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PART 1/3

COMMISSION STAFF WORKING DOCUMENT

Annual Report on Taxation 2021

European Commission

Annual Report on Taxation 2021

Review of taxation policies in EU Member States

Taxation and Customs Union

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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

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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[(1)], 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 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

[(1)] For more information, see: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_342

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[(2)]. 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 report informs the reader about certain aspects of taxation under the Recovery and Resilience Facility, which is at the centre of the NextGenerationEU instrument[(3)].

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

[(2)] See: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2021

[(3)] 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.

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.

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 simulating 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[(4)]. 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[(5)] (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.

(4) 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.

(5) 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[6].

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

[6] 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.

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[7], 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[8]. 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[9] 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'[10] 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-19 pandemic has also shown how health taxes may be important to help Member States support health systems during a health crisis.

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[7] See: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

[8] See: https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1599.

[9] See: https://ec.europa.eu/clima/policies/eu-climate-action/law_en

[10] 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.

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[(11)] 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[(12)] 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 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

(11) 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.

(12) 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.

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 (Baiardi, 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	• May distort labour demand through increased labour costs and labour supply through reduced work incentives. • However, empirical research suggests very low labour supply elasticities, with the exception of low-income and second earners.	• If designed progressively, they represent the primary tax instrument for redistribution, taking into account the 'ability to pay' principle[13]. • 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.	• Withholding taxes (WHTs) on labour substantially facilitate tax administration and compliance. • Non-standard employment and the rise of (online) platform work create challenges for the efficient administration of earned income. • However, technology (in particular, platforms) may also provide opportunities for more efficient tax administration.
Corporate income taxes (CITs)	• May distort capital formation, investment decisions and productivity in several ways. • 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. • Economic integration and digitalisation pose particular problems for the international CIT framework, as they distort investment location and magnitude, and the playingfield between businesses.	• CIT is often seen as an instrument for taxing corporations' profits, thereby contributing to a more progressive burdensharing among taxpayers. • 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.	• Companies' compliance costs are high, especially for SMEs due to complex accounting standards and tax provisions (e.g. deduction rules)[14]. • In particular, compliance is increasingly complex for businesses operating across borders due to different tax rules. • Loopholes in and mismatches between corporate tax systems create substantial opportunities for tax avoidance.
Capital income taxes (households)	• 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. • May discourage savings and investment. • 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 ('economic double taxation').	• Typically, capital income increases as a proportion of total personal income towards the top of the income distribution. • Under the 'ability to pay' principle, all personal income from different sources (labour, capital etc.) should be taxed to the same degree.	• Taxing capital income at source (WHT) e.g. through banks or companies issuing shares reduces the risk of fraud or evasion. • But WHT leads to a high administrative burden related to reclaim procedures. • 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.
Taxes on immovable property	• If designed as *recurrent* taxes, the distortive impact is limited compared to other taxes. • If designed as *transaction* taxes, they may create a lock-in effect that reduces labour	• Distributional implications depend on distribution of property ownership and specific design of the tax.	• Valuation can be complex but is considered less costly than in the context of net wealth taxes. • Due to visibility and immobility, evasion and avoidance opportunities are limited.

[13] The 'ability to pay' principle maintains that taxes should be levied according to taxpayers' financial standing.

[14] 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
	mobility.		
Net wealth taxes[15]	• May discourage savings. • May decrease the level of investment.	• If designed with appropriate thresholds and (possibly) progressively, may make a significant contribution to reducing wealth inequality.	• May encourage people to move their wealth offshore. • Substantial avoidance opportunities, particularly for the very rich. • Difficult to trace ownership; annual valuation of privately held wealth is costly. • However, appropriate design and technological progress can cut valuation costs and administrative complexity substantially.
Inheritance/gift taxes	• 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. • Incentives increase for heirs to work and save, in view of a lower inheritance. • 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	• Can help reduce wealth inequality. • Can support social mobility by reducing the extent to which wealth inequalities are transmitted from one generation to another.	• Since assets are valued only once, administrative costs are less than those for net wealth taxes. • Avoidance and evasion opportunities depend on the design and the scope of exemptions.
Value-added tax (VAT)	• Considered to be among the less distortive taxes, as it does not directly distort the choice of production technique.	• 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.	• 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. • 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.

[15] 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.

