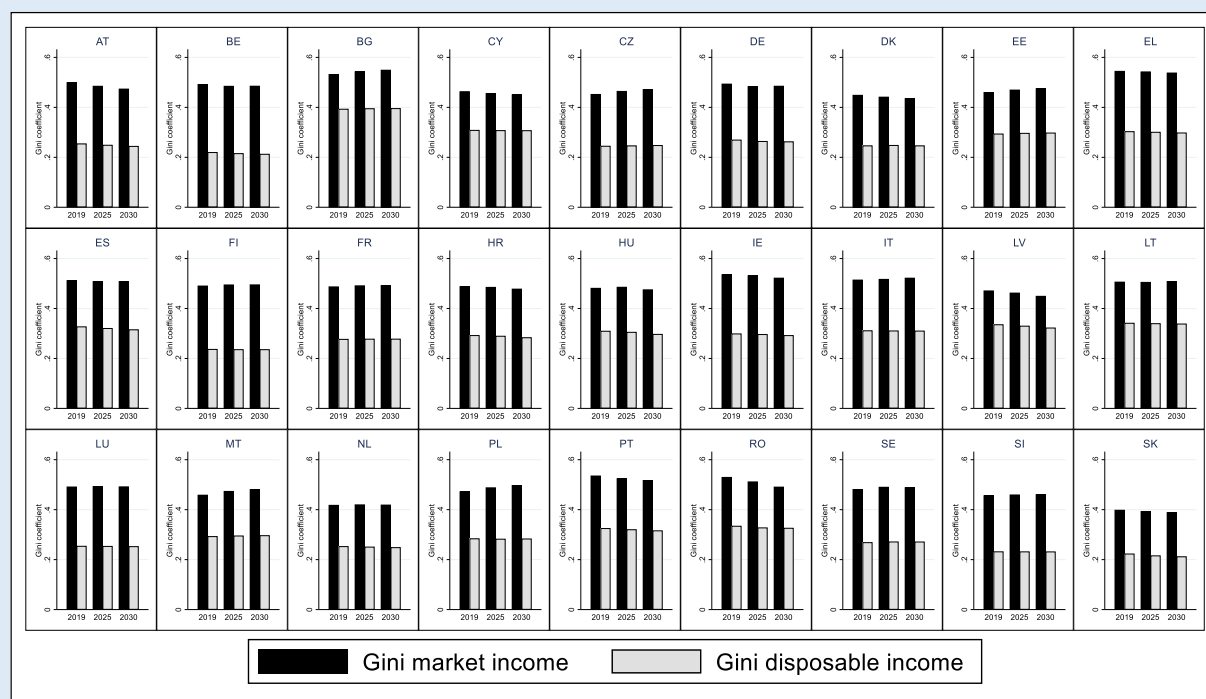
GRAPH 12. SKILL EVOLUTION ACROSS MEMBER STATES



Source: European Commission, Joint Research Centre, based on the Euromod model

These shifts in the labour market, do not impact income inequality or poverty rates for the EU27 as a whole. As depicted in Graph 13 there is some heterogeneity across Member states. Some countries are predicted to experience moderate increases in income inequality while others will see income inequality fall. The evolution of the poverty rate is foreseen to follow the evolution of income inequality. Countries with increasing inequality face increasing poverty rates while Member States that become more equal see their poverty rates reduced.

GRAPH 13. EVOLUTION OF GINI COEFFICIENTS ACROSS MEMBER STATES



Source: European Commission's Joint Research Centre, based on the Euromod model

In ageing societies, dependency ratios typically increase. The age dependency ratio expresses the proportion of individuals aged 65 and older to the working age population. In pay-as-you-go pension systems, pensions are financed by the pension contributions of currently working populations. Higher dependency ratios increase the burden of pension payments on non-wage labour costs.

Many countries make efforts to capitalise their pension systems by supporting and subsidising private pension plans. From a taxation perspective, payments in such pension plans are deductible in many PIT systems.

Higher dependency ratios tend to increase the demand for government spending, as illustrated by the study. Restructuring and enlarging the tax mix can simultaneously meet increased revenue requirements and alleviate the pressure of increasing dependency ratios on non-wage labour costs. The importance of a carefully designed tax mix is discussed in detail in Chapter 1.

# 2

## PERFORMANCE OF NATIONAL TAX SYSTEMS

**When it comes to national tax systems, there is no 'one size fits all'. Both collecting taxes and combating tax fraud and evasion are competences of the Member States.** Nevertheless, a number of priorities have been put forward and agreed by Member States at EU level, and the resulting body of law must be respected. In this context, this chapter looks at national developments in the four tax priority areas derived from more general EU priorities and introduced in Chapter 1: fostering innovation and productivity; paving the way to for environmental sustainability and good public health; fighting tax fraud, evasion and abuse; and contributing to social fairness and prosperity.

The chapter presents a range of indicators that show the most recent situation in Member States as regards various dimensions of tax policy, as well as changes over time. It also describes examples of policies that were put forward by Member States and which align their tax mix with those priorities. In doing so, this chapter provides evidence for policy development and change. Given the nature of the data used and its availability, these indicators mostly use data from before the COVID-19 pandemic took hold (March 2020), though in some cases 2020 data is used.

### 2.1 Fostering innovation and productivity in support of Europe's economic growth

As outlined in Section 1.1.1, taxation is one of the factors that can influence **companies'** investment decisions. This section examines the features of national tax systems that may be relevant in this respect, looking at indicators on effective tax rates, the corporate debt bias, R&D tax incentives, tax administration, and tax certainty. **New elements in this year's analysis include discussions on the recent MABIS project, the Commission's work on simplifying withholding tax procedures in the EU, and specific TADEUS projects.**

#### 2.1.1 Effective marginal tax rates on corporate income

The effective marginal tax rate (EMTR) on corporate income can influence corporate investment decisions, and in particular how much to invest in a given project. The EMTR is the (forward-looking) expected tax burden on the last euro invested in a hypothetical project that **just breaks even (the 'marginal' investment)**<sup>(22)</sup>. It captures a wide range of factors in addition to statutory corporate tax rates, such as:

- the elements of the tax code affecting the determination of the corporate income tax (CIT) base;
- the source of financing for the investment (debt, retained earnings or new equity); and
- the type of asset to be invested in (machinery, buildings, intangibles, inventory or financial assets).

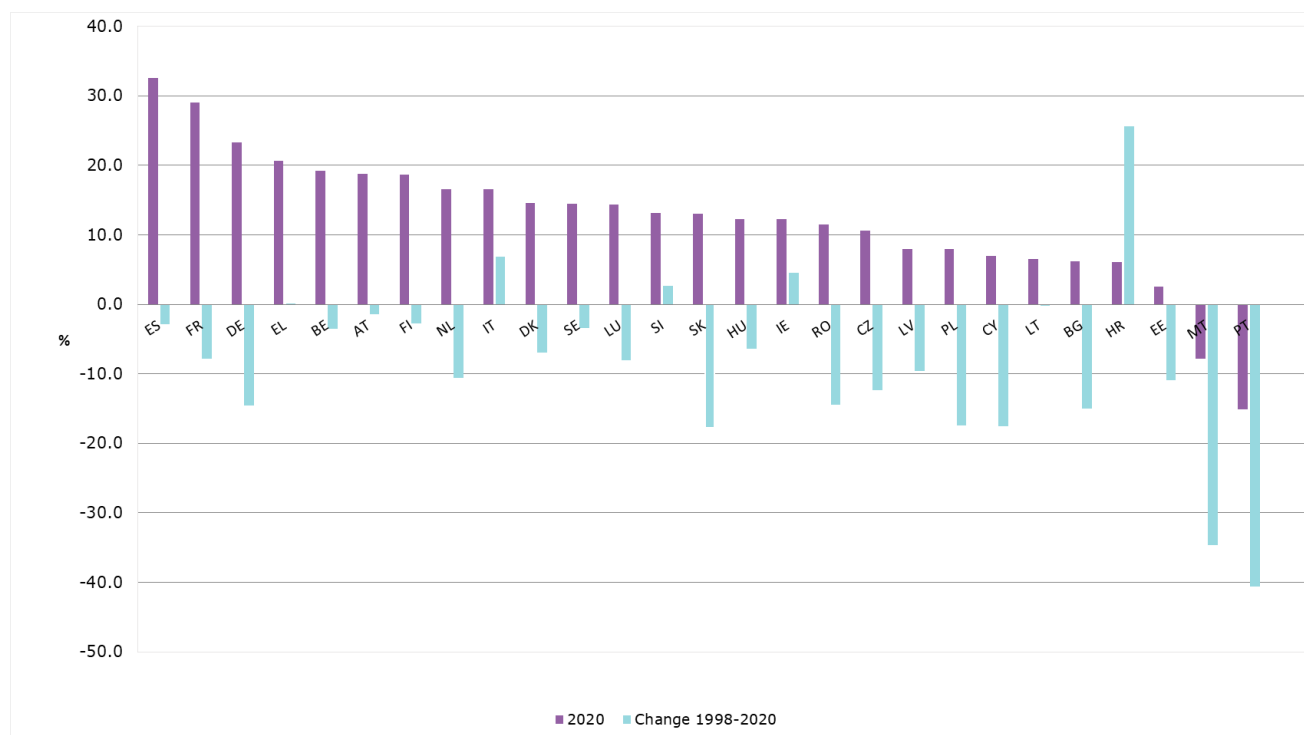
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<sup>(22)</sup> While (forward-looking) EMTRs are expected to determine the intensity of investment in a given location, (forward-looking) **effective average tax rates (EATRs) are expected to determine firms' decisions as to where to invest** (Devereux, 2007; Devereux & Griffith, 2003).

The EMTR is calculated based on a series of assumptions about the pre-tax rate of return, the interest and inflation rates, and the asset and funding source composition. It does not in its primary nature (i.e. without extensions), however, reflect the impact of aggressive tax planning (ATP) or tax rulings/special tax regimes. On average, the lower the EMTR, the more conducive a tax system is to corporate investment. However, tax sensitivity differs among firms with different profitability levels (particularly multinational), with the least and the most profitable firms being less sensitive to EMTRs than firms with average profitability (Millot, Johansson, Sorbe, & Turban, 2020).

There are several ways to affect the EMTR and design a tax system that is more supportive of investment. These include: offering faster depreciation schedules; making equity costs deductible; and improving conditions for carrying losses forward. In general, high corporate taxes can be distortive and affect investment levels. At the same time, low corporate taxes negatively affect revenue generation. It is important to be wary of the trade-off between tax incentives and revenues. Corporate taxes also affect business location, profit-shifting and the choice of company structure. Lowering the EMTRs on equity and R&D expenditure can thus in principle increase investment, reduce the tax-induced corporate debt bias and increase R&D spending. Addressing the tax-induced corporate debt bias can lower the EMTRs for equity, and R&D tax incentives can do the same for R&D investment. For example, reductions in the EMTRs for Belgium, Cyprus, Malta, Poland and Portugal stem partly from the introduction of notional interest deductions in those countries. In the context of the current pandemic, the EMTR could be reduced for projects to incentivise investment in certain EU priority areas (e.g. more environmentally sustainable production). Importantly, however, the particular incentive effects of EMTRs can be better analysed at industry- and firm-level, as substantial heterogeneity can mask the channels of interest when looking at the country-level EMTRs.

GRAPH 14. (FORWARD-LOOKING) EMTRS (%), 1998-2020



Source: ZEW, 2020

Notes: The indicator is based on a version of the Devereux-Griffith model, which considers five types of asset and three sources of finance at corporate and shareholder level. This methodology has been used to calculate (forward-looking) effective tax rates in the EU every year since 1998. The full dataset is available at:

[https://ec.europa.eu/taxation\\_customs/publications/studies-made-commission\\_en](https://ec.europa.eu/taxation_customs/publications/studies-made-commission_en)

### 2.1.2 Debt bias in corporate taxation

Most corporate tax systems present companies with incentives to acquire debt by making interest payments deductible, but do not extend the same incentives to equity. Since **debt-financed investment enjoys a preferential tax treatment, the 'cost of capital'** (i.e. the minimum pre-tax return required to make an undertaking worthwhile) is lower than in the case of equity-financed investment. The debt bias in corporate tax systems leads to higher debt levels, contributing to financial stability risks, e.g. by increasing the probability of bankruptcy (Sutherland & Hoeller, 2012). This can make economies more prone to financial crises and/or make the recovery process lengthier, as the 2008-2009 crisis and recovery illustrate (FSC Subgroup on Non-Performing Loans, 2017)<sup>(23)</sup>.

The higher cost of equity finance is particularly problematic for young and innovative companies, which often have limited access to external debt funding. This is compounded by limited access to alternative sources of finance such as venture capital. A number of Member States have introduced tax incentives to promote venture capital and business angel funding, but these types of finance represent only a small proportion of the total funding mix<sup>(24)</sup>. Consequently, small and innovative businesses, often perceived by banks and financial institutions to be higher risk, might be at a particular disadvantage, despite their importance in generating future growth.

The tax-induced corporate debt bias encourages firms to over-leverage, hurting corporate resilience in adverse times. It also encourages debt leveraging of the financial sector, which, in times of crisis, may translate into significant fiscal costs. Overall, the debt bias has an adverse impact on the incentives resulting from the cost of capital at corporate level, as well as on investment, growth, and general macro-financial stability<sup>(25)</sup>. The corporate debt bias therefore presents an obstacle to the creation of a stronger equity base in European companies and may impede efficient capital market financing. Corporations exploit the asymmetric tax treatment of debt and equity by organising their debt strategically to reduce their overall tax burden<sup>(26)</sup>.

The COVID-19 pandemic has made it even more important to address the debt bias. Economic losses resulting from the COVID crisis have significantly weakened the equity position of many companies. Furthermore, a drastic reduction in incoming cash flows has prompted many European companies to raise additional debt to meet their short-term financial obligations. As a result, the capital structure of many of these companies has become much more fragile, putting some of them on the verge of insolvency. It is therefore more important than ever to address the corporate debt bias, to support the re-equitisation of European firms and minimise future risks.

Graph 15 shows the debt bias in corporate taxation, measured as the difference in cost of capital between new equity and debt-financed investment. It is clear that the extent of the corporate debt bias for both financial and non-financial companies differs markedly across the EU.

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<sup>(23)</sup> This relationship was explained in the Report of the FSC Subgroup on Non-Performing Loans (2017) available here: <https://data.consilium.europa.eu/doc/document/ST-9854-2017-INIT/en/pdf>.

<sup>(24)</sup> See (PWC, 2017).

<sup>(25)</sup> See, for instance, (Langendijk, Nicodème, Pagano, & Rossi, 2014) and (Spengel, Heckemeyer, Nicolay, Bräutigam, & Stutzenberger, 2018)).

<sup>(26)</sup> This has been addressed by the Anti-Tax Avoidance Directive (ATAD) – see Section 3.2.1.3 of the 2018 edition of this report (European Commission, 2018a).

GRAPH 15. DEBT-EQUITY TAX BIAS IN CORPORATE FINANCING, 2010 AND 2020



Source: ZEW, 2020.

Notes:

(1) The cost of capital measures the required minimum pre-tax return of a real investment (the 'marginal investment') to achieve a 5% after tax real return.

(2) To reflect the allowance for corporate equity in Belgium, Cyprus, Italy, Malta, Poland and Portugal, the assumption is that the rates of these allowances equal the market interest rate in the model. For Belgium, the debt-equity bias could be non-zero due to the notional interest rate being relatively low, while the eligible equity only covers the average annual increase over the previous 5 years. For Cyprus, the bias is small, since the allowance does not apply to investments in financial assets.

Various reforms can address the corporate debt bias. One option is to limit or abolish the deductibility of interest costs (via the comprehensive business income tax (CBIT) reform or thin capitalisation rules). Another option is to extend deductibility to other forms of financing, making them equally attractive. The extension of preferential tax treatment to equity can include an allowance for corporate equity (ACE) or 'notional interest deductions'. Tax deductions can also be applied irrespective of the mode of financing (such as the allowance for corporate capital (ACC) and cash flow taxation)<sup>(27)</sup>.

However, these reform options may affect the cost of capital in different ways. CBIT reforms increase the taxable base to a normal return (i.e. what an alternative investment would yield) for debt-financed investments. This in turn increases the EMTR and reduces investment, all other things being equal. In contrast, tax exemptions for the cost of equity (ACE) reduce the EMTR and shift the tax burden towards above-normal returns, also by relatively reducing the taxation of normal and below normal returns. Therefore, they not only tackle the corporate debt bias, but also support investment activity (Radulescu & Stimmelmayer, 2007). However, one shortcoming of ACE is that it decreases corporate tax revenue due to the narrower tax base (De Mooij & Devereux, 2010).

In practice, the characteristics and rationale of ACE schemes tend to vary. Table 2 shows the ACE schemes currently in place in the EU<sup>(28)</sup>. While these schemes have economic advantages,

<sup>(27)</sup> In a cash-flow tax system, investment is expensed immediately, rather than depreciated over time. In an R-base system, only 'real' operations count and financial flows (paid and received) are not part of the tax base. Estonia currently has a cash-flow system that taxes company profit only when distributed as dividends (S-base system). Initially, the United States considered a cash-flow system for its 2017 corporate tax reform, but the adopted proposal includes only a temporary cash-flow tax in the form of immediate expensing of investment.

<sup>(28)</sup> Austria intends to re-introduce an ACE as early as 2021.

they can also act as ATP vehicles for multinationals<sup>(29)</sup> if not designed appropriately. The factors driving their potential attractiveness in respect of ATP are:

- the applied notional interest rate;
- how the deductible amount of equity is calculated; and
- the existence or absence of comprehensive anti-abuse provisions.

As shown in Table 2, the notional interest rates applied can vary substantially. Ideally, and theoretically, a notional interest rate should approximate a risk free rate plus a risk premium for equity. In Cyprus, the notional interest rate depends on the domestic risk free rate in the country from which the funds are invested.

A broad distinction can also be made as regards the equity base: either it covers the full amount of equity ('full' ACE) or only new equity is deductible ('incremental' ACE schemes). However, incremental ACE schemes maintain an asymmetry favourable to debt, with only an increment in equity being deductible and usually only so for a period of several years. While both types offer economic incentives to reduce debt and increase investment, the 'full' ACE is thus more effective at eliminating the debt-equity bias, while also potentially providing firms with windfall profits.

Safeguard measures against the abuse of ACE schemes are particularly important when dealing with (multinational) corporate structures. Such measures should for example prevent intra-firm cascading of multiple ACE deductions, or intra-firm conversion of debt into equity for tax planning purposes<sup>(30)</sup>.

Any reform needs to be well designed, limiting tax planning and distortions of competition. Empirical evidence from the evaluation of ACE schemes in Member States suggests that they have been largely effective in reducing the corporate debt bias (see e.g. Branzoli & Caiumi (2018) and Princen (2012)). However, it is important that the schemes contain strong and comprehensive anti-abuse provisions, preventing multinational firms from using them for ATP purposes. The Commission's proposal for a common corporate tax base (CCTB)<sup>(31)</sup> addresses both points. It would remove the corporate debt bias by offering an allowance for growth and investment (AGI). This is a tax deduction for companies that choose to finance new business activities through equity rather than debt. The AGI is calculated by multiplying the change in equity by a fixed rate composed of a risk-free interest rate and a risk premium. The CCTB proposal also includes anti-avoidance provisions.

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<sup>(29)</sup> Hebous & Ruf (2017) show that the implementation of Belgium's ACE scheme in 2006 led to a substantial shift of (passive) equity by German multinationals, an indication of profit-shifting.

<sup>(30)</sup> See Zangari (2014) for a comparison of the anti-abuse provisions in Belgium's and Italy's ACE schemes at the time.

<sup>(31)</sup> COM/2016/0683 final.

TABLE 2. ALLOWANCES FOR CORPORATE EQUITY (ACES)<sup>(32)</sup>

Country	Period	Details	Notional interest rate (2020)	Tax base (2020)
Belgium	Since 2006	The notional interest deduction allows all companies subject to Belgian corporate income tax to deduct a fictitious amount of interest, calculated based on their shareholders' equity (net assets) from their taxable income. In 2013, legislative changes ruled out the carrying-forward of unused allowances. Small firms receive an additional 0.5% risk premium on their notional rate. This was initially capped at 6.5% and is now limited to 3%. Since 2018, the deduction no longer applies to the full equity stock. It includes anti-avoidance provisions to prevent the cascading of the tax benefit.	0.726% (0.5 p.p. higher for SMEs, i.e. 1.226%)	New equity
Cyprus	Since 2015	Applicable new equity is calculated against 2015 as a base year. The notional interest deduction is limited to 80% of EBIT <sup>(33)</sup> and applies only to fully-owned subsidiaries if their assets are used for business (non-financial) purposes. The notional interest rate is the 10-year government bond rate of the country where funds are invested, plus a 5% risk premium. The 10-year Cypriot government bond rate only applies if the country in which the new equity is invested has not issued any government bond up until December 31 of the previous year.	min. 4.5%; max. 18.5%	New equity
Italy	Since 2011	The applicable new equity is calculated against 2010 as the base year. The considered new equity includes the equity contributions and retained earnings, excluding the profits allocated to a non-disposable reserve. It deducts reductions to the net equity with assignment to shareholders (especially dividend distributions), investment in controlled companies, and certain intra-group business acquisitions and transactions.	1.3%	New equity
Portugal	Since 2017	The notional return is deductible up to EUR 2 million and capped at 25% of firm EBITDA <sup>(34)</sup> . It applies to capital increases for 5 years, provided equity capital is not reduced in that period.	7.0%	New equity
Malta	Since 2018	Notional interest deduction is limited to 90% of chargeable income and can be carried forward indefinitely. The notional interest rate is set to the rate of 20 year Maltese government bonds (1.37% in Q3 2020), plus a risk premium of 5%.	6.47% (in Q3 2020)	Full equity stock
Poland	Since 2019	The notional return is deductible up to approximately EUR 55 000. The notional interest rate is the National Bank of Poland's reference rate (as applicable on the last day of the preceding calendar year), plus 1 p.p.	2.5%	Full equity stock

Source: Desk research carried out by the Commission based on publicly available data from national ministries of finance, KPMG and IBFD reports.

### 2.1.3 R&D tax incentives

R&D investment is an important source of long-term productivity and economic growth (Romer, 1990). R&D plays a fundamental role in innovating production, distribution and **consumption, which improves productivity growth and support the EU's long-term competitiveness**. In addition, since the transition to a sustainable economy requires new technologies, R&D and innovation investment will continue to play an important part. R&D investment can also play an essential role in the recovery from the COVID-19 pandemic, contributing to kick-starting the economy (European Commission, 2020), (Borunsky, Dumitrescu Goranov, Ravet, & Rakic, 2020).

However, overall R&D investment tends to remain below its socio-economic optimal level. **Knowledge creation can have spillovers and positive effects on other firms' activity or even**

<sup>(32)</sup> Austria is considering introducing the ACE in 2021. Denmark is also considering introducing the ACE.

<sup>(33)</sup> EBIT: earnings before interest and tax.

<sup>(34)</sup> EBITDA: earnings before interest, tax, depreciation and amortisation.

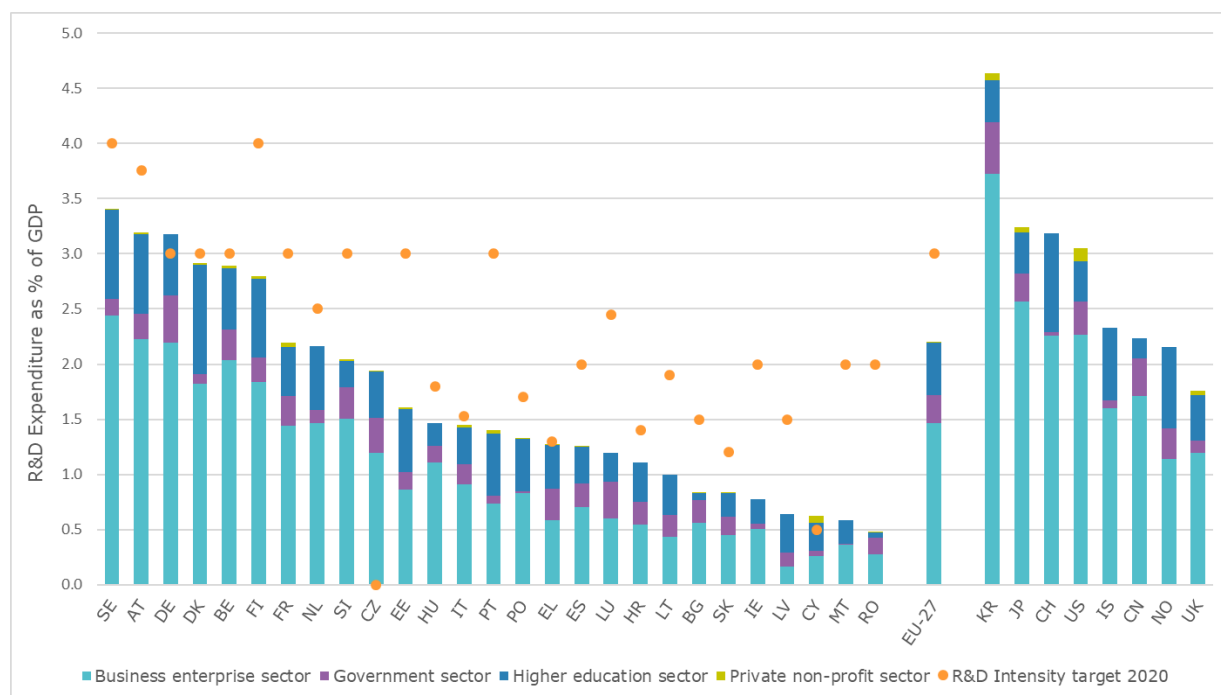


the whole economy (for example vaccines). However, when deciding how much to invest in R&D, firms tend to take account only of the private return from innovation, thus ignoring positive spillovers (Hall, 2019; Arrow, 1962). Since the private return from innovation is below the social return, there is systematically too little R&D investment at the level of the whole economy (a market failure). In general, basic research is more likely to generate positive spillovers than applied research (Hall, 2019; Akcigit, Hanley, & Serrano-Velarde, 2013), as the findings of basic research tend to be broadly applicable, whereas applied research usually targets a single sector and technology, making spillovers less likely.

Other reasons for the underinvestment in research and innovation include the high uncertainty concerning the success of – and future returns on –, such innovation activities, often significant upfront investment needs (e.g. on research infrastructure) and challenges in getting access to finance for R&D activities (lack of collateral). Since research results are uncertain and insurance markets usually incomplete, firms cannot fully insure their research activity (Arrow, 1962). This increases their financing costs, resulting in less R&D investment. SMEs are particularly vulnerable in this respect, as innovation costs are paid up front, while benefits accrue only if a discovery is made and taken to market. This is one of the reasons for why many countries have policies to encourage young, innovative firms and to help SMEs overcome liquidity constraints.

Business enterprise R&D (BERD) investment in the EU-27 is, on average, significantly lower than in large OECD countries (see Graph 19). This is a possible factor in the widening productivity gap between the EU and the United States (Ark, O'Mahoney, & Timmer, 2008; Roeger, Varga, & in't Veld, 2010). In 2020, the Commission reaffirmed the 2020 target of 3% GDP to be invested in EU research and innovation, as this target had not been met. To meet the 3% target, the EU would need to invest an additional amount of EUR 110 billion per year (Borunsky, Dumitrescu Goranov, Ravet, & Rakic, 2020). It also proposed a new EU 1.25% GDP public effort target to be achieved by Member States by 2030<sup>(35)</sup>.

GRAPH 16. R&D INTENSITY BY SECTOR, 2019 AND R&D INTENSITY TARGETS AS % OF GDP, 2020



Source: DG Research and Innovation for targets, Eurostat (online data code: rd\_e\_gerdtot) and OECD

Notes:

(1) CH: year 2017; US: year 2018 for HERD and PNP; IS: year 2018 for PNP;

(2) CZ: an R&D intensity target is available only for the public sector (1%);

<sup>(35)</sup> For background information on these initiatives, see [the Communication on a new European Research Area for research and innovation](#).

(3) DE: data for government and higher education imputed; (4) IE: the national R&D intensity target of 2.5% of GNP has been estimated to equal 2.0% of GDP;

(4) IE: the national R&D intensity target of 2.5% of GNP has been estimated to equal 2.0% of GDP

(5) LU: the R&D intensity target for 2020 is between 2.30% and 2.60%. A target of 2.45% was assumed;

(6) PT: the R&D intensity target for 2020 is between 2.70% and 3.30%. A target of 3.00% was assumed.

Governments support private R&D mainly through direct grants and tax incentives. Although both types of measure aim to support private R&D, their specific objectives and modes of operation differ. The former can involve the government in all project decisions and tend to have higher administrative costs, while the latter tend to let the firm choose and manage projects (Hall, 2019). **Grants can give 'directionality' to R&D and this can be more effective in supporting certain R&D outcomes (e.g. breakthrough innovation, solutions for accelerating the EU's transition towards climate neutrality).** Nevertheless, the two types of measure are complementary as regards stimulating business R&D. Tax policy is increasingly used to incentivise R&D spending and spur innovation. Such incentives can target the *inputs* of innovation through R&D tax credits, accelerated depreciation or enhanced allowances<sup>(36)</sup>. Alternatively, governments can target the *output* of innovation through a patent/intellectual property (IP) box (scheme), where IP derived income is taxed below the statutory CIT rate. Graph 17 shows the types of tax incentive used in the EU. Besides supporting business R&D, R&D tax incentives can also be used to strengthen public-private R&D cooperation (e.g. France), encourage the employment of researchers (e.g. Belgium, France, Hungary, Spain) or support SMEs' innovation potential (e.g. France).

Evidence suggests that patent/IP boxes do not necessarily stimulate R&D and can be used as a profit-shifting instrument. While nexus rules (reducing the need for a direct link between physical presence and tax payments) should eventually limit the scope of profit shifting using patent boxes, old patent boxes might still allow ATP during the transition to the new rules<sup>(37)</sup>. Furthermore, IP boxes apply only to a limited set of innovations, e.g. they only provide incentives to invest in R&D projects that are expected to produce an enforceable IP right. In addition, they do not reduce *ex ante* risks of innovation, as they only reward successful projects. Lastly, they may also be used as an instrument of tax competition (Alstadsæter, Barrios, Nicodeme, Skonieczna, & Vezzani, 2018). Overall, patent/IT boxes seem likely to be an ineffective, inefficient way of supporting R&D (CPB, 2014)<sup>(38)</sup>.

As innovation happens in complex systems, a range of measures is needed to support it. To maximise the effects of tax support programmes, governments must mobilise a coherent range of direct and indirect support policies and engage in complementary intervention in national Research & Innovation eco-systems (D'Andria, Pontikakis, & Skonieczna, 2017). For example, companies that want to invest more in R&D may lack access to external finance, a qualified workforce or other system-level inputs such as high quality public research organisations and related public research infrastructure.

Member States increasingly rely on tax incentives to stimulate R&D investment. Between 2006 and 2018 public support for R&D rose from 0.13% of GDP to almost 0.20%<sup>(39)</sup>. Graph 18 shows public support to business R&D as a proportion of GDP, both direct (e.g. through grants and loans) and indirect (through tax incentives for business R&D). In 2018, 53% of total public support in the EU-27 came from tax incentives, with the other 47% made up of direct measures. Most Member States used a combination of direct and indirect measures.

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<sup>(36)</sup> The OECD has collected evidence on R&D tax credits through its work on the incidence and impact of public support for R&D, co-funded by Horizon 2020 through the TAX4INNO project, to quantify and compare countries based on indirect public support to R&D.

<sup>(37)</sup> Some patent boxes do not require the IP income to be linked to underlying R&D activity, thus encouraging ATP. In response, **the OECD and the EU have developed 'nexus' rules whereby, in order to qualify for the preferential regime, the IP income must be proven to be linked to the expenditure incurred in developing the IP asset.** Member States have committed to complying with the nexus approach.

<sup>(38)</sup> In essence, they grant a tax advantage to income already protected via a patent.

<sup>(39)</sup> The 2006 average comes from (European Commission, 2018a) and includes all 28 (then) Member States, while the source of 2018 is for EU-27 and source of the data is the same as for Graph 18.

GRAPH 17. R&D TAX INCENTIVES BY MEMBER STATE, 2019

	Patent box	Tax credits	Enhanced allowance	Accelerated depreciation
Total EU-27	14	17	14	19
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		●		

Source: CPB (Bureau for Economic Policy Analysis, part of the Netherlands' Ministry of Economic Affairs and Climate Policy), 2014, updated by the Commission.

Notes:

(1) No R&D tax incentives in EE.

(2) The incentive can apply to corporate and personal income taxes, social security contributions and payroll taxes.

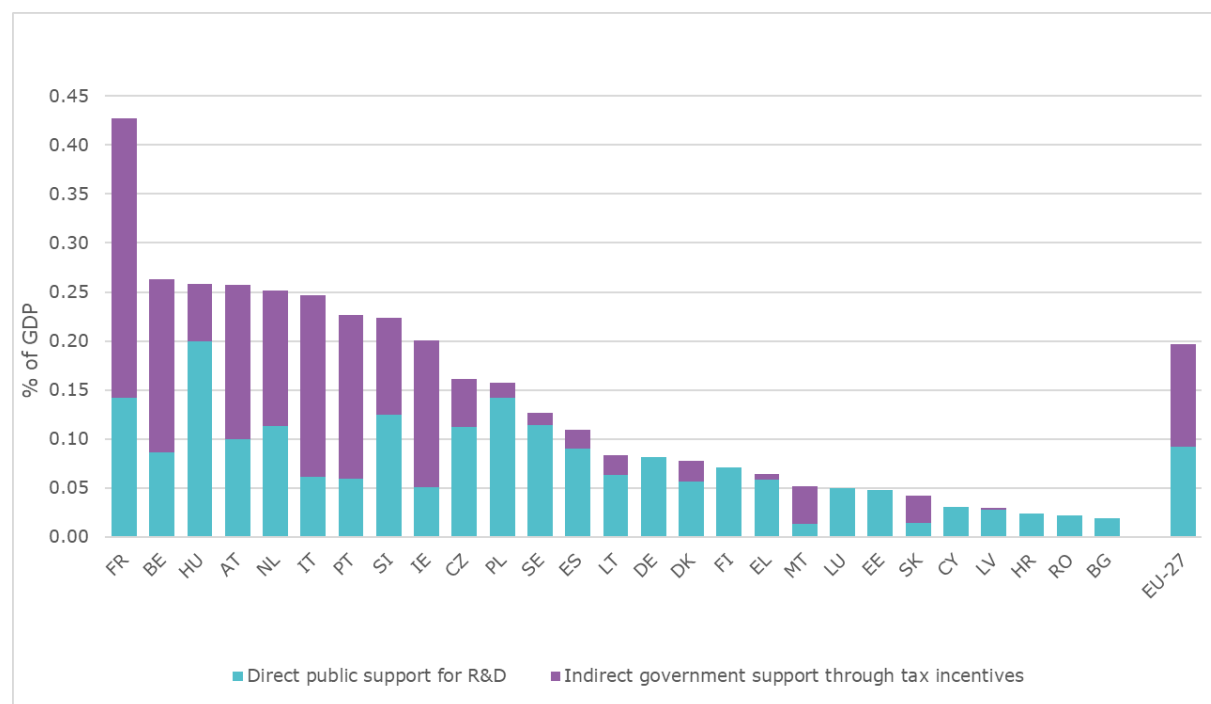
(3) The graph shows only tax incentives. Direct support is not included.

(4) RO is the only Member State with a temporary tax exemption for R&D (not shown in the graph).

It is important to note that there is a time lag between the introduction of an R&D tax incentive and an increase in business R&D investment. Available evidence shows that, while **such incentives can directly increase private R&D expenditure ('input additionality')**, there are variations across countries, sectors and firms (for a literature review see (Ognyanova, 2017)). The **incentives' effectiveness depends on their design, implementation and administration, and on the**

structural characteristics of a Member State's economy<sup>(40)</sup>. Sectors with firms that focus on R&D as their main strategy to develop new technologies show an increase in R&D expenditure caused by a tax incentive scheme (Freitas I., 2017). The opportunity cost of business R&D investment will also be affected by the design of other tax provisions, e.g. full loss offset, and capital gains/personal taxation affect risk-taking, venture capital, innovation-related investment and human capital formation.

GRAPH 18. R&D: DIRECT PUBLIC SUPPORT AND INDIRECT GOVERNMENT SUPPORT THROUGH TAX INCENTIVES, 2018 (OR LATEST AVAILABLE YEAR)



Source: European Commission, DG Research & Innovation, 'Chief Economist – R&I Strategy & Foresight unit based on Eurostat (online data code: rd\_e\_gerdfund) and OECD data

Notes:

(1) FR, BE, AT, IE, SE, DE, DK, EL, LU, BG: year 2017;

(2) Estimated direct public support for BERD includes direct government funding, funding by higher education and public sector funding from abroad. Public sector funding from abroad is not included for SE;

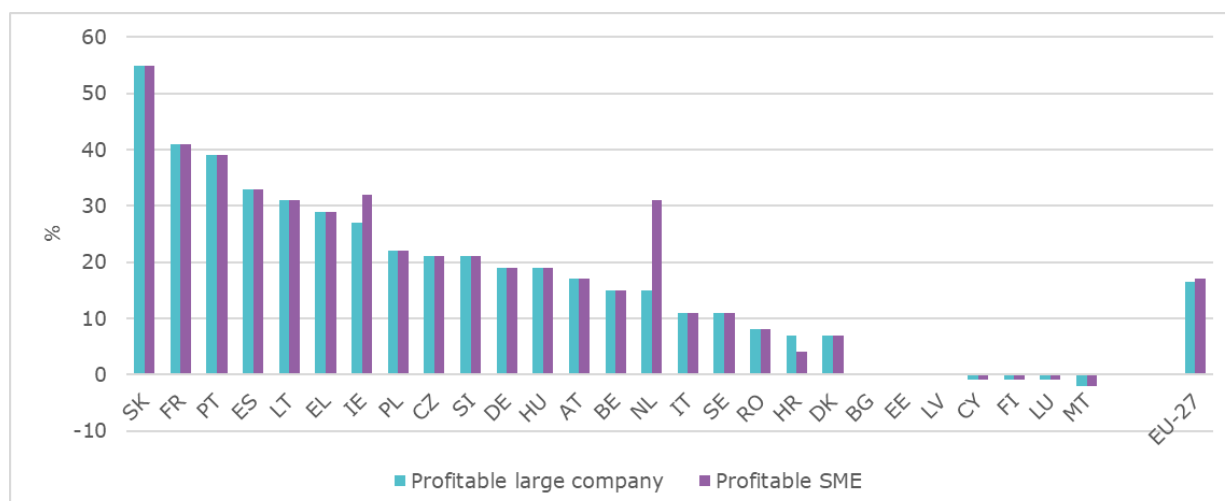
(3) EU-27 figure estimated by DG Research and Innovation;

(4) Tax incentives data for RO not available.

Graph 19 presents implicit tax support across the EU in 2018. The implicit R&D tax subsidy (the 'one minus B' index) shows the influence of R&D tax incentives on the price of conducting business R&D (user cost). A value of 10% suggests that the price for a business to invest in R&D is 10% lower than it would have been in the absence of any R&D taxation measures. A value of zero corresponds to no taxation, where all R&D expenses are immediately tax -deductible (Warda, 2001). In contrast, a value of -5% suggests that R&D attracts a net tax cost such that the user cost is 5% higher than it would have been without any tax measures applying. The indicator combines the design features of tax incentives and characteristics of national tax systems.

<sup>(40)</sup> In countries with a low proportion of medium-/high-tech sectors or a predominant services sector, the impact of tax incentives is likely to remain limited, since very few firms are R&D intensive (European Commission, 2018a).

GRAPH 19. IMPLICIT TAX SUBSIDY RATES FOR R&D (%), 2020



Source: OECD, data for 2020 from R&D tax incentive indicators (<https://www.oecd.org/sti/rd-tax-stats.htm>), March 2021.  
 Note: Subsidy rates are in percentages. The data for the EU-27 is a simple average of Member States.

Evidence shows a number of good practices to make R&D tax incentives effective<sup>(41)</sup>. Tax incentives can be made more effective by: helping young and small companies benefit; simplifying them (e.g. by offering a volume rather than an incremental tax credit) and their application procedure (e.g. by having a one-stop shop or online application procedure); and regularly evaluating their impact. Good design features include carry-forward provisions, cash refunds and relief from labour taxes (CPB, 2014; Ognyanova, 2017). As can be seen in Graph 19, the Netherlands<sup>(42)</sup> offers more generous implicit tax subsidy rates to SMEs than to large companies. France offers a tax credit<sup>(43)</sup> with a headline rate of 30% for R&D expenditure below EUR 100 million and 5% for R&D expenditure above EUR 100 million.

