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EU TAXES AS GENUINE OWN RESOURCE TO FINANCE THE EU BUDGET

- PROS, CONS AND SUSTAINABILITY-ORIENTED CRITERIA TO EVALUATE POTENTIAL TAX CANDIDATES

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Contents

1 Abstract/Executive Summary

EU taxes play a key role in political and economic discussions about the future of the EU own resource system, and their desirability can vary accordingly. It is therefore essential to clearly articulate the goals which are to be achieved by the introduction of this new financing tool. This paper provides a critical overview of advantages and disadvantages of EU taxes. Reviewing the conventional fiscal federalism and political economy literature on this topic it can be concluded that there is no obvious (overall) case for funding the EU budget with EU taxes rather than with contributions by Member States which currently make up for the lion's share of EU own resources. There are, however, some specific issues arising from a sustainability perspective, which could be addressed with the introduction of EU taxes. Departing from a comprehensive concept of sustainability, which is based on the economic, the social, the environmental and the cultural/institutional pillar of sustainability, the paper reviews sustainability gaps in taxation in the EU. EU taxes if designed accordingly may be suitable instruments to reduce these sustainability gaps. The paper also develops criteria based on the four dimensions of sustainability that may be used in a next step to evaluate potential candidates for EU taxes.

Keywords: EU system of own resources, EU taxes, sustainability-oriented taxation

JEL classification code: H87, Q58

2 Introduction[1]

The debate about EU taxes, which as "genuine own resources" may replace partially or completely current own resources funding the EU budget (which are primarily consisting of national contributions currently), is an old one. It has been pushed by the European Commission in its various reviews of and reform proposals for the EU system of own resources (European Commission 1977; 1998; 2004; 2010; 2011a; 2011c) for over a quarter of a century now. Besides the political debate, there is an – although actually rather limited – number of academic, often rather policy-oriented contributions on the general pros and cons of and on specific options for EU taxes.

Despite the wide-spread conviction within the European Commission and particularly the European Parliament as well as among many academics that the current EU system of own resources is in rather urgent need of fundamental reform, it was hardly addressed in the lengthy and difficult negotiations between representatives of EU Member States in the European Council on the current Multiannual Financial Framework (MFF) for the period 2014 to 2020 closed in the beginning of 2013.[2] This is not surprising as Member States are rather sceptical towards extending the EU's financial autonomy, in particular in the form of own taxation powers for the EU, as the right to tax is perceived as the core of fiscal sovereignty of nation states.

After the failure of the European Commission's and the European Parliament's initiatives to introduce an EU tax together with the MFF 2014 to 2020, to replace a part of national contributions to the EU budget, a mid-term review of the EU system of own resources was agreed. This mid-term review, which is to be completed by the end of 2016, has been commissioned to an inter-institutional High Level Group on Own Resources (HLGOR), consisting of representatives from the European Commission, the European Parliament, and the European Council as well as from academia. The HLGOR took up its work in spring 2014 and delivered a first interim report in December 2014 (High Level Group on Own Resources 2014). Thus the discussion about the need to reform the current EU system of own resources and about the various reform options, including own EU taxes, has not only gained new momentum. It is also – compared to earlier initiatives – taking place on a rather broad basis including political and academic representatives as well as the relevant EU institutions.

[1] We are grateful to Åsa Gunnarsson, Lubor Lacina, Mikulas Luptacik and Hans Pitlik for valuable suggestions and to Andrea Sutrich for careful research assistance.

[2] There was, however, some discussion about potential own revenue sources in the context of the debate about an own budget for the Eurozone in general and about a stabilisation facility (see the discussion about a European unemployment insurance, e.g. Andor et al. (2014)).

Against this background, the paper starts with a short description of the current EU system of own resources and the development of its basic features over time as well as the most important points of criticism of the revenue system as a whole put forward in the literature (chapter 3). We then in a first step review the relevant arguments brought forward by the traditional public finance and fiscal federalism literature as well as aspects from a political economy perspective to identify the fundamental pros and cons of EU taxes as an alternative own resource for the EU budget. In addition, we widen this rather conventional public finance perspective by arguments drawing on an innovative comprehensive concept of sustainability-orientation of taxation (chapter 4). The second part of the paper establishes criteria to evaluate potential EU taxes as alternative revenue sources for the EU budget (chapter 5). Hereby both conventional tax policy criteria and criteria that capture the four dimensions of sustainability relevant for taxation (economic, social, environmental and institutional/cultural) will be considered. Thus the paper aims at providing a conceptual framework for the evaluation of specific options for EU taxes which will be undertaken in the next deliverable of this work package, thereby explicitly giving priority to sustainability aspects within a consistent and comprehensive sustainability framework.