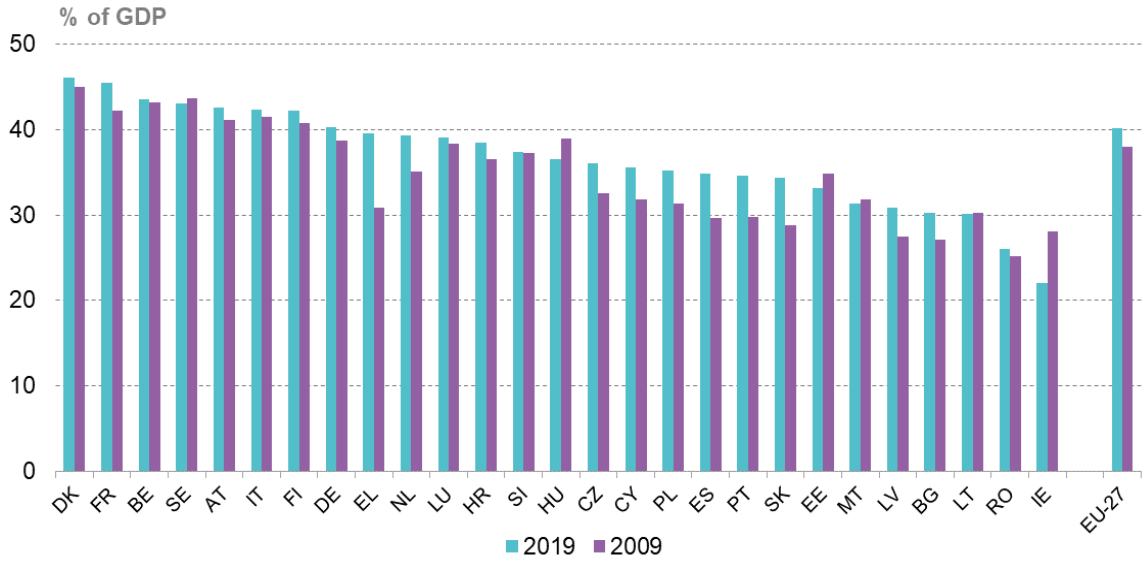
	Efficiency	Distributive effects	Administration/compliance
Environmental taxes	• If appropriately designed, considered to be among the least distortive of taxes. • One of the main objectives is to incentivise behavioural change in order to internalise negative externalities and thereby create overall welfare gains. • 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.	• 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.	• The level of administrative complexity defines the feasibility of environmental taxes. • Ideally, would take the form of a tax on each unit of measured emissions (e.g. CO_2, NOx) according to social cost. • 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. • Difficult to evade.
Health taxes	• Primary objective is to correct behaviour to internalise negative externalities and thereby create overall welfare gains. • Concerns over illicit trade / evasion	• Health taxes are typically progressive, provided the health burden and healthcare costs are factored in.	• Compliance costs for health taxes on alcohol and tobacco products are low and often arise from compliance with the overall excise duty provisions.

1.3 The tax mix in the EU – recent trends and forecasts[16] [17]

In 2019, annual tax revenue[18] in the EU, measured as a percentage of GDP (the tax burden), was stable at 40.1% of GDP[19]. 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 taxtoGDP 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 %)[20], 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.

[16] 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).

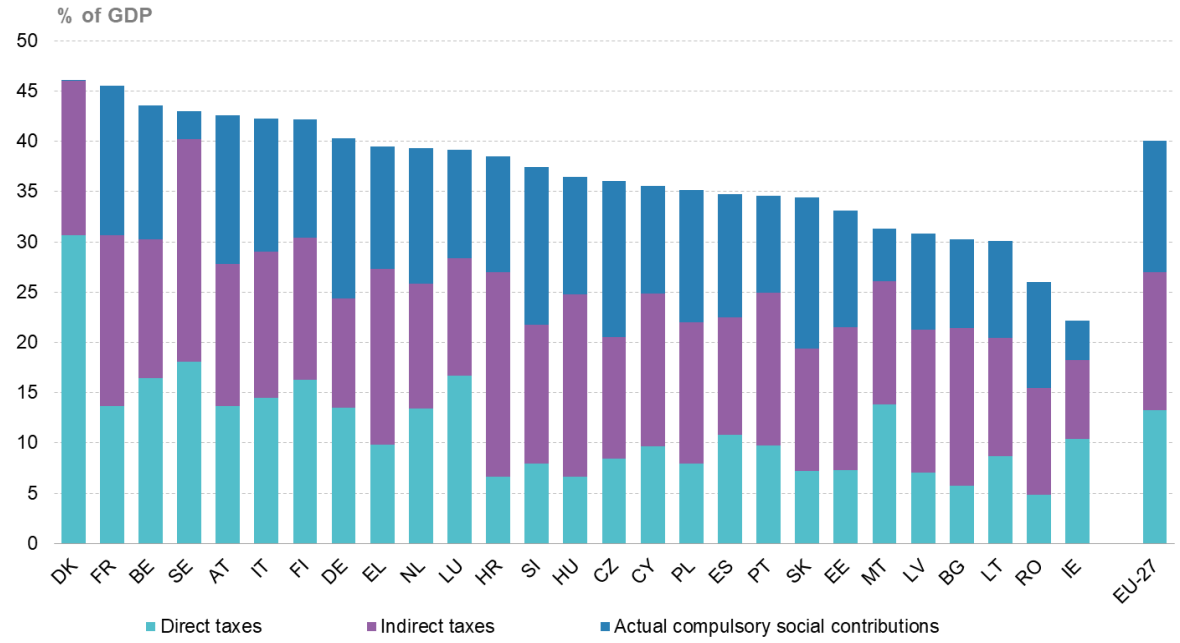
[17] For more extensive information from national finance ministries on their tax systems, see the Taxes in Europe database https://ec.europa.eu/taxation_customs/tedb/taxSearch.html