**The Commission's CCTB proposal includes a tax incentive to stimulate R&D investment** called the R&D super deduction. The super deduction would allow companies to deduct the full cost of R&D from the tax base (100%), while an additional 50% deduction would be offered for R&D expenses of up to EUR 20 million. An additional 25% deduction would be allowed for R&D spending over EUR 20 million. Start-ups would be able to deduct even more<sup>(44)</sup>. In addition to being able to deduct their full (100%) R&D costs, they would be allowed to deduct a further 100% (i.e. a 200% total deduction) up to EUR 20 million<sup>(45)</sup>. This could also give a boost to young, innovative companies that are an important source of job creation and help create more dynamic, competitive markets.

<sup>(41)</sup> An extensive overview was provided by the Horizon 2020 Policy Support Facility on Administration and Monitoring of R&D tax incentives (Uhlíř, Straathof, & Hambro, 2017).

<sup>(42)</sup> The Netherlands also offers tax credits for wage costs of research staff.

<sup>(43)</sup> The calculations for the implicit tax subsidy rates in Graph 19 do not reflect the effects of thresholds and ceilings that may limit qualifying R&D expenditure or the value of R&D tax relief. The rate for large profitable companies and SMEs is therefore the same. do not reflect the effects of thresholds and ceilings that may limit qualifying R&D expenditure or the value of R&D tax relief. The rate for large profitable companies and SMEs is therefore the same.

<sup>(44)</sup> A multinational that spends EUR 50 million on R&D would be allowed to deduct EUR 67.50 million from its tax base. This comprises 100% of the full expenditure (EUR 50 million), an additional 50% for the first EUR 20 million (EUR 10 million), and an additional 25% for the remaining EUR 30 million (EUR 7.5 million).

<sup>(45)</sup> An eligible start-up that spends EUR 20 million on R&D would be allowed to deduct EUR 40 million (i.e. 100% + 100% of its EUR 20 million R&D expenditure).

### *Box 2.1: MABIS project*

The OECD project on the measurement and analysis of business innovation government support policies (MABIS) provides new research tools and evidence on the role of public support for business R&D and innovation. It contributes to efforts to monitor and assess research and innovation policies in Europe and beyond. The project is co-funded by the EU's Horizon 2020 framework programme.

**Building on the OECD's expertise in standard setting and analysis, as well as its formal access to national experts and officials with policy and statistical responsibilities across its member countries, the MABIS project seeks to extend the existing evidence on the use of policy instruments in support of business innovation in the following ways:**

- Ensuring the collection, processing and dissemination of information and statistical indicators on the design and cost of tax relief for business R&D (tax) expenditure across the entire EU and OECD membership, plus key partner economies;
- Using a distributed<sup>(46)</sup> firm-level data approach to the impact analysis of public support, including tax incentives for business R&D. This approach facilitates a co-ordinated statistical analysis of the impact of tax relief design features and their interaction with direct forms of public R&D funding by exploiting variation in support within and across countries;
- Help meet demand for evidence on the efficiency of increasingly-used IP boxes and related instruments associated with the tax treatment of intangibles;
- Fostering knowledge sharing on the use, design, implementation and analysis of impact of a broader range of R&D and innovation support policies;
- Supporting the coherent delivery of business R&D support policies and R&D statistics within and across countries by promoting the efficient use of common and state-of-the-art definitions and standards.

This project builds on the TAX4INNO project<sup>(47)</sup>, which compiled cross-country and comparable evidence on the measurement and monitoring of R&D tax credits. The results, including a database with annual time series data on GTARD and B-index, 35 country profiles, codified information on the design of R&D tax incentives, as well as policy and working papers, are regularly added to the project webpage: <http://www.oecd.org/sti/rd-tax-stats.htm>.

The final report of the TAX4INNO project (OECD, 2020b) focuses on R&D input additionality, i.e. the effectiveness of R&D support policies in encouraging additional business R&D investment compared to a counterfactual scenario in which no support is provided<sup>(48)</sup>.

### 2.1.4 Improving tax administration

Effective and efficient tax administrations and a high degree of tax certainty for taxpayers are essential for encouraging investment, compliance and competitiveness. Taxpayers tend to have greater trust in tax administrations that are perceived to be efficient and effective. Well-functioning tax administrations provide tax certainty and helps create a supportive **business environment**. **This section looks at various indicators of Member States' scope to improve their tax administration and offer more tax certainty.** It also presents several recent projects of the Tax Administration EU Summit (TADEUS), the forum for strategic dialogue and cooperation among heads of tax administrations.

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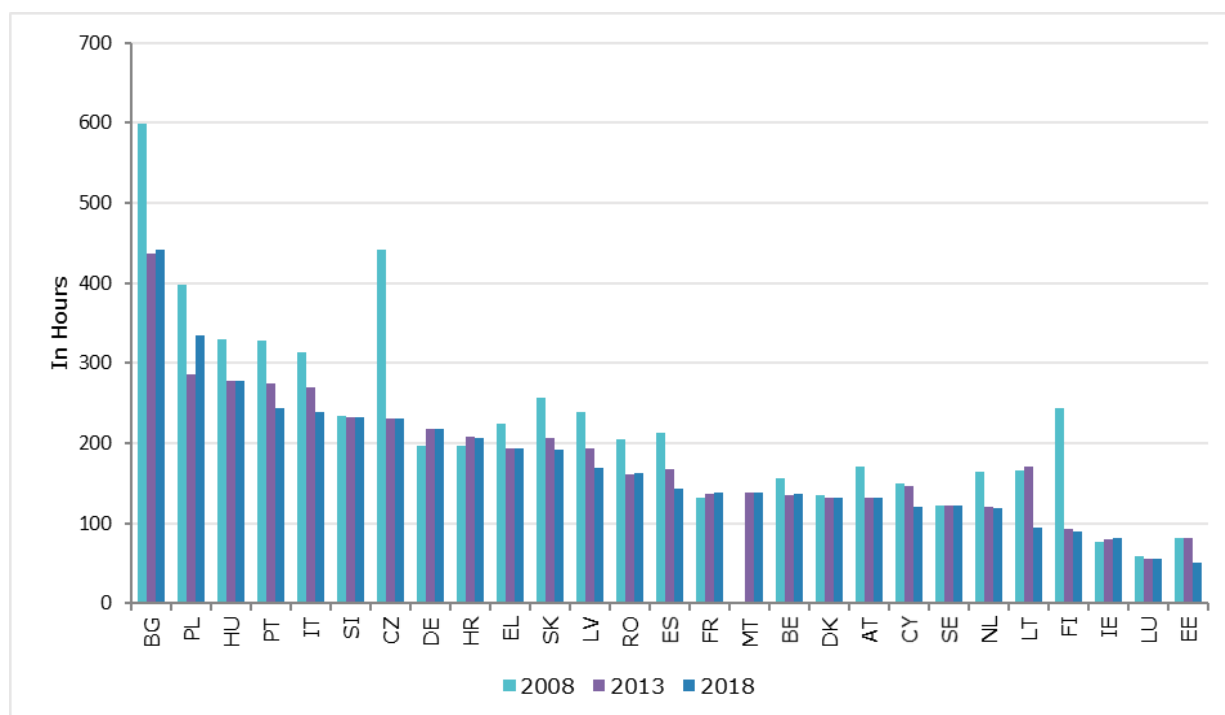
<sup>(46)</sup> A 'distributed' approach facilitates a harmonised analysis of confidential business R&D and tax relief microdata.

<sup>(47)</sup> This was also a Horizon 2020 co-funded project in 2016-2019.

<sup>(48)</sup> Further information on impact assessment of R&D tax incentives, distributed micro-data analysis, as well as comparative analysis of R&D tax incentives vis à vis direct support can be found here: <http://www.oecd.org/sti/microberd.htm>.

Tax systems impose compliance costs on taxpayers. The costs a company incurs are determined not only by the rules and obligations *per se*, but also by how easy it is to deal with the authorities. A simpler and more transparent tax system can reduce tax compliance costs and the time it takes to complete tax returns. Graph 20 shows the number of hours that a medium-sized company<sup>(49)</sup> spends each year in meeting its tax obligations, i.e. as regards CIT, VAT and employment taxes (wages and social contributions), etc. This can serve as a proxy for tax compliance costs.

GRAPH 20. HOURS PER YEAR NEEDED TO ENSURE TAX COMPLIANCE (MEDIUM-SIZED COMPANY), 2008-2018

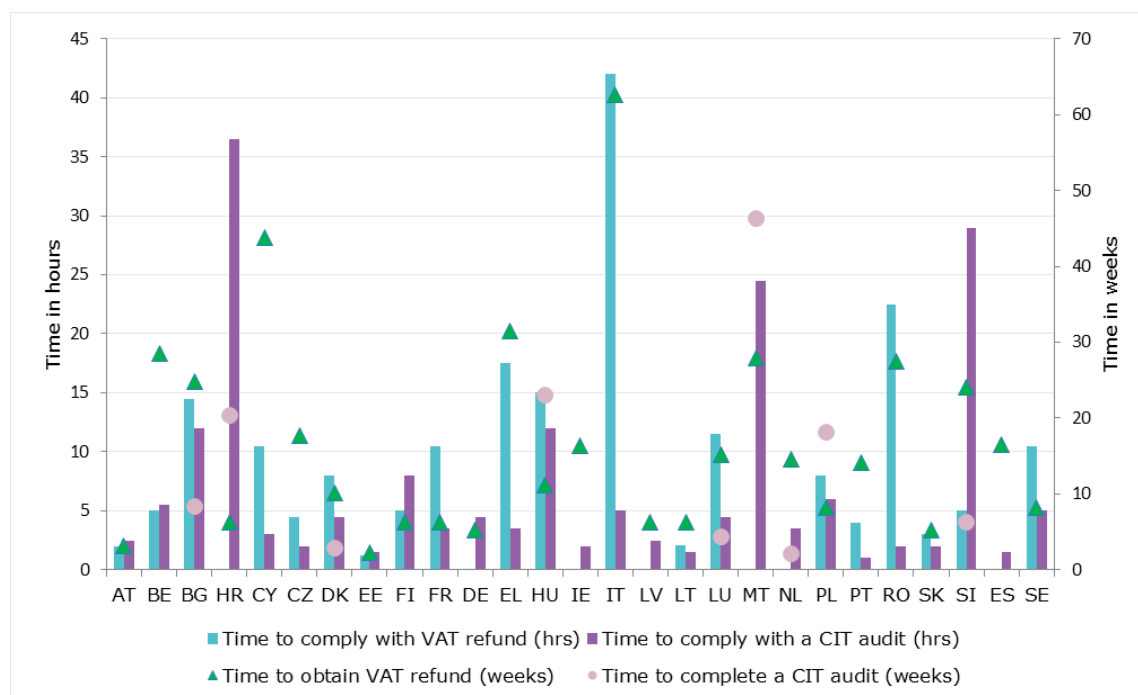


Source: World Bank, 2019

Companies also face compliance costs *after* they have filed their tax returns, e.g. in obtaining tax refunds or when being audited. The 'post-filing index' captures the amount of time a company takes to comply with tax refunds and corporate income tax (CIT) audits, obtain a refund and complete a CIT audit. It is one of four sub-indicators that form the 'ease of paying taxes' indicator (part of the World Bank's series of indicators on the ease of doing business).

<sup>(49)</sup> The World Bank focuses on a case study of a standardised medium-sized company. For more information on their methodology, see: <https://www.doingbusiness.org/en/methodology/paying-taxes>.

GRAPH 21. POST-FILING INDEX, 2018



Source: World Bank, 2019

### Box 2.2: Simplifying withholding tax procedures in the EU

Inefficient cross-border withholding tax (WHT) procedures have been a recurrent issue for a long time and several initiatives were already undertaken in this area at EU and international level. For many years, the Commission has been active in promoting simpler WHT procedures within the EU, including with a Recommendation on WHT relief procedures (2009) and a Code of Conduct on WHT (2017).

The Code of Conduct is a non-binding document that calls for voluntary commitments by Member States. It is a compilation of approaches for improving the efficiency of WHT procedures (in particular for refunds), which Member States can supplement or adapt in the light of national needs or contexts.

During the 2018-2019 period, the Commission organised several workshops with Member States' tax experts in order to monitor whether developments related to WHT procedures across the EU were aligning with the recommendations included in the Code of Conduct.

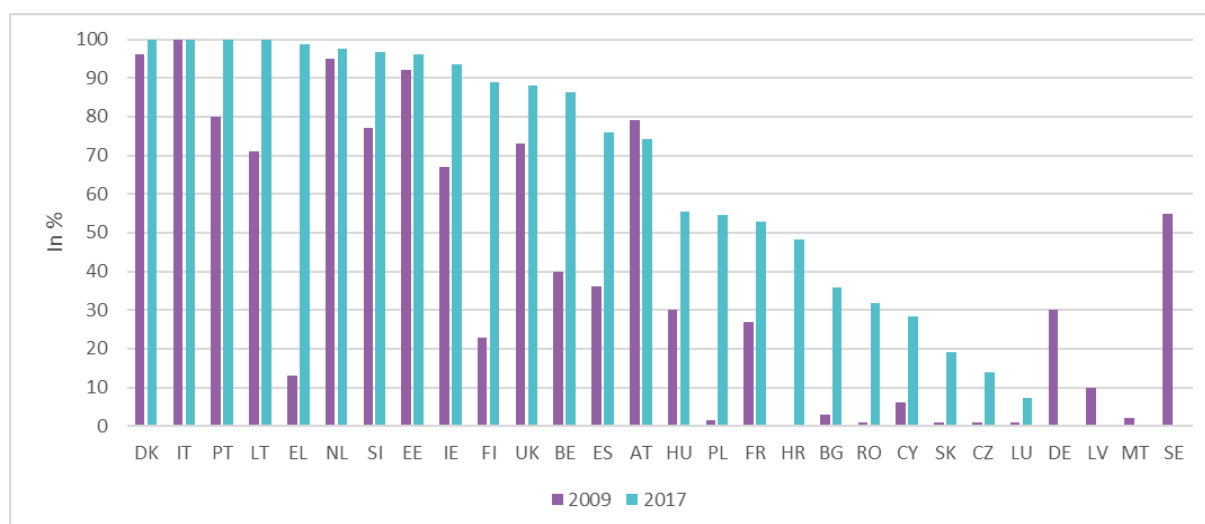
Based on information from Member States, it appears that there are few barriers left that prevent non-resident investors **from applying for 'relief at source' (or for refunds)** in an effective manner. Notwithstanding the foregoing, there are several goals which have been achieved. Relief at source is available in almost all Member States. In most Member States, the forms that non-resident investors need to fill in are considered user friendly, are also available in English, and the guidance on completing them is kept up to date. Most Member States provide refunds on average within 6 months. Tax residence certificates are accepted almost everywhere in the format provided by the residence country. Several EU countries have set up single points of contact to handle WHT procedures.

Building on the Code of Conduct and the conclusions on its subsequent follow up, the action plan for fair and simple taxation supporting the recovery strategy, published on 15 July 2020, and the Capital Markets Union for people and businesses-new action plan, published on 24 September 2020, envisage a further streamlining and simplification of WHT procedures by the end of 2022. In particular, the Commission will propose a legislative initiative for introducing a common, standardised, EU-wide system for withholding tax relief at source, accompanied by an exchange of information and cooperation mechanism among tax administrations. In addition, the Commission will assess the need for exchange of information and cooperation between tax authorities and financial market supervisory authorities



A wide range of digital services for taxpayers, especially e-filing opportunities, can reduce compliance costs while making tax administration more efficient and improving compliance. The e-filing indicator shows what proportion of personal income tax returns are sent to tax authorities online (as opposed to being sent on paper). The latest data indicate improvements in almost all EU countries since 2009, but the level of e-filing is still relatively low in some countries.

GRAPH 22. E-FILING OF PERSONAL INCOME TAX RETURNS (% OF TOTAL), 2009-2017



Source: OECD, 2017

Notes:

(1) No 2017 data available for DE, LV, MT and SE.

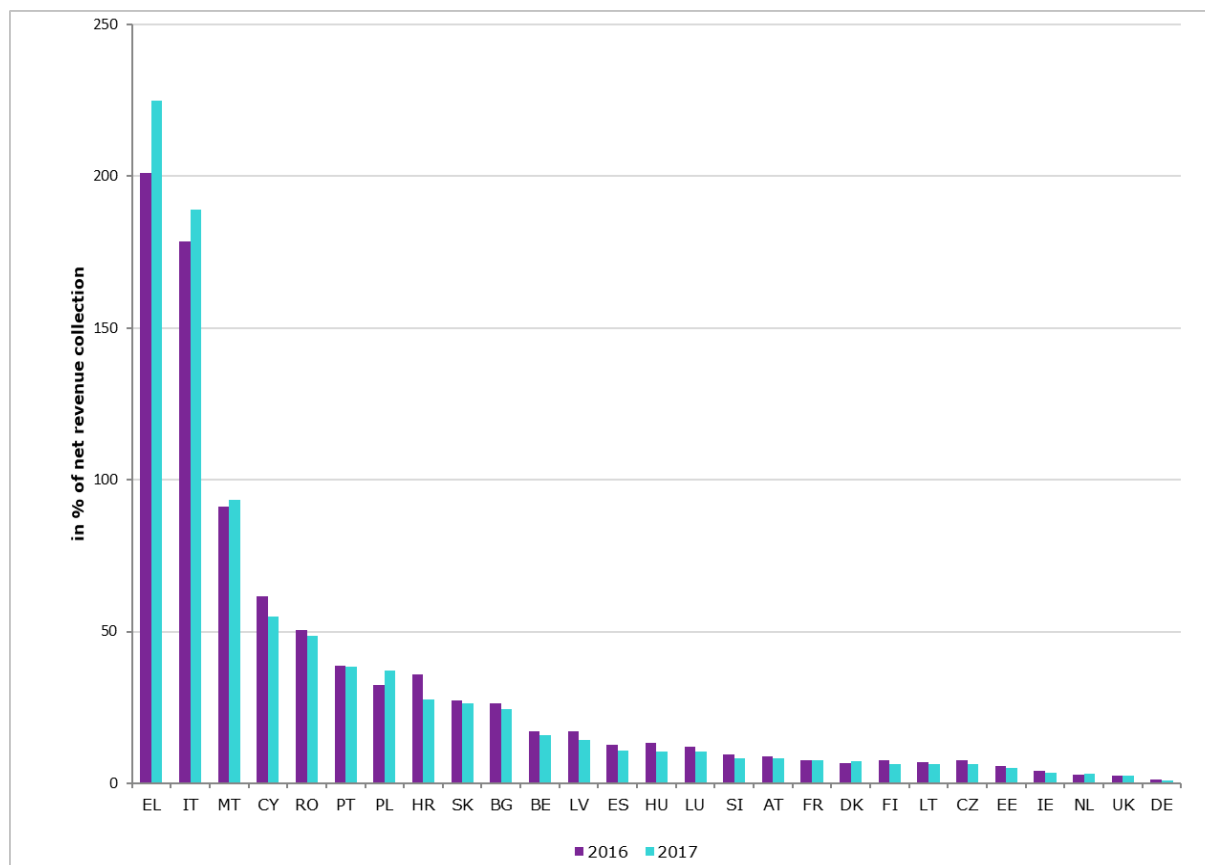
(2) No 2009 data available for SK (2011 figures have been used instead).

Source: (OECD, 2019a)

The extension of tax filing dates and deferral of tax payments for a variety of taxes and tax subjects have both been widely used by Member States to alleviate the hardship brought about by the COVID-19 health crisis (OECD, OECD Dataset: Tax policy measures taken so far, 2020a). Deferred taxes are not considered due until the date defined by national tax authorities.

Taxes are overdue for multiple reasons and tax arrears differ considerably for different taxes across the EU. In general, the level of overdue taxes can be an indication of tax compliance challenges in a country, and the (in)efficiency of the tax-payment system. The OECD (OECD, 2019a) provides data on tax arrears, defined as the total amount of tax that is overdue for payment, including interest and penalties. Graph 23 shows ratios of total year-end tax arrears (including debt that is considered not collectable) to total net revenue in 2016 and 2017.

GRAPH 23. TOTAL YEAR-END TAX DEBT / TOTAL NET REVENUE, 2016-2017



Source: OECD, 2019a

Notes:

(1) No data available for SE.

(2) To improve comparability, VAT (gross imports) has been removed from total net revenue collected.

(3) For EL and LU, arrears do not include interest and penalties.

(4) For MT, interest and penalties are excluded from taxes other than VAT.

In order **to reduce the amount of outstanding tax debt, the Commission's tax action plan** includes a number of actions to improve the efficiency of tax payment systems in the EU<sup>(50)</sup>. Specifically, Action 6 makes recommendations of good practices 'for improving the assistance for the recovery of unpaid taxes' in the EU.

### 2.1.5 Increasing tax certainty

Tax certainty is an important determinant of investment. It helps businesses and individuals to make good economic decisions and tax administrations to predict their revenue. Sustaining and increasing tax certainty has become one important priority for tax policy in the EU, as well as for the G20 and the OECD.

Uncertainty in taxation can arise from many sources, domestic and international. Complex and ambivalent tax legislation, inconsistent implementation and unexpected and frequent tax changes are major domestic sources of tax uncertainty. Internationally, the co-existence of multiple different tax systems generates ambiguity for cross-border investment. Significant tax

<sup>(50)</sup> European Commission (2020), An action plan for fair and simple taxation supporting the recovery strategy. COM (2020) 312 final, URL: [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/2020\\_tax\\_package\\_tax\\_action\\_plan\\_en.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/2020_tax_package_tax_action_plan_en.pdf).

obstacles to cross-border business activity include: (i) the possibility of unrelieved double taxation on cross-border income and capital, (ii) the inconsistent application of transfer pricing regulations across tax authorities, (iii) absent or non-enforceable dispute resolution mechanisms, and (iv) **inconsistencies or conflicts in tax authorities' interpretation of tax standards**. Issues can also arise from the interaction of taxes in international transactions, such as VAT and direct taxes.

Several policy measures are available to improve tax certainty. Dispute resolution mechanisms ensure that disagreements between tax administrations can be resolved quickly to prevent double taxation. Closer cooperation, more transparency, simple tax rules and commonly agreed transfer pricing rules can prevent disputes in the first place.

The EU, the G20 and the OECD have undertaken a series of efforts to improve tax certainty. The OECD's project on Base Erosion and Profit Shifting (BEPS) is an international effort to remove tax obstacles for cross boarder economic activity and increase tax certainty. The implementation of BEPS Actions 8-10 and the OECD's transfer pricing guidelines has made transfer-pricing rules simpler and easier to administer (IMF/OECD, 2019). The mutual agreement procedure (BEPS Action 14) supports the resolution of tax-related disputes between jurisdictions (OECD/G20, 2020). Automated information exchange between tax administrations (BEPS Action 5) and country-by-country reports published by companies (BEPS Action 12) create transparency. The BEPS activities are complementary to work on co-operative compliance programmes, which facilitate compliance, reduce compliance costs and increase tax certainty by creating an ongoing, trusting relationship between tax administrations and companies (OECD, Action plan on base erosion and profit shifting, 2013). Joint audits are another essential element of the tax certainty agenda and allow tax administrations to operate in an increasingly global environment, co-operating ever more closely and frequently with each other to ensure compliance and minimise the probability of costly and time-consuming disputes (OECD, Joint Audit 2019 – Enhancing Tax Co-operation and Improving Tax Certainty: Forum on Tax Administration, 2019b).

The EU has introduced several initiatives to simplify taxation and increase tax certainty. The Arbitration Convention<sup>(51)</sup> and, more recently, the Tax Dispute Resolution Mechanism Directive (DRM directive) ensure quicker and more effective resolution of tax disputes in direct taxation<sup>(52)</sup>. The adopted VAT e-commerce package facilitates cross-border trading for small businesses. VAT obligations for online sales in the EU can be managed on an easy-to-use online portal. The Fiscalis 2020<sup>(53)</sup> enables national tax administrations of EU Member States to create and exchange information and expertise and to work together at the operational and expert level<sup>(54)</sup>. The Tax Administration EU Summit (TADEUS) provides a new form of cooperation at senior management level. The cooperation network among heads of EU tax administrations and the Commission can better address common challenges faced by **EU countries in today's era of globalisation and digitalisation**. Furthermore, through its Structural Reform Support Programme 2017-2020<sup>(55)</sup> and the Technical Support Instrument 2021-2027<sup>(56)</sup>, the Commission is in a strong position to provide targeted and tailor-made technical support to EU countries.

Past efforts have contributed to increased tax certainty and reduced tax avoidance, but with 27 different tax systems within the European Single Market, more needs to be done. The new tax action plan is one key element of a comprehensive and ambitious EU tax agenda for the coming years (European Commission, 2020b). It sets out a strategy towards a fair, simple and

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<sup>(51)</sup> 90/436/EEC: Convention on the elimination of double taxation in connection with the adjustment of profits of associated enterprises - Final Act.

<sup>(52)</sup> Council Directive (EU) 2017/1852 of 10 October 2017 on tax dispute resolution mechanisms in the European Union.

<sup>(53)</sup> Fiscalis 2020 is an EU cooperation programme. It enables national tax administrations to create and exchange information and expertise.

<sup>(54)</sup> Regulation (EU) No 1286/2013 of the European Parliament and of the Council of 11 December 2013 establishing an action programme to improve the operation of taxation systems in the European Union for the period 2014-2020 (Fiscalis 2020) and repealing Decision No 1482/2007/EC.

<sup>(55)</sup> Regulation (EU) 2017/825 of the European Parliament and of the Council of 17 May 2017 on the establishment of the Structural Reform Support Programme for the period 2017 to 2020 and amending Regulations (EU) No 1303/2013 and (EU) No 1305/2013

<sup>(56)</sup> Regulation (EU) 2021/240 of the European Parliament and of the Council of 10 February 2021 establishing a Technical Support Instrument

efficient tax system, resulting in a list of 25 forthcoming tax actions. Several of these actions are highly relevant for tax certainty, e.g. Action 3 aims to create an EU cooperative compliance framework. Based on cooperation, trust and transparency amongst tax administrations, the initiative should provide a clear framework for preventive dialogues between tax administrations for the common resolution of cross-border tax issues. Under Action 4, the Commission will present a legislative proposal for modernising VAT reporting obligations to ensure a more detailed and timely exchange of information on VAT for intra-EU transactions while simplifying mechanisms for domestic transactions. Action 15 focuses on the monitoring and full implementation of the DRM directive. Action 16 will result in the creation of a dispute resolution mechanism for VAT. Action 21 envisages the setting up of a Transfer Pricing Expert Group to increase tax certainty for transfer pricing issues in the EU, and at the same time reduce the risk of double taxation.

The EU and its international partners are working to remove tax barriers to cross-border economic activity and create tax certainty. Higher transparency, better tax system information, better cross-country information and a common approach to international taxation, which also ensures a fairer distribution of tax revenue from cross-border investments, can go a long way to increasing tax certainty and thus investment.

### *Box 2.3: TADEUS projects*

The Tax Administration EU Summit (TADEUS)<sup>(57)</sup>, launched over 3 years ago, is already showing its added value and delivering first results.

TADEUS works essentially through projects chosen by heads of tax administration during their meetings. These projects address common problems faced by tax administrations across the EU. Their merit lies in producing results that can be achieved only, or more easily, through cooperation. Recent projects touched upon the strategic themes highlighted in the TADEUS multi-annual plan, such as digital economy, tax compliance, human resources and performance measurement. The sections below describe some of these projects in detail.

#### Recent and ongoing projects

The first TADEUS project - led by the Finnish tax administration - in 2019 resulted in recommendations on reporting requirements for the sharing and gig economy. The so-called **'digital and data' project** provided a sound technical basis for preparing a new policy initiative on mandatory automatic exchange of information reported by platform operators. It proved very useful for the proposal on administrative cooperation (DAC 7)<sup>(58)</sup>, which extends EU tax transparency rules to digital platforms, so that those who make money through the sale of goods or services on platforms pay their fair share of tax too.

Another TADEUS project, led by Greece and completed in 2020, designed a diagnostic tool for human resources management in tax administrations. This human resources management readiness and agility model allows every tax administration to assess its main human resources management functions and practice. It helps the administrations with implementing their business plans in better ways and creating a culture that facilitates continuous improvement. The results of this project may be easily used by any tax administration, from within **or outside the EU. TADEUS encourages Member States' tax administrations to use the tool with the EU tax competency framework**<sup>(59)</sup>.

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<sup>(57)</sup> For additional background information on TADEUS, see [https://ec.europa.eu/taxation\\_customs/news/tadeus-%E2%80%93-tax-administration-eu-summit\\_en](https://ec.europa.eu/taxation_customs/news/tadeus-%E2%80%93-tax-administration-eu-summit_en).

<sup>(58)</sup> For more information, see: [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/2020\\_tax\\_package\\_dac7\\_en.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/2020_tax_package_dac7_en.pdf).

<sup>(59)</sup> For more information, see: [https://ec.europa.eu/taxation\\_customs/eu-training/taxcompeu-eu-competency-framework-taxation\\_en#:~:text=The%20EU%20competencies%20are%20further,Competencies%20and%20Tax%20Management%20Competencies.&text=The%20Management%20Competencies%20are%20targeted,set%20of%20Tax%20Core%20Values.](https://ec.europa.eu/taxation_customs/eu-training/taxcompeu-eu-competency-framework-taxation_en#:~:text=The%20EU%20competencies%20are%20further,Competencies%20and%20Tax%20Management%20Competencies.&text=The%20Management%20Competencies%20are%20targeted,set%20of%20Tax%20Core%20Values.)

Three other important TADEUS projects that address tax compliance issues from two different perspectives are presented below:

- The first project, led by Sweden, is set to develop a new strategic approach and a better **understanding of the drivers of tax compliance**. This **'trust and compliance' project** will deliver on a number of guidelines about how to understand, create and use trust in relation to taxpayers and what tools tax administrations should use to build trust and maintain tax compliance. The product developed under this project could be useful for senior managers and tax compliance specialists in the tax administrations.
- The second project, led by Portugal, is looking at administrative cooperation among Member States' tax administrations working together in Eurofisc, an anti-fraud network of **experts in the VAT area**. This **'Eurofisc strategy and governance'** project examines the objectives and the governance of Eurofisc and proposes possible ways forward to ensure that Eurofisc delivers the results expected by the heads of tax administrations. The conclusions of this project will allow Member States and the Commission to continue to develop Eurofisc and make the fight against VAT fraud more effective.
- Finally, the TADEUS project on **'measuring the performance of administrative cooperation'**, led by France, aims to improve the identification of business results achieved thanks to administrative cooperation. This project will help better quantify the outcomes of administrative cooperation, and will include new indicators and new ways of collecting performance data. The project's objectives include increasing the performance of administrative cooperation in the field of direct and indirect taxes and trust among EU Member States. This TADEUS project will deliver its recommendations in the course of 2021.

#### Future work

In 2021, TADEUS will continue launching new projects and activities, supporting the effective implementation of EU legislation at the tax administration level, and addressing challenges faced by tax administrations in the EU. Its role is even more important during the EU's recovery from the corona crisis.

In particular, TADEUS will steer the implementation of the multi-annual strategic plan for taxation (MASP-T), a new governance framework for common information technology (IT) projects in the area of taxation in the EU. This plan will create a coherent and interoperable electronic environment for taxation in the EU to ensure coherence and coordination of IT capacity building actions. MASP-T will ensure that the Commission and the Member States have a common understanding of EU IT projects related to taxation (direct and indirect taxes, recovery of claims and excise duties) and their dependencies (such as legal deadlines, business analysis and process clarifications).

Furthermore, TADEUS is expected to continue to facilitate the Member States' and the Commission's common work on estimating the tax gap (see Section 2.3.4), which will greatly contribute to identifying the effects of tax policy decisions taken and feed into future tax compliance policies. Such work on the tax gap should harmonise, improve and expand the gap estimations available in the area of direct taxes and could also lead to sectoral estimations on the VAT gap in areas with high risks of non-compliance.

Over the last two years, strategic discussions among heads of tax administration and the Commission offered a good number of valuable results, **providing 'the proof of concept' for TADEUS** as a new and effective cooperation framework. Of course, the results were achieved thanks to the work of project leaders and of their project teams.

## 2.2 Paving the way for environmental sustainability and good public health

### 2.2.1 Environmental and climate challenges in the EU

Like other advanced economies, most EU Member States have achieved high levels of **human development ('living well') but remain** environmentally unsustainable. Currently, **the EU is still far from achieving its 2050 vision of 'living within the limits of our planet'**. For instance, while pollution has decreased and water quality has improved, the EU is a long way from achieving a good ecological status for all its water bodies. According to the 2020 European Environment State and Outlook Report<sup>(60)</sup>, the conservation status of 60% of species protected under the Habitats Directive<sup>(61)</sup> is considered unfavourable. Furthermore, air pollution continues to impact biodiversity and ecosystems, and is the single largest environmental risk to the health of **Europeans. 95% of the EU's urban population is exposed to pollutant concentrations above** World Health Organization air quality guidelines, which in turn results in preventable disease. Waste management in the EU is improving, though slowly, and the outlook for limiting waste generation is uncertain.

The impact of climate change on biodiversity and ecosystems is expected to intensify, while the way activities such as agriculture, fisheries, transport, industry and energy production are conducted continue to cause biodiversity loss, resource extraction, harmful emissions and other environmental damage. Climate change and environmental degradation are also intrinsically linked. Climate change accelerates the destruction of the natural world through droughts, flooding and wildfires, while the loss and unsustainable use of nature are in turn key drivers of climate change. The five main direct drivers of biodiversity loss<sup>(62)</sup> – changes in land and sea use, overexploitation, climate change, pollution and invasive alien species – are making nature disappear quickly. In the last four decades, global wildlife populations fell by 60% as a result of human activities<sup>(63)</sup> **and almost three quarters of the Earth's surface have now been** altered<sup>(64)</sup>. Biodiversity loss and ecosystem collapse are one of the biggest threats facing humanity in the next decade<sup>(65)</sup>.

Reversing the situation calls for fundamental changes in lifestyles, production and consumption, knowledge and education. Recognising persistent environmental and climate challenges at European and global levels, European environmental and climate policymaking is increasingly driven by long-term sustainability goals. This is embedded in the 2050 vision of the **EU's seventh environment action programme (7th EAP)<sup>(66)</sup> and in the Commission's proposal for** the 8<sup>th</sup> EAP<sup>(67)</sup>, the 2030 agenda for sustainable development<sup>(68)</sup> and the Paris Agreement on climate change<sup>(69)</sup>. More recently, President Ursula von der Leyen called for a European Green Deal<sup>(70)</sup>, committing to make the EU the first climate-neutral continent by 2050. As part of the Green Deal, the Commission also committed to refocusing the European Semester process of macroeconomic coordination to integrate the EU's and the United Nations' sustainable development goals into the heart of the EU's policy making and action, and to put sustainability and people's

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<sup>(60)</sup> See: <https://www.eea.europa.eu/soer/2020><https://www.eea.europa.eu/soer/2020>.

<sup>(61)</sup> Council Directive 92/43/EEC.

<sup>(62)</sup> IPBES (2019), Summary for policymakers, pp. 17-19, B.10-B.14; European Environment Agency (2019), The European environment – state and outlook 2020.

<sup>(63)</sup> World Wildlife Fund (2018), Living Planet Report - 2018: Aiming Higher.

<sup>(64)</sup> IPBES (2019), [Summary for policymakers](#), p. 4, A4.

<sup>(65)</sup> World Economic Forum (2020), The Global Risks Report 2020.

<sup>(66)</sup> See: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D1386&from=EN>.

<sup>(67)</sup> See: <https://ec.europa.eu/environment/pdf/8EAP/2020/10/8EAP-draft.pdf>.

<sup>(68)</sup> See: [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E).

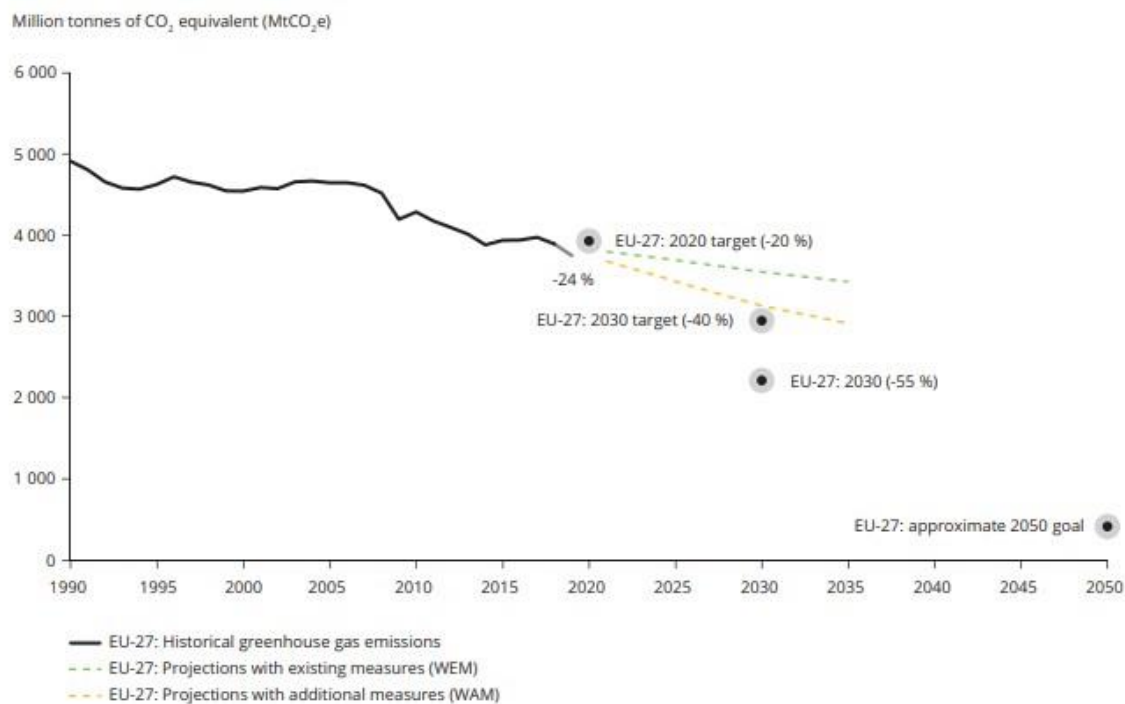
<sup>(69)</sup> See: [https://unfccc.int/files/meetings/paris\\_nov\\_2015/application/pdf/paris\\_agreement\\_english\\_.pdf](https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf).

<sup>(70)</sup> See: [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en).

well-being at the centre of economic policy<sup>(71)</sup>. The Green Deal also highlighted that 'well-designed tax reforms can boost economic growth and resilience to climate shocks and help contribute to a fairer society and to a just transition. They play a direct role by sending the right price signals and providing the right incentives for sustainable behaviour by producers, users and consumers. At national level, the European Green Deal will create the context for broad-based tax reforms, removing subsidies for fossil fuels, shifting the tax burden from labour to pollution, and taking into account social considerations'. The Member States are also encouraged to consider sustainable fiscal reforms in the context of their Resilience and Recovery Plans.

The EU has already started to modernise and transform its economy to achieve climate neutrality and tackle environment-related challenges. Between 1990 and 2019, the reduced greenhouse gas emissions by 24%, while its economy grew by 60%<sup>(72)</sup>. However, much remains to be done to put the EU firmly on track for climate neutrality by 2050, and for meeting commitments under the goals of the Paris Agreement. Current policies will not reduce greenhouse gas emissions sufficiently, as shown in the graph below. The European Council endorsed in December 2020 a binding EU target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990. To reach that intermediate 2030 goal, the Commission will table a 'Fit for 55'<sup>(73)</sup> package. This package will cover a wide range of policy areas, including: more ambitious use of emissions trading; revision of energy taxation; a carbon border adjustment mechanism (CBAM); and revisions of the Effort Sharing Regulation setting Member States' greenhouse gas emission reduction targets; the land use, land use change and forestry Regulation; the Renewable Energy Directive; and the Energy Efficiency Directive.

GRAPH 24. GREENHOUSE GAS EMISSION TRENDS AND PROJECTIONS IN THE EU-27, 1990-2050



<sup>(71)</sup> Based on the Commission proposal, the political agreement of the Special European Council of 17-21 July 2020 sets an overall climate target of 30% applicable to the total amount of expenditure from the EU budget 2021-27 and NextGenerationEU, the main instrument for implementing the recovery package. In addition, each recovery and resilience plan will have to include a minimum of 37% of expenditure related to climate investments and reforms. See: [https://ec.europa.eu/clima/policies/budget/mainstreaming\\_en](https://ec.europa.eu/clima/policies/budget/mainstreaming_en) and [https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility\\_en](https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en)

<sup>(72)</sup> See: [https://ec.europa.eu/clima/policies/strategies/progress\\_en#:~:text=EU%20greenhouse%20gas%20emissions%20were,\)%2C%20in%20particular%20power%20plants.](https://ec.europa.eu/clima/policies/strategies/progress_en#:~:text=EU%20greenhouse%20gas%20emissions%20were,)%2C%20in%20particular%20power%20plants.)