[18] 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

[19] 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.

[20] 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.



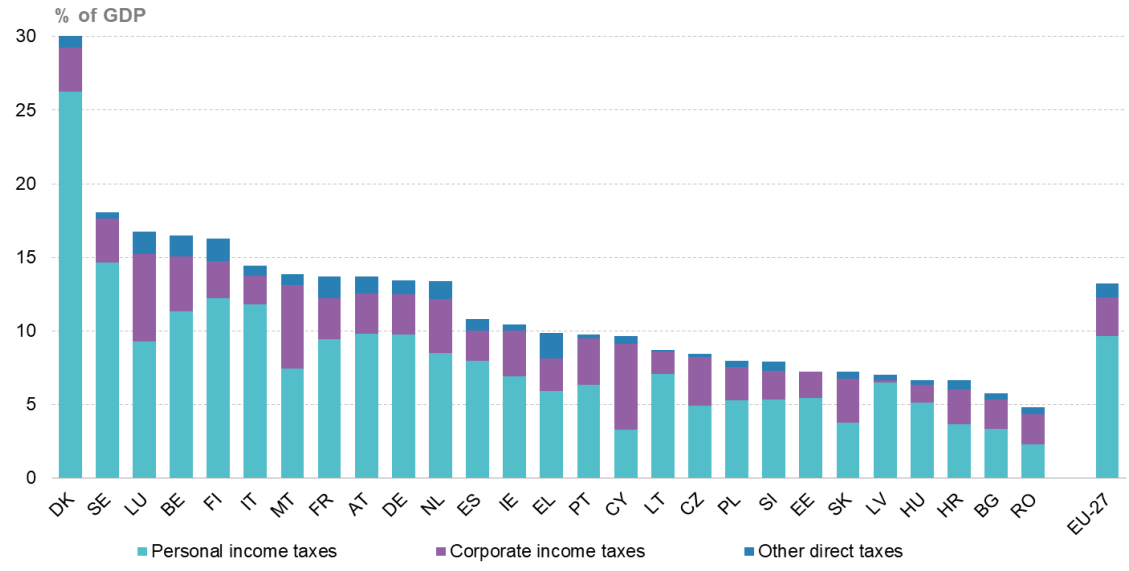
Source: Eurostat (online datacode: gov_10a_taxag), TAXUD calculations.