<sup>(73)</sup> See: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1940](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1940)

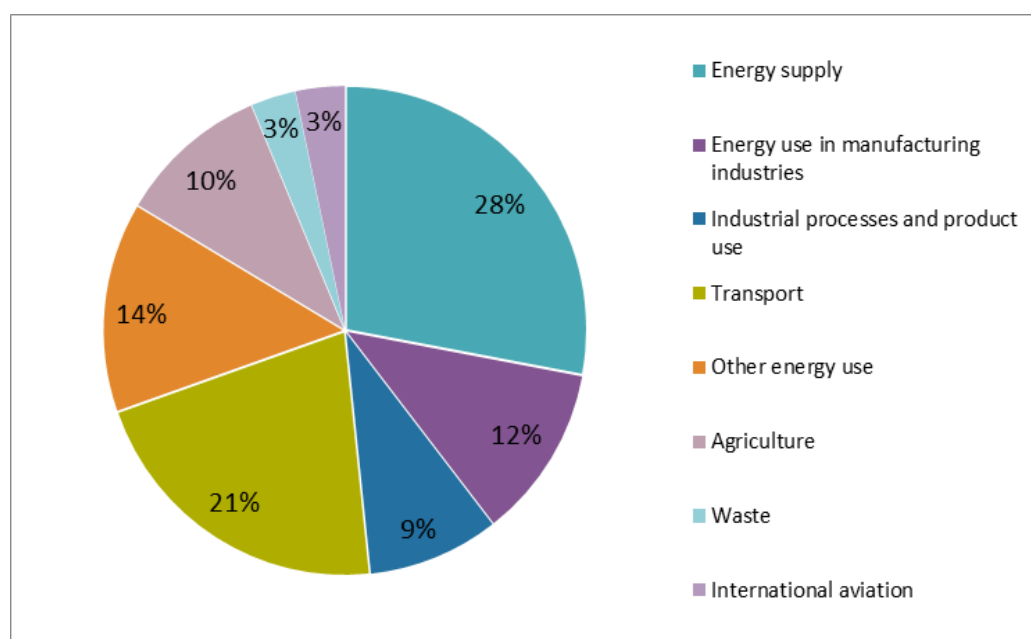
Source: European Environment Agency, 2020

Notes:

- (1) The calculations of greenhouse gas emission trends, projections and targets include emissions from international aviation and exclude emissions and removals from the land use, land-use change and forestry (LULUCF) sector, as well as emissions from international navigation.
- (2) The 'with existing measures' scenario reflects existing policies and measures, whereas the 'with additional measures' scenario considers the additional effects of planned measures reported by Member States under the Monitoring Mechanism Regulation (EU) 525/2013 (MMR).
- (3) The approximate value corresponding to the EU's 2050 goal was derived from those five scenarios exhibiting an emission reduction of 55% in 2030 compared with 1990 and net-zero emissions by 2050 (i.e. REG, MIX, MIXnonCO2variant, CPRICE, ALLBNK).

The transition to net-zero greenhouse gas emissions will require economic and societal transformation, engaging all sectors of the economy and society. Energy will play a central role, as the production and consumption of energy (including transport) is currently responsible for **more than 75% of the EU's greenhouse gas emissions**. In recent years, trends have indicated the likely achievement of the renewable energy targets<sup>(74)</sup>, and of the 2020 energy efficiency targets. However, the insufficient policies in place will have to be compensated for to reach the 2030 targets. In addition, the subsequent recovery from the COVID-19 pandemic is expected to lead to a rebound in energy demand, and there is a risk that the implementation of new policies and policies announced in the national energy and climate plans (NECPs) and the national long-term renovation strategies could be delayed as a result of the current crisis<sup>(75)</sup>.

GRAPH 25. GREENHOUSE GAS EMISSIONS BY SOURCE SECTOR, 2019



Source: European Commission, 2019

<sup>(74)</sup> As set out in the Renewable Energy Directive (2009/28/EC). See: [https://ec.europa.eu/energy/topics/renewable-energy/renewable-energy-directive/overview\\_en](https://ec.europa.eu/energy/topics/renewable-energy/renewable-energy-directive/overview_en).

<sup>(75)</sup> COM(2020) 954 final: [https://ec.europa.eu/energy/sites/ener/files/progress\\_report\\_towards\\_the\\_implementation\\_of\\_the\\_energy\\_efficiency\\_directive\\_com2020954.pdf](https://ec.europa.eu/energy/sites/ener/files/progress_report_towards_the_implementation_of_the_energy_efficiency_directive_com2020954.pdf)

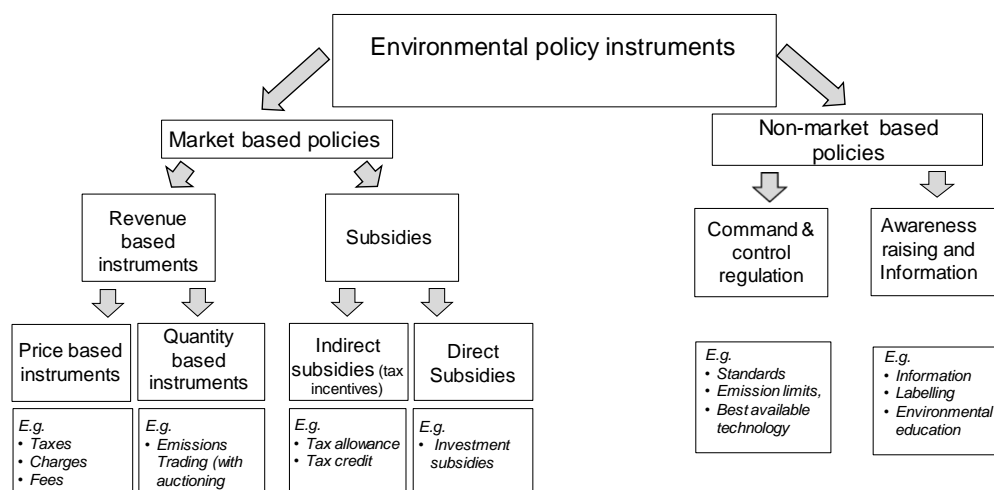


## 2.2.2 The role of environmental taxation

Numerous policy instruments can be used to address these challenges and achieve the new 2030 and 2050 climate and environmental objectives. These policy instruments can be divided into two basic categories: (i) market-based instruments, including environmental taxes, and (ii) non-market-based instruments, encompassing command and control regulatory measures such as standards, limits, awareness-raising measures or information campaigns. In practice, Member States use a combination of both types of instruments to meet their climate ambitions. **The Commission's impact assessment of its 2030 Climate Target Plan also shows that both pricing and regulatory instruments are necessary in order for the EU to meet the increased 2030 target in the most cost-efficient way<sup>(76)</sup>.**

All EU Member States make use of environmental taxes, although there are substantial differences across Member States. At EU-level, the **'polluter pays' principle** is enshrined in the Treaty on the Functioning of the EU<sup>(77)</sup>. This principle is respected by putting a price on negative consequences, with the tax rate in principle set to reflect the marginal social damage caused by consumers and producers. However, optimal pricing is hindered by the complexities of the relevant EU and national policy frameworks. While the Energy Taxation Directive<sup>(78)</sup> sets minimum levels for energy taxation, there is limited EU legislation in the area of other environmental taxes, albeit that numerous legislative acts encourage Member States to use economic instruments to ensure that the polluter pays.

GRAPH 26. OVERVIEW OF ENVIRONMENTAL POLICY INSTRUMENTS



Source: European Commission, 2020

Note: Some policies, such as feebates, are revenue-neutral and do not fit in this overview.

Environmental taxation (taxes on energy, transport, pollution and resources<sup>(79)</sup>) can encourage behavioural change and help meet environmental targets, in addition to raising revenue. Environmental taxes are considered to be among the least economically distortive taxes. They are also cost-efficient compared to non-tax measures, given their lower administrative cost, relative ease of management, and the strong price signals they send to consumers and businesses to induce them to change their behaviour. The cost efficiency of these taxes may, however, be reduced if, for example, environmental taxes result in higher consumer prices, which in turn reduce real wages. This could lead to a decline in living standards of the population and in the supply of labour, unless mitigating measures are put in place (e.g. reducing labour income tax).

<sup>(76)</sup> See: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020SC0176>

<sup>(77)</sup> Article 191(2) TFEU.

<sup>(78)</sup> Council Directive 2003/96/EC.

<sup>(79)</sup> Areas covered by environmental taxation according to Eurostat classification: [https://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental\\_tax\\_statistics](https://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_tax_statistics).

There is an increasing number of *ex-post* studies demonstrating that environmental taxes can effectively support a changeover to production technologies or consumption patterns reducing greenhouse gas emissions and environmental impacts or at least dampen their growth. However, with regards to carbon taxes, existing empirical research suggests that the current order of magnitude of the effects is insufficient to reach the medium- and long-term reduction emission goals set in international, European and national agreements, legislation and plans. This may have to do with the fact that, in most countries, tax rates are quite low, with some activities exempt. A combination of tax and regulatory policies may be needed to achieve the goals in the timeline set out.

Since the beginning of the 1990s, and significantly influenced by Porter and van der Linde (1995), the hypothesis that environmental regulation can have a positive influence on growth and competitiveness has gained in importance<sup>(80)</sup>. The proponents of the so-called Porter hypothesis put forward that environmental policy can play an active role in improving and securing the competitive position of companies or entire industries. At the heart of the argument is the idea that firms develop new innovative technologies and products as a result of environmental regulation. The literature (Acemoglu D. a., 2013), (Acemoglu D. A., 2014), (Popp D. C., 2010) concludes that a combination of environmental taxes and government subsidies can effectively redirect innovation towards cleaner and resource efficient products and energy efficient innovation. Nevertheless, empirical research, see, e.g. (Popp D. , 2006) suggests that, to induce innovation, the carbon price should be rather high, and that there should be a credible path for a high and stable future carbon price (Laing, 2013).

Empirical research does not show a significant impact of environmental taxation on domestic competitiveness but gaps and possible cross-border spillovers call for an adjustment mechanism. Scholars (Arlinghaus, 2015) suggest that carbon taxes do not significantly impair competitiveness per se, hinting at a very low price elasticity of demand and a shift of the tax burden to downstream sectors and consumers. Nevertheless, concerns over the possible reduction in competitiveness of certain sectors, in particular those with high fossil fuel consumption and exposure to international competition, have led several Member States to introduce exemptions from environmental taxes. This includes rebates on energy taxes for industries that are more energy intensive and exposed to international trade and competition, or exempting certain industries from environmental taxes if they are already regulated by emissions trading schemes. If trading partners do not internalise the cost of emissions and can thus keep their prices artificially lower, it could lead to imports with higher emissions from outside the taxed area (carbon leakage). Both of these practices reduce the effectiveness of green taxation in internalising emissions in sectors where these may de facto be higher, and undermine the general objective of reducing emissions. In this context, a cross-border adjustment mechanism may be a more efficient and effective way to achieve environmentally sustainable production.

The burden of environmental taxes could be regressive, necessitating compensatory measures. This is for example the case for taxes on energy, as lower income households spend a larger share of their income or a higher share of their consumption expenditure on energy intensive products (Marron, 2014). In contrast, a rather broad consensus has emerged in the literature that fuel taxes are less regressive than other environmental taxes, see, e.g. (European Commission, 2021). This result is due to the fact that the share of household transport expenditure rises with income, whereas the share of household energy consumption for housing decreases with income. Such evidence suggests that revenue collected from environmental taxes could therefore be used to provide lump-sum payments to lower income households, mitigating any regressive effects on living standards<sup>(81)</sup>. Evidence shows that if the same revenue is used to decrease social security contributions and taxes on labour income, this could generate positive employment effects. Note also that groups of a lower socio-economic status (the unemployed, those on low incomes or with lower levels of education) tend to be more negatively affected by environmental health hazards, as a result of their greater exposure and higher vulnerability<sup>(82)</sup>.

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<sup>(80)</sup> For further information, see European Commission (2021): <https://op.europa.eu/en/publication-detail/-/publication/1840d9df-5162-11eb-b59f-01aa75ed71a1/language-en/format-PDF/source-196233837>

<sup>(81)</sup> Although in practice, lump-sums payments are hard to implement

<sup>(82)</sup> European Environment Agency, EEA Report No 22/2018 Unequal exposure and unequal impacts: social vulnerability to air pollution, noise and extreme temperatures in Europe (European Environment Agency 2018)

Tax incentives to support environmentally beneficial activities or to discourage environmentally harmful behaviour are much more diverse across countries than environmental taxes (European Commission, 2021). They are also overall less prevalent than fiscal incentives (e.g. direct subsidies, preferential loans). They are frequently found to be barely cost effective, and to be problematic from a distributional point of view. Package solutions, combining several climate policies in general with carbon pricing and tax incentives, may be more effective than single measures.

The need to phase out environmentally harmful subsidies has long been recognised and has been a contentious point of discussion for several years<sup>(83)</sup>. This includes both direct (e.g. grants) and indirect subsidies (e.g. tax exemptions<sup>(84)</sup>). While the EU has a long-standing commitment to removing or phasing out environmentally harmful subsidies, several Member States still apply them. For example, fossil fuel subsidies, amounting to EUR 50 billion in 2018, remained relatively stable over the past decade after peaking at EUR 53 billion in 2012. After falling from 2012 to 2015, they started to increase again, growing by 6% by 2018. Tax expenditure designed to benefit specific income groups or sectors can sometimes have a detrimental effect on the environment and can run counter to energy, climate and environmental objectives. While the subsidies are often cited as serving an equity purpose, i.e. providing targeted relief to disadvantaged or vulnerable groups, they often appear to benefit only selected parts of the population. The tax-friendly treatment of private use of the company car is a frequently-cited **example of the latter. Hence, the environmentally harmful subsidy's effectiveness to improve equity should be assessed on a case-by-case basis, with particular attention as to whether the subsidy still serves its stated equity purpose.** Moreover, the harmful subsidies slow down the shift to sustainable patterns of production and consumption. For instance, reduced VAT rates on energy, fertilisers and pesticides or favourable tax treatment of company cars are among many environmentally harmful subsidies that are still applied in the EU. Phasing out these harmful subsidies, particularly when they involve fossil fuel subsidies, can increase revenue, contribute to the achievement of environmental policy objectives and improve the effectiveness of environmental taxation. This will be addressed also through the revision of the Energy Taxation Directive (ETD) in 2021, as one of the objectives of the revision is to remove implicit tax subsidies on fossil fuels.

### 2.2.3 Analysis of the performance of national green tax systems

Environmental taxes (i.e. energy, transport, pollution and resource taxes) contributed around 6% of total tax revenue in the EU-27 in 2019, with the share at Member State level ranging from 4.4% in Germany and Luxembourg to 10.3% in Bulgaria. For the EU-27 as a whole, the share of environmental taxes in total tax revenue remained relatively stable between 2009 and 2019. Changes at national level were more pronounced, with the largest increases in Greece and the largest reductions in Luxembourg.

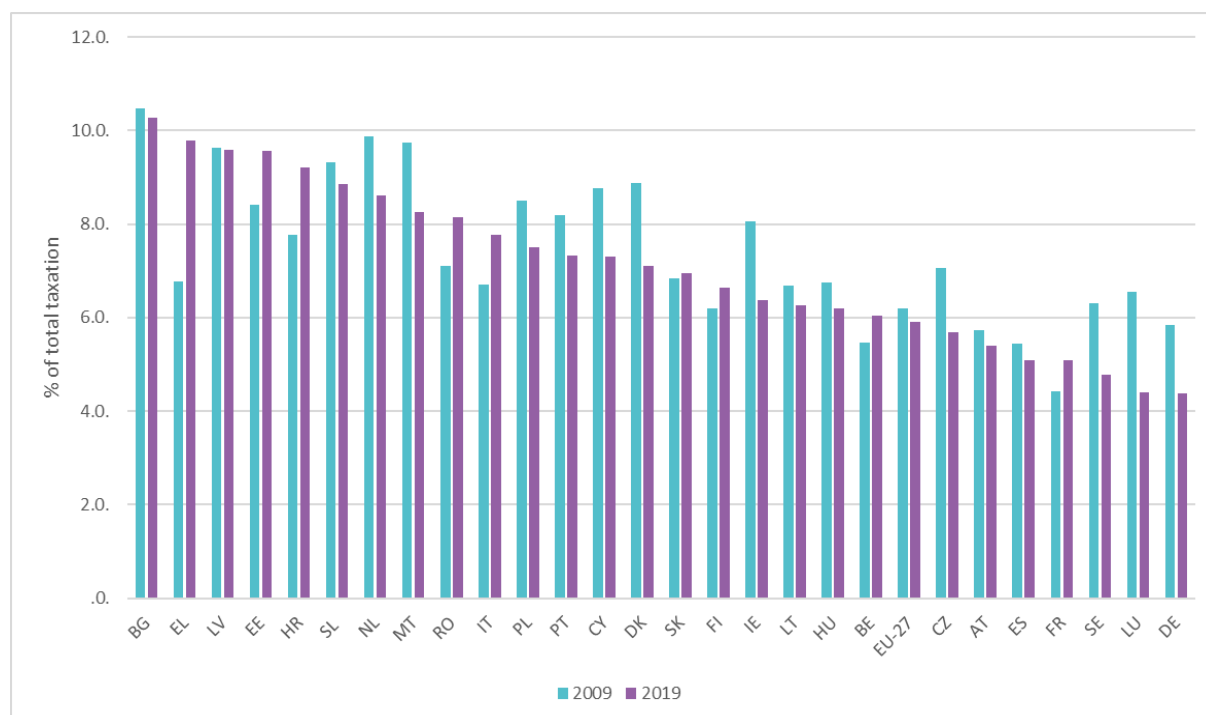
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<sup>(83)</sup> For energy-related subsidies, see:

[https://ec.europa.eu/energy/sites/ener/files/progress\\_on\\_energy\\_subsidies\\_in\\_particular\\_for\\_fossil\\_fuels.pdf](https://ec.europa.eu/energy/sites/ener/files/progress_on_energy_subsidies_in_particular_for_fossil_fuels.pdf)

<sup>(84)</sup> Although tax exemptions are not considered as subsidies in National Accounts but simply lower tax revenue

GRAPH 27. ENVIRONMENTAL TAXES AS A % OF TOTAL TAXATION, 2009-2019



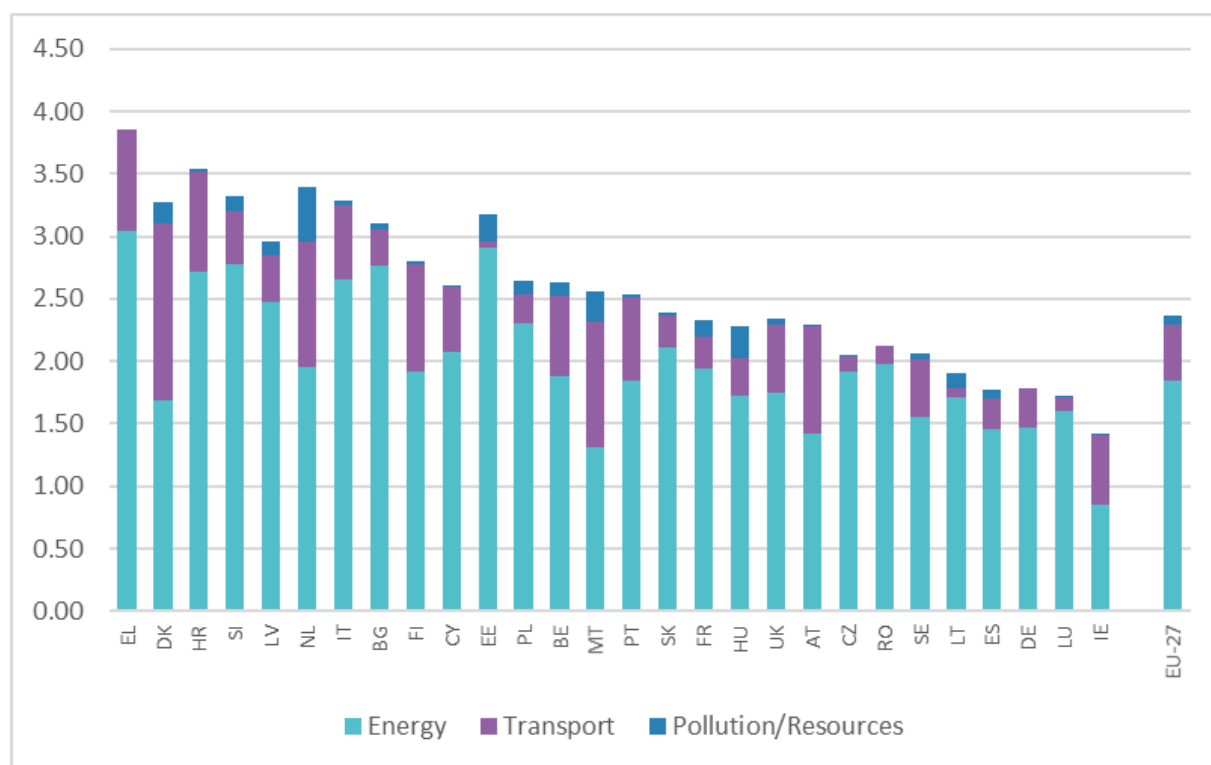
Source: European Commission, 2021

The commitment of different countries to environmental objectives should not be measured solely in terms of the tax revenues they raise via environment taxation. This is partly because taxes affect behaviour and reduce their own tax base. Therefore large environmental tax revenues can be equally generated by countries with low environmental tax rates and a large consumption base (i.e. high polluting countries) and by countries with high environmental tax rates and a small consumption base (i.e. less polluting countries). Moreover, environmental taxation often has behavioural change objectives, which can lead to uncertainty as regards revenue generation: if taxes are successful in changing behaviour, revenue will gradually decrease in the medium-long term, if the tax base or tax rate is not adjusted (depending on price elasticity). Finally, Member States that have high levels of other taxes, such as on labour, might score lower on Graph 27, even though they have significant environmental taxes in place.

Therefore, a more tailored assessment is needed, to consider additional parameters, like **the country's actual tax rates, energy intensity, energy mix, and industrial structure** (including the different weight of the sectors covered by exemptions). Energy taxes (including on transport fuel) account for the lion's share in almost all Member States, and in total for 78% of environmental tax revenue in the EU-27 in 2019<sup>(85)</sup>. This can be partly explained by the minimum levels set for energy taxation by the ETD, as well as by the larger tax base for energy taxes, given the high-energy intensity of key economic sectors (e.g. production of goods, heating and transport). Graph 28 shows in detail the structure of environmental tax revenue in the Member States in 2019, and highlights that the share of transport taxes (excluding fuel), just like pollution taxes, is very limited in terms of revenue generation across the EU. This also increases the proportion of energy tax revenue in overall environmental tax revenue.

<sup>(85)</sup> See: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental\\_tax\\_statistics#Environmental\\_taxes\\_in\\_the\\_EU](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_tax_statistics#Environmental_taxes_in_the_EU)

GRAPH 28. STRUCTURE OF ENVIRONMENTAL TAXES AS % OF GDP, 2019



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.

Notes:

- (1) Energy taxes include taxes on energy products and energy used for both transport and stationary purposes, including taxes on related CO<sub>2</sub> emissions and Member States' revenue from the EU emission trading system.
- (2) Transport taxes include taxes relating to the ownership and use of motor vehicles, and taxes on other transport equipment (e.g. planes) and related transport services.
- (3) Pollution taxes include taxes on measured or estimated emissions to air (except revenue relating to CO<sub>2</sub> emissions, which is included in energy taxes) and water, on the management of waste and on noise.
- (4) Resource taxes include any taxes linked to the extraction or use of a natural resource.
- (5) EU-27 values are weighted averages by GDP size.

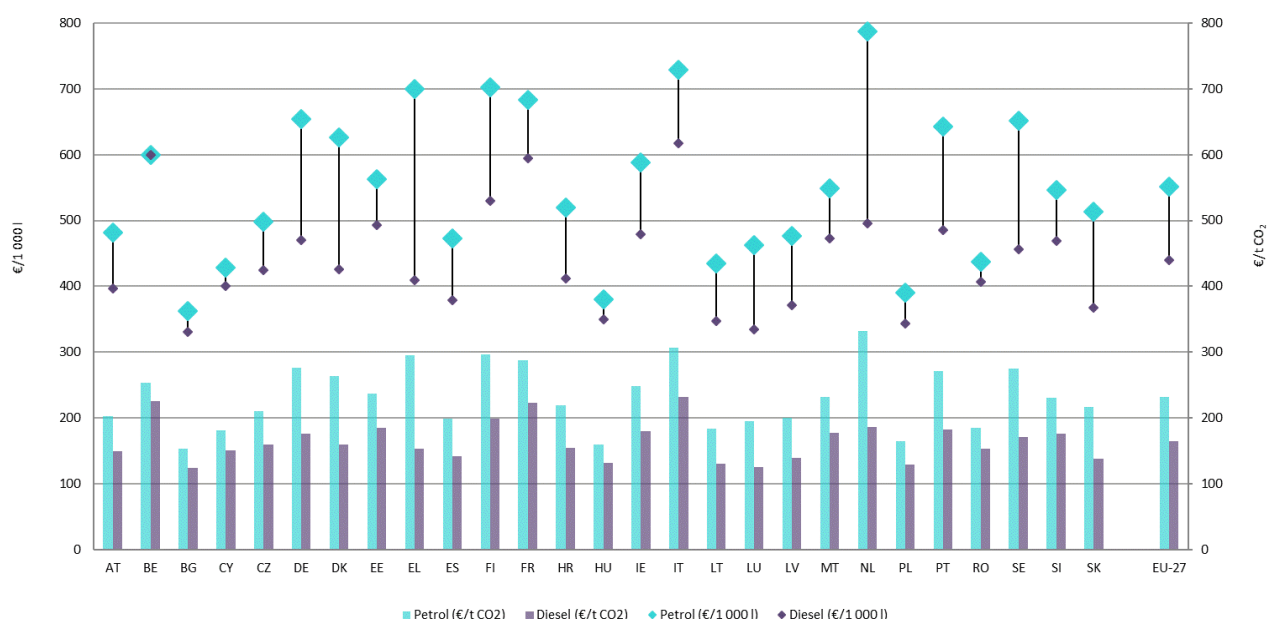
Graph 29 shows the nominal marginal tax rates on (standard) petrol and diesel, per volume consumed and per CO<sub>2</sub> emissions when used in private transport<sup>(86)</sup>. All Member States apply fuel taxes. In nearly all Member States, the nominal marginal tax rates on diesel for private road usage are lower than those on unleaded petrol<sup>(87)</sup>, even though diesel has a higher carbon content and greater negative impact on air quality. This is true for both the tax per litre and the tax per tonne of CO<sub>2</sub> emissions. To align the taxes applied to fuels more closely with the environmental damage (such as carbon emissions) they cause<sup>(88)</sup>, some Member States introduced **car registration and/or annual circulation taxes. However, while the former affect a buyer's decision** when purchasing a car and the latter add to the overall cost of ownership, neither affects the extent to which a car is actually used once it is owned and available (i.e. marginal cost of driving a car). Altogether, effective vehicle taxation requires a combination of various specific taxes. To influence the carbon emission intensity of new cars, vehicle taxes are more effective than fuel taxes. The latter are more effective in curbing mileage driven and in promoting efficient driving behaviour (COWI, 2002).

<sup>(86)</sup> Some Member States apply several rates depending on fuel quality. Some tax biofuels or fuels with a given biofuel content at lower rates.

<sup>(87)</sup> With the exception of Belgium, where rates are equal per volume of fuel consumed.

<sup>(88)</sup> The objective of fuel taxation is not limited to curbing carbon emissions. It also addresses consequences related to e.g. energy security, resource depletion, air pollution, congestion, etc.

GRAPH 29. NOMINAL TAX RATES ON PETROL AND DIESEL USED AS PROPELLANTS (PRIVATE USAGE), 2019



Source: European Commission, DG Taxation and Customs Union calculations.

Notes:

(1) Marginal tax rates show the excise duty rates applicable in Member States in January 2019; they exclude VAT, but include any applicable carbon taxes.

(2) The amount of EUR/t CO<sub>2</sub> emitted is calculated based on emissions per 1 000 l of fuel burnt (2 371 and 2 664 t CO<sub>2</sub> per 1 000 l of petrol and diesel, respectively) and therefore not well-to-wheel emissions (which also take account of emissions from extracting and processing the fuel).

(3) Petrol and diesel consumption for private road usage accounts for different proportions of total fuel consumption across Member States.

The EU emissions trading system (EU ETS) is a cornerstone of the EU's policy to combat climate change. Under its cap and trade system, which introduced carbon pricing in the EU and Iceland, Liechtenstein and Norway, the average price of an EU ETS allowance was around EUR 40/tonne CO<sub>2</sub> in mid-March 202<sup>(89)</sup>. Within the cap, allowances are sold in the form of auctions with industrial sectors prone to the risk of carbon leakage receiving free allowances based on benchmarks. Companies covered by the system (in the industrial, power and aviation sectors<sup>(90)</sup>) can trade allowances as needed. After each year, a company must surrender enough allowances to cover all its emissions. To meet the increased 2030 target, the Commission is looking at how to increase the ambition in the existing EU ETS and is considering to extend the use of emissions trading to other sectors (such as maritime, road transport and buildings). Extending carbon pricing can provide an extra incentive for change, together with sectoral legislation, such as a revision of the Energy Efficiency Directive, the Energy Performance of Buildings Directive and higher CO<sub>2</sub> standards for new cars and vans.

The number of free allowances declines annually, which may raise the marginal price for allowances<sup>(91)</sup>. An increase of the EU ETS allowance price raises the costs for greenhouse gas emissions incurred by European producers, which could increase the risk that greenhouse gas emissions from carbon-intensive production are relocated to other regions rather than reduced or eliminated via a combination of climate neutral production processes, climate-friendly material use and enhanced recycling. Adequately addressing concerns about carbon leakage risks is thus essential for enhancing the regulatory credibility of the EU ETS and the resulting carbon price.

<sup>(89)</sup> An EU ETS allowance is valid for compliance of 1 t/CO<sub>2</sub> eq. emissions by the sectors covered by the EU ETS; for more information, see [https://ec.europa.eu/clima/policies/ets\\_en](https://ec.europa.eu/clima/policies/ets_en)

<sup>(90)</sup> The EU ETS presently applies only to flights between airports located in the European Economic Area (EEA).

<sup>(91)</sup> For more information on the upcoming EU ETS revision, see: [https://ec.europa.eu/clima/policies/ets/revision\\_en](https://ec.europa.eu/clima/policies/ets/revision_en), [https://ec.europa.eu/clima/policies/ets/revision\\_en](https://ec.europa.eu/clima/policies/ets/revision_en)

The protection of installations covered by the EU ETS against the risk of carbon leakage has been at the heart of the EU ETS since its inception in 2005 and each of its subsequent revisions. The current framework consists of two main measures: the free allocation for direct emissions and the possibility for Member States to compensate installations for higher electricity costs due to the EU ETS (indirect emissions). These policies have been developed based on thorough impact assessments, which looked at various measures to address the risk of carbon leakage. A carbon border adjustment mechanism (CBAM) would be an alternative to these policies for the sectors to which it would apply (discussed in more detail in Chapter 4). The Commission is currently assessing the precise design of the measure. The results of this assessment will be **presented by June 2021 as part of the 'Fit for 55' package. The CBAM would ensure that the price of imports reflect more accurately their carbon content.** Finally, the revision of the ETD, also planned for June 2021, will contribute to aligning the taxation of energy products and electricity **with EU energy and climate policies and as such will contribute to achieving the EU's climate and energy targets.** In addition to CO<sub>2</sub> emission externalities, taxes on fuel for road transport may also be designed to price in other externalities (e.g. managing infrastructure congestion or dealing with other pollutants).

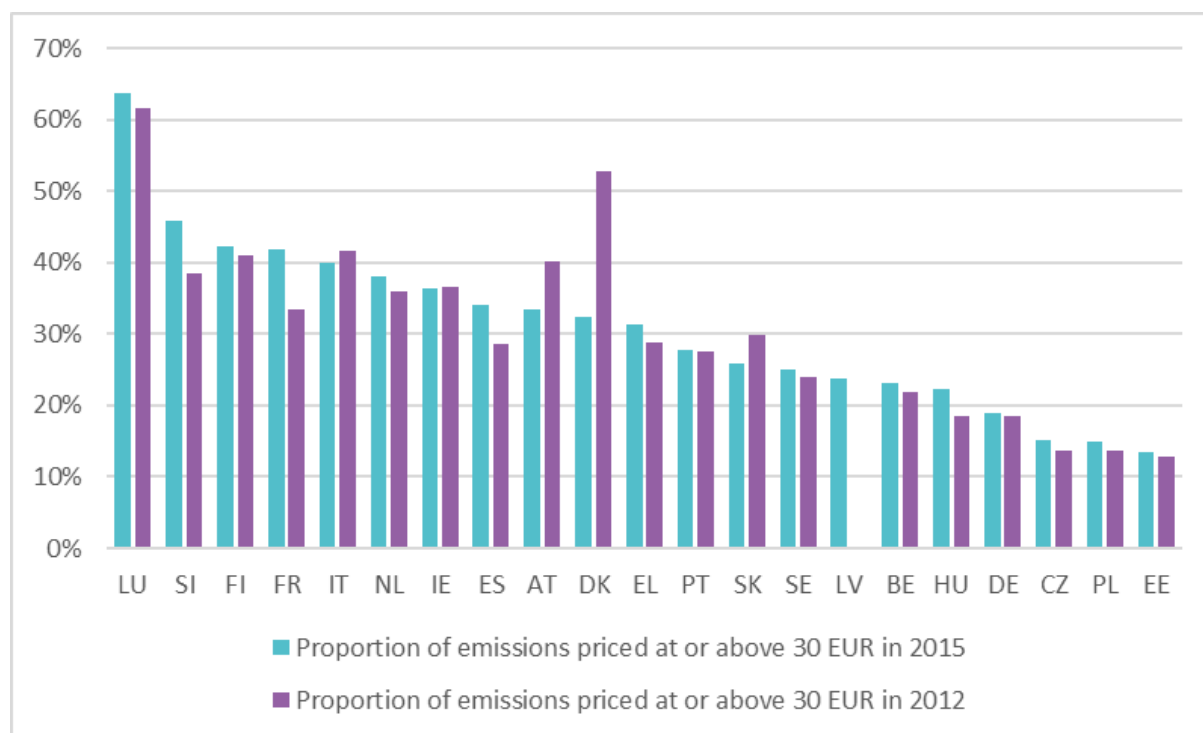
The pricing of environmental outcomes, such as greenhouse gas emissions, varies widely across sectors and countries. **The 'effective carbon rate', as calculated by the OECD, shows how pricing policies overall (including specific taxes on fossil fuels, carbon taxes and tradable emission permit prices) interact to provide price signals for greenhouse gas emission reductions<sup>(92)</sup>.** The most recent data available (2015) show that most emissions from road transport were priced at or above EUR30/t CO<sub>2</sub>. However, with a few national exceptions, in most other sectors few or no emissions were priced at or above EUR30/t CO<sub>2</sub><sup>(93)</sup> (see Graph 30).

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<sup>(92)</sup> For full details of the methodology, see (OECD, 2018c).

<sup>(93)</sup> There may be policy reasons to tax different sectors at different rates, e.g. different other outcomes, price elasticities or the existence of other regulatory interventions.

GRAPH 30. PROPORTION OF CARBON EMISSIONS PRICED AT EUR30/T CO<sub>2</sub> OR MORE, RESIDENTIAL AND COMMERCIAL SECTORS (2015)



Source: OECD, 2018c

Notes:

(1) Emissions from the combustion of biomass included in the emission base.

(2) No data available for BG, CY, HR, LT, MT and RO.

Compared to energy and transport, Member States make limited use of taxes to tackle pollution and environmental degradation. Only 3.2% of the EU's total government revenue from taxes and social contributions came from the taxation of pollution and resources in 2019<sup>(94)</sup>. As a policy tool for achieving environmental objectives, pricing instruments can be useful in areas such as waste and resources policy. In these areas, EU action has traditionally focused on legislative action, including setting targets, e.g. for waste recycling. Also using pricing instruments is in line with the Commission's recognition of the role that taxation can play as a policy tool that helps Member States achieve the objectives set at EU level. Member States tax environmentally costly forms of waste disposal (e.g. landfill, incineration) and specific products (often to discourage the use of single-use items, such as plastic bags), as well as specific emissions, sources of pollution, or the extraction of resources.

<sup>(94)</sup> See: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental\\_tax\\_statistics\\_-\\_detailed\\_analysis#Energy\\_taxes\\_stand\\_out\\_as\\_the\\_major\\_source\\_of\\_EU\\_environmental\\_tax\\_revenue](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Environmental_tax_statistics_-_detailed_analysis#Energy_taxes_stand_out_as_the_major_source_of_EU_environmental_tax_revenue)



TABLE 3. EXAMPLES OF ENVIRONMENTAL TAXES BY DIFFERENT ENVIRONMENTAL POLICY AREAS:

Theme	Examples of environmental taxes
Air quality	Taxes on pollutants (SO <sub>2</sub> , NO <sub>x</sub> , etc.), indirect taxes on products and services (e.g. energy tax, congestion charges).
Waste, resources and circular economy	Landfill and incineration taxes, packaging taxes, resource (abstraction) taxes.
Water	Taxes on water pollutants as pesticide taxes, fertiliser taxes, phosphorus taxes; abstraction taxes/charges.
Biodiversity & land-use management	Taxes on pollutants as pesticide taxes or taxes on nutrients; peatland taxes; forestry tax.

Source: (a) (European Environment Agency, 2016); *Landfill taxes and bans overview 2017*, (b) (European Environment Agency, 2016), and Confederation of European Waste-to-Energy Plants (CEWEP); <http://www.cewep.eu/wp-content/uploads/2017/12/Landfill-taxes-and-bans-overview.pdf>

Notes: (1) Table includes taxes, charges, levies, duties. (2) The 'individual products' category includes a very wide range of different market-based instruments. See EEA report for full details.

## 2.2.4 Health taxes: saving lives and improving public health

Harmful levels of alcohol and tobacco consumption are linked to many ill-health conditions and premature death. They are risk factors for numerous medical conditions including cancer, obesity, cardiovascular diseases and diabetes, which in turn are also associated with a heightened risk of COVID-19 related death (Williamson, 2020). Taxing addictive substances such as alcohol and tobacco can be a very cost effective way to improve public health by changing behaviour, leading to a reduction in medical care costs and an increase in productivity (Frank J. Chaloupka, 2019). The revenues it generates can also help reduce the burden on other tax bases such as savings and income, even if this may not be the primary goal. EU Member States have agreed on common rules to ensure that excise duties<sup>(95)</sup> on tobacco and alcohol are applied in the same way and to the same products in the EU<sup>(96)</sup>, having defined harmonised categories of manufactured tobacco and alcohol products. They have also agreed to apply at least a minimum rate of excise duty on tobacco and alcohol products. However, as taxation rates are mainly the responsibility of individual Member States, there is some variation in the taxation levels imposed on alcohol and tobacco, linked in part to differences in countries' income levels. This section examines how Member States tax tobacco and alcohol and discusses how taxation can contribute to Europe's Beating Cancer plan<sup>(97)</sup>.

Taxation is an effective tool for reducing tobacco use. Tobacco consumption is the single largest avoidable health risk and the most significant cause of premature death in the EU, responsible for nearly 700 000 deaths a year. Around 50% of smokers die prematurely (on average 14 years earlier than non-smokers)<sup>(98)</sup>. Member States have sought to discourage tobacco consumption through legislation (including tobacco taxes<sup>(99)</sup>), recommendations and information campaigns. The World Health Organization notes that taxes are an effective tool for lowering tobacco usage (WHO, 2019a). As shown on Graph 31, in 2020<sup>(100)</sup> the total tax burden (including

<sup>(95)</sup> Excise duties are indirect taxes.

<sup>(96)</sup> For more information, see: [https://ec.europa.eu/taxation\\_customs/business/excise-duties-alcohol-tobacco-energy\\_en#:~:text=Excise%20duties%20are%20indirect%20taxes,The%20common%20provisions.](https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy_en#:~:text=Excise%20duties%20are%20indirect%20taxes,The%20common%20provisions.)

<sup>(97)</sup> For more information, see: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_342](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_342).

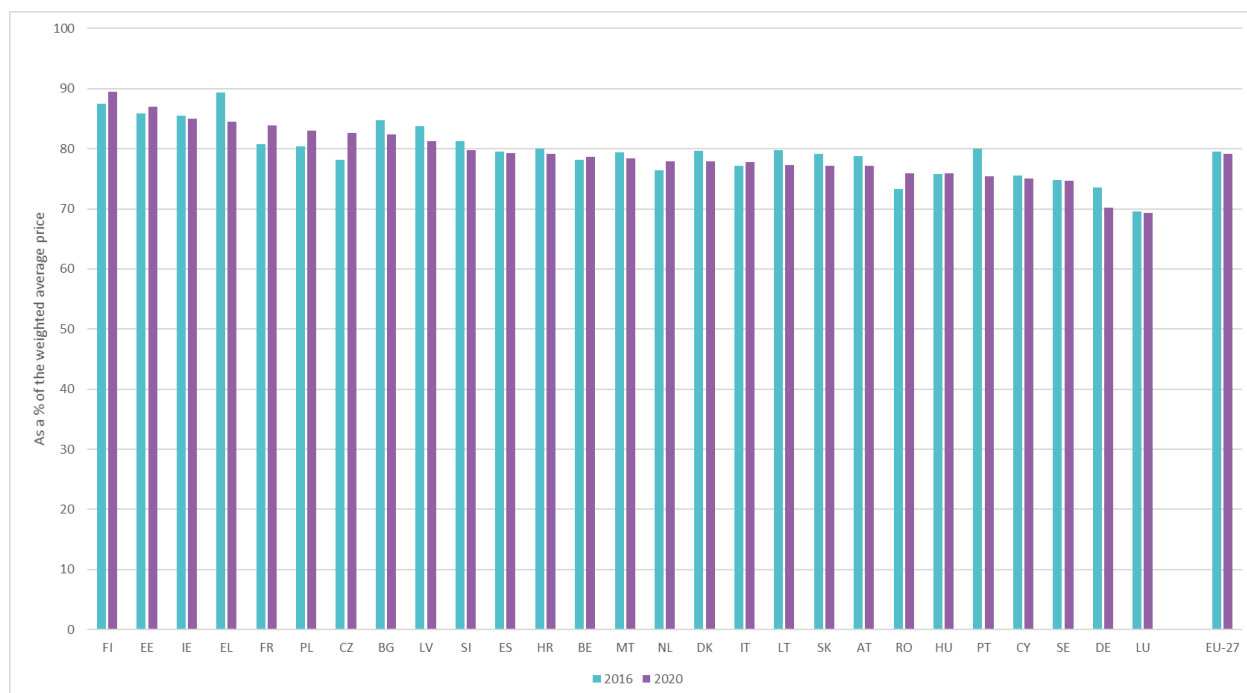
<sup>(98)</sup> For more information on the Commission's tobacco policy, see: [https://ec.europa.eu/health/tobacco/overview\\_en](https://ec.europa.eu/health/tobacco/overview_en).

<sup>(99)</sup> For more information on excise duties on tobacco in the EU, see: [https://ec.europa.eu/taxation\\_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-tobacco\\_en](https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-tobacco_en)

<sup>(100)</sup> For more information on excise duties on tobacco in the EU, see: [https://ec.europa.eu/taxation\\_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-tobacco\\_en](https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-tobacco_en)

VAT) on cigarettes in the EU ranged from 69.3% (in Luxembourg) to 89.5% (in Finland) of the weighted average price (WAP)<sup>(101)</sup>.

GRAPH 31. TOTAL TAX BURDEN (INCLUDING VAT) ON CIGARETTES, % OF WEIGHTED AVERAGE PRICE



Source: European Commission, DG Taxation and Customs Union, 'Taxes in Europe' database (TEDB).

Note:

(1) No 2016 figures are available for IE and FR, so 2017 figures were used.

(2) The EU-27 figure is a simple average.

(3) 2016 figures reflect the situation as on 1 January 2016; 2020 figures reflect the situation as on 1 January 2020.

Taxation can reduce harmful levels of alcohol consumption. In 2018, Europe continued to have the highest levels of alcohol consumption in the world, resulting in the highest share of all deaths attributable to alcohol consumption. Despite the overwhelming evidence on the role of alcohol in premature mortality and disability, nearly half of the male population continues to engage in heavy episodic drinking and more than 60% of adolescents (15–19) are current drinkers.

Every day, about 800 people in Europe die from alcohol-attributable causes. Most worryingly, a relatively high proportion of alcohol harm occurs early in the life-course, with one in every four deaths among young adults (aged 20–24) being caused by alcohol<sup>(102)</sup>. Even moderate alcohol consumption increases the long-term risk of certain heart conditions, liver disease and cancers, and frequent consumption of large quantities can lead to alcohol dependence<sup>(103)</sup>. Taxation can reduce alcohol consumption by increasing the price of alcoholic products, to which consumers, including young people and heavy drinkers, are sensitive (Bundit Sornpaisarn, 2017). Member States impose different levels of excise duties on alcoholic beverages<sup>(104)</sup>. Graph 32 shows the level of excise duties imposed on one type of alcohol in the EU<sup>(105)</sup>. Over the past few years, the tax rate

<sup>(101)</sup> Under Articles 8(2) and 14(2) of Council Directive 2011/64/EU, the WAP for cigarettes and fine-cut tobacco is to be calculated by reference to the total value of all cigarettes/fine-cut tobacco released for consumption, based on the retail price (including all taxes) divided by the total quantities released for consumption in the previous calendar year.

<sup>(102)</sup> See: [https://www.euro.who.int/\\_data/assets/pdf\\_file/0009/386577/fs-alcohol-eng.pdf](https://www.euro.who.int/_data/assets/pdf_file/0009/386577/fs-alcohol-eng.pdf)

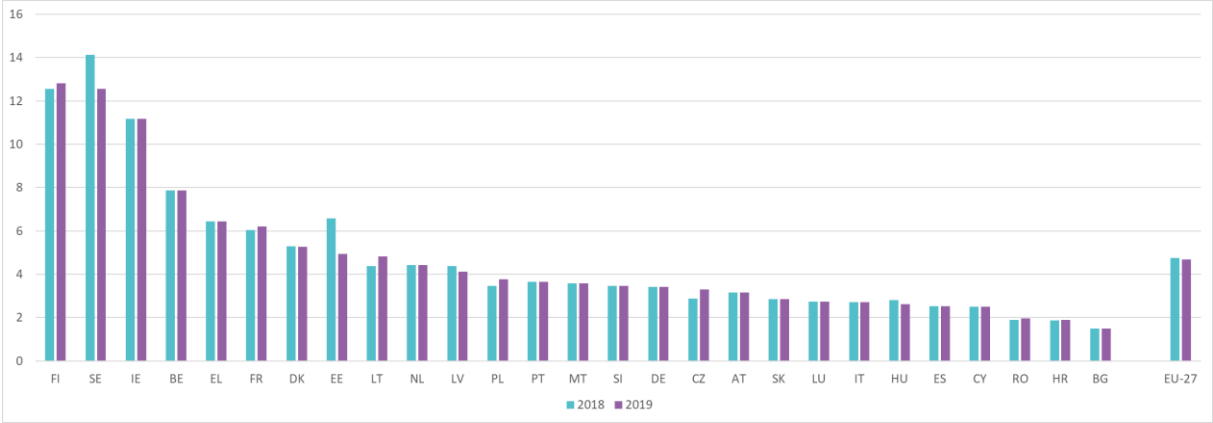
<sup>(103)</sup> For more information on EU actions aimed at reducing alcohol-related harm, see: [https://ec.europa.eu/health/alcohol/overview\\_en](https://ec.europa.eu/health/alcohol/overview_en)

<sup>(104)</sup> For more information on EU legislation on excise duties on alcohol, see: [https://ec.europa.eu/taxation\\_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-alcohol\\_en](https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-alcohol_en)

<sup>(105)</sup> There are also differences between the level of excise duties imposed by Member States on other alcohol products such as beer and wine -

on spirits has decreased in several countries<sup>(106)(107)</sup>, raising fears of an increase in alcohol-related harm. This is most prominent in some Nordic and Baltic Member States, where changes in one Member State have explicitly led to policy changes in another to try prevent loss of tax revenue due to cross-border shopping in countries with lower taxation (Rabinovitch, 2009)). The EU countries in which the most alcohol is consumed all have excise duties around or below the EU average (WHO, 2019b).

GRAPH 32. EXCISE DUTY ON A 700ML 37.5% BOTTLE OF SPIRITS (%)



Source: European Commission, DG Taxation and Customs Union, ‘Taxes in Europe’ database (TEDB).  
 Note:  
 (1) The EU-27 figure is a simple average.  
 (2) 2018 figures reflect the situation as on 1 July 2018; 2019 figures reflect the situation as on 1 July 2019.

Several Member States also impose soft drink taxes to improve public health. These taxes can reduce the consumption of sugar-sweetened drinks, contributing to improved nutrition by promoting the consumption of healthier alternatives, such as water. In 2020, seven EU Member States and the Spanish region of Catalonia levied excise duties on soft drinks. While these taxes are not harmonised and differences exist, most of them are levied on the amount of sugar. Recent evidence shows that such taxes have a positive health impact by reducing obesity, in addition to raising additional revenue (Andrejevaa et al, 2011)<sup>(108)</sup>. If the revenue raised from these taxes is directly invested in improving public health, its benefits are even greater.

[https://ec.europa.eu/taxation\\_customs/sites/taxation/files/study\\_assessing\\_articles\\_32\\_and\\_36\\_of\\_council\\_directive\\_2008\\_118ec\\_concerning\\_the\\_general\\_arrangements\\_for\\_excise\\_duty.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/study_assessing_articles_32_and_36_of_council_directive_2008_118ec_concerning_the_general_arrangements_for_excise_duty.pdf)

<sup>(106)</sup> Not all of these changes are due to changes in rates. Some of the changes on the graph are due to currency conversion fluctuations or because a Member State has imposed an annual increase in the excise duty rate to account for inflation.

<sup>(107)</sup> There can be a variety of reasons for these rate reductions, including the prevention of tax leakage and the fact that certain countries do not have indexed tax rates.

<sup>(108)</sup> Certain UK data suggest some adjustment in consumer behaviour (see <https://bmcmmedicine.biomedcentral.com/articles/10.1186/s12916-019-1477-4>). Furthermore, behaviour has changed at the producer level in that some producers have now reduced the sugar content of their drinks.

TABLE 4. SOFT DRINKS TAXES IN THE EU, 2020

Member State	Excise duty on a 355ml can of a soft drink
Ireland	€0.107
Finland	€0.078
Portugal	€0.057
France	€0.055
Catalonia, Spain	€0.043
Latvia	€0.026
Belgium	€0.024
Hungary	€0.008

Source: 'Sugar drink taxes map' of the Global Food Research Program of the University of North Carolina at Chapel Hill: <http://globalfoodresearchprogram.web.unc.edu/>.

#### **Box 2.4: Contribution of taxation to Europe's Beating Cancer plan**

Each year, 3.5 million people in the EU are diagnosed with cancer. Around one third of deaths from cancer are due to the five leading behavioural and dietary risks: tobacco use, alcohol use, high body mass index, low fruit and vegetable intake, and a lack of physical activity. Tobacco use is the most significant risk factor for cancer and is responsible for approximately 22% of cancer deaths.

Taxation can play a critical role in the fight against cancer by reducing tobacco and alcohol consumption. In February 2021, the Commission launched Europe's Beating Cancer plan, which recognises the pivotal role of taxation in reducing cancer risk, in particular to deter young people from smoking and abusing alcohol. The plan covers the entire cycle of the disease, starting from prevention and early diagnosis to treatment and quality of life of patients and survivors.

The Beating Cancer plan provides the political momentum to use tax policy to achieve more ambitious public health objectives. Four EU taxation directives are relevant for the plan: i) the tobacco tax directive (covering both rates and structures), ii) the alcohol directive on structure, iii) a separate alcohol directive on rates, and iv) the directive on general arrangements for excise duties, which covers the level of cross-border acquisition of tobacco and alcohol by private individuals.

Work is underway at EU level to improve the effectiveness of the directives. While they generally serve their purposes, there is scope to improve them. For example, the misuse of cross-border shopping arrangements for both alcohol and tobacco by private individuals is a source of concern for a number of Member States as it can have a negative impact on national public health policies and reduce revenue. Furthermore, the tobacco directives do not cover relatively recent products. The possibility to tax certain alcoholic beverages based on alcoholic content rather than on volume could also be explored. These and other issues will be addressed in the coming months and years.

It is important to holistically consider any proposed changes to the current legislative framework. For example, rate increases can incentivise consumers to engage in cross-border shopping in Member States with lower taxes or, alternatively, to buy products on the illegal market (i.e. tax evasion). Above all, to assess the impact of tobacco taxes, one must go beyond solely assessing the impact of consumers' behavioural changes on revenue. While tax revenue may decrease as individuals limit their tobacco consumption, people's health will improve (leading to a decrease in medical care costs) and productivity will increase.

## 2.3 Fighting tax fraud, evasion and abuse so that everybody pays their fair share

Improving tax compliance to secure revenue to finance public policies on education, healthcare, infrastructure, etc. and create a fair society is now more essential than ever. The socio-economic crisis resulting from the COVID-19 pandemic has made the fight against tax fraud and evasion even more urgent, as public finances have been and will continue to be strained in coming years. It is therefore crucial that all economic actors contribute to the recovery by paying their fair share of tax. Alongside active measures to combat tax fraud, evasion and avoidance, a transparent and well-functioning tax administration (see also Section 2.1.4) is crucial to create and preserve trust in public authorities. This trust in the functioning of the system – essentially the sense that others are also paying their fair share – is a pre-condition of voluntary tax compliance. A solid tax compliance system also reduces options for criminals to reinvest the proceeds of their illegal activities in the financial system. Although it is (by the nature of the phenomena) difficult to estimate how much money is lost to tax fraud, evasion and avoidance, this section presents indicators that aim to gauge the scale of the issues in this area.

### 2.3.1 Estimates of tax avoidance

Tax avoidance refers to taxpayers reducing their tax liability through arrangements that may be legal, but are against the spirit of the law. It can take various forms, e.g. debt shifting via intra-group loans, the location of intangible assets and the manipulation of transfer pricing.

Many studies demonstrate the existence of tax avoidance practices and, although these are hard to measure, existing estimates point to tens of billions of euro of related revenue losses. It is hard to quantify what is *de facto* a hidden phenomenon. Nonetheless, several studies, including recent studies by Álvarez-Martínez *et al.* (2021) and Tørsløv *et al.* (2018), have tried to quantify revenue losses associated with tax avoidance practices<sup>(109)</sup>, giving an estimate of EUR 36-37 billion<sup>(110)</sup> of corporate income tax (CIT) revenue losses per year. It should be noted that budgetary losses from increased tax avoidance might not appear directly in CIT revenue. In some cases, CIT revenue can even increase despite increased tax avoidance activities. This is because the effect of tax avoidance can be hidden by policy choices, e.g. a broadening of the tax base, which increases CIT revenue, can overcompensate the revenue loss from tax avoidance (Nicodème, Caiumi, & Majewski, 2018).

### 2.3.2 Financial activity

Very high financial activity, as compared to the size of the economy, may indicate that a country is being used for tax avoidance purposes. It is useful to look at financial activity indicators to see if these are in line with real economic activity or if they are a reflection of tax avoidance behaviour. High flows to offshore financial centres (OFCs) may be a further indication of tax avoidance, as these jurisdictions are likely to be used in aggressive tax planning (ATP) schemes. Furthermore, when transparency on financial activities is low, there is a risk that criminals may use OFCs for money laundering purposes.

Such indicators are in themselves inconclusive in determining whether a country is being used for tax avoidance purposes, but together constitute a body of evidence. They provide circumstantial evidence and are useful in prompting further investigations into possible ATP in a given country. In this respect, it is useful to look at foreign direct investment (FDI), as it captures

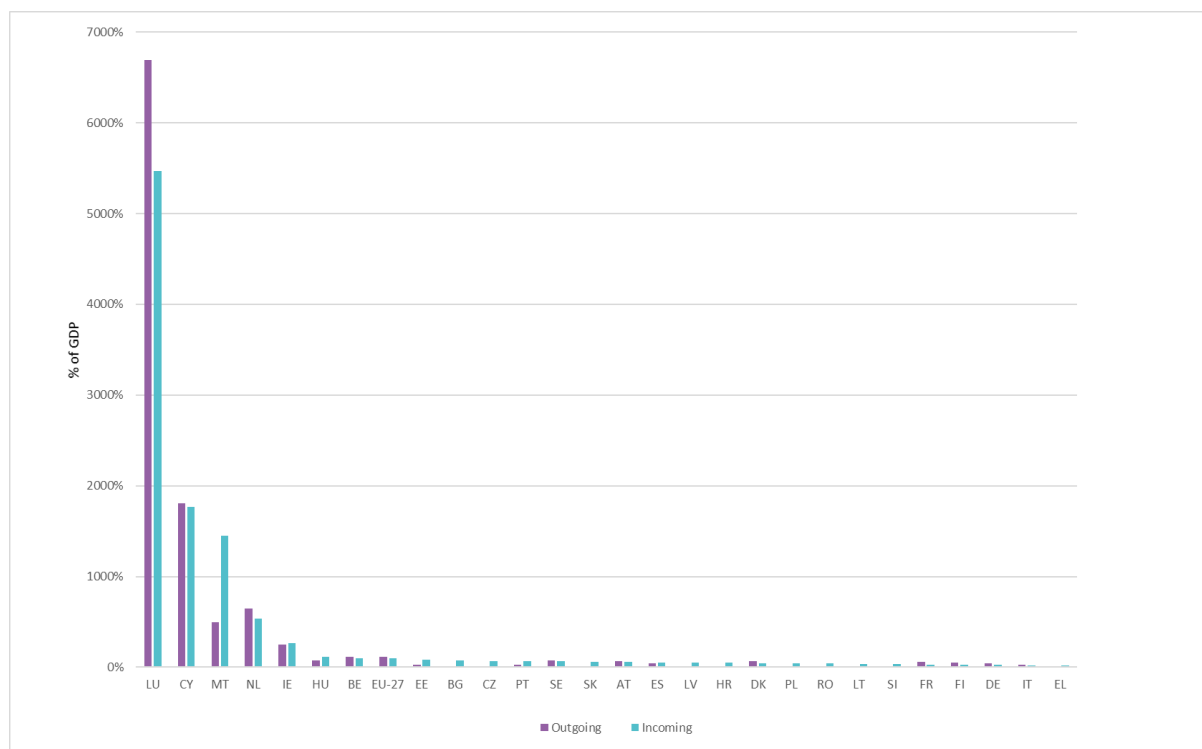
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<sup>(109)</sup> Dover, Ferrett, Gravino, Jones, & Merler, 2015.

<sup>(110)</sup> Own calculations based on Tørsløv *et al.* (2018), *The missing profits of nations*.

cross border investments between related companies. Graph 33 contrasts FDI data with countries' GDP. Certain Member States have an extremely high FDI-to-GDP ratio: for instance, the stock of Luxembourgish direct investment abroad represents nearly 65 times its GDP, while the stock of foreign direct investment in Luxembourg represents about 55 times its GDP. To a lesser extent, Cyprus, Malta, the Netherlands and Ireland also display stock of inward or outward foreign investment much larger than their respective domestic production.

GRAPH 33. FDI POSITIONS, 2018



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data codes: [bop\\_fdi6\\_pos](#) and [nama\\_10\\_gdp](#))

Notes:

(1) FDI is the category of international investment in which an entity based in one country (the direct investor) acquires a lasting interest in an enterprise based in another (the direct investment enterprise), including through a special purpose entity (SPE), i.e. a legal entity created to fulfil narrow, specific or temporary objectives. A direct investment enterprise is one in which a direct investor owns 10% or more of the ordinary shares or voting rights (or the equivalent for an unincorporated enterprise).

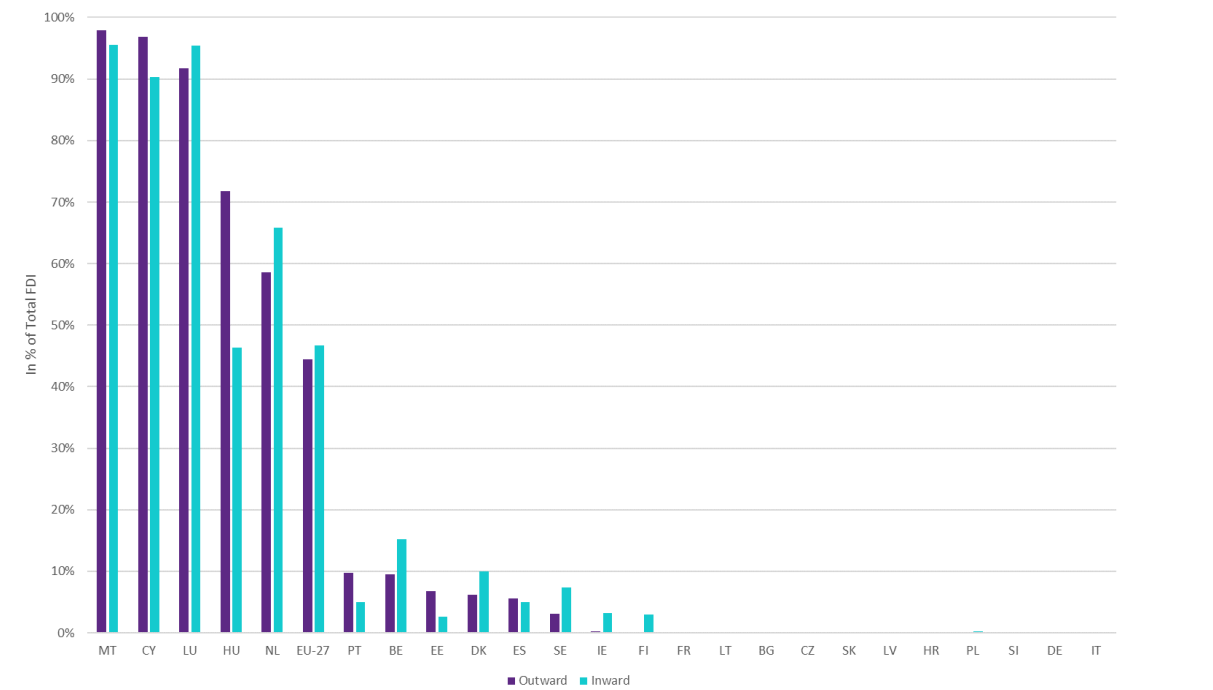
(2) Ingoing FDI or direct investment in the reporting economy (DIRE) denotes investment by foreigners in enterprises based in the reporting economy. Outgoing FDI or direct investment abroad (DIA) accounts for investment by domestic entities in affiliated enterprises abroad.

(3) FDI stocks (or positions) denote the value of the investment at the end of the period.

In some instances, direct investment via special purpose entities (SPEs) may be a vehicle for tax planning. Although direct investment stock carried out through SPEs may have legitimate purposes (e.g. achieving a defined set of goals without putting the entire firm at risk), in some instances, SPEs may also be investment vehicles used for tax planning (e.g. 'round trip transactions'). Thus, a large proportion of direct investment stocks held through SPEs may be an indication of ATP. Here again, Graph 34 shows that in 2019 (latest available data), Cyprus, Malta, Luxembourg and the Netherlands, along with Hungary, displayed a significant use of SPEs for both inward and outward FDI. However, CEPS (2020) estimated following the approach of Damgaard et al (2019) using firm-level data that "just under half (47.5%) of all inward FDI positions in the EU involve SPEs". Furthermore, EU level macro data show<sup>(111)</sup> that the recent declines in intra-EU-27 FDI flows have been a result of slowing down FDI through SPEs as the inward intra-EU-27 FDI position for this type of investment was 12% lower in 2019 than in 2016. In the same time, the remaining FDI intra-EU-27 positions increased by almost the same percentage (11.6%) for this period.

<sup>(111)</sup> See: EC, "Staff Working Document on Capital Movements and the Freedom of Payments", 2020

GRAPH 34. PROPORTION OF OUTWARD AND INWARD DIRECT INVESTMENT STOCKS HELD THROUGH SPES, 2019

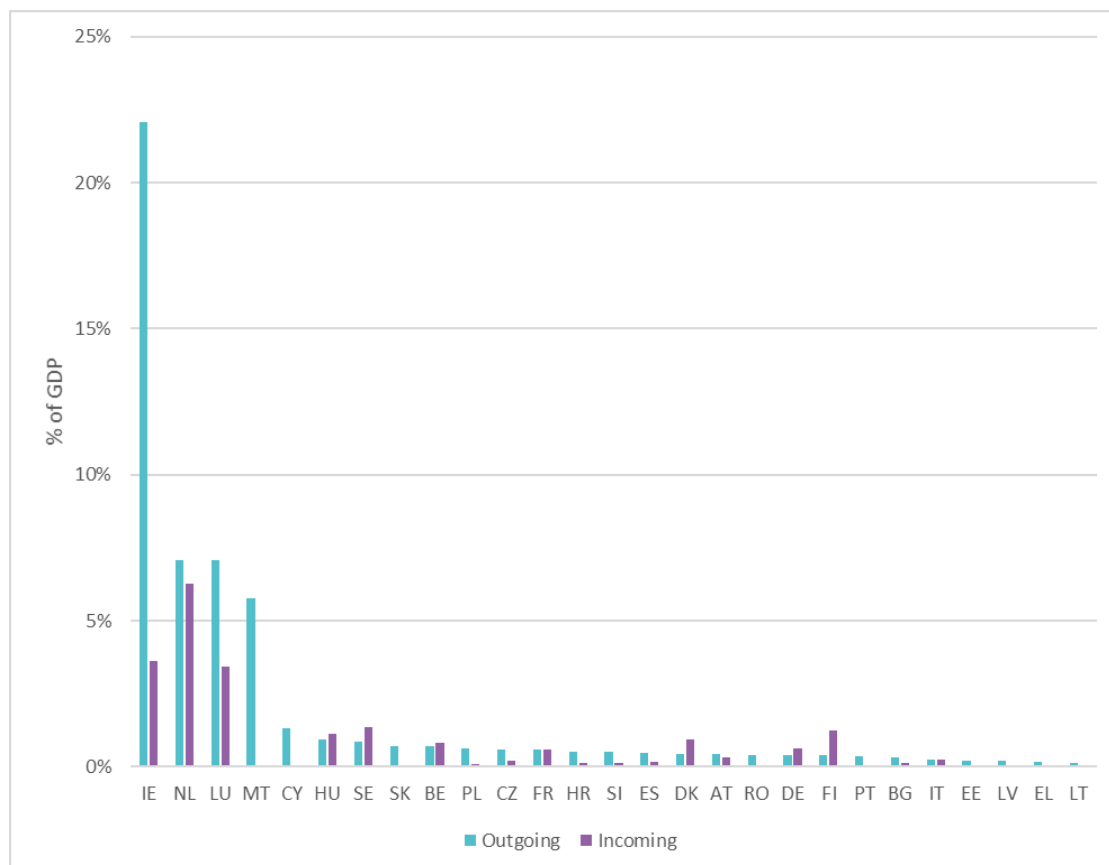


Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data codes: bop\_fdi6\_pos and nama\_10\_gdp)  
 Note: Data on SPEs are unavailable for EL, AT and RO.

Some tax avoidance strategies involve (re)locating intangible assets (e.g. intellectual property) to jurisdictions offering favourable conditions. A high volume of royalty payments, particularly when relative to GDP, might be indicative of loopholes in tax legislation. If no withholding tax is applied by EU Member States to outgoing royalty flows towards non-EU countries, there is a risk that these payments may escape tax altogether or be taxed at a very low rate in the recipient non-EU country. As shown in Graph 35, in some countries a high proportion of these flows go to OFCs<sup>(112)</sup>. Ireland is, by far, the country that displays the highest ratio of outgoing royalty flows relative to its GDP, with the Netherlands, Luxembourg and Malta also having high ratios. In terms of incoming royalties, the Netherlands, Ireland and Luxembourg display the most significant flows relative to their respective GDP. Again, such indicators are not in themselves conclusive proof that a country is being used for tax avoidance purposes, but they can contribute to a body of evidence that indicates that ATP is occurring in a specific country.

<sup>(112)</sup> As defined by Eurostat in its [Balance of payments vademecum](#).

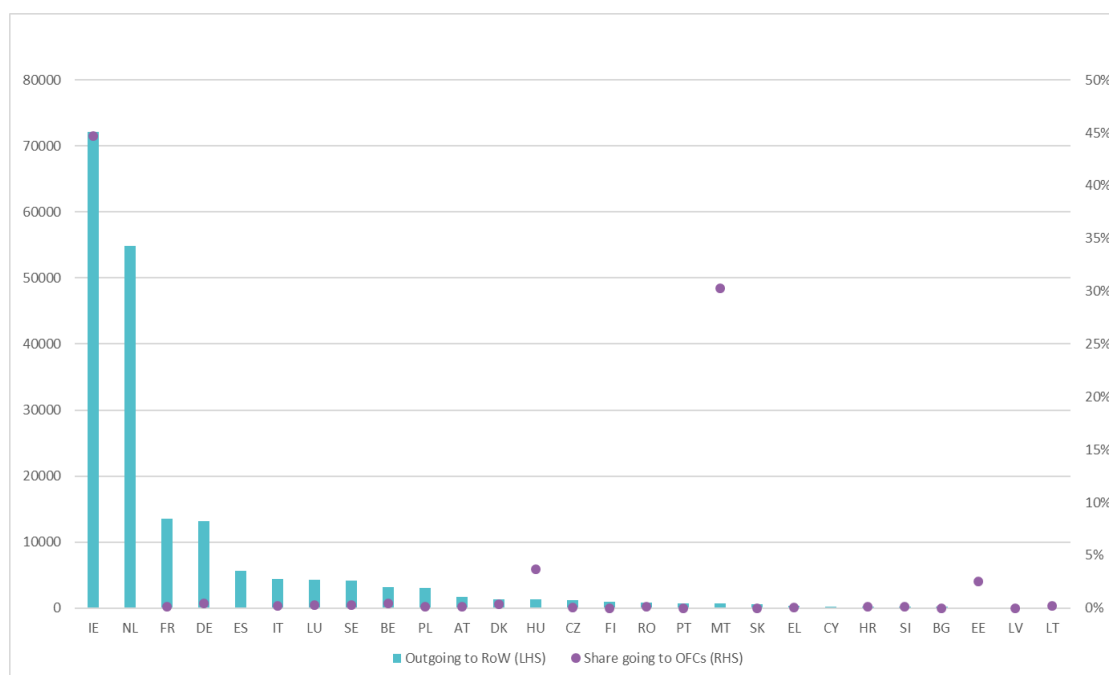
GRAPH 35. CHARGES TO/FROM REST OF THE WORLD (ROW) FOR USE OF INTELLECTUAL PROPERTY (% OF GDP), 2018



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data codes: bop\_its6\_der and nama\_10\_gdp)

Note: Data on incoming flows are unavailable for CY and MT.

GRAPH 36. CHARGES PAID TO REST OF THE WORLD FOR USE OF INTELLECTUAL **PROPERTY (€ MILLION)** AND PROPORTION GOING TO OFFSHORE FINANCIAL CENTRES (%), 2018



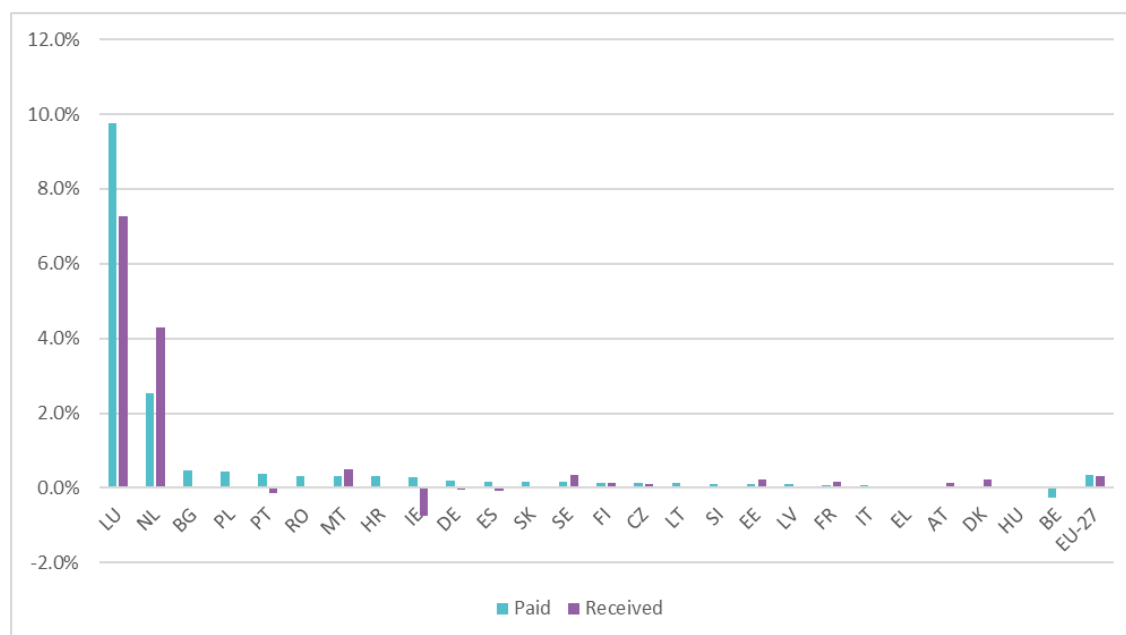
Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data codes: [bop\\_its6\\_det](#) and [nama\\_10\\_gdp](#))



Note: Data on flows to OFCs are unavailable for CY, ES and NL. OFC is an aggregate used by Eurostat.

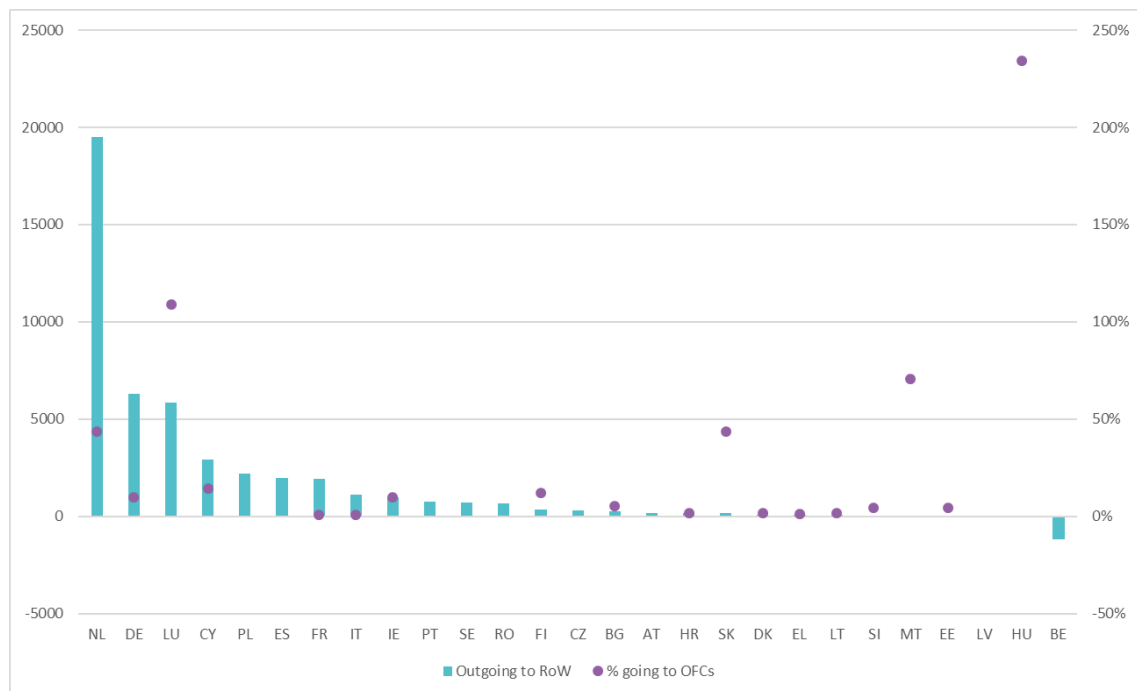
Other tax avoidance strategies involve intra-company loans from low-tax countries (where companies may benefit from low taxes on interest received) to high-tax ones (where they may benefit from tax deductibility on interest paid). Similar strategies may involve countries (including Member States) with high statutory tax rates but low effective tax rates on interest income e.g. as a result of their interpretation of the transfer pricing or profit allocation rules. Graph 37 shows the inward and outward flows of interest payment in each Member States, relative to the size of their respective GDP. Once again, the ratios of incoming and ongoing interest flows to GDP for Cyprus, Luxembourg and the Netherlands are much larger than for other Member States.

GRAPH 37. NET INCOME ON DEBT (INTERESTS) PAID/RECEIVED TO/FROM REST OF THE WORLD (% OF GDP), 2018



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data codes: [bop\\_fdi6\\_inc](#) and [nama\\_10\\_gdp](#))

GRAPH 38. NET INTEREST ON DEBT PAID TO REST OF **THE WORLD (€ MILLION)** AND PROPORTION GOING TO OFFSHORE FINANCIAL CENTRES (%), 2018



Source European Commission, DG Taxation and Customs Union, based on Eurostat data (online data code: [bop\\_fdi6\\_inc](#))

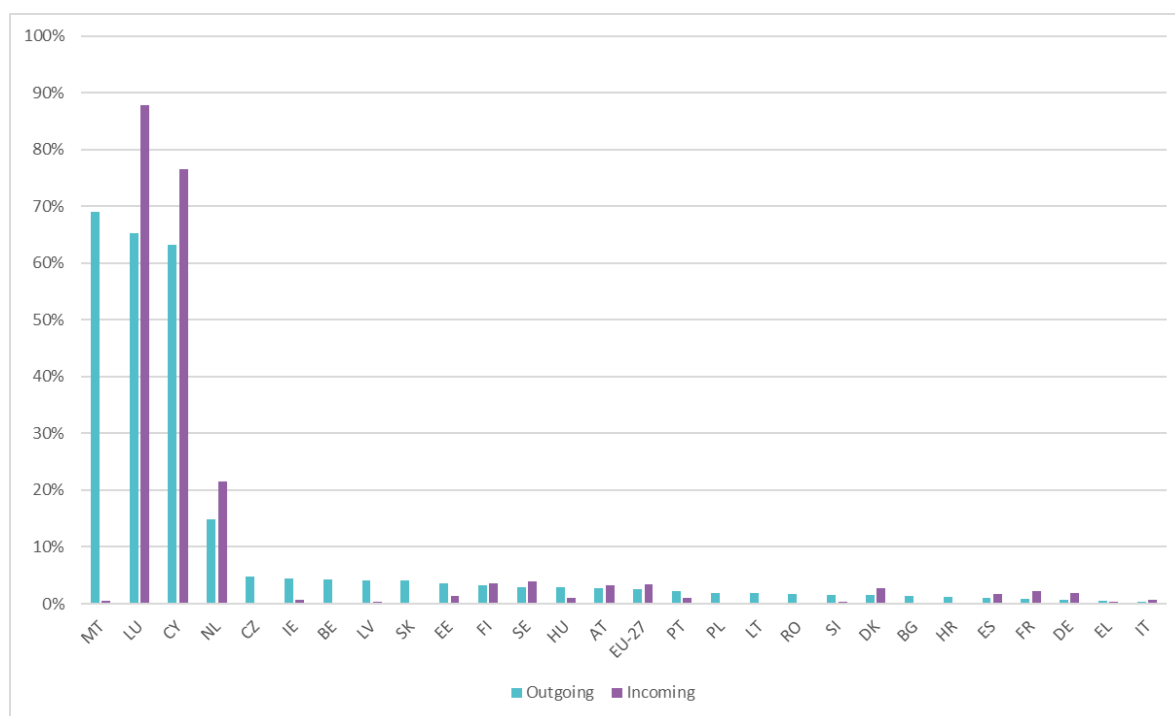
Notes:

(1) A negative flow means that the loan is from the subsidiary (e.g. in HU or BE) to the parent company (abroad).

(2) Data on flows to OFCs are unavailable for PL, ES, PT, SE, RO, CZ, AT, LV and BE.

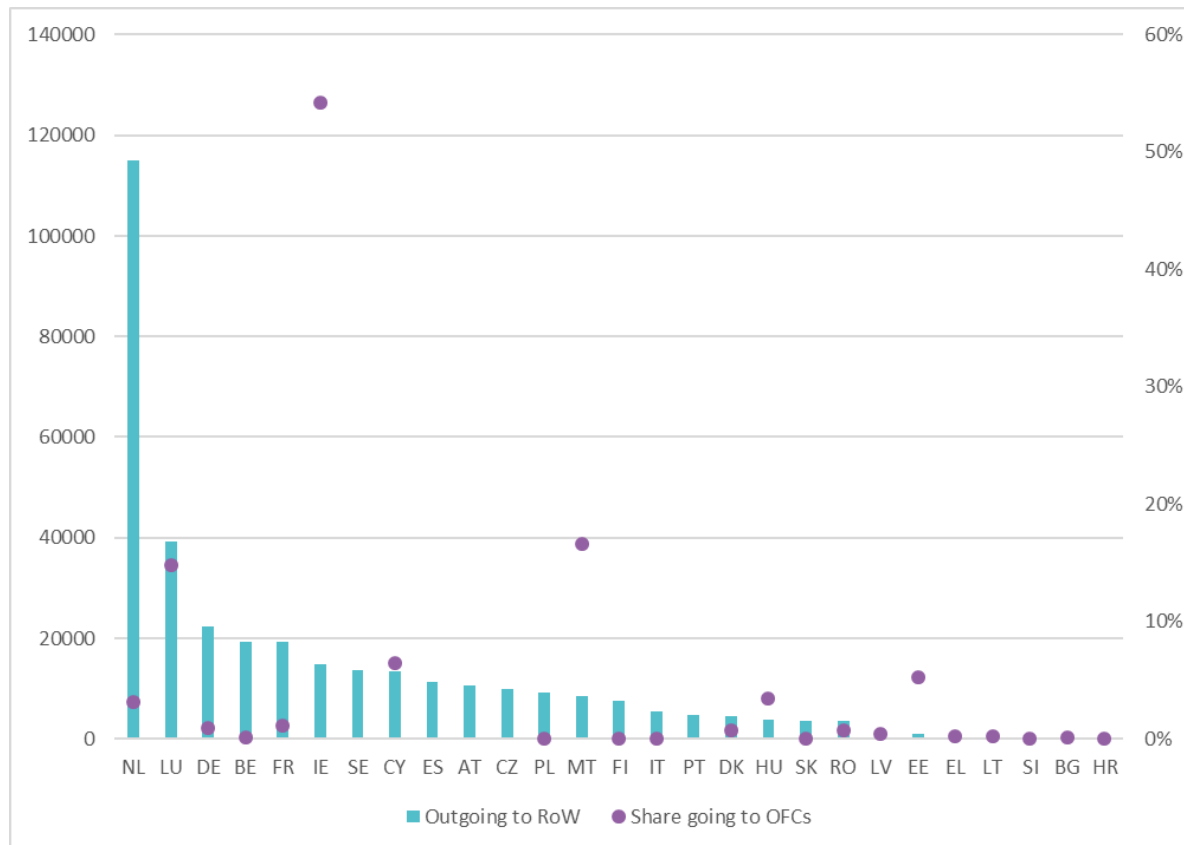
Some multinationals reroute their dividends to reduce taxation, e.g. **through 'tax treaty shopping'**. In the absence of withholding taxes, such payments can escape taxation if they are not taxed in the recipient jurisdiction. This results in disproportionately high flows of outgoing dividend payments. As shown in Graph 39, Malta, Luxembourg, Cyprus and, to a lesser extent, the Netherlands have a significantly high outgoing dividend-to-GDP ratio and, with the exception of Malta, incoming dividend-to-GDP ratio.