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



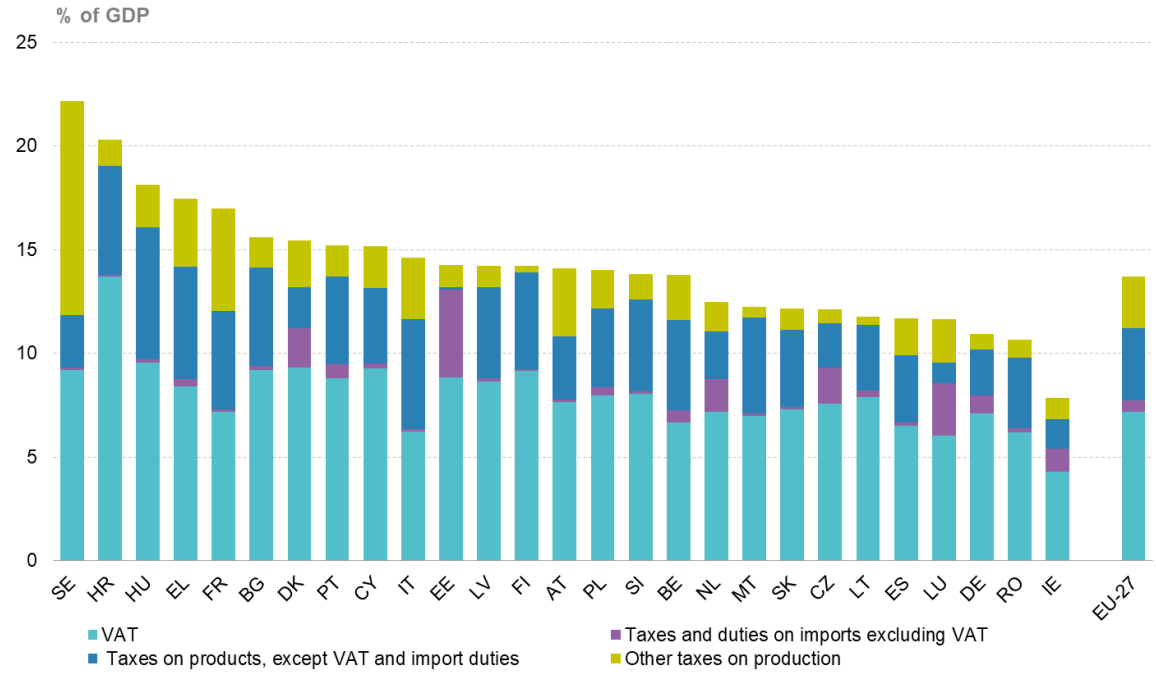
Source: Eurostat (online datacode: gov_10a_taxag), TAXUD calculations.

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

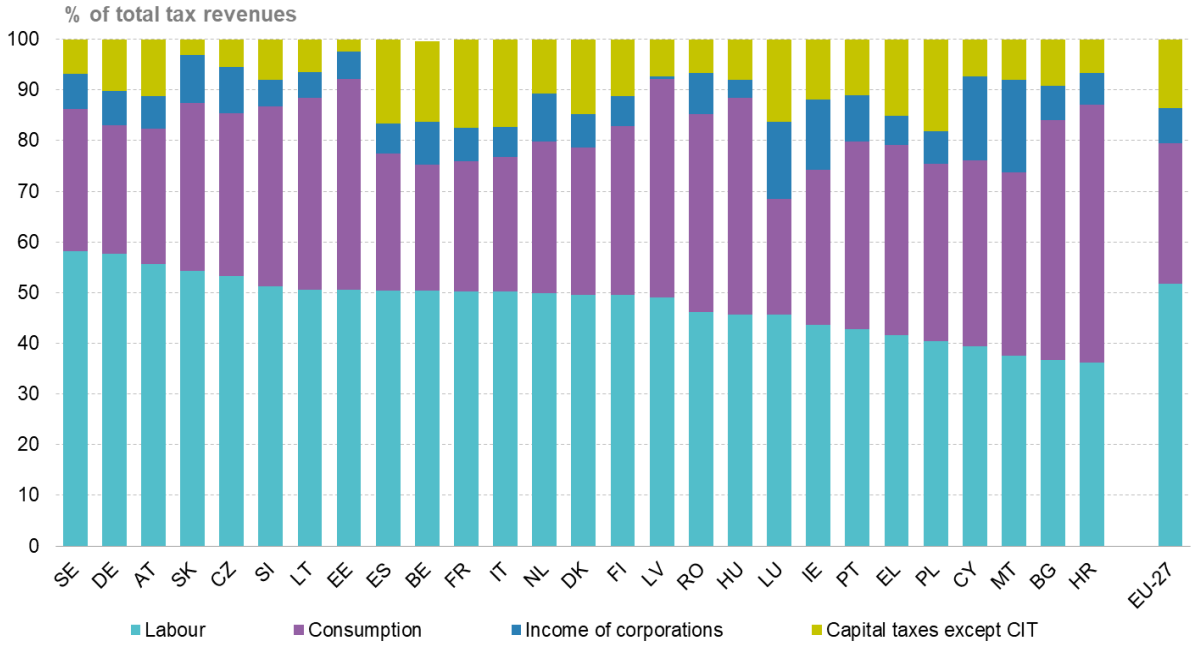


Source: Eurostat (online datacode: gov_10a_taxag), TAXUD calculations.

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

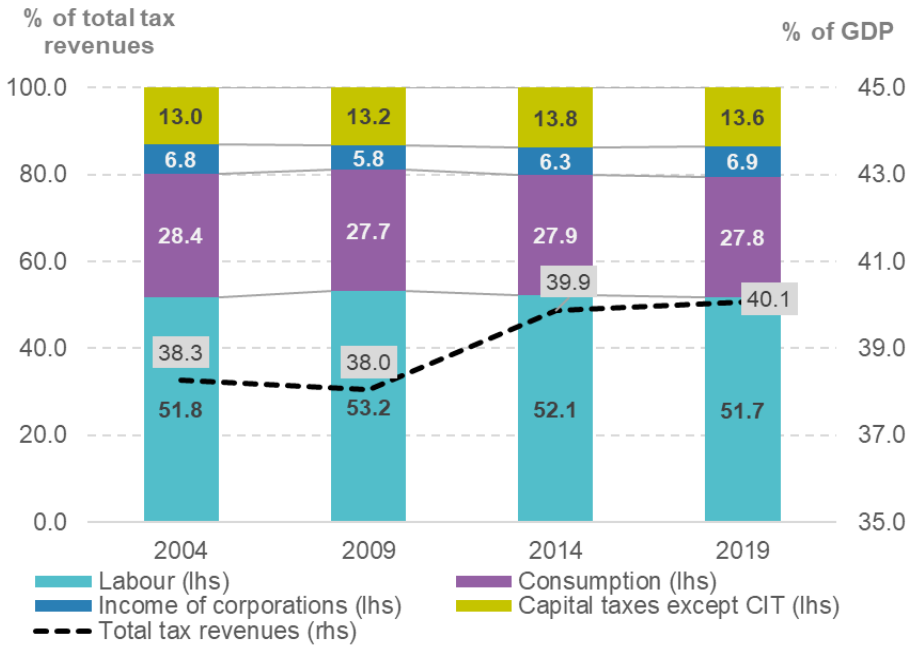


Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.
Notes:
(1) For the purpose of this graph, 'capital' taxes' includes all categories not classified as labour, corporate or consumption tax.
(2) Labour taxation includes employers' and employees' social contributions.
(3) 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.

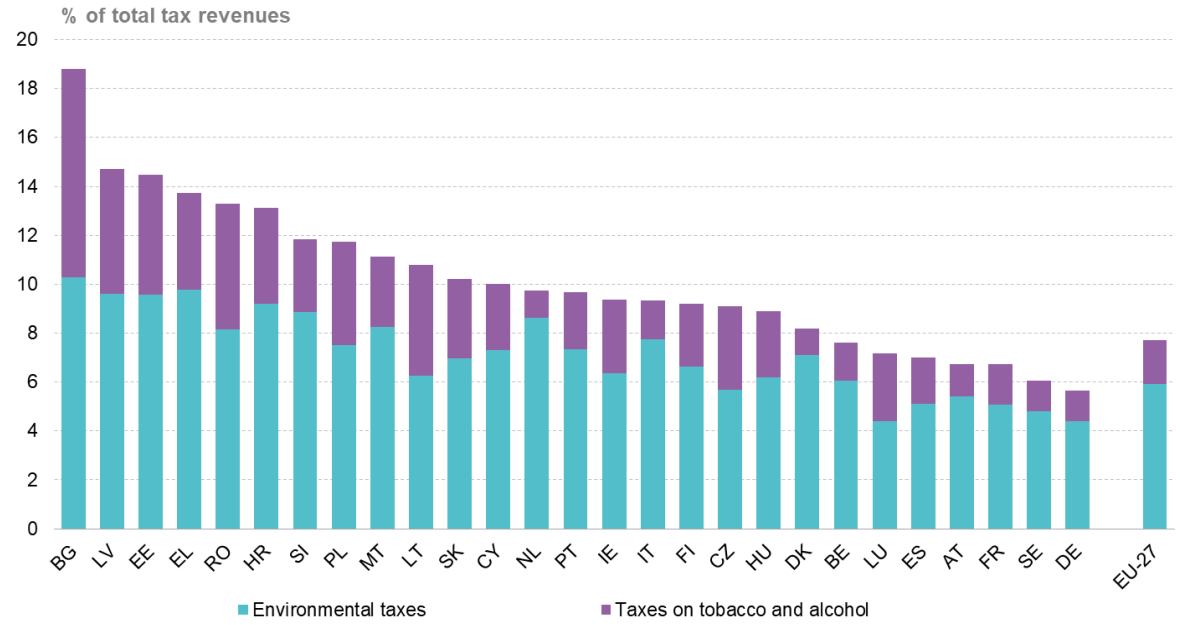
Graph 7 shows property taxes as a percentage of total taxation, broken down into recurrent taxes on immovable property and other property taxes, including transaction taxes.