GRAPH 39. NET DIVIDEND INCOMES PAID/RECEIVED TO/FROM REST OF THE WORLD (% OF GDP), 2018



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data code: [bop\\_fdi6\\_inc](#))

GRAPH 40. NET DIVIDEND PAYMENTS TO REST OF THE WORLD (€ MILLION) AND PROPORTION GOING TO OFCS (%), 2018



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data (online data code: [bop\\_fdi6\\_inc](#))

Note: Data on flows to OFCs are unavailable for SE, ES, AT, CZ and PT.

### 2.3.3 Overview of tax rules

Multinationals that engage in aggressive tax planning (ATP) use loopholes that exist in a tax system or mismatches between two or more tax systems to reduce their tax liability. ATP may generally lead to tax avoidance. ATP can result in double deductions (e.g. the same loss is deducted both in the state of source and in the state of residence) and double non-taxation (e.g. income that is not taxed in the source state is exempted in the state of residence). It is therefore essential to assess whether **Member States' tax rules can be used in ATP schemes**.

The Anti-Tax Avoidance Directive (ATAD)<sup>(113)</sup>, implemented since 1 January 2019, has provided all Member States with a set of robust anti-abuse rules<sup>(114)</sup>, including interest limitation rules (to discourage artificial debt arrangements designed to minimise taxes) and rules on controlled foreign companies (CFC) to deter profit shifting to low/no-tax jurisdictions. However, as shown by the current tax reform discussions in the G20/OECD framework<sup>(115)</sup> on the right to tax **and to set a minimum effective tax rate on companies' profits**, the ATAD rules are not sufficient to put an end to ATP-related tax avoidance.

Tax rules that *can* prompt ATP schemes must be assessed case by case before conclusions can be drawn as to any link with ATP practices and tax avoidance. The ATP practices can be identified as harmful by the Code of Conduct group or as State aid by the Commission. State aid may be found in tailor-made tax practices investigated as tax ruling cases under State aid rules<sup>(116)</sup> or in the tax provisions themselves. State aid granted through tax provisions that provide a selective advantage pursuant to State aid rules was found to exist in the Commission decisions regarding the Belgian excess profit taxation<sup>(117)</sup> and the UK Controlled Foreign Company (CFC) scheme<sup>(118)</sup>, as both schemes led to the granting of illegal tax advantages to certain multinational companies. Such assessment requires detailed analysis of their actual design and application, taking account of the extent to which the tax rules are properly safeguarded, with measures to prevent abuse.

While the absence of withholding taxes is generally intended to prevent double taxation<sup>(119)</sup>, it may also facilitate ATP under certain circumstances. Payments to other countries may escape tax altogether if they are not subject to tax in the recipient jurisdiction. Withholding taxes prevent tax-free profit shifting, thereby discouraging or impeding ATP.

At EU level, this is a gatekeeper issue. If a Member State implements a defensive measure against financial flows exiting to a third country untaxed or low-taxed, such financial flows might be redirected to other Member States still permitting an exit of the EU untaxed or low-taxed. Since the implementation of the Interest and Royalty Directive<sup>(120)</sup> and the Parent Subsidiary Directive<sup>(121)</sup>, interest, royalty and dividend flows within a company group in the EU are free from withholding taxes. This means that financial flows can circulate freely within the EU in line with the freedom of movement of capital. However, such financial flows may also exit from a Member State

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<sup>(113)</sup> Council Directive (EU) 2016/1164.

<sup>(114)</sup> For more information, see Ramboll Management Consulting and Corit Advisory (2015).

<sup>(115)</sup> OECD (2019), Programme of work to develop a consensus solution to the tax challenges arising from the digitalisation of the economy, OECD/G20 Inclusive framework on BEPS, OECD, Paris, [www.oecd.org/tax/beps/programme-of-work-to-develop-a-consensus-solution-to-the-tax-challenges-arising-from-the-digitalisation-of-the-economy.htm](http://www.oecd.org/tax/beps/programme-of-work-to-develop-a-consensus-solution-to-the-tax-challenges-arising-from-the-digitalisation-of-the-economy.htm).

<sup>(116)</sup> Commission Decision (EU) 2016/2326 on State aid which Luxembourg granted to Fiat, OJ L 351, 22.12.2016, p. 1–67; Commission Decision (EU) 2017/502 on State aid implemented by the Netherlands to Starbucks, OJ L 83, 29.3.2017, p. 38–115; Commission Decision (EU) 2017/1283 on State aid implemented by Ireland to Apple, OJ L 187, 19.7.2017, p. 1–110; and Commission Decision (EU) 2017/6740 on State aid implemented by Luxembourg to Amazon, OJ L 153, 15.6.2018, p. 1–142.

<sup>(117)</sup> Case SA.37667 Excess Profit exemption in Belgium, Commission decision of 11 January 2016, available at [http://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=3\\_SA\\_37667](http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_37667).

<sup>(118)</sup> Case SA.44896 Aid implemented by the United Kingdom concerning CFC Group Financing Exemption, Commission decision of 2 April 2019. See: [https://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=3\\_SA\\_44896](https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_44896)

<sup>(119)</sup> As provided for by Council Directive 2011/96/EU (Parent/Subsidiary Directive), as amended by Council Directive 2014/86/EU.

<sup>(120)</sup> Council Directive 2003/49/EC of 3 June 2003.

<sup>(121)</sup> Council Directive 2011/96/EU of 30 November 2011.

to a low-tax country without being taxed, if that Member State does not apply a withholding tax on financial flows from the EU. Bilateral tax treaties with no or low tax countries should also be renegotiated if necessary to insure that domestic withholding taxes are not overridden by obligations under bilateral tax treaty.

Table 5 shows which Member States apply a withholding tax (i.e. exceeding 0%) on flows of interest, dividends or royalties to non-EU country jurisdictions.

TABLE 5. WITHHOLDING TAXES (WHT) ON FLOWS TO NON-EU COUNTRY JURISDICTIONS, 2020

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

Source: ZEW (2016b) and complementary desk research carried out by the Commission.

Notes:

(1) The table focuses on WHT rates specified in national corporate tax law; it does not reflect those specified in double tax treaties.

(2) A cross means that the Member State does not apply a WHT (exceeding 0%).

(3) In the Netherlands, a recent law has introduced WHTs on flows of royalties and interest to low-tax jurisdictions as of 1 January 2021.

(4) WHTs on royalties in IE are only applied on patents and with exemptions in certain cases, for WHTs on dividends there is a broad range of exemptions for corporate and individual shareholders. In DK, WHTs on interest are only applied if paid to foreign related entities. In SE, royalties are subject to income tax by assessment.

### *Box 2.5: EU list of non-cooperative jurisdictions<sup>(122)</sup>*

The EU list of non-cooperative jurisdictions is a common tool that Member States can use to tackle external risks of tax abuse and unfair tax competition. The idea was first floated in **the Commission's 2016** external strategy for effective taxation, which pointed out that a single EU blacklist would hold much more weight than a medley of national lists and would have a dissuasive effect on non-EU jurisdictions that do not play fair on tax matters. The first EU list was agreed by Member States in December 2017.

It was the result of an extensive screening of 95 jurisdictions, using internationally recognised good governance criteria, such as tax transparency (exchange of information), fair taxation and implementation of anti-base erosion and profit-shifting (BEPS) measures. The blacklisted countries are those that fail to make a high-level commitment to comply with agreed good governance standards or that do not deliver on that commitment on time. The Commission monitors the implementation of these commitments on behalf of the EU Member States. Since 2020, the EU list is updated twice a year based on progress made by jurisdictions. By the end of 2020, 95 jurisdictions had been screened.

The purpose of the list was **to address threats to Member States' tax bases**. However, it has evolved into something much wider than just a listing exercise. It has prompted unprecedented engagement between the EU and its international partners on important tax issues. It has raised the standards of tax good governance globally, both through improvements made by other countries and by influencing international criteria for zero-tax countries.

As a result of the EU listing process, countries have taken tangible steps to improve their tax systems, in line with international standards. Over 130 harmful regimes have been eliminated. Zero-tax countries have introduced new measures to ensure a proper level of economic substance and information exchange. In addition, many jurisdictions have brought their tax transparency standards into line with international norms for the first time. Moreover, dozens of **countries became members of international fora such as the OECD's Global Forum for Transparency and the Base Erosion and Profit Shifting (BEPS) Inclusive Framework**.

To ensure effectiveness, the EU list is linked to EU funding under new provisions in the Financial Regulation and other legislation, so blacklisted jurisdictions cannot be used to channel EU funds. In addition, Member States have agreed on national sanctions against the listed jurisdictions, which should be strengthened by the end of 2020. In its Communication on tax good governance in Europe and beyond, the Commission has also announced that it will continue to support Member States' **work on developing coordinated defensive measures for the EU list and screening additional jurisdictions in response to their requests**. The Commission is also updating the priority table<sup>(123)</sup> of non-EU jurisdictions for tax purposes and has announced that it will work on a revision of the EU listing criteria to make them fit for future challenges.

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<sup>(122)</sup> For the latest information on this initiative, including the current EU list, see: [https://ec.europa.eu/taxation\\_customs/tax-common-eu-list\\_en](https://ec.europa.eu/taxation_customs/tax-common-eu-list_en)

<sup>(123)</sup> Formerly known as the 'scoreboard': [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/2016-09-15\\_scoreboard-indicators.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/2016-09-15_scoreboard-indicators.pdf)

### 2.3.4 Estimates of tax fraud and evasion

Tax evasion is an illegal practice whereby taxpayers pay less than they should, by hiding or understating the base on which the tax should normally be paid. As the tax base is not easy to calculate, because some activities may be hidden, it is difficult to measure the actual extent of tax evasion. To calculate the magnitude of tax evasion it is necessary to establish the **'correct' benchmark level of the tax and have good available data. The revenue lost to tax evasion** can be estimated by using a top-down methodology<sup>(124)</sup> based on macroeconomic data such as national accounts data, or a bottom-up methodology<sup>(125)</sup> that uses more specific, individual-level data, e.g. from surveys and tax audits. Tax fraud is a deliberate form of tax evasion, which is generally punishable under criminal law. The term also includes situations in which deliberately false statements are submitted or fake documents are produced.

The non-observed economy (NOE) – which includes underground, informal and illegal activities – provides an indirect, though broader, indication of tax evasion. Tax evasion is a key motive (but by no means the only one) for economic agents to perform economic activities underground or informally. Laundering of proceeds from criminal activities and financing terrorism are other key reasons.

Statistical offices in Member States take account of the NOE when calculating national account statistics. They use various statistical methods or adjustments to overcome the gaps in national accounts information that stem from the NOE, but not all of them publish data on the adjustments.

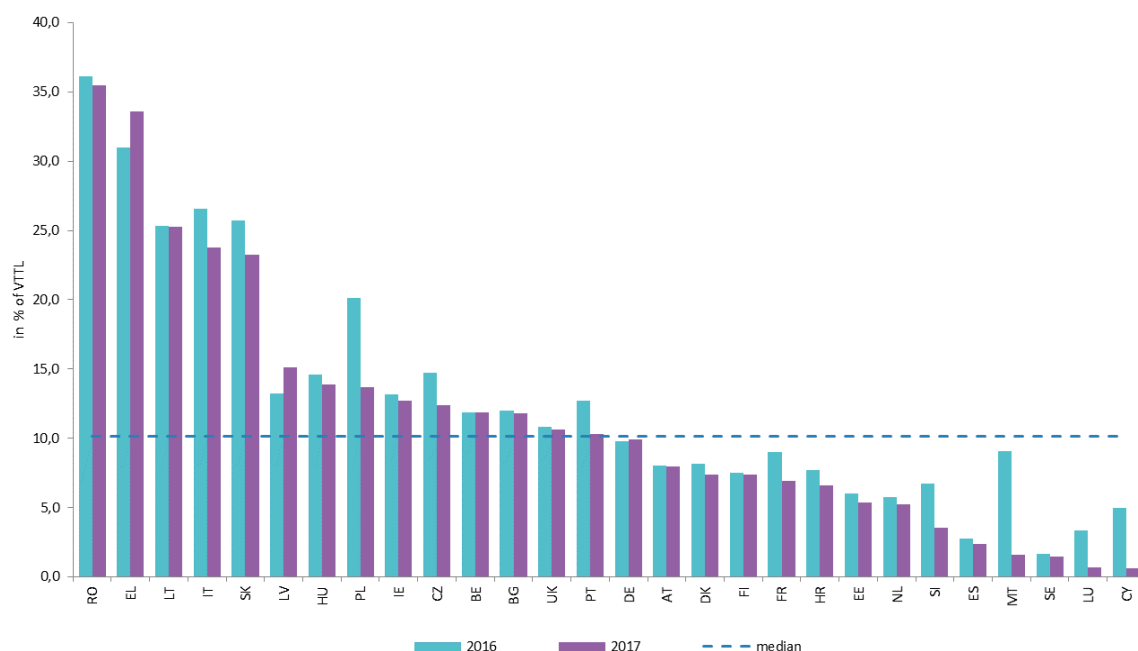
Moving from the whole economy to specific taxes, there are several estimates of how much tax remains uncollected. The VAT gap is the difference between the amount of VAT actually collected and the estimated amount that is theoretically collectable based on VAT rules. It measures the effectiveness of VAT compliance and enforcement measures in the country in question. It estimates revenue loss due to voluntary non-compliance (i.e. fraud, evasion and avoidance), bankruptcies, financial insolvencies and errors or miscalculations. The VAT gap in the EU was estimated at EUR 140.0 billion in 2018 (CASE et al., 2020). Graph 41 shows the VAT gap in EU Member States as a % of theoretical tax liability. Cross-border VAT fraud across the EU is estimated to account for about EUR 50 billion a year (EY, 2015). Due to the effect of the COVID-19 on the European and global economy, the VAT gap report has forecast a pronounced increase in VAT revenue losses in the EU, to EUR 164 billion in 2020. As a result, the VAT gap in 2020 is projected to increase by up to 4.1 pp up to 13.7%. VAT gap is pro-cyclical, during a growth cycle, taxable agents are more likely to comply with their obligation, because the risk of avoiding is valued higher than the benefit of avoidance, whereas during an economic downturn, the relative benefit of avoidance will be perceived as higher than the risk of avoiding.

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<sup>(124)</sup> Also referred to as the 'macro' or 'indirect' method.

<sup>(125)</sup> Also referred to as the 'micro' or 'direct' method.

GRAPH 41. VAT GAP (% OF THEORETICAL VAT LIABILITY), 2017-2018



Source: CASE et al., 2020.

Several Member States also estimate other tax gaps, e.g. the corporate income tax (CIT) gap. In response to a survey carried out by the Fiscalis Tax Gap Project Group (Fiscalis Tax Gap Project Group, 2018), nine Member States provided estimates of their CIT gap or have taken steps to do so (Belgium, Bulgaria, Denmark, Greece, Italy, Romania, Slovakia, Finland and Sweden). Four others said that they were planning to do so (Czechia, Portugal, Latvia and Lithuania). Unfortunately, national estimates are not always publicly available and cross-country comparison is not possible due to the use of different methodologies.

Tax evasion through underreporting of income by self-employed people produces non-negligible budgetary losses. A recent study by the European Commission Joint Research Centre quantified the loss at up to 1.6% of GDP (JRC, 2019). The self-employed have more opportunity to underreport their income for tax purposes, since their income is typically not subject to third-party reporting. This form of tax evasion has negative distributional implications, due to the high concentration of self-employed in the higher income groups.

Tax evasion by individuals in offshore financial centres represents sizeable tax losses for EU Member States. A study by ECOPA and CASE (2019) provides estimates of offshore wealth **held by individuals (for the world's main economies) and corresponding estimates of revenue lost** by the EU and its Member States due to international tax evasion. Global offshore wealth is estimated at EUR 7.5 trillion in 2016, with an estimated EUR 1.5 trillion held by EU residents (i.e. 9.7% of GDP, down from 15.7% in 2001). EU revenue lost due to international tax evasion was estimated at EUR 46 billion (0.3% of GDP) (see Graph 42). On average, France, Germany and the UK accounted for over 55% of this amount, in monetary terms. Member States with the largest offshore wealth as a share of their GDP are Cyprus, Malta, Portugal and Greece. In 2016, the countries with the largest ratios of level of revenue lost to tax evasion as a share of GDP were Malta (2.4%), Cyprus (0.7%) and Latvia (0.7%).



GRAPH 42. TOTAL REVENUE LOST IN THE EU DUE TO INTERNATIONAL TAX EVASION (€ BILLION)



Source: ECOPA and CASE, 2019.

Underreporting by the self-employed is substantial in all 14 of the EU countries<sup>(126)</sup> in the scope of the study, ranging from 10% of income reported by employees in Bulgaria and Cyprus to above 40% in Latvia. In most countries, the estimated impact is below 0.6% of GDP, while the largest impacts are found in Ireland (at around 0.9% of GDP, due to high levels of underreporting and a relatively high share of self-employed income) and Greece (at more than 1.6% of GDP, due to the high share of self-employed income).

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<sup>(126)</sup> Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Romania and Spain.

<sup>(127)</sup> Bulgaria, Croatia, Cyprus, Czechia, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Romania and Spain.

## 2.4 Contributing to social fairness and prosperity by creating jobs and addressing inequalities

The design of the tax and benefit system can be instrumental in stimulating economies, promoting growth, employment and equality of opportunity whilst ensuring a social safety net for those in need. The overall tax burden on employment needs to find a balance to fund welfare systems and public services without stifling job creation and employment.

On the supply side, a high tax burden can dis-incentivise work, especially for low income and second earners. Features of tax and benefit systems could discourage low-income and second earners, often women, from working or opting for full-time work. If this leads to an increase in low-work intensity and a reduction in income in households with children, a high tax burden may also have **knock-on effects on children's well-being** and access to good quality education.

Similarly, a high tax wedge discourages hiring, resulting in lower employment and higher unemployment rates. In turn, this would also increase government expenditures on unemployment and other social benefits. It may also discourage employers from investing in skill formation with an adverse impact on productivity and equality of opportunity.

The EU-27 employment rate (20-64) was on a slow upward trend from 2013, reaching 73.1 % in 2019, before falling as a result of the COVID-19 pandemic. The employment rate remains below the EU2020 75 % target rate<sup>(128)</sup> and as discussed below the COVID-19 pandemic **has negatively affected employment despite Member States' extensive use of short time work** and other support schemes. This highlights the ongoing challenges Member States face in activating and providing employment opportunities across all groups in their working-age populations. One challenge is closing the gender employment gap<sup>(129)</sup>, which has stagnated over the last six years as the male and female employment rates picked up by similar amounts since 2013.

Graph 43 compares full-time equivalent (FTE) employment rates of the total population, women and low-skilled workers. FTE employment rates reflect hourly work patterns and capture the extent of part-time work, which is hidden in the overall employment rates. In the graph, women are used as a proxy for second earners and the low skilled (ISCED levels 0-2, less than upper secondary education attainment<sup>(130)</sup>) are a proxy for low-income earners. Both groups have lower FTE employment rates, in part due to a much higher incidence of part-time work. Participation taxes are costs incurred when someone joins the labour market, including through **loss of other benefits. Of particular relevance to women's ability to work full time are the** availability, quality and affordability of early childhood education and care (ECEC) and long-term care services. In 2019, the highest FTE female employment rates were found in Lithuania, Latvia and Sweden (see Graph 43). FTE employment rate gaps between the total population and women range from 2.4pp (Lithuania) to 24.3pp (Malta, Italy and the Netherlands all over 24pp). The highest FTE low-skilled employment rates were recorded in Portugal and Malta (both over 60 %), which are also the EU member states which have the highest shares of low-skilled adults (25-64 years, 47.8 % and 44.2 % respectively vs EU-27, 21.6 %). The widest gap of low skilled compared to total employment was in Slovakia (47.2 pp).

**The recent years' growing trend in the employment rate reversed in 2020 due to the** impacts of the COVID-19 pandemic, and hours worked fell more than headline employment. The year-on-year seasonally adjusted quarterly employment rate fell in Q2 2020 and Q3 2020. **Women's disproportionate care burdens exacerbated the economic impacts they** faced from the pandemic<sup>(131)(132)</sup>. For example, women were more likely to reduce their working hours<sup>(133)</sup> to cope with increased care demands. The rate of decline for the year-on-year (seasonally

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<sup>(128)</sup> See: [https://ec.europa.eu/eurostat/statistics-explained/index.php/Employment\\_rates\\_and\\_Europe\\_2020\\_national\\_targets](https://ec.europa.eu/eurostat/statistics-explained/index.php/Employment_rates_and_Europe_2020_national_targets)

<sup>(129)</sup> The gender employment gap is the difference in male and female employment rates

<sup>(130)</sup> See: [https://ec.europa.eu/eurostat/statistics-explained/index.php/International\\_Standard\\_Classification\\_of\\_Education\\_\(ISCED\)](https://ec.europa.eu/eurostat/statistics-explained/index.php/International_Standard_Classification_of_Education_(ISCED))

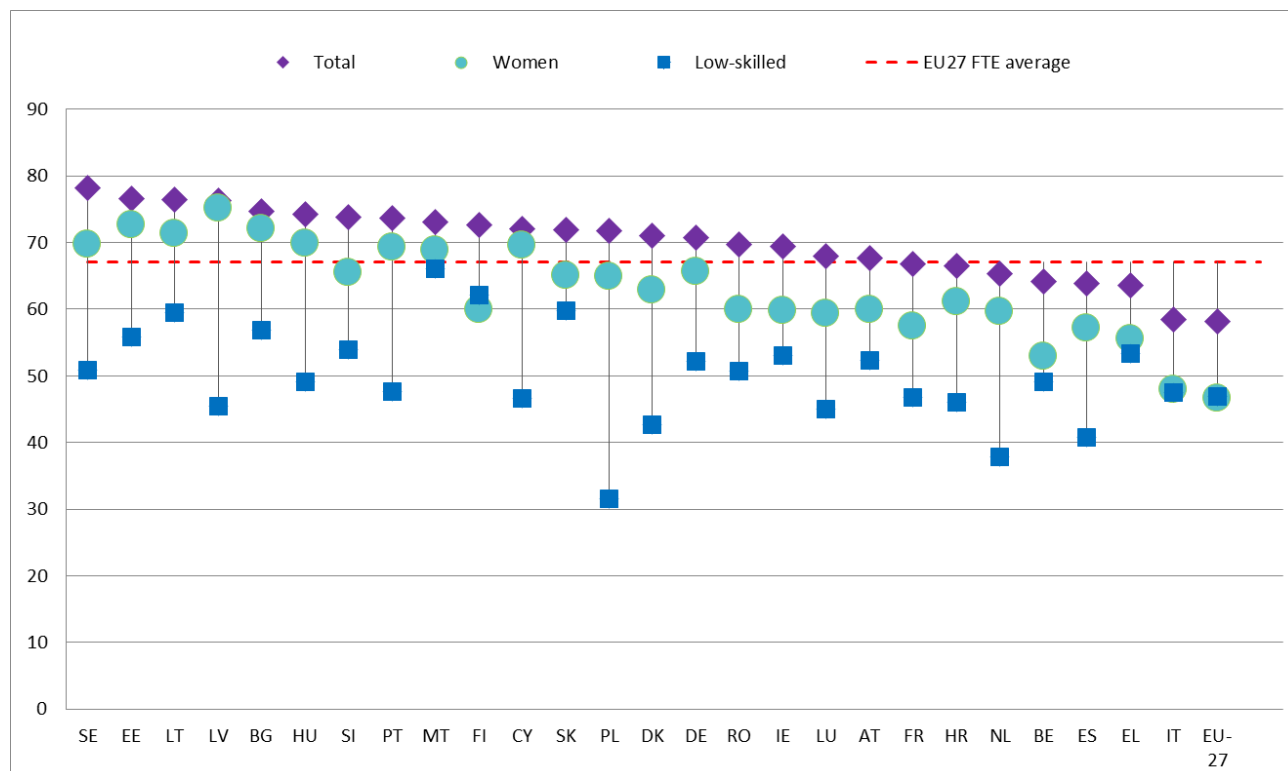
<sup>(131)</sup> JRC Science of Policy Report: [How will the COVID-19 crisis affect existing gender divides in Europe?](#), 2020

<sup>(132)</sup> <https://www.qualtrics.com/blog/inequitable-effects-of-pandemic-on-careers/>

<sup>(133)</sup> Data from ESTAT variable [Ifsi\_ahw\_q]

adjusted) quarterly employment rate in Q2 2020 was stronger for low-skilled workers and women compared to men and high-skilled workers (ISCED levels 5-8). The following quarter (Q3 2020) similarly showed stronger rates of decline for low and medium skilled women.

GRAPH 43. FULL-TIME EQUIVALENT EMPLOYMENT RATES, 20-64 YEARS – TOTAL POPULATION, WOMEN AND LOW-SKILLED (%), 2019



Source: Eurostat, extractions from EU-LFS microdata

#### 2.4.1 Overall tax burden on labour

The overall burden of taxes on employed labour is paid by both employees and employers in most Member States. This measure is known as the implicit tax rate (ITR) on labour income. It is an aggregate measure based on macroeconomic variables in the national accounts that is used to assess the tax burden on all employed labour. The ITR combines all tax rates on **personal income, namely personal income tax, employees' and employers' SSCs, and payroll taxes**. ITR is computed by dividing the sum of all labour taxes and employees' and employers' SSCs by compensation of employees. Graph 44 shows that the top personal income tax (PIT) rates (including surcharges but excluding SSCs) are generally higher than average labour tax rates for a single worker on the average wage<sup>(134)</sup>.

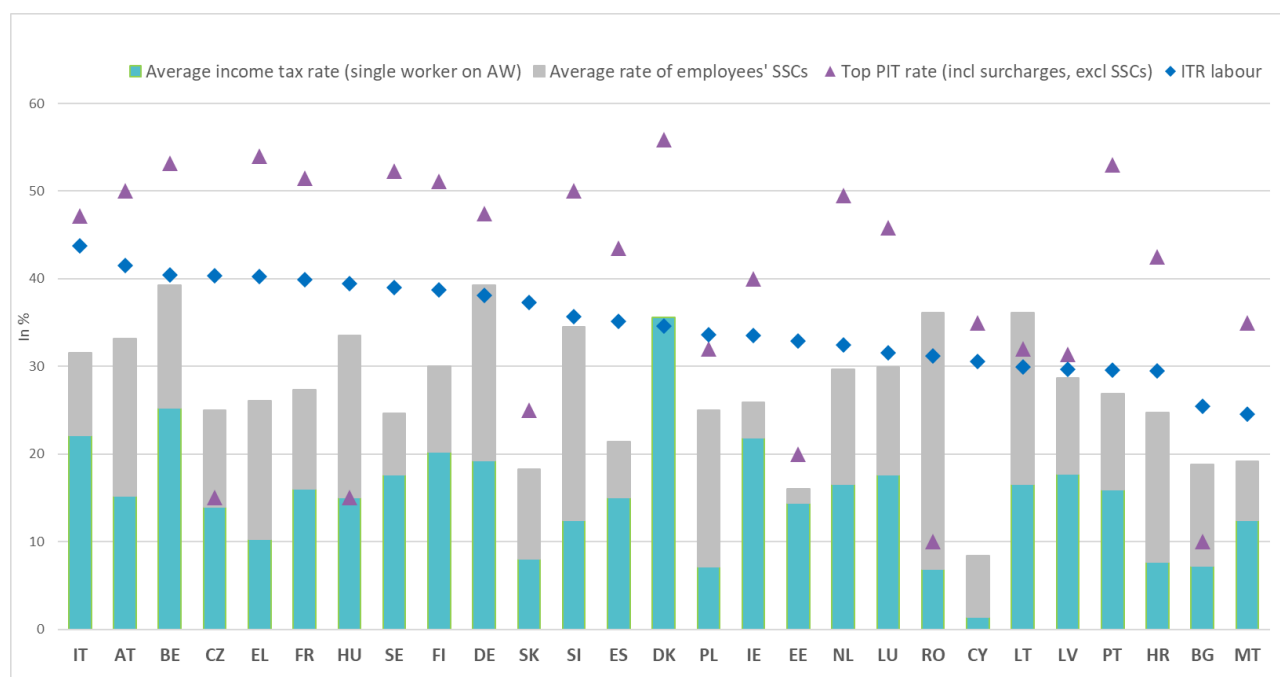
Indications of the differences in the structure of personal income and labour taxation are also shown on the graph. It reveals the extent to which different components of the labour tax base pay the tax burden on labour:

- the level of the top PIT rate differs greatly between Member States, from 10 % in Bulgaria and Romania to 55.9 % in Denmark. However, this should be interpreted with caution as the top rate may be applicable from very different income levels in different Member States;

<sup>(134)</sup> The average labour tax rate is the sum of income taxes and employees' SSCs as a percentage of gross income. It differs from the tax wedge, which also includes employers' SSCs.

- the labour tax rate for a single person on the average wage is therefore an important complementary indicator. Again, labour income taxation differs substantially between Member States, from 1.4 % in Cyprus to 35.6 % in Denmark. In addition, the gap between the top PIT rate and the average income tax rate (for average wage workers, excluding social contributions) varies substantially, from zero in Hungary to 43.8 pp in Greece; and
- the ITR on labour gives an indication of overall tax burden on labour, taking into account the whole income distribution. It is highest in Italy (43.8 %) and lowest in Malta (24.6 %).

GRAPH 44. TAX RATES ON PERSONAL/LABOUR INCOME (%), 2019 AND 2020



Source: Commission services based on Eurostat and OECD data.

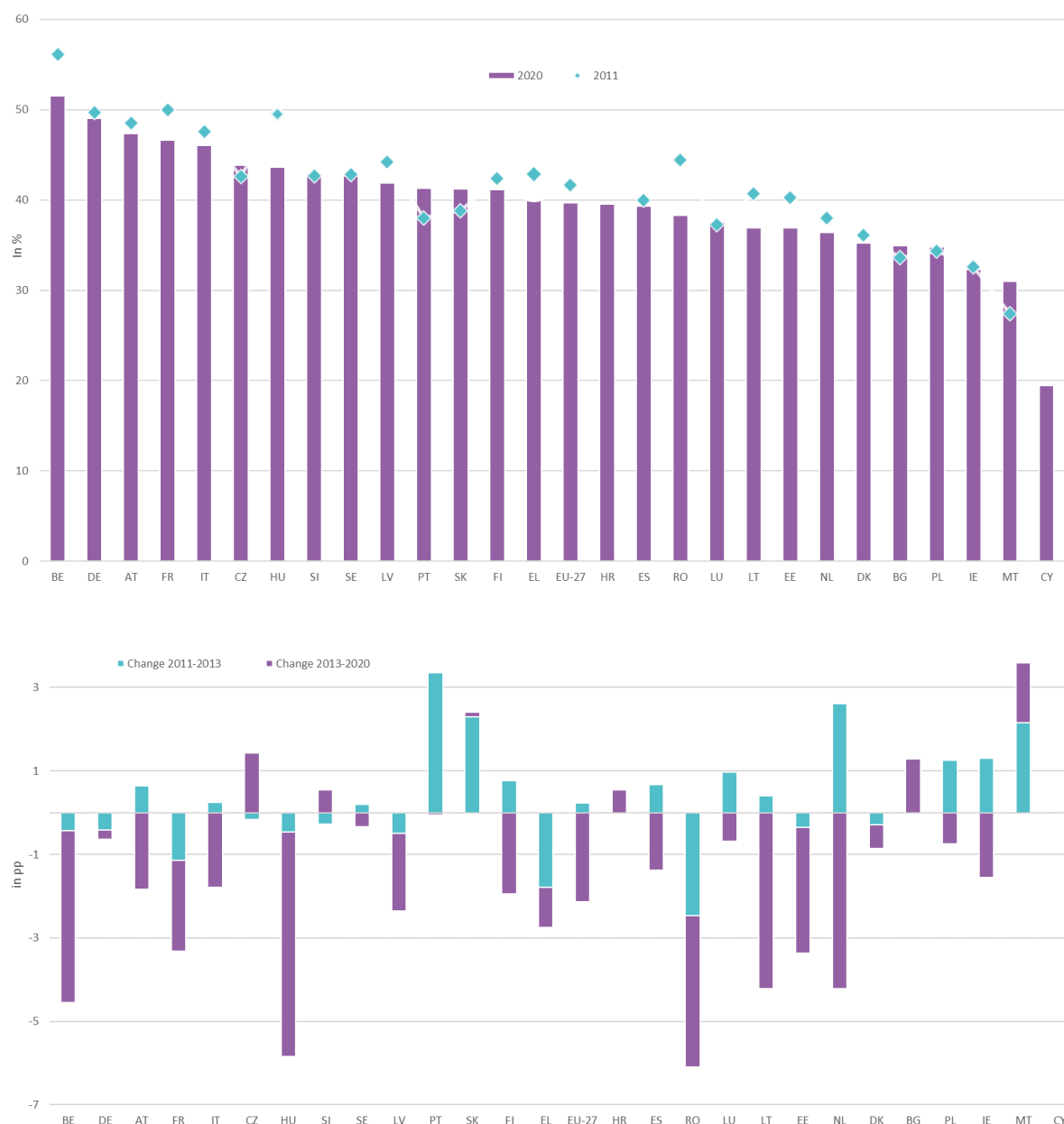
Note: The average income tax rates and average rate of employees' SSCs are from 2019. Top PIT rates are from 2020. ITR on labour are from 2019.

**The tax wedge measures the difference between employers' labour costs and employees' net pay.** It is an indicator of the burden borne by employers and employees and a high tax wedge negatively influences work and hiring incentives. The EU-27 tax wedge for a single person on an average wage has declined (by 1.7 pp) since 2015, to 39.7 % in 2020 (see Graph 45). However, that is still above the OECD average of 36 % (2019 latest data available). Since 2011, nine EU Member States have recorded notable declines in their tax wedges, with the strongest decreases in Romania, Hungary and Belgium. Conversely, over the same period, significant increases occurred in Malta, Portugal and Slovakia (see Graph 45). The tax wedge on labour for a single worker on an average wage and a single worker on a low wage (50 % of average wage) are indicators used by the Eurogroup for benchmarking progress in reducing the tax burden on labour<sup>(135)</sup>.

<sup>(135)</sup> See: [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/ecofin/144872.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/144872.pdf)  
<http://www.consilium.europa.eu/en/press/press-releases/2015/09/12-eurogroup-statement-structural-reform/>

GRAPH 45. TAX WEDGE FOR SINGLE PERSON EARNING AN AVERAGE WAGE, 2020

a) 2020 and 2011 and b) changes 2011-2013 and 2013-2020

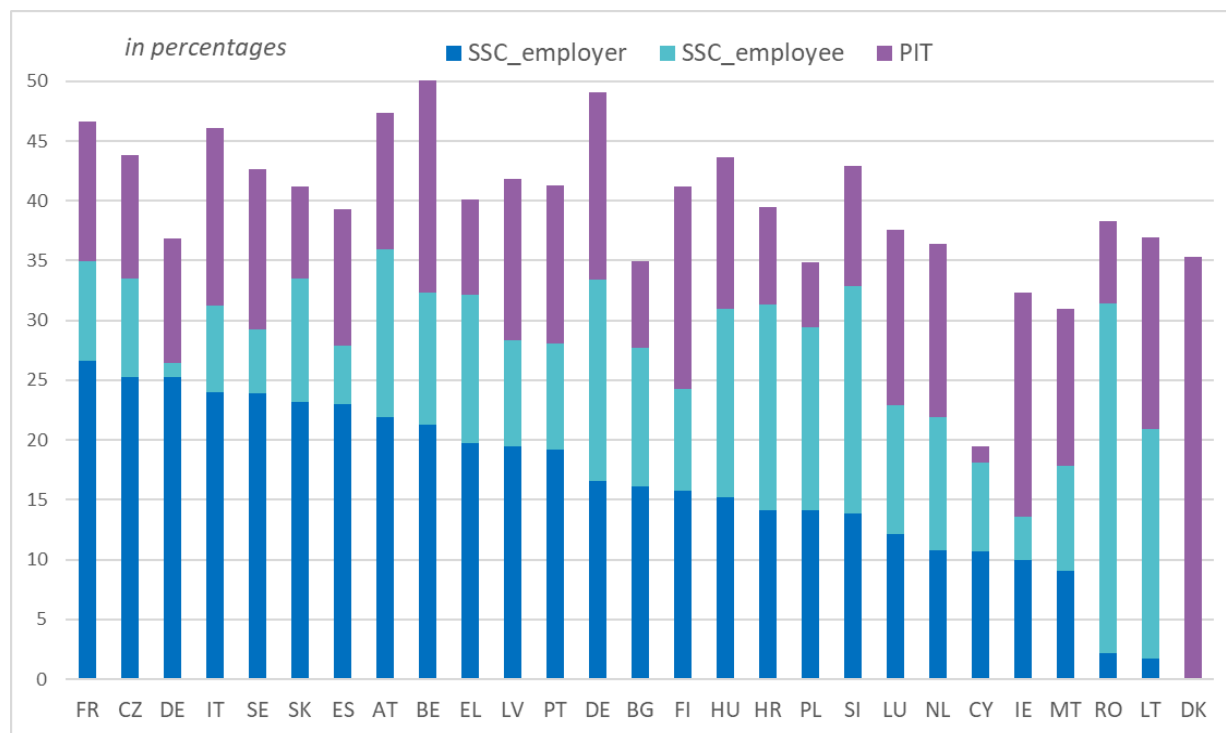


Source: European Commission, DG ECFIN, Tax and benefits database, based on OECD tax/benefit model (updated March 2021).  
Notes: 2011 data are not available for Croatia and Cyprus and 2013 data is not available for Cyprus.

The composition of the tax wedge varies significantly across Member States. Its components (personal income tax (PIT), employee SSCs and employer SSCs) adversely influence labour supply and/or demand, depending on who bears the cost. However, SSCs have an important link to contributory-based social benefit entitlements (e.g. unemployment insurance, pensions) in many Member States. SSCs' importance has been amplified in light of economic restrictions to curb the COVID-19 pandemic resulting in greater demands for, for example, unemployment benefit payments. It has also highlighted the importance of addressing forms of tax evasion such as 'envelope wages' - workers working in the informal economy - that leave many unprotected in times of financial need. Informal workers receive a wage but have no access to insurance-based social benefits or training. The strength of the link between contributions and pensions varies across Member States. Reducing pension contributions for low-income workers may work to increase employment rates. It needs, however, to be part of a comprehensive strategy that includes options for recouping potential revenue loss and safeguarding low-income workers access to the social safety net to avoid the risk of increasing future pensioner poverty.

An illustration of different breakdowns of the tax wedge for a single worker on the average wage in 2020 are shown in Graph 46. France, Czechia and Germany have the highest employer SSC contributions, accounting for over 25 % of employment costs. Denmark has no SSC elements in their tax wedge, and employers SSCs are less than 5 % in Lithuania and Romania. Overall combined SSCs (employer and employees) are largest as a proportion of employment costs in Austria (36 %) followed by France, Slovakia and Czechia. Apart from Denmark, Ireland (13.6 %) and Malta (17.8 %) have the lowest overall SSC contributions as a proportion of labour costs. Graph 46 highlights that Romania, Denmark, and Lithuania have the highest proportion of employment costs paid by employees (by combining PIT and employee SSCs). The lowest proportions are found in Cyprus (8.8 %), Germany (11.6 %) and Spain (16.7 %).

GRAPH 46. TAX WEDGE COMPOSITION FOR A SINGLE EARNER ON THE AVERAGE WAGE, 2020



Source: European Commission, DG ECFIN, Tax and benefits database, based on OECD tax/benefit model (updated 05/03/2021).