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

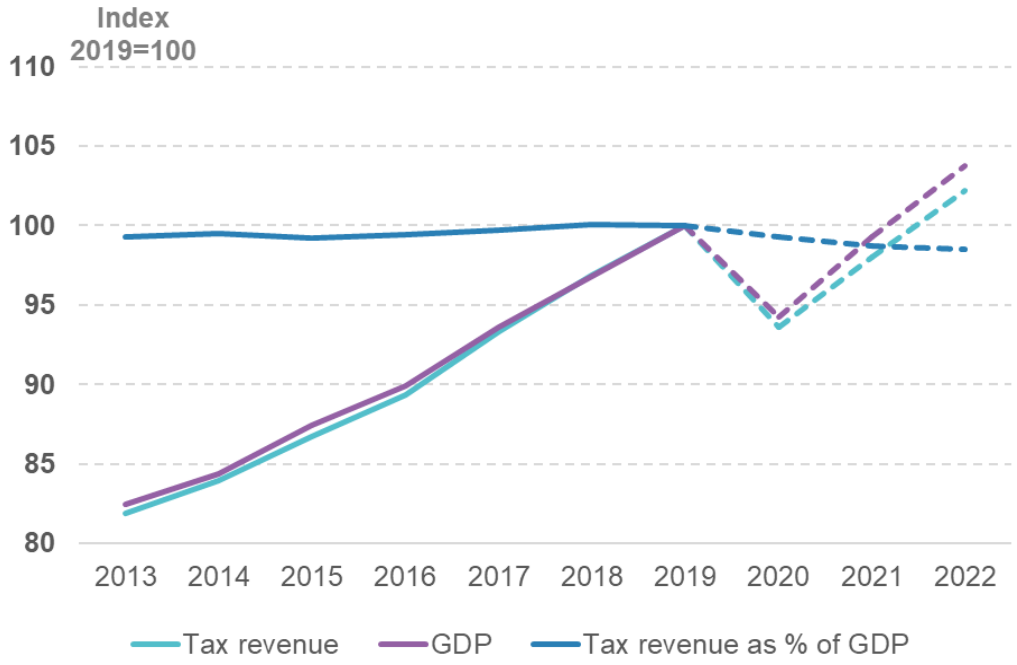


Source: European Commission, DG Taxation and Customs Union, based on Eurostat data.

1.3.1 Tax revenue forecast

Tax revenues are expected to decrease in the coming years[21]. 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)

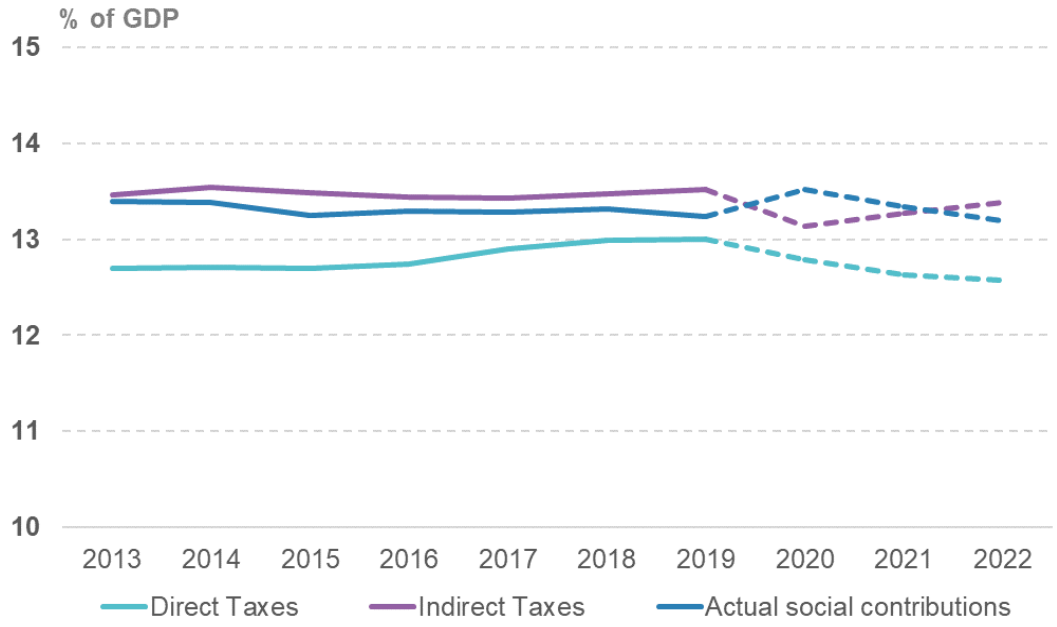


Source: European Commission, DG ECFIN, AMECO, data.
Note: Dashed lines indicate forecasts. Tax revenues excluding imputed social contributions (Ameco code: 'UTAT'). Tax revenue and GDP in current prices.

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.

(21) 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

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.

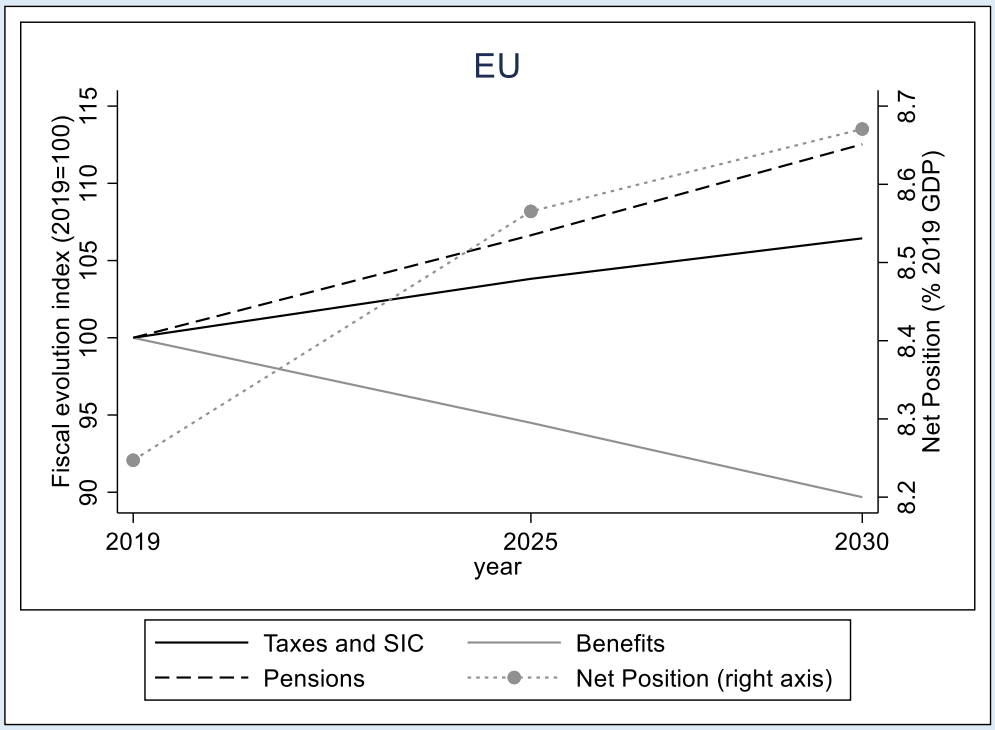
A sustainable tax system and sustainable tax revenues create the fiscal space for governments to deliver a basket of publicly-funded services (education, healthcare, pensions, various income support schemes, employment services, transport, infrastructure…). To be viable long-term, the tax system has 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, competiveness, 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).