Notes: (1) Member States are ranked in descending order by the level of the employer SSC.

(2) Family allowances do not influence the data as the data is for a single earner with no spouse or children.

## 2.4.2 Tax burden on low-income earners

A high tax burden on labour can dampen labour market activity, particularly by low-income earners, who are often more responsive to rate changes. Women and other disadvantaged groups are more concentrated in the low-income earning brackets, so addressing their tax burden could reduce inequality. Finally, stimulating the employment of low-income earners can boost aggregate demand, as they also have a higher average propensity to consume.

Some measures, which incentivise taking up employment, may at the same time dampen incentives to work full-time. Tax credits and tax-free allowances may reduce the net tax burden at low earnings and thus boost in work income and incentivise labour market entry. However, their tapered withdrawal at higher earnings levels may increase marginal effective tax rates and reduce the incentives to increase working hours or to work full time, especially for those with other costs to working such as childcare. Their composite design needs to strike a balance between ensuring a decent living and employment opportunities for all without creating disincentives or barriers to full-time employment and career progression.

The tax wedge for single earners with no children is higher for those on average wages (AW) than it is for those earning 67 % of AW, and in turn slightly higher than it is for those on 50 % of AW<sup>(136)</sup> (see Graph 47). This demonstrates some progressivity of taxes for those on average to low earnings, in the EU-27. However, in Hungary, Romania, Bulgaria and Cyprus the tax wedge is the same at the average wage as is it at 67 % and 50 % of AW levels. Whereas, in France, Belgium and Luxembourg the differences in the tax wedge between the three earnings levels are most substantial.

The tax wedge for single earners on low incomes (50 % and 67 % of average wage) in the crisis year 2020 is lower than in the past crisis year 2009 (see Graph 47). In 2009, when the economy was hit by a severe economic shock, the tax wedge was 33.8 % and 37.5 % for earners at 50 and 67 % of AW respectively (see Graph 47). In 2020, the tax wedge for earners at 50 and 67 % of AW was 31.3 % and 35.8 %, respectively. Between these points, the decline for those on 50 % and 67% of average earnings was largest in France and Belgium respectively. However, the tax wedge increased for low-income earners in some Member States during the 2009-2020 period. Increases for those on 50 % of average wage were strongest in Malta and Slovakia. At 67 % of average wages, it increased most in Malta followed by Portugal. Lower tax burdens on low-income earners should **increase economies' capacity to recover from the shock in a more equitable way** as it lowers barriers to hiring low-skilled workers who were hardest hit by the crisis (see Chapter 4).

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<sup>(136)</sup> This is one of the indicators used by the Eurogroup in benchmarking the tax burden on labour (alongside the tax wedge for a single person on the average wage – see above).

GRAPH 47. LOW WAGE EARNERS (50 % & 67 % OF AVERAGE WAGE) COMPARED TO AVERAGE WAGES, IN 2020

a) 2020 figures and b) changes 2009 - 2020



Source: European Commission, DG ECFIN, Tax and benefits database, based on OECD tax/benefit model (updated Mar 2021).

**The 'inactivity trap' is caused by implicit taxes incurred by moving into work and may therefore perpetuate inactivity.** This effect is realised when net gains in disposable income on taking up work are small, due to costs brought about by the tax/benefit system largely offsetting the increase in gross labour income. These costs are realised through increases in tax and social security charges as well as a reduction or even withdrawal of cash and in-kind benefit support, including for housing. It therefore creates a trap and acts as disincentive to work. The 'inactivity trap' is calculated by measuring the part of the additional gross wage that is taxed away where a



previously inactive person<sup>(137)</sup> takes up a job, i.e. showing the remaining financial incentive to move from inactivity (and social assistance) to employment.

Four Member States (Estonia, Slovakia, Greece and Italy) share the lowest traps for single earners at both 50 % and 67 % of average wage (see Graph 48). The most pronounced traps for low-income earners on 50 % of average wages are in the Netherlands for both groups and in Denmark and Sweden. For low-income earners on 67 % of AW the most pronounced traps are in the Netherlands, Slovenia and Finland. It is worth noting however, that whilst this ranking might be attributed to their generous out-of-work welfare systems, inactivity in these Member States is well below EU-27 average. Well-designed welfare systems providing adequate support to unemployment people to find work may speed up labour market re-entry, as will good skill levels and robust labour demand. The contribution of taxation to the inactivity trap is greatest in Romania and it is lowest in Denmark followed by Spain and Cyprus.

GRAPH 48. INACTIVITY TRAP FOR LOW INCOME EARNERS, 2020

a) 50% of average wage (AW) and b) 67% of average wage (AW)



Source: European Commission, DG ECFIN, Tax and benefits database, based on OECD tax/benefit model (updated 05 Mar 2021).

<sup>(137)</sup> A person not entitled to receive unemployment benefits, but eligible for income-tested social assistance.

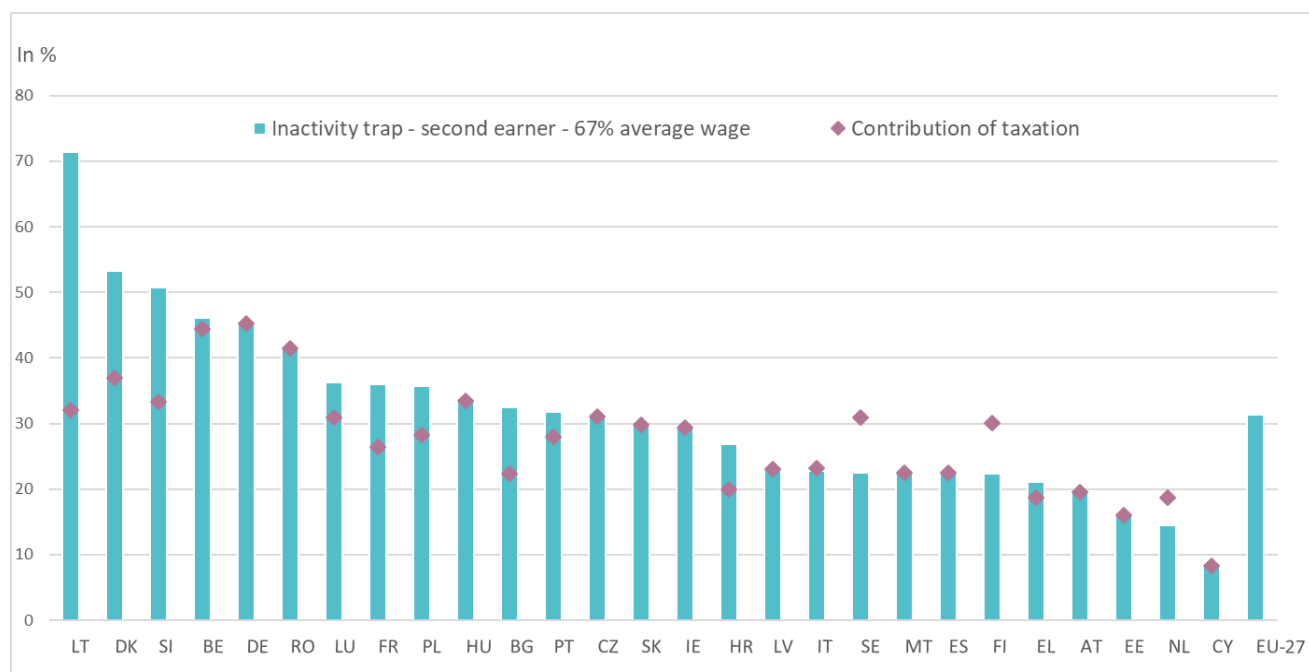
### 2.4.3 Tax burden on second earners

The tax burden on second earners has important gender equality implications as the majority (78%) of second earners in the EU are women. Joint progressive taxation systems **can negatively impact second earners' entry into employment and hours worked by creating a high marginal tax burden and potentially contradicting the principle that more work should equal more pay.** The degree of the joint taxation of the combined income of a couple (including transferable tax credits) and the benefit system design (e.g. the withdrawal of means-tested benefits) affect the level of the inactivity trap for second earners. Joint taxation can lower single or dual-earner **couples' overall tax burden where earnings are unevenly distributed between the partners. It can** inflate marginal tax rates for non- or lower earners, as their income is all effectively taxed at a higher marginal rate in line with their higher-earning partner. This can therefore drive gender employment gaps. It also contributes to the unadjusted gender pay gap, as the differences in average hours worked is the second largest contributor of the explained proportion of the gender pay gap.

Problems with the availability of affordable early childhood education and long-term care adds to the levy on women as second earners. They would have to factor in these costs if considering moving into to work or working full-time. These costs are known as the participation tax rate. For low-earning mothers in some Member States, the cost of early childhood education and care (ECEC) alone accounts for as much as 90 % of their earnings. It even exceeds earnings in Cyprus and Slovenia, leaving them financially better off not working. Some Member States offer a range of support to families, from guaranteed places (for example Denmark, Estonia and Latvia, though not necessarily free), fee reductions and subsidies covering part or all costs, and tax credits, though the latter tend to be regressive. Moreover, though targeted support can result in substantial reductions for low-income earners, ECEC costs could still be quite high (1/4 full-time earnings), especially when its use entails loss of generous homecare or child-raising allowances offered in some Member States (Finland, Slovenia and Slovakia) (see Rastrigina Olga, et al., 2020). Measures that lead to long-term career interruptions for women have knock on impacts on the gender pay gap; where this is common the pay gaps are highest in the EU.

Taxation contributes significantly to the second earners inactivity trap in most Member States. The inactivity trap for second earners is highest in Lithuania, Denmark, Slovenia, Belgium, Germany and Romania (see Graph 49). This means that if an inactive spouse with two children takes up a job at 67 % of the average wage in Lithuania, more than 70 % of her earnings would be lost in additional taxes and withdrawn benefits. In contrast, this implicit tax rate is less than 20 % in Estonia and the Netherlands, and less than 5 % in Cyprus. The contribution of taxation is most pronounced in Belgium, Germany and Romania, contributing over 40 % in potential loss of revenue for a second earner on 67 % of average wage when entering paid employment.

GRAPH 49. INACTIVITY TRAP FOR SECOND EARNERS, 2020



Source: European Commission, DG ECFIN, Tax and benefits database, based on OECD tax/benefit model (updated March 2021).

Notes: (1) The data are for a second earner on 67 % of the average wage in a two-earner family with two children; the principal earner is on the average wage.

(2) 'Contribution of taxation (including SSCs)' refers to the percentage of additional gross income that is taxed away due to taxation and SSCs (other elements contributing to the low wage trap are withdrawn unemployment benefits, social assistance and housing benefits).

(3) The second earner on 67% and the principal earner on 100% of average wage with two children

**A 'low-wage trap' disproportionately affects women if the rate at which taxes are increased and benefits withdrawn is too steep when earnings rise.** For second earners, as with the inactivity trap, taxation plays a key role in determining the level of the low-wage trap, in most Member States. This differs from the inactivity trap in that they are active but working part-time. Graph 50 shows the percentage of additional earnings 'taxed away' when second earners increase their earnings from a third to two thirds of average wage, if they increase their hours of work. On average second earners can lose around a third of their incremental earnings across the EU, rising to 60 % in Belgium and Slovenia. As above, the availability of affordable and good quality care services, as well as a wide range of well-designed work-life balance policies, can influence people's decisions on whether to work longer hours. The low wage trap for second earners is highest in Belgium and Slovenia, where the contribution of taxation is also most pronounced.

GRAPH 50. LOW WAGE TRAP FOR SECOND EARNERS, 2020



Source: European Commission, DG ECFIN, Tax and benefits database, based on OECD tax-benefit model (updated Mar 2021).  
 Note: A second earner whose wages increase from 33 % to 66 % and the principal earner is on 100 % of AW, with two children

#### 2.4.4 Inequalities and social mobility in the EU

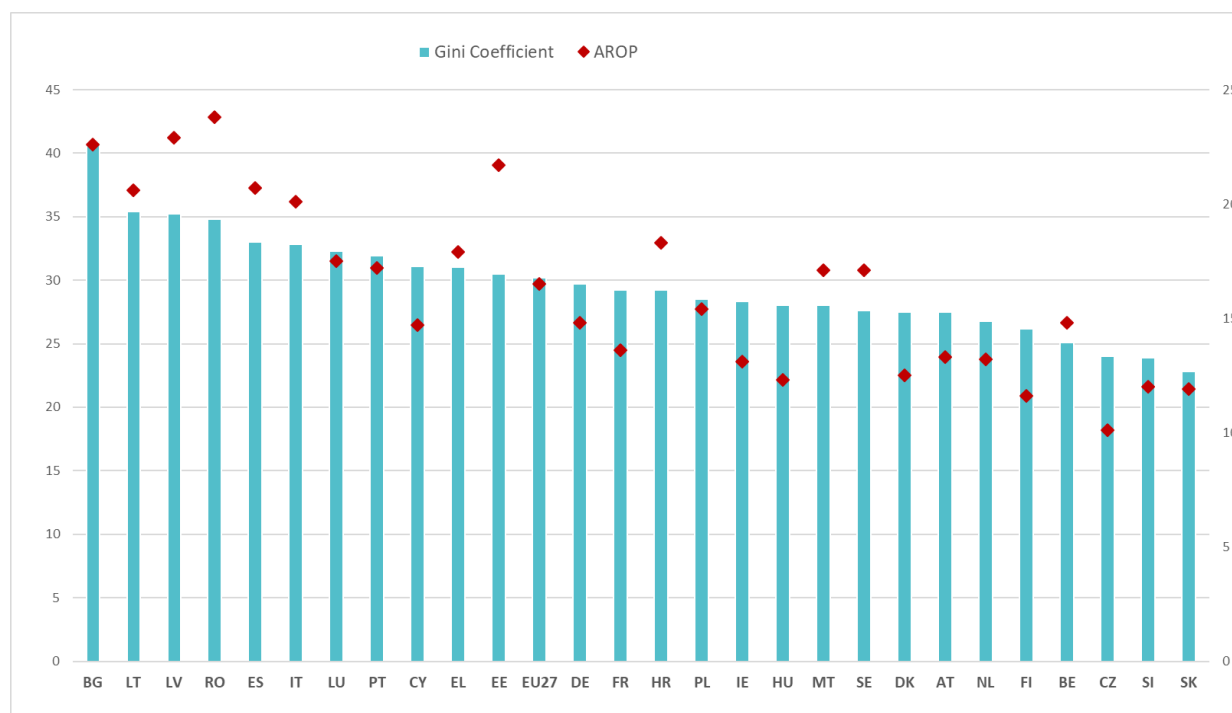
This section takes a closer look at how taxation can be designed to address inequality and foster social mobility. It examines how equal EU societies are and the extent to which social mobility is enabled by the tax system. It also considers the impact on inequality of different **Member States' tax systems**.

After dropping considerably between the early nineties to 2008, income inequalities in the EU largely stabilised. The decline and stabilisation have been attributed partly to the success of automatic stabilisers primarily at national level, mainly (an increase in the coverage and/or duration of) unemployment benefit schemes. Interestingly, these had an important role during financial and economic crises to mitigate the impact of the crisis on poverty levels and inequality. In the current crisis, the temporary Support to mitigate Unemployment Risks in an Emergency (SURE)<sup>(138)</sup> was made available providing supranational support and may also help mitigate the negative impact of the crisis on income and its distribution. The EU-level picture hides huge variation in the evolution of inequality for Member States over the period. Between 2008 and 2019, inequalities widened significantly in 10 Member States, in particular Bulgaria, Luxembourg, Sweden, Denmark, Cyprus and Italy. Conversely, 13 Member States managed to reduce inequalities, in particular Portugal, Poland, Belgium, Greece and Latvia.

Poverty and inequalities in the EU are considered comparatively low on a global level, aided by a relatively healthy social welfare system (Filastro S, 2019). However, there is still significant income inequality. Graph 51 highlights the correlative relationship of indicators of poverty and income inequality. The Gini index of income inequality (disposable income after taxes and transfers) descends fairly uniformly with the population at risk of poverty (AROP), showing the overall positive correlation between poverty and inequalities in EU Member States.

<sup>(138)</sup> See: [https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/funding-mechanisms-and-facilities/sure\\_en](https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/funding-mechanisms-and-facilities/sure_en)

GRAPH 51. INCOME INEQUALITY, 2019



Source: Eurostat, EU-SILC (online data codes: ilc\_li02 and ilc\_di12).

Notes:

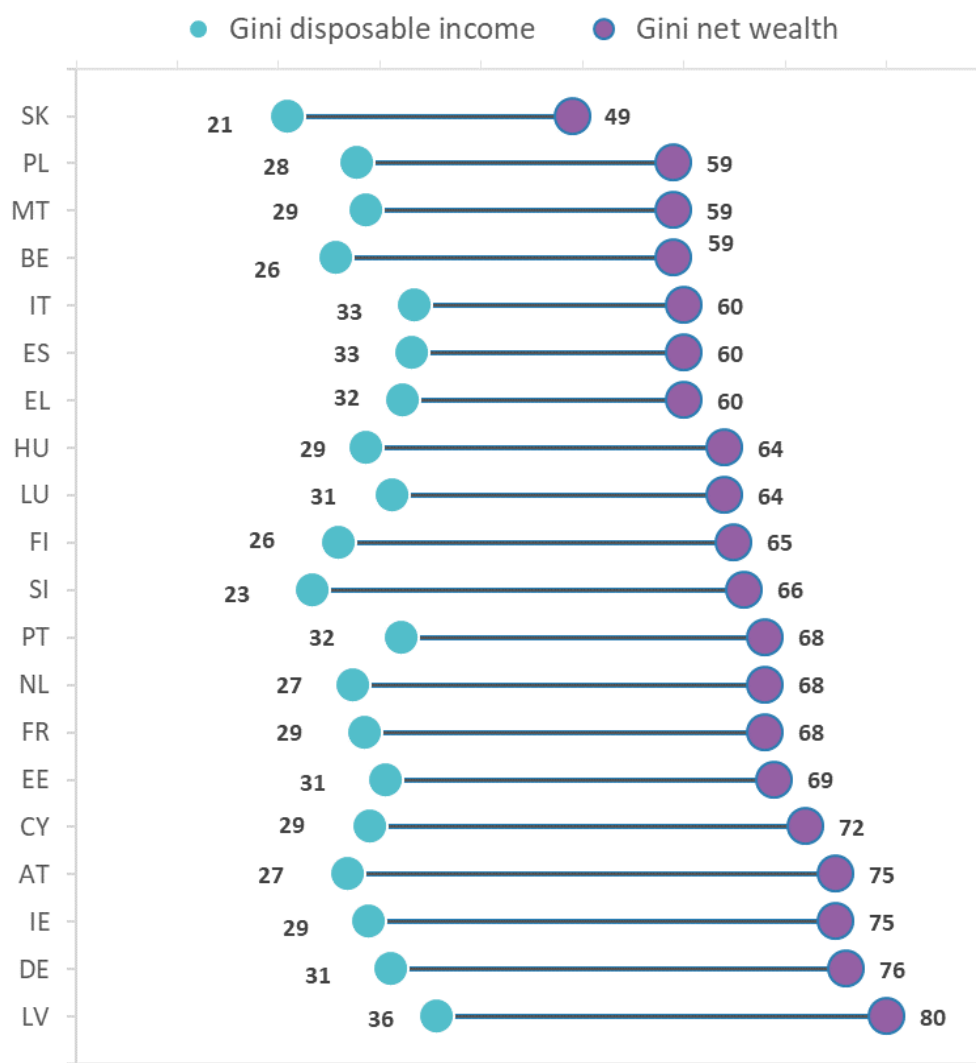
(1) Lhs: Gini coefficients (scale of 0 to 100). The value 0 corresponds to perfect equality (same income for everybody), while 100 corresponds to maximum inequality (all income distributed to one person and the others have nothing);

(2) Rhs: 'at risk of monetary poverty rate' as percentage of the total population. The indicator shows the proportion of the population earning less than 60% of the median equivalised income after transfers and taxes;

(3) EU-27 average is calculated as the population-weighted average of individual national figures.

Wealth inequality is also important as lack of wealth makes it more difficult to access credit, which has implications for skills formation and consequently labour income. However, wealth inequality is difficult to measure and analyse, as wealth data is not easily available. Wealth inequality in the EU based on the latest data available (see Graph 52) is greater than income inequality. It ranges from 49 on the Gini index for Slovakia, which also has the lowest (Gini of 21) income inequality, up to 80 on the Gini index for Latvia, which also has the highest income inequality (Gini of 36) in the data. The way Member States tax various aspects of wealth differs across the EU and, together with other elements such as property ownership, may contribute to the observed differences in the wealth Gini, or why and by how much this is higher than income inequality.

GRAPH 52. INCOME EQUALITY (2018) AND WEALTH INEQUALITY (2014)



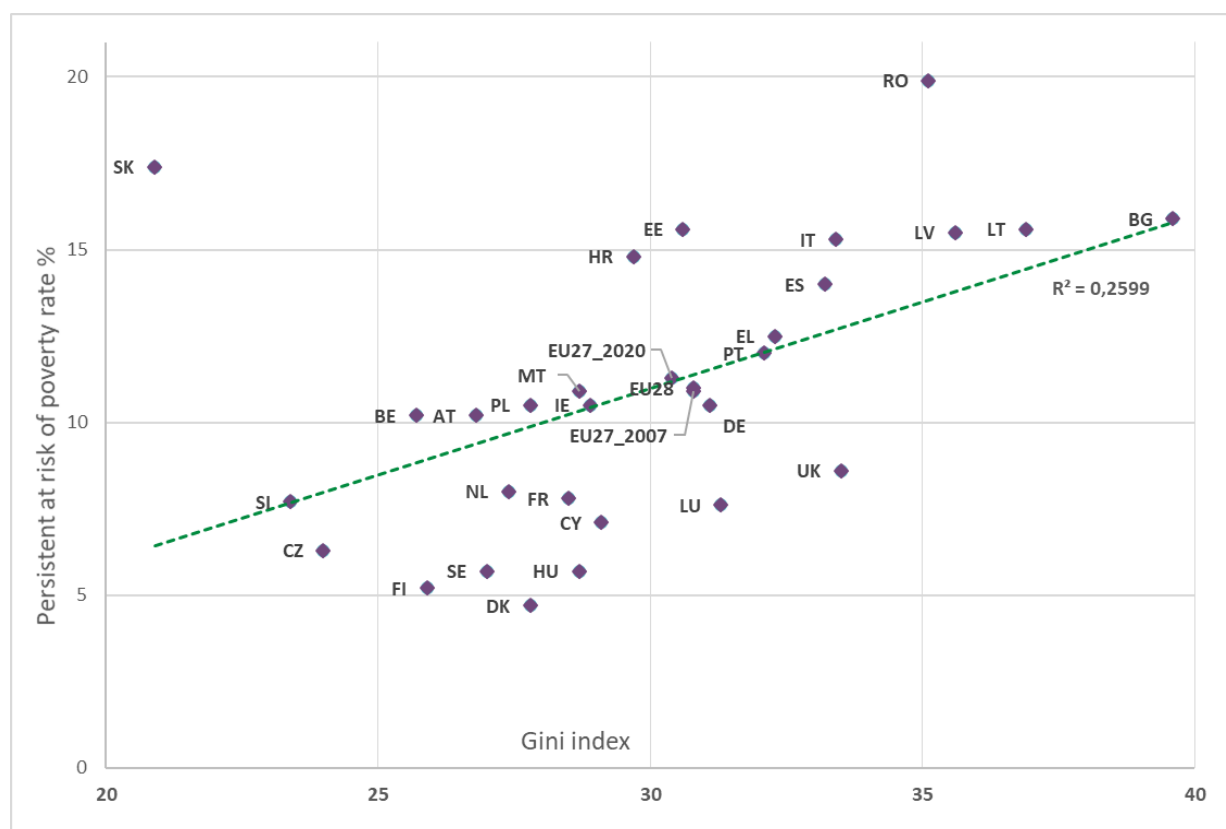
Source: European Commission computations based on ECB, 2016b and Eurostat, EU-SILC 2017 [ilc\\_di12](#).

Notes: No comparable data available for BG, CZ, DK, HR, LT, SE and RO; EU-SILC 2018 data are based on income generated in 2017 (except IE, where they are based on income generated in 2017).

Fairness is associated with the potential for upward social mobility made possible through equality of opportunity for all. Social mobility refers to **an individual's likelihood of** changing their socio-economic status by moving either up or down the income distribution<sup>(139)</sup>. Earning a low income perpetuates economic disadvantage, restricts social mobility and carries on across generations. To examine intergenerational mobility, the persistent at risk of poverty (PAROP) is an indicator used as a proxy and combined with the Gini index (see Graph 53). Graph 53 shows the strong positive correlation between the two indicators, suggesting that greater inequality limits the intra-generational mobility potential in a society.

<sup>(139)</sup> Absolute social mobility, measures whether living standards have increased overall from one generation to the next.

GRAPH 53. INEQUALITY AND AT RISK OF POVERTY, 2018



Source: Eurostat, EU-SILC, 2018, (online data codes: ilc\_di12 and ilc\_li21).

Notes: EU-27 average is calculated as the population-weighted average of individual national figures;

(1) The scale of Gini coefficients ranges from 0 to 100. A value of 0 corresponds to perfect equality, while 100 corresponds to maximum inequality.

(2) The 'persistent at risk of poverty' rate is defined as the percentage of the population living in households where the equivalised disposable income was below the 'at risk of poverty' threshold for the current year and at least 2 of the preceding 3 years.

(3) For SK, 2016 data for the 'at persistent risk of poverty' indicator are not yet available. For this graph, we used 2016 data for both the 'at persistent risk of poverty' indicator and the Gini index.

(4) The EU-27 average is calculated as the population-weighted average of individual national figures.

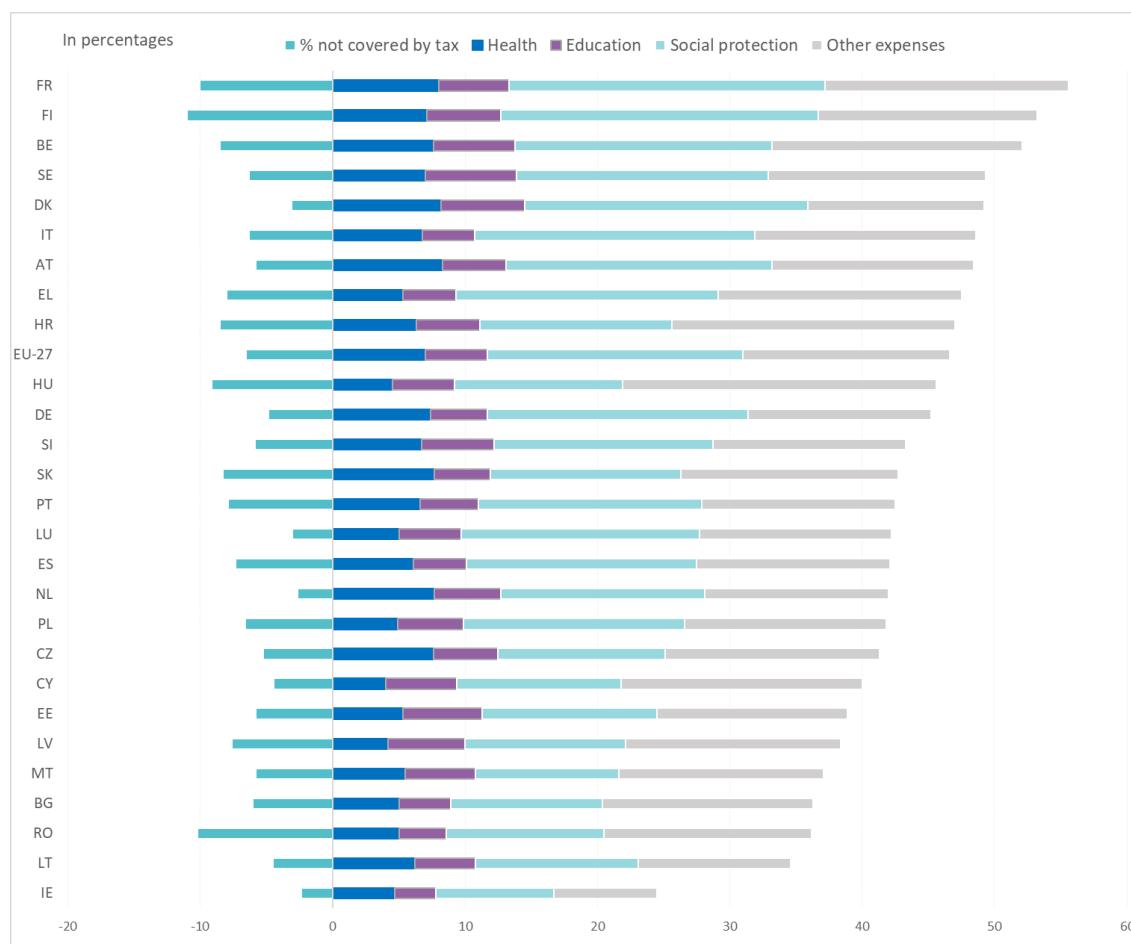
(5) EU-SILC 2018 data are based on income generated in 2017 except for IE.

Groups at the lower end of the socio-economic distribution are more exposed to a wide range of disadvantages. These include environmental health hazards (e.g. air pollution, noise) or increased socio-economic vulnerability, as seen in the COVID-19 pandemic. Other global developments, such as climate change, automation or population ageing also disproportionately affect the lower socio-economic groups and are more likely to affect certain regions, business sectors and populations. Therefore, when policies aimed at addressing environmental degradation (including environmental taxation) are being designed, their distributional impacts should be carefully assessed. In that regard, policy packages need to be holistic and sustainable in their response to economic, social, and environmental challenges.

## 2.4.5 The role of taxation in fostering social mobility

National tax and benefit systems seek to redistribute income, and to a lesser extent wealth, to reduce inequality and foster equality of opportunity, notably by funding public services for citizens. Graph 54 shows education, social protection and other spending in Member States as a proportion of GDP. Access to affordable healthcare and education including early childhood education and care are seen as particularly important early life stage investments that deliver high returns. They have the potential to increase educational attainment levels, strengthen labour market attachment and prevent or minimise, costly health issues.

GRAPH 54. GOVERNMENT EXPENDITURE AND TAX REVENUE, 2019



Source: European Commission, DG Taxation and Customs Union, based on Eurostat data COFOG and gov\_10a\_exp

Note: The tax-to-GDP ratio shows the total receipts from taxes and compulsory actual SSCs. Other sources of revenue, e.g.; sales of goods and services (issuance of licences, rental of produced assets), property income (interests, dividends, rent income), other current transfers (from international institutions), other subsidies on production, and other capital transfers and investment grants, are not shown. Besides financing through revenue, government expenditure can also be financed by running a deficit (financed by incurring liabilities or selling financial assets).

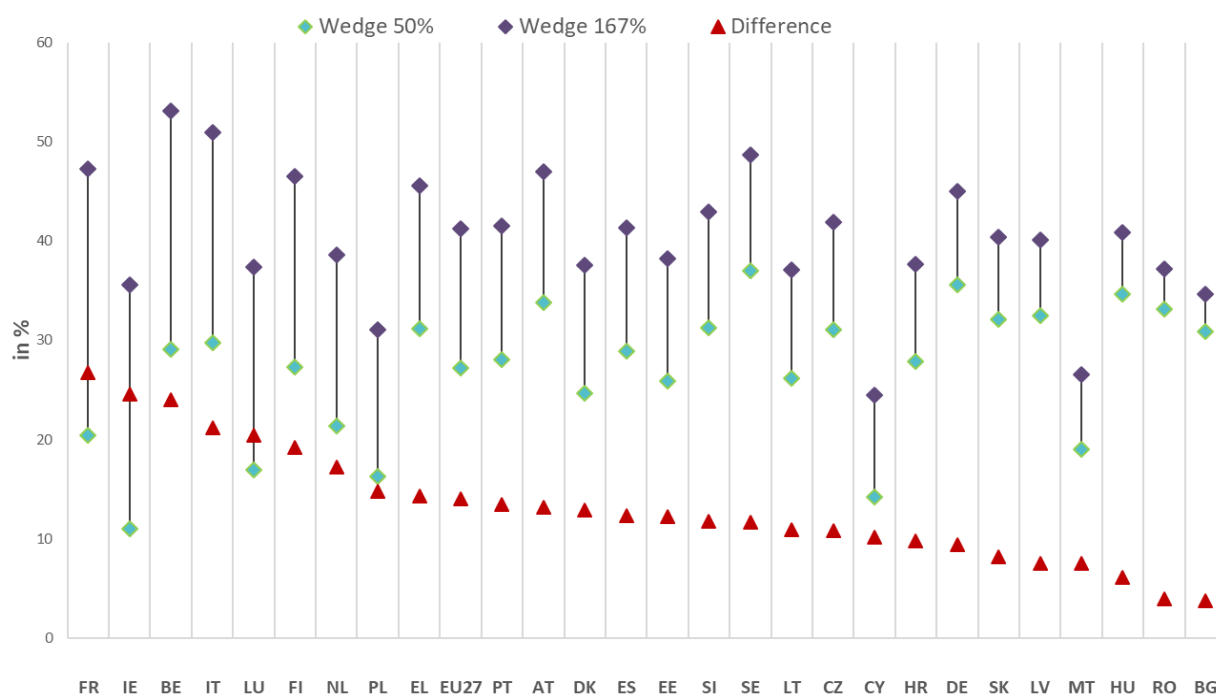
The progressivity of a taxation system refers to the extent to which it varies tax levied according to income levels. Progressivity in a taxation system can contribute to alleviating poverty and inequality, through a mix of measures such as graduated tax brackets, tax credits, tax exemptions, benefits and social services. The progressivity of personal income tax is an important measure of the redistributive effect of tax and benefit systems. However, the incorporation of progressive elements in a taxation system must guard against excessively reducing incentives to work and invest, which could in turn hamper job creation and so the fight against poverty and inequalities.

The degree of progressivity of labour income taxation can be approximated by comparing the tax wedges of high (167 %) vs low (50 %) income earners (percentages of the average wage). Graph 55 compares tax wedges for these two earnings levels using six family



compositions (single person, one earner couple and two earner couples, in each case with either two children or none) weighted according to their prevalence in the Member State. At the EU level, there is a 14 pp difference between the high vs. low income earner tax wedge. France, Ireland and Belgium show the highest labour income progressivity, whereas Bulgaria, Romania and Hungary have the lowest. The progressivity is theoretical, based on hypothetical households with **standardised earnings**. As such, it reflects Member States' policy choices (levels of social contributions, family allowances and benefits, etc.).

GRAPH 55. TAX PROGRESSIVITY: THE DIFFERENCE BETWEEN THE TAX WEDGE AT HIGH (167 %) AND LOW (50) EARNINGS (AVERAGE OF SIX FAMILY TYPES), 2019



Source: European Commission services based on Eurostat and OECD data.

Notes: (1) The indicator is based on tax wedge data for a variety of family compositions (single person, one-earner couple, two-earner couples, all three with two children and with none) weighted according to their prevalence in each MS.  
(2) A two-earner couple is assumed to be someone earning 67 % of the average wage and the other earning 50 % or 167 % of AW.  
(3) Recent data for Cyprus are not available.  
(4) Countries are ordered in descending order by the size of the difference between the tax wedges at 167 % and 50 % AW.

Complementing the progressivity indicator, graph 56 shows the extent to which tax and benefit systems reduce income inequality. It is based on actual income data and compares market and disposable income inequality at four stages expressed by the Gini index:

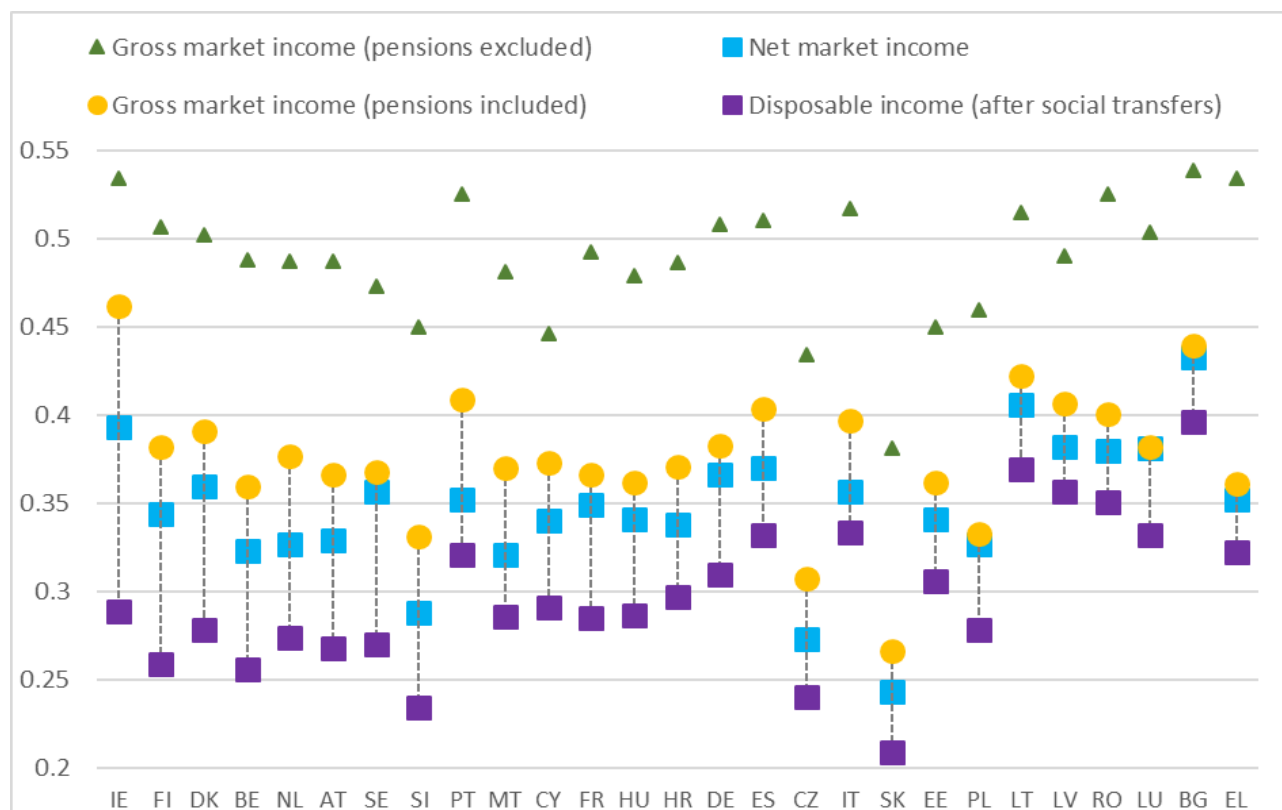
- market income inequality (excluding pensions from market income);
- market income inequality (including pensions in market income)<sup>(140)</sup>;
- disposable income inequality (after social transfers)<sup>(141)</sup>; and
- disposable income inequality.

<sup>(140)</sup> Pensions are sometimes considered a *social transfer*, in which case households that rely solely on pension income have a market income of zero: this somewhat artificially inflates the level of market income inequality. For that reason and because pensions are often linked to some extent to lifetime social contributions, for the purpose of this analysis we prefer to consider pension income as *market income*.

<sup>(141)</sup> i.e. unemployment, family, sickness and disability benefits, and education related allowances.

The difference between b) and c) shows the redistributive impact of taxes on income inequality, while the difference between c) and d) shows the extent to which social transfers reduce it. Tax and benefit systems mitigate income inequality to varying degrees in Member States as shown in the graph. Taxation contributes more to redistribution in some Member States (e.g. Ireland, Portugal, Malta, Slovenia and the Netherlands), while transfers contribute more in others (e.g. Ireland, Finland and Sweden). Income inequality remains high in certain Member States, including some where the redistributive effect of taxes and benefits is relatively low.

GRAPH 56. CORRECTIVE POWER OF TAX AND BENEFIT SYSTEMS (GINI INDEX), 2018



Source: European Commission calculations based on EU-SILC data.

Notes:

(1) Income data are adjusted for household size (equalisation). The scale of Gini coefficient is 0 to 1. The value 0 corresponds to perfect equality (same income for everybody), while 1 corresponds to maximum inequality (all income distributed to one person and all others have nothing);

(2) EU-SILC 2019 data are based on income generated in 2018

Well-designed inheritance/gift and capital gains taxes can address wealth inequality with acceptable levels of administrative complexity (OECD, 2018b). Inheritance/gift and capital gains taxes mainly affect the middle classes as very wealthy households are more likely to have greater estate planning and avoidance opportunities<sup>(142)(143)</sup>. In addition, the treatment of cross border inheritances may be problematic, especially if Member States apply different valuation methods for the same property. Moreover, the overall tax revenue from these taxes is moderate to low in the EU. Many of these concerns can be addressed through proper design. For a more detailed discussion, see 2018 edition of this report (European Commission, 2018a). Table 6 provides an overview of inheritance taxes across the EU.

<sup>(142)</sup> See: [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/tax\\_policies\\_in\\_the\\_eu\\_survey\\_2020.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/tax_policies_in_the_eu_survey_2020.pdf)

<sup>(143)</sup> See: [https://www.oecd-ilibrary.org/taxation/the-role-and-design-of-net-wealth-taxes-in-the-oecd\\_9789264290303-en;jsessionid=RyYJqPmH3iafE5MyUfvX5r-J.ip-10-240-5-92](https://www.oecd-ilibrary.org/taxation/the-role-and-design-of-net-wealth-taxes-in-the-oecd_9789264290303-en;jsessionid=RyYJqPmH3iafE5MyUfvX5r-J.ip-10-240-5-92)

TABLE 6. INHERITANCE TAXES

Member State	Inheritance tax?	Flat or progressive?	Min. - max. rate in %	Special regimes for family-owned business in certain cases?
BE	✓	Progressive	3% - 80%	✓
BG	✓	Flat	0 - 3,6%	✗
DK	✓	Progressive	0 - 36.25%	✓
DE	✓	Double Progressive	7% - 50%	✓
IE	✓	Flat	33%	✓
EL	✓	Progressive	1% - 40%	✗
ES	✓	Progressive	7,65% - 34%	✓
FR	✓	Double Progressive	20 - 60%	✓
HR	✓	Flat	0 - 4%	✗
IT	✓	Flat	4% - 8%	✓
LT	✓	Progressive	0 - 10%	✗
LU	✓	Progressive	0 - 48%	✗
HU	✓	Flat	0 - 18%	✗
NL	✓	Progressive	10% - 40%	✗
PL	✓	Progressive	3% - 20%	✗
SI	✓	Progressive	5% - 39%	✗
FI	✓	Double Progressive <sup>(144)</sup>	10% - 33%	✓
CZ, EE, CY, LV, MT, AT, PT, RO, SK, SE	✗			

Source: Commission services

Note: Exemption thresholds are provided, in particular for spouses and children.

<sup>(144)</sup> Double progressive means that the higher value of the inheritance the higher the rate and the more distant the blood relation between the deceased and their family member, the higher the rate.

# 3

## RECENTLY IMPLEMENTED TAX REFORMS

This chapter complements the analysis included in Chapter 2 by focusing on the most recent tax policy reforms and crisis measures. It consists of two sections.

Section 3.1. presents the reforms Member States introduced or announced in the months prior to the onset of the COVID-19 pandemic<sup>(145)</sup>. These are grouped according to which of the tax priorities presented in the first two chapters of this report they contributed to most. The information in this section is based on the tax reform tables included in the Taxation Trends Report (European Commission, 2020a). In some cases, this information is complemented with data from other sources, such as information provided by Member States in their national reform programmes and stability or convergence programmes<sup>(146)</sup>. These sources are referenced in footnotes. While comprehensive, the list of reforms is non-exhaustive.

Section 3.2. concludes the chapter by looking at the tax measures introduced by Member States during 2020 in response to the COVID-19 pandemic. It takes stock of the numerous tax measures introduced by Member States, based on a variety of sources including information **provided by Member States to the Commission and the OECD's overview of tax policy measures** taken so far in response to the pandemic<sup>(147)</sup>.

### 3.1 Tax reforms introduced or announced prior to the pandemic

#### 3.1.1 Reforms affecting innovation and productivity

Corporate tax rates (CITs) continue to show a decreasing trend. The average top statutory CIT rate (including surcharges) in the EU fell slightly from 21.9% in 2019 to 21.5% in 2020. The decrease was due to reforms in Belgium (top rate was reduced from 29.6% to 25%), France (reduced from 34.4% to 32%), and Greece (reduced from 28% to 24%). Further cuts were announced in France (progressive decrease 32% in 2020 to 28.4% in 2021 and 25.8% in 2022) and the Netherlands (decrease of the top rate from 25% in 2020 to 21.7% in 2021). No Member State increased its headline CIT rate in 2020. However, some Member States introduced new taxes **on certain company profits. For example, Denmark raised the level of tax on companies' residual profits** and Lithuania introduced a top up of 5% (i.e. additional to the general rate) on the CIT rate applied to the taxable profits of credit institutions.

Several Member States introduced new tax measures to stimulate investment. For example, Hungary increased the upper threshold of its tax allowance for angel investments. Slovakia extended the carry-forward period for eligible micro taxpayers and Italy introduced a new allowance for investments in innovative and intangible assets.

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<sup>(145)</sup> Specifically, it covers reforms announced or implemented between June 2019 and March 2020. For an analysis of reforms in previous years, see previous editions of this report (European Commission, 2018a; European Commission, 2017a; European Commission, 2016; European Commission, 2020).

<sup>(146)</sup> For more information, see: [https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/european-semester-timeline/national-reform-programmes-and-stability-or-convergence-programmes\\_en](https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/european-semester-timeline/national-reform-programmes-and-stability-or-convergence-programmes_en).

<sup>(147)</sup> For more information on the OECD's overview, see: <https://www.oecd.org/tax/tax-policy/#d.en.194478>.

A number of Member States apply allowance for corporate equity (ACE) schemes to address the corporate debt bias<sup>(148)</sup>. Belgium, Cyprus, Malta, Poland, and Portugal continued to apply these schemes. Furthermore, Italy re-introduced an ACE scheme for 2019 and Austria intends to re-introduce an ACE as early as 2021.

Several Member States introduced measures to incentivise R&D investment. Germany introduced its first R&D tax credit to complement its direct support measures. Italy replaced its old R&D tax credit with a new tax credit that supports the green transition and investments in innovative technologies. Slovakia increased the amount of its R&D tax deduction. Ireland increased its R&D tax credit to provide extra support to micro- and small companies, subject to State aid approval. Sweden increased its tax relief on the total social security contributions paid by companies in relation to the employment of individuals who work in R&D from 10% to 20%.

Member States continued to implement reforms embracing digitalisation and simplifying the remittance of taxes. Spain and Italy have introduced pre-completed VAT returns in 2020. To make it easier for taxpayers to declare their incomes, Bulgaria introduced an option for individuals to use pre-filled annual tax returns.

### 3.1.2 Reforms affecting the environment and health

In 2020, a number of Member States implemented environment-related tax measures. Sweden introduced a tax on plastic carrier bags and Italy put in place a new consumption tax on plastic packaging materials (EUR 0.45 per kilogram). Latvia abolished the existing tax exemption for disposable tableware and accessories made of plastics.

In the field of vehicle and fuel taxation, adjustments were introduced in several Member States. Latvia raised excise duties for gas oil (diesel fuel) by 7.2% and introduced a pollution tax on vehicles. Bulgaria introduced a vehicle tax based on the category of vehicles and their environmental impacts. Ireland introduced tax benefits for electric vehicles and Finland increased its tax rates on transport fuels. To incentivise more sustainable forms of travel, Germany reduced the VAT rate on long-distance rail travel from 19% to 7%, and increased its aviation tax rate. Luxembourg increased its excise duties on gasoil and petrol.

Other environmental taxes were also implemented in 2019 and 2020. Spain increased its excise duty rates on hydrocarbon and Sweden introduced a tax on waste incineration. Estonia applied a 25% increase on the excise rate for natural gas, and Latvia increased its tax rate on several activities (sand, greenhouse gas emission and coal). The Netherlands increased the tax rate on natural gas and will introduce an additional CO<sub>2</sub> tax in 2021. Lithuania increased its excise duty rate for diesel used in agricultural activities by 7.1% from EUR 56 to EUR 60 per 1000 litre.

As regards health-related taxes, many Member States (Czechia, Denmark, Estonia, Finland, Ireland, Lithuania, Hungary, the Netherlands, Portugal, Romania and Slovenia) raised their excise duties on tobacco products. Only Finland and Lithuania raised their excise duty rates on alcoholic beverages. Conversely, as part of a reform to foster the growth of entrepreneurship, Denmark reduced its excise duties on certain alcoholic drinks (wine, alcopops) and Estonia decreased its excise duty rates on beer and fermented beverages with less than 6% alcohol. Other measures in the field of health taxation include an increase of excise duty rates on sugary beverages, with several Member States (Ireland, Finland, Italy, Poland, Portugal) increasing their rates to disincentivise their consumption.

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<sup>(148)</sup> See Section 2.1.2.

### 3.1.3 Reforms affecting tax avoidance, evasion and fraud

Member States continued the fight against tax avoidance, evasion and fraud in 2019-2020, complementing EU action. Measures span from strengthening enforcement and tax collection to facilitating compliance and improving the legal framework against tax avoidance practices.

In 2019-2020, several reforms aimed to combat tax fraud and evasion. Bulgaria introduced an obligation for authorised warehousekeepers to use video surveillance systems and monitor all processes taking place in tax warehouses, where energy, ethyl alcohol and tobacco products are produced or stored. Italy tightened the rules for CIT and personal income tax (PIT) liability offsets, and its obligation to file direct tax returns electronically before offsetting the tax liability was extended to amounts exceeding EUR 5 000. Cyprus announced in October 2020 that it was suspending its Cyprus investment programme, which granted full Cypriot citizenship to wealthy individuals who invested EUR 2.2 million into the country and met certain other requirements.

Some countries introduced measures to strengthen VAT compliance. Czechia increased the rates of its tax lottery<sup>(149)</sup> and measures to encourage consumers to register purchase receipts in order to reduce the shadow economy. To fight the shadow economy, Latvia now enables the state revenue service to inform businesses regarding their suppliers or clients risks to avoid them being unintentionally involved in their counterparties' illegal activities. Latvia also introduced a tax lottery from July 2019. Poland put into place an online cash register system (to be introduced gradually) to automatically and in real time upload information regarding each registered VAT transaction and thus control whether VAT is correctly accounted for. This will reduce the compliance burden and tackle the shadow economy by increasing the transparency of VAT settlements and facilitating tax inspections.

On top of the implementation of the Anti-Tax Avoidance Directive, several countries took specific measures to reinforce their tax system against aggressive tax planning practices. As from January 2021, the Netherlands introduced withholding taxes on interest and royalty flows to low-tax jurisdictions and in the event of abusive tax arrangements. Moreover, the Netherlands tabled a thin capitalisation rule for banks and insurance companies, whereby interest paid on corporate debt in excess of 92% of total assets will not be deductible for tax purposes. Ireland amended its Real Estate Investment Trust framework to ensure an appropriate level of tax collection from the regime. More specifically, the proceeds from the disposal of a rental property will be subject to dividend withholding tax upon distribution. For the Irish Real Estate Fund (IREF), Ireland introduced limitations on interest expenses based on debt-to-property cost and on an income-to-interest ratio. Furthermore, an amendment was made to the calculation of the amount on which IREF tax is levied to ensure that any gains which are reflected in the market value of the unit, but which are not reflected in the accounts of the IREF, are subject to IREF tax. Ireland has also changed the clawbacks provision of its capital allowance for intangible assets. For intangible assets acquired after 22 October 2020, balancing charges<sup>(150)</sup> will apply regardless of the period of detention of these assets, aligning Ireland with the rules in other jurisdictions.

Some Member States reinforced their transfer pricing rules to fight ATP. Ireland modernised its transfer pricing rules including the incorporation of the OECD 2017 transfer pricing guidelines into Irish legislation and the extension of rules to cover cross-border non-trading, and material capital transactions. Poland passed a reform on transfer pricing regulation, which also **incorporated the OECD's 2017 guidelines**.

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<sup>(149)</sup> Cash registers in shops must provide special receipts with a unique lottery code, and these are then entered into a regular lottery for consumers. The objective of this measure is to encourage consumers to insist on all transactions being properly recorded in the electronic cash registers and being offered a receipt.

<sup>(150)</sup> **Balancing charges (also referred to as 'clawbacks')** apply when an asset for which capital allowances have been claimed is sold for more than its accounting value, a value which incorporates the capital allowance deductions already incurred.

### **3.1.4 Reforms affecting redistribution and social fairness**

**A modest number of reforms were made to PIT and SSC systems, to cut rates, adjust tax brackets or achieve simplification.** For example, Slovenia increased the thresholds of individual tax brackets and reduced the PIT rate applied in the second and third PIT tax brackets. Hungary merged four separate elements related to employees' social security contributions into a single social security contribution from July 2020. Lithuania increased the amount of income exempt from PIT, changed the income threshold at which the second PIT bracket is applied, and further lowered the ceiling for SSC contributions.

**A number of measures to reduce the tax wedge on labour were put in place, to boost the net incomes of lower income workers and families and in some cases encourage labour supply.** For example, Greece revised the basis for calculating PIT liabilities and reduced the social security contributions for full-time employees by 0.9pp with effect from June 2020. The government has announced a further reduction by 3pp in 2021. In Poland, on top of a tax exemption for younger workers, since October 2019 the first income tax rate was reduced from 18% to 17%. The tax-deductible costs for employees were also increased. Lithuania increased the income tax allowance from EUR 350 per month to EUR 400 per month, effective from July 2020. Italy reduced the tax wedge for dependent workers: for income up to EUR 28 000 per year, an allowance of EUR 600 was given for the last six months of 2020, which became an annual EUR 1 200 from 2021. Lower allowances are envisaged for higher incomes, up to EUR 40 000. This measure replaces a previous rebate ('bonus Renzi') on income between EUR 8 000 and EUR 26 600. In Belgium (Flanders region), from 2021 an 'employment bonus' will increase the net salaries of workers whose gross monthly salary does not exceed EUR 1 700 by at least EUR 50 per month. The bonus is intended to address unemployment and activity traps and gradually decreases to zero for people with a gross monthly salary of at least EUR 2 500. France reduced the PIT rate in the first bracket from 14% to 11% and adjusted the tax relief mechanism ('décote') to smooth the onset of the application of PIT. Malta increased the differentiated non-taxable minimum income to EUR 300 per month and increased the highest margin to which the maximum PIT amount is applied. Austria increased the maximum SSC reimbursement for low-income earners from EUR 400 to EUR 700. Finland increased a number of PIT allowances and deductions while proceeding with the gradual reduction and removal of the tax deductibility of mortgage interest payments. Croatia implemented a reduction in PIT liability by 100% for under-25s and by 50% for people from 26 to 30 years of age for annual salaries under HRK 360 000. Hungary introduced an exemption from PIT for women with four or more children. Estonia increased the supplementary basic PIT allowance from the third child from EUR 1 848 to EUR 3 048 per year.

**The long-term trend of decreasing top marginal tax rates continued, driven by large reductions in a few Member States.** The simple average of top personal income tax (PIT) rates at the start of 2020 in the EU was 38.7%, 0.5 pp lower than in 2019, although this masks a very large range from a minimum of 10% in Bulgaria to more than 55% in Denmark. In 2020, Sweden abolished its surcharge on high incomes, bringing the top PIT rate down 4.9pp from 57.2% to 52.3%. The Netherlands accelerated the introduction of its two-bracket PIT schedule (the old system had three brackets) by introducing it in 2020 rather than in 2021 as had previously been envisaged. As part of this reform, the highest PIT applicable fell from 51.75% in 2019 to 49.5% in 2020. In Greece, the PIT rate on the highest income bracket for business, employment and farming income above EUR 40 001 was reduced to 44% from 2020. In contrast, Lithuania increased its top PIT rate by 5pp, although at 32% it is still substantially below the EU average. Finland extended the application of the temporary highest income bracket of the progressive income tax scale until the end of 2023.

**A number of Member States legislated special treatment for certain types of income, or schemes targeting particular groups.** Sweden increased the reduction in SSC applied to people working in roles related to R&D, and also introduced reduced SSCs for people entering the labour market. Poland lowered the amount of SSC that micro-entrepreneurs with modest annual revenue have to pay. The Netherlands began to implement a gradual reduction in the tax deduction for unincorporated self-employed people from EUR 7 280 in 2019 to EUR 5 000 in 2028. Malta introduced a fixed PIT rate on overtime. Ireland increased the maximum amount of the earned income tax credit for the self-employed and unincorporated businesses by EUR 150 to EUR 1 500.

**Changes to consumption taxes were generally relatively minor.** No Member States changed their standard VAT rate, although national standard VAT rates vary significantly from a low of 17% in Luxembourg to a high of 27% in Hungary. The VAT base therefore remained relatively stable

until the onset of crisis measures, although some recent changes have been made in recognition of the growth of online media, or to support tourism-related industries. Slovenia lowered the rate applied to electronic publications to 9.5% and the rate on printed media and books to an additional reduced rate of 5%. The Netherlands also brought electronic publications like e-books and electronic newspapers into the reduced VAT rate. In Hungary, VAT on accommodation services was reduced from 18% to 5%. In Croatia, the reduced VAT rate of 13% was extended to food served in restaurants, and to revenue related to music copyright. Romania reduced the VAT rate applied to ecological agriculture and traditional products from 9% to 5%. Germany reduced the VAT rate on long-distance rail travel from 19% to 7%. Poland applied a new matrix of VAT rates that lowered the VAT rate applied to some goods and services while raising it on others. Greece expanded the range of goods and services to which the reduced VAT rate of 13% is applied and lowered the VAT rate on gas and electricity to 6%.

## 3.2 Tax measures introduced in response to the COVID-19 crisis

### 3.2.1 General policy response in the EU

2020 was marked by a deep health crisis, which affected the whole globe and had significant economic and social consequences. The highly infectious COVID-19 virus resulted **in lockdown measures to protect people's health and to support health systems' ability to respond**. As a result, EU countries experienced economic shocks to both aggregate demand and supply, where business activity, investment, private consumption, exports and imports were significantly reduced or limited in all Member States – although some Member States were hit harder than others due to their economic structure (e.g. those more dependent on tourism or services) and degree of openness.

The latest Commission forecast projects that the EU economy contracted by 7.4% in 2020 and will grow by around 4.1% in 2021 and 3% in 2022<sup>(151)</sup>. As a result of the COVID-19 pandemic, economic activity in the EU suffered a severe shock in the first half of 2020. A rebound followed in the third quarter as containment measures were gradually lifted, but the resurgence of the pandemic resulted in new public health measures in Autumn, with additional economic disruption. Unemployment rates (from 6.5% in third quarter 2019 to 7.4% in third quarter 2020<sup>(152)</sup>) and the aggregated government deficit at EU level (from just 0.6% of GDP in 2019 to around 8.4% in 2020) are also forecasted to have increased. Projections over the forecast horizon are subject to a high degree of uncertainty and risks and much may now depend on the deployment of vaccines and more effective diagnostic and treatment as well as substantial financial support to the economies concerned, notably via the NextGenerationEU and the ECB monetary support. Despite the disruption, it is important to note that employment has dropped much less in terms of persons employed than GDP thanks to the various measures implemented, while the drop in hours worked was of similar magnitude to that for GDP for the EU. Certain sectors and companies in certain industries (e.g. those providing digital services) may have been fairly protected or actually benefitted from the pandemic situation.

The urgency of the situation pushed Member States to take quick, uncoordinated action at the start of the crisis. Nevertheless, tax measures adopted by Member States seem similar in several aspects, most likely due to the fact that they faced similar shocks. Their main objective was to provide much needed liquidity to cash-strapped companies and households. These measures had a key role to play in cushioning the impact of the containment measures introduced by Member States to protect health.

The Commission **supported the Member States'** measures, and quickly acted to facilitate crisis response measures in the areas in which it has competence. Besides the suspension of Stability and Growth Pact fiscal rules and the SURE program<sup>(153)</sup> to maintain employment, it

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<sup>(151)</sup> See: [https://ec.europa.eu/info/sites/info/files/economy-finance/ip136\\_en\\_2.pdf](https://ec.europa.eu/info/sites/info/files/economy-finance/ip136_en_2.pdf)

<sup>(152)</sup> Eurostat UNE\_RT\_Q, extracted on 24/03/2021

<sup>(153)</sup> See: [https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/funding-mechanisms-and-facilities/sure\\_en](https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/funding-mechanisms-and-facilities/sure_en)



notably adopted a temporary framework<sup>(154)</sup> to enable Member States to use the full flexibility envisaged under State aid rules to support their economies in the context of the COVID-19 outbreak. It also published a decision<sup>(155)</sup> helping Member States affected by the COVID-19 pandemic to temporarily suspend customs duties and VAT on protective equipment, testing kits and medical devices such as ventilators. Since the outbreak of the crisis, the Commission postponed the application of two EU taxation measures to take account of the difficulties that businesses and Member States are currently facing: the entry into application of the VAT e-commerce package was delayed by 6 months (to 1 July 2021) and certain deadlines for filling and exchanging information under the Directive on Administrative Cooperation (DAC) were deferred by three months. Finally, the Commission adopted an ambitious new tax package of measures to ensure that EU tax policy supports Europe's economic recovery and long-term growth<sup>(156)</sup>.

In its March 2020 Communication, the Commission stressed the need for a coordinated economic response to the COVID-19 crisis<sup>(157)</sup>, including that Member States should implement targeted fiscal measures to support sectors and areas that face disruption of production or sales and are therefore affected by a liquidity squeeze, in particular SMEs. As regards taxation, those measures could entail, e.g.: deferred payment of corporate taxes; social security contributions and VAT; advancement of government payments and arrears; tax rebates; direct financial support; and tax incentives to support companies, and especially SMEs, access to public markets by incentivising SME research and market making activity as well as vehicles for long-term investment in listed and unlisted SMEs (e.g. European Long Term Investment Funds - ELTIFs). When Member States introduce tax measures, it is important that they ensure coordination with other policy areas, such as health care, trade, social and labour market policies. Overall, as this section describes, many Member States have introduced such measures quickly after the onset of the crisis.

Without the strong initial support actions, prolonged containment and mitigation measures would have had a much more negative impact on businesses and households<sup>(158)</sup>. This could have had significantly increased unemployment and decreased disposable income, while harming the production structure of businesses. The initial measures to support businesses and households were important for cushioning the immediate impact of the crisis and remain crucial for safeguarding the capacity of economies to rebound as soon as the crisis abates.

While these measures represented a significant budgetary cost in the short-term, the cost of inaction would have been much higher. For example, inaction could have resulted in even the most robust health care systems being overwhelmed, and as a result could have had a more adverse impact on public health.

The Commission has set out strategic guidance for the implementation of the recovery and resilience facility in its 2021 annual sustainable growth strategy<sup>(159)</sup> (ASGS). The facility is the key recovery instrument at the heart of NextGenerationEU<sup>(160)</sup> and will help the EU emerge from the current crisis stronger and more resilient. It will provide an unprecedented EUR 672.5 billion of loans and grants in frontloaded financial support for the crucial first years of the recovery. Under the facility, Member States are encouraged to modernise their tax administration, fight tax abuse, simplify their tax systems and make them more efficient. Moreover, Member States should address challenges identified in the country-specific recommendations of the European Semester process, as highlighted in the recently issued guidance<sup>(161)</sup>.

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<sup>(154)</sup> See: (C(2020) 1863) and its amendments C(2020) 2215, C(2020) 3156 and C(2020) 7127.

<sup>(155)</sup> Commission Decision (EU) 2020/491.

<sup>(156)</sup> See: [https://ec.europa.eu/taxation\\_customs/general-information-taxation/eu-tax-policy-strategy/package-fair-and-simple-taxation\\_en](https://ec.europa.eu/taxation_customs/general-information-taxation/eu-tax-policy-strategy/package-fair-and-simple-taxation_en)

<sup>(157)</sup> COM(2020) 112 final: [https://ec.europa.eu/info/sites/info/files/communication-coordinated-economic-response-covid19-march-2020\\_en.pdf](https://ec.europa.eu/info/sites/info/files/communication-coordinated-economic-response-covid19-march-2020_en.pdf).

<sup>(158)</sup> For more information, see Almeida et al. (2020) : <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc121598.pdf>

<sup>(159)</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0575&from=EN>.

<sup>(160)</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0456&from=EN>.

<sup>(161)</sup> SWD(2021) 12 final: [https://ec.europa.eu/info/sites/info/files/document\\_travail\\_service\\_part1\\_v2\\_en.pdf](https://ec.europa.eu/info/sites/info/files/document_travail_service_part1_v2_en.pdf)

Guidance on Recovery and Resilience Plans encourage Member States to plan for reforms, which can 'bring budgetary savings (such as some pension reforms or the removal of environmentally harmful national subsidies), or increase the revenue potential in the medium to long-run (as a second-round effect from fostering a more efficient, digital and sustainable economy with a higher potential output, lower structural unemployment, increased labour force participation or higher innovation capacity), or from a combination of all these effects. For instance, shifting away from labour taxation into well-designed environmental taxation, with due consideration to possible distributional effects, has the potential to stimulate employment, change behaviour towards more sustainable consumption and production and to help the EU and Member States achieve their environmental and climate objectives.'

### 3.2.2. Tax measures to support businesses and households

**Member States' tax responses were broadly similar, with the main objective of** alleviating economic pressure on businesses and households, notably by providing additional time for dealing with tax affairs. Providing additional time for dealing with tax affairs can be implemented quickly and easily, provides sizeable relief to businesses and households, and limits the costs in the long run, as taxes should eventually be recovered once the economy bounces back. Member States are currently re-assessing the continuously evolving situation and are adapting their tax policies and administration measures accordingly.

The most pressing issue faced by Member States has been to ensure continuous cash flow to businesses and households. Because of the crisis, many businesses have been forced to stop or significantly reduce their activity, triggering urgent liquidity issues. If not dealt with in time, liquidity issues may transform into a solvency crisis and eventually bankruptcies – which could have a possible domino effect. Even once government gradually started to ease lockdown measures imposed on businesses, their capacity to resume their activity has been severely constrained, notably because of the continuous physical distancing measures, the moral impact that has kept some customers away and the damage to supply chains. A liquidity crisis also makes it harder for businesses to continue paying wages, putting many jobs at risk and creating financial hardship for households. According to Eurostat, the number of employed individuals fell by 5 million between the second quarter of 2019 and second quarter of 2020.

All Member States have taken tax measures to protect business cash flows, notably through tax deferrals. Such deferrals have been introduced for CIT, PIT, property tax, VAT, and SSCs. Deferral or temporary suspension of SSC payments for employers can also help businesses keep their employees. A few Member States (Czechia, Poland and Slovakia) have introduced changes to the tax treatment of losses (i.e. carry forward and backward provisions). These have often been accompanied by extended tax-filing deadlines (e.g. Austria, Belgium, Finland and Luxembourg). In many Member States, the COVID-19 outbreak fell within the period in which income tax return filing and payments were due. Pushing out deadlines by several weeks or months has given businesses needed breathing space.

Some Member States went further than deferrals and extended deadlines, introducing tax cuts for businesses. These cuts were introduced for a variety of tax categories, but often focused on those that are usually not affected by economic cycles or that would constitute an unfair extra-burden for businesses with heavy revenue losses. For instance, Croatia introduced partial or complete exemption from profit tax, income tax and contributions for companies that cannot – or very limitedly – do business. Hungary decreased its social contribution by 2 percentage points from **July 2020 onward**. Other examples include **Spain's reduction of instalment payments for** corporation taxes paid by certain eligible SMEs and of income tax paid by certain self-employed people. As the tax relief is not recovered, these measures have been generally more targeted – often to SMEs – in order to limit their budgetary impact.

A number of Member States have introduced more flexibility for tax debt repayment. This has notably taken the form of easier access to and extension of debt payment plans (Belgium, Finland, France, Hungary, Lithuania and the Netherlands), suspension of debt recovery (Belgium, Cyprus, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Malta, Romania and Spain) and suppression of all penalties for late tax payments. While it appeared crucial that Member States provide flexibility on a large scale, this also carries some risks, notably the support of businesses that were non-viable and experience structural payment difficulties independently of the COVID-19 crisis.

Quicker processing and acceleration of tax refunds or reimbursements (VAT and other taxes) are also having a positive effect on business cash flows. Belgium, France, Greece, Ireland, Latvia, Lithuania and Romania have introduced such accelerated processes. However, the risk of tax fraud has also likely increased during the COVID-19 outbreak<sup>(162)</sup>: accelerated payments may also imply reduced verification (e.g., Greece does not require tax audits for refunds up to EUR 30 000). Furthermore, there might be instances of taxpayers committing fraud to maximise the amount of tax and non-tax (COVID-19) benefits they receive.

Other tax measures in response to the COVID-19 crisis have focused on healthcare systems and medical equipment. Some Member States (e.g. the Netherlands, Poland and Portugal) have introduced measures aimed at facilitating the import of medical supplies, such as the removal of tax and customs duties on imported medical supplies to fight the pandemic. The Commission has also allowed Member States to exempt the sales of COVID-19 vaccines and testing kits to hospitals and medical practitioners from VAT<sup>(163)</sup>.

Measures have also been introduced to stimulate investment in the health sector<sup>(164)</sup>. Preferential tax treatment, such as the full or partial deductibility for CIT and PIT purposes of donations made to healthcare institutions, has been implemented in certain Member States (e.g. Belgium, Italy). Other similar measures include tools to safeguard the VAT deduction on items donated by businesses to healthcare institutions (e.g. Belgium, Slovenia).

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<sup>(162)</sup> See: <http://www.oecd.org/coronavirus/policy-responses/tax-administration-privacy-disclosure-and-fraud-risks-related-to-covid-19-950d8ed2/>.

<sup>(163)</sup> For more information, see: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_2299](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_2299).

<sup>(164)</sup> 'Tax Policy Reforms 2020', OECD (2020): <https://www.oecd-ilibrary.org/docserver/7af51916-en.pdf?expires=1603107887&id=id&accname=oid031827&checksum=FB91680A6FE47E1CD60662D6D094F441>.

TABLE 7 HEAT MAP – TYPE OF TAX MEASURES TAKEN BY MEMBER STATES

	Personal Income taxes	Corporate Income taxes	Social Security Contributions	Property taxes	VAT	Other consumption taxes	Other
Austria							
Belgium							
Bulgaria							
Croatia							
Cyprus							
Czechia							
Denmark							
Estonia							
EU							
Finland							
France							
Germany							
Greece							
Hungary							
Ireland							
Italy							
Latvia							
Lithuania							
Luxembourg							
Malta							
Netherlands							
Poland							
Portugal							
Romania							
Slovakia							
Slovenia							
Spain							
Sweden							

Source: OECD - <http://www.oecd.org/ctp/tax-policy/>

# 4

## CRAFTING AN EFFECTIVE TAX POLICY RESPONSE TO THE COVID-19 PANDEMIC

Tax policy is an essential part of the policy response to the economic, social and fiscal challenges that the EU faces in the wake of the pandemic. The pandemic has had a severe impact on the economies and public finances of all EU Member States. In the short term, there is a need to maintain the temporary stimulus and support measures set out in Section 3.2 until the pandemic has been contained and the associated social and economic restrictions can be removed. In the medium term, tax policy has a part to play in facilitating a strong economic recovery and **minimising 'scarring' effects on workers and businesses, while supporting the low carbon and digital transitions.** Tax policy will also have a role in returning public finances to a sustainable path, while taking into account the principles behind a fair, efficient tax system (Chapter 1) and specific national situations and policy mixes (Chapter 2 and Sections 3.1 and 3.2). In this chapter, the reform options available to Member States are assessed around the same four themes as detailed in Chapter 2: i) investment and productivity; ii) environmental sustainability; iii) fighting tax abuse; and iv) creating jobs and reducing inequalities.

An agenda to create a more efficient, sustainable and fairer tax system calls for coordinated action as well as national reforms. Tax policies within the EU are largely set nationally and have not been subject to much harmonisation. However, collective and cross-border action has been and is being taken, in particular to reduce opportunities for tax fraud and evasion and to combat aggressive tax planning. Coordinated action at the EU level is increasingly necessary to tackle common challenges such as those emphasised by the COVID-19 pandemic. In many cases, coordinated solutions can ensure the competitiveness and sustainability of the EU economy and the sustainability of the EU tax base as a whole, while addressing tax avoidance more effectively, which in turn helps prevent criminals from making use of the EU financial system.

The EU has taken decisive action to support Member States in delivering the investment and reforms needed to promote a strong and sustainable economic recovery and secure fiscal sustainability. NextGenerationEU (NGEU), including its main instrument, the recovery and resilience facility (RRF), has boosted market confidence and launched a coordinated effort to restart economic growth and strengthen economic and social resilience. The implementation of well-designed policies in the context of NGEU and the RRF will support Member States in embarking on growth-enhancing reforms and increase the level and quality of investments, consistent with the objectives of building resilience and driving forward the twin green and digital transitions. The annual sustainable growth strategy<sup>(165)</sup>, which promotes these objectives, put forward seven flagship initiatives that call for coordinated investment and reform across the EU. National reform challenges identified in the 2019 and 2020 country-specific recommendations (CSRs) should be addressed in the context of the RRF. The priorities set out in the CSRs for individual Member States include the fight against tax evasion, improving tax administration, tackling tax avoidance, reducing the tax burden on labour, and broadening tax bases. More broadly, the published guidance on the recovery and resilience plans that each Member State must produce to access RRF funding sets out the investments and reforms that can be funded through the RRF in more detail<sup>(166)</sup>, encompassing elements related to the four themes around which this chapter is based.

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<sup>(165)</sup> COM/2020/575 final.

<sup>(166)</sup> See: [https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility\\_en](https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en)

## 4.1 Fostering innovation and productivity

The pandemic has temporarily curtailed economic activity and reduced or diverted investment. **As set out in the Commission's Autumn 2020 economic forecast and Winter 2021 interim economic forecast, there is some uncertainty about the European economy's recovery path,** and the economies of many Member States are unlikely to fully recover the GDP losses seen in 2020 until at least 2022. As well as the temporary halt of activity in some sectors while lockdown measures were in place, social distancing measures also reduce the productivity of labour and capital across many other parts of the economy for as long as such measures are in place. GDP has fallen further than hours worked. For example, where hospitality venues or transport services have been able to continue operating it has often been at a much-reduced capacity and with much-reduced customer demand. Staff time and investment spending has been diverted to the short-term imperative for adaptations to meet social distancing requirements, rather than future growth and innovation. On a more positive note, an enforced move to remote working across large parts of the economy has worked better than many initially feared.

The COVID-19 crisis looks set to have a more lasting effect on productivity, investment and the structure of national economies, and this can be mitigated by appropriate policy responses. Both economic activity and public finances are likely to bounce back, though not fully, once COVID-19 is under control and temporary restrictions are removed. The medium- to long-term effects of the COVID-19 crisis risk hampering global investment, productivity and potential growth in the years to come. There is a looming threat of insolvencies, elevated unemployment and disruptions in global supply chains. The experience of the past recessions and economic crises, including the global financial crisis, shows that there can be persistent or even permanent negative **'scarring'** effects on workers, the capital stock, innovation and productivity in the wake of a severe economic shock. Workers unlucky enough to start their careers in a recession may experience lower earnings than other cohorts for a decade or longer, and those who lose jobs in shrinking sectors during recessions can also suffer considerably. Waves of insolvencies or permanent behavioural changes in the wake of the pandemic could render much of the existing capital stock obsolete, while economic **uncertainty and weak balance sheets will both tend to reduce firms'** desire and capacity to invest, expand, and take risks. As discussed above, NextGenerationEU (NGEU), and in particular the recovery and resilience facility (RRF), are designed to reboot investment and innovation across the EU, while limiting potential scarring effects. Tax policy also has an important role to play in mitigating persistent economic impacts, though the nature of the support needed will gradually shift from providing crisis support to existing firms and workers towards encouraging investment and the movement of workers and capital into new and growing sectors and firms, and securing fiscal sustainability.

In the short term, fiscal support measures should be withdrawn carefully to safeguard the prospects of businesses that will remain viable in the normalised post-pandemic economy. As set out in Section 3.2, in 2020 Member States primarily introduced new tax measures to increase cash flow to taxpayers that were hit the hardest by the pandemic, including SMEs. As the pandemic effects have persisted into 2021, many have increasingly graded the level of support provided to the severity of the impact of remaining economic and social restrictions within a given sector or region. It will be important to give businesses certainty as to how and when support will be withdrawn once there is a greater degree of clarity on the path out of the pandemic and associated social and economic restrictions. For firms that are still suffering drastically reduced revenue, targeted tax reductions and holidays should continue to be considered as part of coherent support packages, which can also include direct cash transfers and moratoria on debt repayments. The fact that the COVID-19 pandemic has persisted into 2021 poses a particular challenge in relation to tax payments due in 2020, which were deferred rather than cancelled, as detailed in Section 3.2. Businesses should not be asked to pay back taxes until their operating conditions have returned to something close to normal. Given how severe the impact of **the prolonged nature of the restrictions has been on many firms' balance sheets, in some cases it** may ultimately be necessary to consider permanently cancelling some tax payments that were initially only deferred, though this should be done carefully given the potential implications for fairness and competition.

In the longer term, tax policies should support economic change and dynamism. Supporting jobs in firms that are unlikely to ever recover to financial health could slow the reallocation of employment towards high-performance firms and sectors, hindering productivity

and the economic recovery<sup>(167)</sup>. The accelerated impetus to the development and adoption of the digital economy that resulted from social distancing measures has some positive implications for innovation and its diffusion. The tax system can support and respond to this, as detailed below, complementing the focus of direct investment through economic recovery and renewal programmes including the RRF on shifting resources into growth sectors of the future.

Member States could consider implementing certain tax measures to support investment by firms that have been affected by the pandemic, and discourage future over-indebtedness. Many firms entered the pandemic with elevated debt, which has increased the risk that the revenue losses suffered during the pandemic pushes them into insolvency, or at least leaves them as financially impaired 'zombie firms'. **This has further highlighted the problematic nature of the persisting pro-debt bias of tax rules.** On average, the cost of capital of equity is still materially higher than the cost of capital of debt. Addressing this would make it less costly for companies to raise equity, encourage investment through equity as a complementary source of debt financing and thus contribute to the much needed re-equitisation of European firms. Allowing an enhanced depreciation for eligible companies (i.e. those hit hardest by the pandemic) would advance depreciation allowances and hence support investment and improve cash flow. Member States could also (temporarily) raise tax revenue from the companies that benefitted from the current crisis and shift towards the taxation of economic rents. They could also consider making additional options available to companies for offsetting losses. Changes to the treatment of losses, for example by making carry-forward provisions more generous, might help start-ups, which take longer to become profitable. Addressing the corporate debt bias may also be relevant in light of the current crisis as it would both reduce corporate debt levels and decrease equity costs for in particular young and innovative companies, which often have no access to external debt financing.

Tax policy can support future growth by fostering investment and productivity, but it also needs to safeguard fiscal sustainability. While most other tax bases should recover broadly in line with GDP, the large scale of private losses and debt incurred during the crisis will also depress corporate tax revenue in the years to come. Public deficits and debt have spiked in nearly all Member States, and the accelerating costs of ageing will gradually worsen Member States' underlying fiscal positions. **Within this challenging context, Member States need to try to** find a balance between collecting enough taxes to provide public services and safeguard the sustainability of public finances (which is also important to give firms the confidence to invest) and ensuring that the current fiscal climate is sufficiently conducive to positive investment and firms making hiring decisions.

Support for R&D can be most cost-effective by focusing on front-end support, either through deductions at the level of the R&D investments or direct cash support. Member States could consider better stimulating investment in innovation by moving away from back-end R&D deductions (deductions from R&D income), **in particular away from 'patent boxes' (which do not promote R&D as they reward the location of intangible assets in a jurisdiction and may still allow ATP).** Member States should focus on well-designed R&D tax incentives, which can more directly stimulate R&D activities. **In the current circumstances, where many firms' revenue, profitability and balance sheets have taken a heavy hit as a result of the COVID-19 pandemic, there is a strengthened case for the (possibly temporary) use of 'cashback' type incentives for R&D and other investment and innovation activity.** This is to minimise the risk that incentives based on tax reductions are weakened during an exceptional period when usually-profitable firms may have limited tax bills to be reduced.

Other specific tax measures to stimulate investment and innovation in the longer-term should be used carefully and sparingly to maximise their cost effectiveness. Permanent reductions of corporate tax rates that aim to encourage investment could fuel a race to the bottom and hamper other objectives such as tax fairness, especially in a context where corporate tax rates and revenue have often been declining relative to other tax bases and many Member States face significant fiscal challenges. Measures to support new investment and R&D by reducing its net cost (e.g. tax credits and tax deductions) should focus on targeted actions to encourage investment into a more digital and green economy. Tax measures should be used when they are more appropriate and cost-effective than other potential policy levers (such as subsidies, regulation or publicly delivered research). There is evidence that the impact of tax incentives is more positive if it is possible to focus them on young and innovative companies, as opposed to incentives available to

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<sup>(167)</sup> See OECD (2020), *Job retention schemes during the COVID-19 lockdown and beyond*. OECD Policy Responses to Coronavirus (COVID-19), October 3.



all companies or SMEs. In the current context, Member States may see a stronger case for **supporting young 'green' companies. At the same time, it is important that newly introduced tax measures comply with best practices to avoid possible drawbacks such as threshold effects and tax avoidance opportunities.** Member States may also benefit from withdrawing existing measures if there is evidence that they have had negative unintended effects.