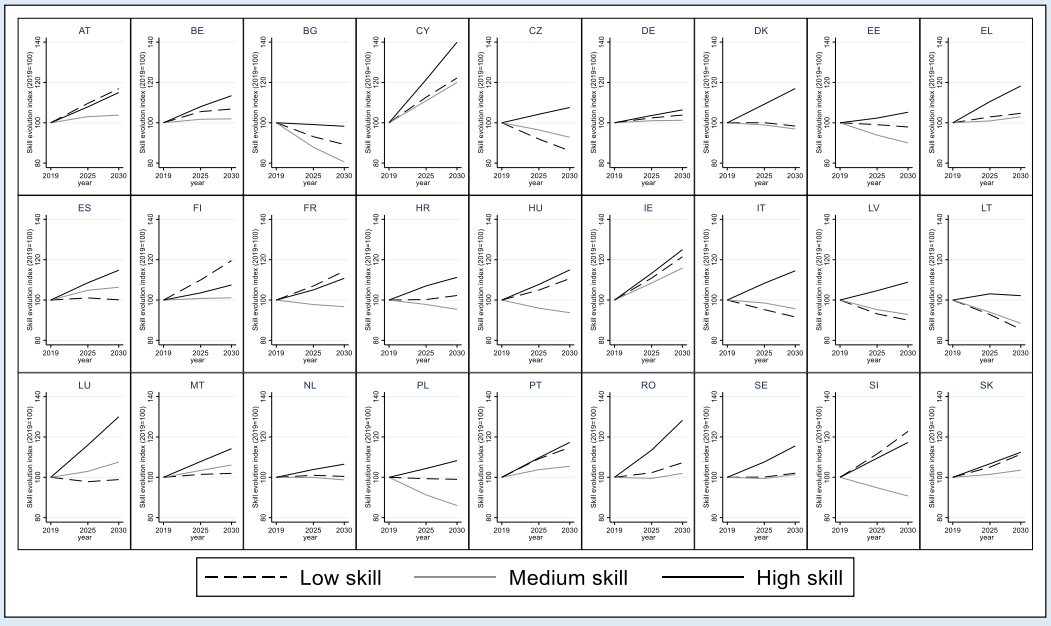
GRAPH 11. EVOLUTION OF FISCAL AGGREGATES IN THE EU-27



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.

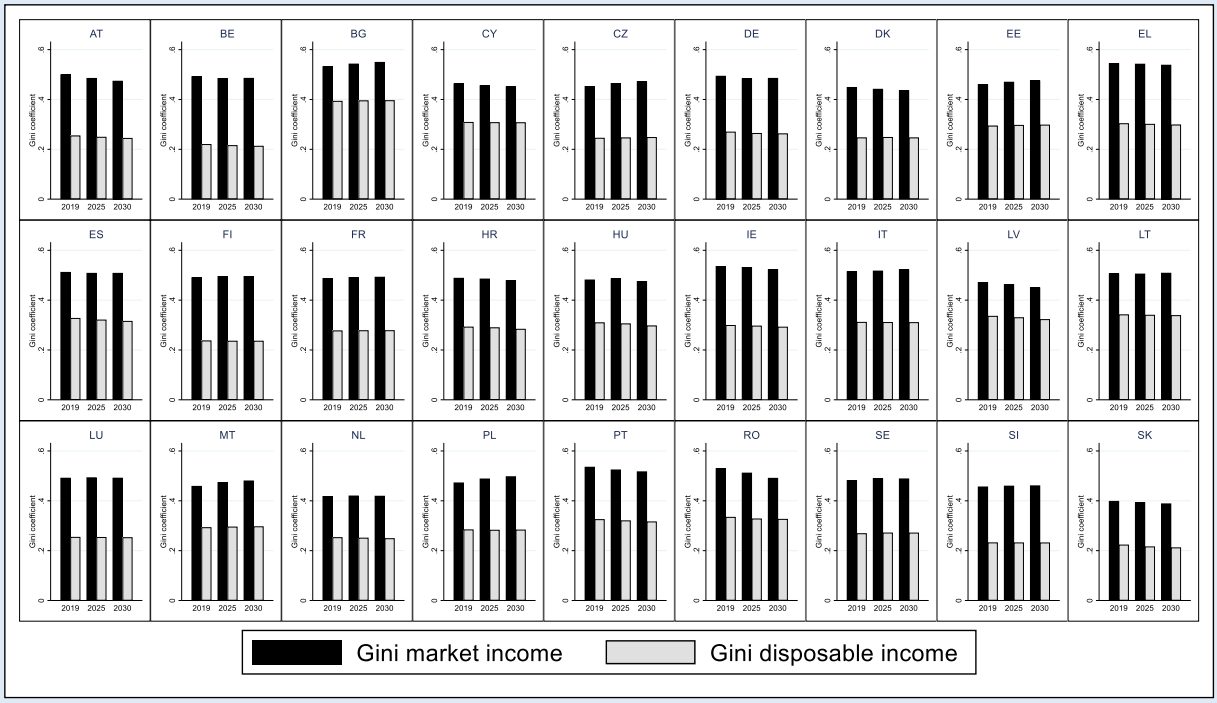
GRAPH 12. SKILL EVOLUTION ACROSS MEMBER STATES



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.