A simpler and clearer tax system will reduce the effort that goes into tax compliance, as will tax digitalisation. The growth of remote working as a result of social distancing measures and other social and economic changes brought on by the COVID-19 crisis has given an extra impulse to the process of digitalisation. It has also sharpened the challenge, due to the need to facilitate the uptake of, and monitor, a range of crisis measures to support businesses and households, and to respond to indications that the tax gap may have got larger during the pandemic. It is therefore important for tax administrations to step up their digitalisation efforts to use this window of opportunity to facilitate tax compliance, improve customer service and relieve the administrative burden on taxpayers, including by providing easily accessible and clear information on their government websites. The Commission has highlighted the digitalisation of tax administrations as a priority area for investment and reform in the context of the recovery and resilience facility<sup>(168)</sup>. The extent to which the tax system acts as a barrier to economic efficiency is minimised by providing tax certainty and keeping tax laws stable where possible. Where changes are needed, for example to simplify and clarify the application of tax rules to the fast-evolving collaborative and informal economy, it is beneficial to consult taxpayers. The Commission strongly supports simplification measures both in direct and indirect tax areas. Further improvements to the efficiency of withholding tax (WHT) procedures for EU cross-border securities income flows would ease the administrative and compliance burden and also improve the functioning of the Single Market.

## 4.2 Ensuring a sustainable recovery

The Commission wants to harness the potential of green growth to promote the European recovery from the pandemic, supporting both producers and consumers to reduce greenhouse gas emissions and make better informed choices. Environmental taxes deliver on many fronts (see Section 2.2 of this report). If properly designed, such taxes can help offset the costs of the environmental transition in a socially just manner and encourage investment in clean and innovative solutions.

The green transition that we had already planned with the European Green Deal has become our roadmap for a green and inclusive recovery. Against this backdrop, and considering the double role of environmental taxes for raising revenue and incentivising **behavioural change, policy recommendations on 'green' taxation are expected to play a key role in the recovery.**

Member States could consider introducing or increasing environmental taxes in a context of broader based fiscal reforms and in particular in the following cases:

- when implementation of measures to reach environmental and climate targets is lagging behind (the policy recommendation should focus on the specific area where there is a lack of progress);
- if environment costs are not sufficiently internalised;
- when there is evidence of environmentally harmful subsidies;
- when there is a general need for improving fiscal consolidation, as environmental taxes are considered to be less distortive and generally growth-friendly; and
- to compensate for the loss of revenue in case of a need to reduce taxes elsewhere (e.g. to promote growth, reduce unemployment, or correct inequalities).

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<sup>(168)</sup> See for example European Commission, *Recovery and Resilience Plans - Example of component of reforms and investments - A public administration fit for the future*, October, [https://ec.europa.eu/info/sites/info/files/component\\_public\\_administration.pdf](https://ec.europa.eu/info/sites/info/files/component_public_administration.pdf)



When proposing recommendations for an increased use of environmental taxes, the possible negative impacts on competitiveness and social inequalities should also be considered. Member States should therefore be encouraged to consider accompanying measures, such as: investments in energy efficiency and renewable energy infrastructure (to address possible impacts on competitiveness); transfers to low-income households; reductions in labour taxation (though this would not help inactive households such as pensioners), or; investment in public goods, such as public transport (to address possible negative redistributive impacts)<sup>(169)</sup>.

A well-designed tax system plays an important role in supporting the green transition. The use of taxation as a policy instrument will help to reach climate neutrality by 2050 as well as the other environmental objectives of the European Green Deal. In this respect, initiatives such as the review of the Energy Taxation Directive (ETD) and the establishment of a carbon border adjustment mechanism (CBAM) are part of the European Green Deal.

The Commission is currently reviewing the ETD. It has been over 17 years since the ETD<sup>(170)</sup> **was adopted. It is now necessary to bring it back in line with today's reality, ensuring that it gives price signals that support the EU's recovery goals and climate ambitions by aligning the taxation of energy products to EU climate objectives, namely by contributing to phasing out fossil fuel subsidies and re-establishing the harmonisation objective.**

The EU is ready to lead on climate global ambitions but cannot run the race alone. Therefore, the Commission will propose a carbon border adjustment mechanism (CBAM) on selected sectors<sup>(171)</sup>. **The CBAM's main objective is to address climate change, and to incentivise low-carbon production processes across the world.** The CBAM will also provide protection against risks of carbon leakage, where production is either transferred from the EU to other countries with lower emission reduction ambitions, or where EU products are replaced by more carbon-intensive imports. **If the carbon leakage risk materialises, the EU's ambitious climate policies would be undermined.** A CBAM would ensure that the price of imports reflects more accurately their carbon content. The precise design of the measure is currently being assessed. However, it will be designed to comply with the World Trade Organization rules and other international obligations of the EU.

## 4.3 Fighting tax fraud, evasion and abuse to help fund the recovery

The crisis and its demands on public finances compound the need for Member States to secure tax revenue in a smart and sustainable manner. Intensifying the fight against tax fraud, evasion and avoidance is one of the most obvious ways to achieve this without imposing undue burden on those hit hardest by the crisis. Much progress has already been made in the past few years in the fight against tax abuse (European Commission, 2020c), but the work is far from over. EU tax policies have to ensure that everyone, from individuals to corporations, pays their fair share.

Tackling tax abuse will protect the level playing field for companies – large and small – that operate in the Single Market, thereby strengthening the resilience and competitiveness of the EU economy. In parallel, we need to break down unnecessary tax obstacles and make it easier for companies to innovate, invest and grow in the EU. To respond to this challenge, on 20 July 2020 the Commission published a tax package to ensure that EU tax **policy supports Europe's economic recovery** and long-term growth<sup>(172)</sup>. It notably includes a legislative proposal to improve tax transparency, a tax action plan for fair and simple taxation that supports the recovery strategy and a Communication on tax good governance. The package is built

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<sup>(169)</sup> Such investments could fit into the Recovery and Resilience Facility, see: [https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility\\_en](https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en)

<sup>(170)</sup> For more information on the ETD, see: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12227-Revision-of-the-Energy-Tax-Directive>.

<sup>(171)</sup> For more information, see: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12228-Carbon-Border-Adjustment-Mechanism>.

<sup>(172)</sup> See: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1334](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1334)

on the twin pillars of fairness and simplicity. It seeks to boost tax fairness by intensifying the fight against tax abuse, curbing unfair tax competition and increasing tax transparency. In parallel, it focusses on simplifying tax rules and procedures, to improve the environment for businesses across the EU.

The legislative proposal<sup>(173)</sup>, amending the directive on administrative cooperation<sup>(174)</sup>, will introduce **once adopted an automatic exchange of information between Member States' tax administrations** for income/revenue generated by sellers on digital platforms and strengthen administrative cooperation by clarifying existing rules. It will help tax administrations verify that those who earn money through digital platforms pay the appropriate share of taxes.

The tax action plan presents 25 actions the Commission will put forward between 2020 and 2024. These actions will reinforce detection of tax abuse and make life easier for honest taxpayers, by removing obstacles at every step, from registration to reporting, payment, verification and dispute resolution. Among the relevant actions to fight tax abuse are:

- a proposal to amend the VAT Directive with the objective of moving towards a single EU VAT registration to provide services and/or sell goods anywhere in the EU;
- a pilot project to assess which digital solution(s) can be used and how, to ensure better exploitation of data, create new digital services for taxpayers and better support the work of tax administrations at EU level;
- a recommendation for improving **the Member States' mutual assistance on recovering unpaid taxes**;
- a legislative initiative introducing a common, standardised, EU-wide system for withholding tax relief at source, accompanied by an exchange of information and cooperation mechanism among tax administrations;
- a possible legislative initiative amending Council Regulation (EU) No 904/201046 to ensure that Eurofisc has a true EU capability to fight against VAT fraud in cross-border transactions;
- securing VAT through automatic exchange of verifications of cross-border transactions.

The Communication on Tax Good Governance proposes four main initiatives:

- a reform of the Code of Conduct on Business Taxation;
- a review of the EU list of non-cooperative jurisdictions (NCJs) for tax purposes;
- **reinforcement of the EU's tax good governance rules regarding EU funds and defensive measures vis-à-vis listed countries**;
- additional support for partner countries in the area of tax good governance.

The Communication confirms the need to cover a scope beyond preferential tax regimes, widen the application of the listing criteria, monitor cleared jurisdictions thoroughly to prevent backtracking and adopt efficient defensive measures for all Member States. Furthermore, the Commission actively participates in international discussions taking place in the Organisation for Economic Co-operation and Development concerning the reform of the corporate taxation framework, including a revision of the right to tax notably for the digital economy and the implementation of a **minimum effective taxation of multinational enterprise's profits**. In parallel, the European Council has mandated the Commission to table a proposal for a digital levy as a potential new own resource in the first half of 2021. The exact design of this potential own resource is still to be determined and the Commission is exploring various options.

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<sup>(173)</sup> COM(2020) 314 final.

<sup>(174)</sup> Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation, OJ L 64, 11.3.2011, p. 1.

## 4.4 Supporting employment and help tackling inequality

In the wake of the COVID-19 pandemic, it will be critical to support the creation of new jobs, including for workers who may need to find a new line of work in the changed post-COVID economy. The extensive use of crisis support measures, including short-term working schemes and furlough, has limited the rise in unemployment across the EU to date. However, average unemployment in the EU is forecast to rise from 6.7% in 2019 to 8.6% in 2021, and labour market participation has also fallen<sup>(175)</sup>. The brunt of the employment adjustment has been borne by the most vulnerable categories of workers, such as those on temporary contracts, to whom furlough schemes often did not apply<sup>(176)</sup>, or those in low-wage low-skilled occupations. Employment losses have been largest in countries such as Spain, where the share of temporary contracts is highest. Higher paid and skilled occupations are also more likely to be ones where extensive use of remote working is more feasible and where activity and employment have been less affected by social distancing measures<sup>(177)</sup>. If hospitality and tourism do not fully recover, fewer lower-skilled workers will be demanded in these sectors than before at the same time as opportunities open up in growth industries. It is therefore very important to support, re-skill, and re-employ people previously employed in sectors which may not recover fully, and to ensure that **the tax-benefit and pension systems facilitate workers' ability to make such transitions.**

Member States with low employment rates and a high tax burden on labour could consider focusing labour tax cuts on groups whose labour supply is the most responsive and those facing the biggest challenges in gaining and maintaining employment. In a difficult fiscal context, it is appropriate to focus labour tax cuts on groups facing the greatest unemployment challenges and precarious work conditions (e.g. the low-paid, the youth and long-term unemployed), rather than expensive across the board generic tax reductions. Targeting reductions to the tax wedge of low-paid workers could also be a way to support the demand for lower skilled workers in a difficult post-COVID-19 labour market while maintaining those **individuals' net income. Temporary hiring incentives could be appropriate to accelerate the re-**employment of workers who have lost or will lose their job as a result of the COVID-19 pandemic. There is also scope to consider and encourage the role of entrepreneurship in supporting social mobility, including by temporarily maintaining support through the tax-benefit system for unemployed workers wishing to move into self-employment or start a business but who may have limited capital or savings. It also remains important to seek to remove or amend features of the tax system that create high marginal tax rates for second earners, for example by tapering the withdrawal of income-related child tax credits, and moving from joint to individual taxation for couples.

As the COVID-19 crisis appears to have exacerbated existing social and economic inequalities, this only strengthens the case for tax-benefit system measures to alleviate poverty and promote inclusion. Employment is an important route out of poverty and social exclusion. A loss of labour income has exacerbated existing economic and social issues, despite temporarily higher levels of cash and in-kind support to households put in place in some Member States to alleviate hardship. Additional relevant measure to mitigate inequalities of income, wealth and opportunity include strengthening the progressivity of personal income taxes or mitigating wealth inequality and supporting equality of opportunity by increasing the progressivity of the **overall tax mix, including by taxing wealth transmission, individuals' capital income and property.** Reducing the tax burden (both the tax wedge itself and tax compliance costs) on low-paid workers and self-employed people with modest incomes can also help reduce the size of the informal economy and ensure that all workers are paying social insurance contributions and commensurately have access to payments from the social security as and when they require these.

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<sup>(175)</sup> European Commission, *European Economic Forecast Autumn 2020*, [https://ec.europa.eu/info/sites/info/files/autumn\\_20\\_forecast.pdf](https://ec.europa.eu/info/sites/info/files/autumn_20_forecast.pdf)

<sup>(176)</sup> European Commission, *Proposal for a Joint Employment Report 2021*, <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9834&furtherNews=yes>.

<sup>(177)</sup> See Bartik, A., Z. Cullen, E. Glaeser, M. Luca and C. Stanton (2020), *What Jobs are Being Done at Home During the Covid-19 Crisis? Evidence from Firm-Level Surveys*, NBER Working Paper No. 27422, June.

## Glossary

Aggressive tax planning consists of taxpayers reducing their tax liability through arrangements that may be legal but are in contradiction with the intent of the law.

Allowance for corporate equity (ACE) is a corporate tax arrangement whereby interest payments and a defined return on equity can be deducted from the corporate income tax base. It moves the system closer to financing neutrality between debt and equity at corporate level.

Allowance for growth and investment (AGI) is also a corporate tax arrangement whereby interest payments and a return on equity can be deducted from the corporate income tax base. It also moves the system closer to financing neutrality between debt and equity at the corporate level. However, it goes further than ACE, because it removes tax avoidance by cascading the benefits (the funds injected in a group benefit from deductibility only once), uses an incremental system based on a moving reference year and allows for negative allowances.

The at-risk-of-poverty rate (AROP) is defined as the percentage of the population living in households where the equivalised disposable income was below 60% of median equivalised income after social transfers.

The persistent at-risk-of-poverty rate is defined as the percentage of the population living in **households where the equivalised disposable income was below the 'at risk of poverty' threshold** for the current year and at least 2 of the preceding 3 years.

Business angel is a knowledgeable private individual, usually with business experience, who directly invests part of their personal assets in new and growing unquoted businesses. Besides capital, business angels provide business management experience.

Comprehensive business income tax (CBIT) is a type of corporate tax where neither interest payments nor the return on equity can be deducted from corporate profits, and are thus fully taxed at the normal CIT rate. It equalises the tax treatment of debt and equity finance at corporate level.

Controlled foreign companies attribute a proportion of their income to a resident controlling shareholder and tax that shareholder for that income if certain conditions are met (usually the tax rate in the foreign country must be lower than a set percentage of the tax rate in the country **applying the 'CFC charge'**).

Direct taxes are defined as current taxes on income and wealth plus capital taxes including taxes such as inheritance or gift taxes. Income tax is a subcategory that includes personal income tax (PIT) and corporate income tax (CIT), along with capital gains taxes.

Effective average tax rate (EATR) is a tax rate calculated based on the nominal tax rate and the definition of the tax base. In particular, it is based on total investment income.

Effective marginal tax rate (EMTR) is a tax rate calculated based on the combination of the nominal (i.e. statutory) tax rate and the definition of the tax base (i.e. taxable profit). In particular, it is based on additional investment income.

Environmental taxes include taxes on energy, transport, pollution and resources (excluding VAT, which is levied on all products). Energy taxes include taxes on energy products and electricity used for transport (e.g. petrol and diesel) and stationary purposes (e.g. fuel oils, natural gas, coal and electricity). Transport taxes include taxes on the ownership and use of motor vehicles, and taxes on other transport equipment such as planes and on related transport services, e.g. duties on charter or scheduled flights. Pollution taxes include taxes on measured or estimated emissions to air (except taxes on CO<sub>2</sub> emissions) and water, on the management of solid waste and on noise. Resource taxes include any taxes linked to the extraction or use of a natural resource (e.g. taxes on licence fees paid for hunting and fishing rights)<sup>(178)</sup>.

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<sup>(178)</sup> This definition is based on (European Commission, 2013).

European Semester is the annual cycle of economic policy coordination in the EU. The **Commission analyses Member States' budgetary, structural and investment policies, provides proposals for Council recommendations to each Member State and monitors their implementation.**

Feebates are a system of charges and rebates whereby energy-efficient or environmentally friendly practices are rewarded while failure to adhere to such practices is penalised.

Health taxes<sup>(179)</sup> are imposed on products that have a negative public health impact (e.g. taxes on tobacco, alcohol, sugar-sweetened beverages, fossil fuels). These taxes result in healthier populations and generate revenues for the budget even in the presence of illicit trade/evasion. These are progressive measures which benefit low-income populations relatively more, once health care costs and health burden are taken into account.

Implicit tax rate on consumption is defined as all consumption taxes divided by:

- the final consumption expenditure of private households on the economic territory (domestic concept)
- intermediate consumption and social transfer in kind by the government and Non Profit Institutions Serving Households (NPISH).

Inactivity trap measures the financial incentive for an inactive person not entitled to unemployment benefits (but potentially receiving other benefits, such as social assistance) to move from inactivity to paid employment. It is defined as the rate at which the additional gross income of such a transition is taxed.

Indirect tax is a tax levied on a material or legal event of an accidental or temporary nature and on a (legal or natural) person that can often be an intermediate and not the person responsible for the event (hence the indirect character of the tax), e.g. VAT, import levies, excise duties.

Low-wage trap measures the financial incentive to increase a low level of earnings by working additional hours. It is defined as the rate at which the additional gross income of such a move is taxed.

Social security contributions are mandatory contributions paid by employers and employees into a social insurance scheme set up to cover pensions, healthcare and other welfare provisions.

Tax avoidance **is the arrangement of a taxpayer's affairs in a way that is intended to reduce his/her tax liability and that (although the arrangement may be strictly legal) is usually in contradiction with the intent of the law it purports to follow** (OECD glossary of tax terms).

Tax evasion generally involves illegal arrangements whereby liability to tax is hidden or ignored, i.e. the taxpayer pays less tax than they are legally obliged to pay by hiding income or information from the tax authorities.

Tax fraud is a form of deliberate evasion of tax that is generally punishable under criminal law. It includes situations in which deliberately false statements are submitted or fake documents are produced.

Tax wedge on labour is the difference between wage costs to the employer of a worker and the amount of net income that the worker receives, expressed as a proportion of the overall wage costs. The difference arises as a result of taxes, including PIT and compulsory SSCs.

Thin capitalisation rules restrict the deductibility of interest payments made by corporations with excessive debt-to-equity ratios<sup>(180)</sup>.

VAT gap is the difference between VAT revenue actually collected by the government and the **theoretical net VAT liability for the economy as a whole, under the country's current VAT system.**

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<sup>(179)</sup> This definition is based on: [https://www.who.int/health-topics/health-taxes#tab=tab\\_1](https://www.who.int/health-topics/health-taxes#tab=tab_1)

<sup>(180)</sup> Adapted from Arnold & McIntyre (2002).

The latter is estimated by identifying the categories of expenditure that give rise to irrecoverable VAT and applying the appropriate VAT rates to estimated expenditure in the various categories.

Venture capital is investment in unquoted companies by firms who, acting as principals, manage individual, institutional or in-house money. In the EU, the main financing stages are early-stage (covering seed and start-up financing) and expansion. Strictly defined, venture capital is a subset of private equity. To offset the high risk involved, the investor expects a higher than average return on investment.

Withholding tax is a tax on income imposed at source. A third party is charged with deducting the tax from certain kinds of payment and remitting that amount to the government. Withholding taxes are found in practically all tax systems and are widely used for dividends, interest, royalties and similar tax payments. The rates of withholding tax are frequently reduced by tax treaties.

## References

- Acemoglu, D. and Robinson, J. A. (2013). Why nations fail: The origins of power, prosperity and poverty. New York: *Crown Publishers*.
- Acemoglu, D., Aghion, Ph. and Hémous, D. (2014). The environment and directed technical change in a North– South model. *Oxford Review of Economic Policy*, 30(3), 513–530.
- Akcigit, U., Hanley, D., & Serrano-Velarde, N. (2013). Back to Basics: Basic Research Spillovers, Innovation Policy and Growth. *NBER Working Paper 19473*.
- Aldstadsæter, A., Johannesen, N., & Zucman, G. (2017). Tax Evasion and Inequality. *NBER Working Paper 23772*.
- Alstadsæter, A., Barrios, S., Nicodeme, G., Skonieczna, A. M., & Vezzani, A. (2018). Patent boxes design, patents location, and local R&D. *Economic Policy, Volume 33, Issue 93*, <https://doi.org/10.1093/epolic/eix021>, 131–177.
- Álvarez-Martínez, M., Barrios, S., d'Andria, D., Gesualdo, M., Nicodème, G., & Pycroft, J. (2021). How Large is the Corporate Tax Base Erosion and Profit Shifting? A General Equilibrium Approach. *Economic Systems Research*.
- Álvarez-Martínez, M. B. (2018). How Large is the Corporate Tax Base Erosion and Profit Shifting? A General Equilibrium Approach. *CEPR Discussion Papers 12637*.
- Andreyeva, C. D. (2011). Estimating the potential of taxes on sugar-sweetened beverages to reduce consumption and generate revenue. *Preventive Medicine*, 52(6), Pages 413–416.
- Ark, B., O'Mahoney, M., & Timmer, M. (2008). The Productivity Gap between Europe and the United States: Trends and Causes. *Journal of Economic Perspectives*, 22(1), 25–44.
- Arlinghaus, J. (2015). Impacts of carbon prices on indicators of competitiveness: A review of empirical. *OECD Environment Working Papers*.
- Arnold, B. J., & McIntyre, M. J. (2002). International tax primer. *Kluwer law international*.
- Arnold, J. (2008). Do tax structures affect aggregate economic growth? *OECD*.
- Arrow, K. (1962). Economic Welfare and the Allocation of Resources for Invention. The Rate and Direction of Inventive Activity. *Princeton University Press and NBER*.
- Bach, S., Beznoska, M., & Steiner, V. (2016). Wer trägt die Steuerlast in Deutschland? Verteilungswirkungen des deutschen Steuer- und Transfersystems. *DIW Berlin: Politikberatung kompakt, No. 114*.
- Bach, S., Thiemann, A., & Zucco, A. (2018). Looking for the missing rich: Tracing the top tail of the wealth distribution. *Discussion Papers of DIW Berlin 1717*.
- Baiardi, D., Profeta, P., Puglisi, R., & Scabrosetti, S. (2019). Tax Policy and Economic Growth: Does It Really Matter? *International tax and public finance*, 26, 282–316.
- Barrios, S., Huizinga, H., Laeven, L., & Nicodème, G. (2012). International taxation and multinational firm location decisions. *Journal of Public Economics*, 96(11/12): 946–958.
- Borunsky, L., Dumitrescu Goranov, A., Ravet, J., & Rakic, R. (2020). Aiming for more: R&D Investment scenarios for the next decade. *R&I paper series, working paper 2020/06*. Available at <https://op.europa.eu/en/publication-detail/-/publication/cfefaf03-c7de-11ea-adf7-01aa75ed71a1>.
- Braga, B., McKernan, S.-M., Ratcliffe, C., & Baum, S. (2017). Wealth Inequality is a Barrier to Education and Social Mobility.



- Branzoli, N., & Caiumi, A. (2018). How effective is an incremental ACE in addressing the debt bias? Evidence from corporate tax returns. *Istituto Nazionale di Statistica. Working Paper*.
- Brys, B., Perret, S., Alastair, T., & O'Reilly, P. (2016). Tax Design for Inclusive Economic Growth. *OECD*. doi:<https://doi.org/10.1787/5jlv74ggk0g7-en>
- Bundit Sornpaisarn, K. D. (2017). Resource tool on alcohol taxation and pricing policies. *WHO*.
- Carbon Pricing Leadership Coalition. (2017). Report of the High-Level Commission on Carbon Prices. Washington, D.C.: *The World Bank*.
- CASE et al. (2020). Study and Reports on the VAT Gap in the EU-28 Member States: 2018 Final Report. *TAXUD/2015/CC/131*.
- Christl, M., Livanos, I., Papini, A., & Tumino, A. (2020). **"The Future of Taxation in changing labour markets. JRC Working Papers on Taxation & Structural Reforms (forthcoming)**.
- Corak, M. (2013). Income inequality, Equality of Opportunity, and Intergenerational Mobility. *IZA Discussion Paper, 7520*.
- COWI. (2002). Fiscal measures to reduce CO2 emissions from new passenger cars. *European Commission Taxation Studies, No. 8 ed.*). Brussels.
- CPB. (2014). A Study on R&D Tax Incentives, Final Report, *Study commissioned by the European Commission*.
- D'Andria, D., Pontikakis, D., & Skonieczna, A. (2017). Towards a European R&D incentive? An assessment of R&D provisions under a common corporate tax base. *Economics of Innovation and New Technology*, 1-20.
- De Mooij, R. A., & Devereux, M. P. (2010). An applied analysis of ACE and CBIT reforms in the EU. *International Tax and Public Finance*, 93-120.
- Devereux. (2007). The Impact of Taxation on the Location of Capital, Firms and Profit: a Survey of Empirical Evidence. *Working Papers 0702, Oxford University Centre for Business Taxation*.
- Devereux, M., & Griffith, R. (2003). Evaluating Tax Policy for Location Decisions. *International Tax and Public Finance*, 10(2), 107-126.
- Dover, R., Ferrett, B., Gravino, D., Jones, E., & Merler, S. (2015). Bringing transparency, coordination and convergence to corporate tax policies in the European Union. *European Parliamentary Research Service, PE 558.773*.
- ECOPA and CASE. (2019). *Estimating International Tax Evasion by Individuals*.
- EEA. (2018). *Unequal exposure and unequal impacts: social vulnerability to air pollution, noise and extreme temperatures in Europe*.
- Egger, P., Nigai, S., & Strecker, N. (2019). The Taxing Deed of Globalization. *American Economic Review*, 109(2), 353-90.
- European Commission. (2012). Taxation Trends in the European Union: Data for the EU Member States, Iceland and Norway. *Edition 2012*.
- European Commission. (2013). *Environmental Taxes - A Statistical Guide*.
- European Commission. (2016). *Tax Policies in the European Union 2016 Survey*.
- European Commission. (2017a). *Tax Policies in the European Union 2017 Survey*.
- European Commission. (2017b). *Employment and social developments - Annual review*.
- European Commission. (2018a). *Tax Policies in the European Union 2018 Survey*.



- European Commission. (2018b). *Employment and Social Developments in Europe 2018*.
- European Commission. (2019a). *European Economic Forecast. Spring 2019. Institutional Paper 102*.
- European Commission. (2019b). *Country Report Austria 2019, SWD(2019) 1019 final, Brussels, 27.2.2019*.
- European Commission. (2019c). *Country Report Malta 2019. {COM(2019) 150 final}*.
- European Commission. (2019d). *Country Report Portugal 2019, SWD(2019) 1021 final, Brussels, 27.2.2019*.
- European Commission. (2019e). *Investor Citizenship and Residence Schemes in the European Union. Commission Staff Working Document. {COM(2019) 12 final}*.
- European Commission. (2020a). *Tax policies in the EU survey: 2020 survey*.
- European Commission. (2020b). ***The role of research and innovation in support of Europe's recovery from the Covid-19 crisis***.
- European Commission. (2020c). *Taxation Trends in the European Union: Data for the EU Member States, Iceland and Norway. Edition 2020*. Brussels.
- European Commission. (2020d). *An action plan for fair and simple taxation supporting the recovery strategy, COM(2020) 312 final*.
- European Commission. (2020e). *Tax policies in the EU survey: 2020 survey*.
- European Commission. (2021). *Taxation in support of green transition: An overview and assessment of existing tax practices to reduce greenhouse gas emissions*. Luxembourg.
- European Environment Agency. (2016). *Environmental taxation and EU environmental policies*. EEA report No. 17/2016.
- European Environment Agency. (2020). *Trends and projections in Europe 2020: Tracking progress towards Europe's climate and energy targets*. Luxembourg: Publications Office of the European Union.
- European Environmental Agency. (2019). *The European environment — state and outlook 2020*. Luxembourg: Publications Office of the European Union.
- EY. (2015). ***Implementing the 'destination principle' to intra-EU B2B. Feasibility and economic evaluation study. Final Report. Contract: TAXUD/2013/DE/319***.
- Fagereng, A., Guiso, L., Malacrino, D., & Pistaferri, L. (2019). *Heterogeneity and Persistence in Returns to Wealth*.
- Filauro S, Parolin Z. (2019). Unequal unions? A comparative decomposition of income inequality in the European Union and United States. *Journal of European Social Policy*.
- Fiscalis Tax Gap Project Group. (2018). *The Concept Of Tax Gaps Report II: Corporate Income Tax Gap Estimation Methodologies, Taxation papers 73*.
- Frank J. Chaloupka, L. M. (2019). The Use of Excise Taxes to Reduce Tobacco, Alcohol, and Sugary Beverage Consumption. *Annual Review of Public Health 40: 1*, 187-201.
- Freitas I., C. F. (2017). Sectors and the Additionality Effects of R&D Tax Credits: A Cross-Country Microeconometric Analysis. *Research Policy*, 46, 57-72.
- Fries-Tersch, E., Tugran, T., Markowska, A., & Jones, M. (2018). *2018 Annual Report on intra EU Labour Mobility. Final Report 2018 for European Commission*.

- FSC Subgroup on Non-Performing Loans. (2017). *Report of the FSC Subgroup on Non-Performing Loans*. Brussels: Council of the European Union.
- Hall, B. (2019). Tax policy for Innovation. *NBER Working Paper 25773*.
- Hebous, S., & Ruf, M. (2017). Evaluating the effects of ACE systems on multinational debt financing and investment. *Journal of Public Economics, Volume 156, December 2017, Pages 131-149*. <https://doi.org/10.1016/j.jpubeco.2017.02.011>.
- IMF/OECD. (2019). *2019 Progress Report on Tax Certainty*. Paris: OECD. Retrieved from [www.oecd.org/tax/tax-policy/g20-report-on-tax-certainty.htm](http://www.oecd.org/tax/tax-policy/g20-report-on-tax-certainty.htm)
- Institute for Fiscal Studies (Project leader). (2011). *A retrospective evaluation of elements of the EU VAT system. Final report. TAXUD/2010/DE/328. FWC No. TAXUD/2010/CC/104*.
- Johansson, A., Heady, C., Arnold, J., Brys, B., & Vartia, L. (2008). *Tax and Economic Growth*. OECD Economics Department Working Papers.
- JRC. (2019). *JRC Policy brief "The fiscal and social cost of tax evasion: the impact of underreporting of income by the self-employed"*.
- Kukk M., A. P. (2018). *Income underreporting by the self-employed in Europe: A cross-country comparative study*. Eesti Pank Working Paper Series, 4/2018.
- Laing, T. S. (2013). *Assessing the effectiveness of the EU Emissions*. Centre for Climate Change Economics and Policy Working Paper.
- Langendijk, S., Nicodème, G., Pagano, A., & Rossi, A. (2014). Debt Bias in Corporate Taxation and the Costs of Banking Crises in the EU. *Taxation Papers*.
- Marron, D. B. (2014). *Tax policy issues in designing a carbon tax*. American Economic Review.
- Milanovic, B. (2016). *Global inequality: A new approach for the age of globalization*. Cambridge, Massachussets: Harvard University Press.
- Millot, V., Johansson, A., Sorbe, S., & Turban, S. (2020). Corporate taxation and investment of multinational firms: Evidence from firm-level data. *OECD Taxation Working Papers No. 51*.
- Nicodème, G., Calumi, A., & Majewski, I. (2018). What Happened to CIT Collection? Solving the Rates-Revenues Puzzle. *Taxation Papers, Working Paper 74-2018*.
- OECD. (2013). *Action plan on base erosion and profit shifting*. doi: <http://dx.doi.org/10.1787/9789264202719-en>
- OECD. (2015). *In It Together: Why Less Inequality Benefits All*. Paris: OECD Publishing.
- OECD. (2017). The effects of the tax mix on inequality and growth. *OECD Economics Department Working Papers No. 1447, OECD Publishing, Paris*.
- OECD. (2018a). *Corporate Tax Statistics first edition*.
- OECD. (2018b). The Role and Design of Net Wealth Taxes in the OECD. *OECD Tax Policy Studies No. 26, OECD Publishing, Paris*.
- OECD. (2018c). *Effective Carbon Rates 2018 - Pricing Carbon Emissions Through Taxes and Emissions Trading*.
- OECD. (2019a). *Tax Administration 2019: Comparative Information on OECD and other Advanced and Emerging Economies*.
- OECD. (2019b). *Joint Audit 2019 – Enhancing Tax Co-operation and Improving Tax Certainty: Forum on Tax Administration*. Paris: OECD Publishing. doi: <https://doi.org/10.1787/17bfa30d-en>

- OECD. (2020a). *OECD Dataset: Tax policy measures taken so far*. Retrieved from <https://www.oecd.org/tax/covid-19-tax-policy-and-other-measures.xlsm>
- OECD. (2020b). The effects of R&D tax incentives and their role in the innovation policy mix: Findings from the OECD microBeRD project, 2016-19. *OECD Science, Technology and Industry Policy Papers*, No. 92, OECD Publishing, Paris,, <https://doi.org/10.1787/6>.
- OECD/G20. (2020). *Inclusive Framework on BEPS, Progress report July 2019 – July 2020*. Retrieved from <http://www.oecd.org/tax/beps/oecd-g20-inclusive-framework-on-beps-progress-report-july-2019-july-2020.htm>
- Ognyanova, D. (2017). R&D tax incentives, How to make them most effective? . *Working Paper Series September, European Commission*.
- Ostry, J., Berg, A., & Tsangarides, C. (2014). Redistribution, Inequality, and Growth. *IMF Staff Discussion Notes* 14/02.
- Oxfam. (2018). *Reward work, not wealth*. Oxford: Oxfam GB for Oxfam International.
- Palomino, J., Marrero, G., & Rodriguez, J. (2017). Inheritances and Inequality of Opportunity in Wealth.
- Piketty, T., & Saez, E. (2007). How Progressive is the U.S. Federal Tax System? A Historical and International Perspective. *Journal of Economic Perspectives*, 21(1), 3-21.
- Popp, D. (2006). *Innovation in climate policy models: Implementing lessons from the economics of R&D*. Energy Policy.
- Popp, D. C. (2010). *Energy, the environment, and technological change*.
- Porter, M. E. (1995. ). "Toward a New Conception of the Environment-Competitiveness Relationship." . *Journal of Economic Perspectives*, 9 (4): 97-118.
- Princen, S. (2012). Taxes do Affect Corporate Financing Decisions: The Case of Belgian ACE. (C. G. Munich, Ed.) *CESifo Working paper Series* 3713.
- PwC PricewaterhouseCoopers LLP (Project Leader), I. I. (2017). *Reform of rules on EU VAT rates. Final Report. TAXUD/2015/DE/333*.
- PWC, I. C. (2017). Effectiveness of tax incentives for venture capital and business angels to foster the investment of SMEs and start-ups. *Taxation Papers, Working Paper n. 68*.
- PwC/World Bank Group. (2018). *Paying Taxes 2019, Fourteen years of data and analysis of tax systems in 190 economies: how is technology affecting tax administration and policy?*
- Rabinovitch, L. B. (2009). *The affordability of alcoholic beverages in the European Union: Understanding the link between alcohol affordability, consumption and harms*. Cambridge: RAND Europe.
- Radulescu, D. M., & Stimmelmayer, M. (2007). ACE versus CBIT: Which is Better for Investment and Welfare? *CESifo Economic Studies*, Vol. 53, 2/2007, 294-328.
- Ramboll Management Consulting and Corit Advisory. (2015). Study on Structures of Aggressive Tax Planning and Indicators. *Taxation Papers* 61.
- Roeger, W., Varga, J., & in't Veld, J. (2010). How to Close the Productivity Gap between the US and Europe. *European Commission Economic Papers*, 399.
- Romer, P. (1990). Endogenous Technological Change. *Journal of Political Economy*, 98(2), 71-102.
- Spengel, C., Heckemeyer, J., Nicolay, K., Bräutigam, R., & Stutzenberger, K. (2018). Addressing the Debt-Equity Bias within a Common Consolidated Corporate Tax Base (CCCTB) – Possibilities, Impact on Effective Tax Rates and Revenue Neutrality. *World Tax Journal*.

- Sutherland, D., & Hoeller, P. (2012). Debt and Macroeconomic Stability: An Overview of the Literature and Some Empirics. *OECD Economics Department Working Papers No. 1006 (ECO/WKP(2012)83)*.
- Tørsløv, T., Wier, L., & Zucman, G. (2018). The Missing Profits of Nations. *NBER Working Paper 24701*.
- Trautvetter, C., & Winkler, E. (2019). *Competing for the rich - Tax exemptions and special schemes for the rich*. The Greens/EFA in the European Parliament.
- Uhlíř, D., Straathof, B., & Hambro, C. (2017). *Horizon 2020 Policy Support Facility Mutual Learning Exercise on the Administration and Monitoring of R&D tax incentives*. European Commission Directorate-General for Research and Innovation. Retrieved from <https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-administration-and-monitoringrd-tax-incentives>
- Warda, J. (2001). Measuring the Value of R&D Tax Treatment in OECD Countries. *STI Review No. 27: Special Issue on New Science and Technology Indicators*.
- WHO. (2019a). *Report on the Global Tobacco Epidemic. Offer help to quit tobacco usage*.
- WHO. (2019b). *Status report on alcohol consumption, harm and policy responses in 30 European countries*.
- Williamson, E. W. (2020). Factors associated with COVID-19-related death using OpenSAFELY. *Nature 584*, 430–436.
- World Bank. (2018). *Doing Business 2019, Training for Reform*. World Bank Publications.
- World Bank. (2019). *Doing Business 2020: Comparing business regulation in 190 economies*.
- Xing, J. (2012). Does tax structure affect economic growth? Empirical evidence from OECD countries. *Economic Letters 117(1)*, 379-382.
- Zangari, E. (2014). Addressing the Debt Bias: A Comparison between the Belgian and the Italian ACE Systems. *Taxation Papers 65*.
- Zangari, E., Caiumi, A., & Hemmelgarn, T. (2017). Tax Uncertainty: Economic Evidence and Policy Responses. *Taxation Papers 67*.
- ZEW. (2016b). The Impact of Tax Planning on Forward-looking Effective Tax Rates. *Taxation Papers 64*.
- ZEW. (2020). *Effective Tax Levels Using the Devereux-Griffith Methodology: 2020 report*. TAXUD/2020/DE/308.

## Annex

### Choice of indicators

The indicators used in this *Annual Report on Taxation* are taken from various sources. They are useful in identifying areas in which policies could be improved, but the results always need to be interpreted alongside in-depth country analysis before any conclusions on appropriate policies can be drawn. This type of in-depth analysis is beyond the scope of this report, but is carried out as part of the European Semester.

The report does not claim to be comprehensive and inevitably other indicators could have been used. Factors taken into account in the choice of indicators include completeness (where possible, data cover all 27 Member States), clarity and reliability. Choosing indicators is a particular challenge in certain areas, e.g. it is by definition difficult to estimate how much money is lost to tax fraud, evasion and avoidance. Despite the measurement challenges, this report looks at indicators that are generally considered relevant and can improve our understanding of the size or relevance of the features or phenomena in question.

Where available and relevant, EU-27 averages are presented alongside country-specific data. This is intended to help readers understand the relative levels in different Member States and should not be interpreted as suggesting that the EU average represents an ideal level.

### Box A.1. To go further

#### [Taxation trends in the European Union<sup>\(181\)</sup>](#)

*Taxation Trends in the European Union* presents taxation data and information for the EU Member States, Iceland and Norway. The latest edition of the report (the 2020 edition) is divided into four sections:

- Part 1 '**Development of the overall tax revenue in the European Union**' provides an analysis of developments in the EU, outlining with graphs and tables the main trends in taxation indicators at EU level.
- Part 2 '**National tax systems**' presents, for each of the 30 countries covered in the report:
  - a **summary table of the country's tax revenue** covering different types of tax revenue, implicit tax rates (ITRs) and payable tax credits;
  - the latest tax reforms announced, legislated or implemented during the calendar year 2019.
- The detailed statistical annex in Part 3 (Annex A) includes national accounts data sets (direct and indirect taxes, social contributions, etc.), by level of government (central, state, local, social security funds and EU institutions) and by economic function (consumption, capital, labour taxes), as well as energy, environmental and property taxes and ITRs.
- The methodological annex in Part 4 (Annex B) provides detailed guidance on the methodology used for all calculations carried out to prepare the document.

#### [Taxes in Europe database<sup>\(182\)</sup>](#)

The *Taxes in Europe* database is the European Commission's online information tool covering the main taxes in force in the EU Member States. The system contains information on around 650 taxes, as provided to the Commission by the Ministries of Finance of the Member States. Access is free for all users.

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<sup>(181)</sup> For more information see [https://ec.europa.eu/taxation\\_customs/business/economic-analysis-taxation/taxation-trends-eu-union\\_en](https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/taxation-trends-eu-union_en).

<sup>(182)</sup> For more information, see: [https://ec.europa.eu/taxation\\_customs/economic-analysis-taxation/taxes-europe-database-tedb\\_en](https://ec.europa.eu/taxation_customs/economic-analysis-taxation/taxes-europe-database-tedb_en).

## State aid

Member States must ensure that their tax measures comply with EU State aid rules and notify the Commission of all relevant measures not covered by the General Block Exemption Regulation<sup>(183)</sup> and the *De Minimis* Regulation<sup>(184)</sup>. This report is without prejudice to the Commission's possible State aid assessment of national tax measures.

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<sup>(183)</sup> Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1).

<sup>(184)</sup> Commission Regulation (EU) No 1407/2013 of 18 December 2013 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid (OJ L 352, 24.12.2013, p. 1).





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