3 The current EU system of own resources and its long-term development

3.1 Evolution of the current EU system of own resources – a brief overview

One of the most fundamental differences between the EU budget and national budgets is that the EU, lacking any fiscal sovereignty, is not allowed to levy own taxes or to incur debt to finance its expenditures. According to the Treaty of Amsterdam (Article 269) and the Treaty on the Functioning of the European Union (Articles 311 and 310) the EU has to rely exclusively on own resources sufficient to balance its budget (European Commission 2011a). The own resources required are determined according to the expenditures as specified in the MFF and the respective yearly budgets. They must be sufficient to balance the EU budget ex ante.

Hereby the fundamental property of own resources is that they accrue to the EU automatically without requiring discretionary decisions on the level of Member States. They are collected by Member States, but the EU is legally entitled to them. Nevertheless, as Heinemann, Mohl and Osterloh (2008) point out, opening alternative new sources of financing is a prerogative of Member States, as it would require a unanimous decision of the European Council and the approval of national parliaments: thus guaranteeing that Member States remain the fiscal sovereign also with regard to the EU's finances.

The EU system of own resources has evolved historically in several steps since the creation of the European Economic Community (EEC) in 1958 which included 6 Member States (fig. 1)[3].

From 1958 to 1970, EU expenditures were financed exclusively by voluntary ad-hoc national contributions from EU Member States. From the outset, this system of "membership fees" had been established as a temporary system. To make the EEC less dependent from Member States' transfers, a system of own resources for the EU was introduced in 1970 which was based on customs duties and sugar levies (the so-called Traditional Own Resources). These Traditional Own Resources derive from the existence of

[3] The EEC's predecessor, the European Coal and Steel Community (ECSC), financed itself by a value added production tax to be paid by the producers of coal and steel to the High Commission directly, which can be regarded as the first "Community tax" (Cipriani 2014, 2). For an overview of the historical development of the EU system of own resources against the background of political developments and decisions see Haug et al. (2011).

a unified customs area and due to legal and practical reasons cannot be directly attributed to individual Member States.

In 1979, a VAT-based Own Resource was established as residual revenue source to complement ad-hoc national contributions which completely disappeared in 1982. The VAT-based Own Resource was introduced at a maximum call up rate of 1% of a harmonised assessment base of EU Member States (in principle a harmonised VAT base), and was increased to 1.4% in 1985 due to rising EU expenditures (because of growing spending on Common Agricultural Policy – CAP – and two enlargement rounds[4]) and decreasing revenues from Traditional Own Resources. In 1984 the UK abatement was introduced (so-called Fontainebleau Agreement), which provides for a reduction of UK contributions by 66% of the difference between UK contributions to and receipts from EU abatable expenditure. As CAP spending kept increasing, not least due to further enlargement[5], and Traditional Own Resources kept losing in importance, GNP-based Own Resources were implemented as a new residual own resource in 1988, at a uniform call up rate that is to be updated yearly to balance the EU budget subject to the own resources ceiling. In this same year also VAT capping was introduced, so that each member state's VAT base on which the VAT-based Own Resource call up rate is applied could not exceed 55% of national GNP. Moreover, an own resources ceiling was established to limit the total amount of own resources to 1.2% of EU GNP. This own resources ceiling was increased progressively from 1995 to 1999 from 1.21% to 1.27% of EU GNP, as a result inter alia of further accessions[6]. In this period also the VAT cap was decreased in steps from 55% to 50%, and the VAT-based Own Resource call up rate was reduced progressively from 1.4% to 1%.

The VAT-based Own Resource call up rate was lowered from 1% to 0.75% in 2002 and further to 0.5% for the years 2004 to 2006. The resulting decreasing weight of VAT-based Own Resource revenues was intensified as of 2007 by decreasing the call up rate once more to 0.3% and by granting reduced call up rates to Austria (0.225%), Germany (0.1%), Sweden and the Netherlands (0.1%) temporarily for the MFF period 2007 to 2013. For this period the Netherlands and Sweden received annual reductions in their GNI-based contributions of € 605 and € 150 million respectively (in 2004 prices). In 2010, the own resource ceiling was adjusted from 1.24% to 1.23% of GNI due to the inclusion of Financial Intermediation Services Indirectly Measured (FISIM) in the statistical base.

[4] Denmark, Ireland and the UK acceded in 1973, Greece in 1981.
[5] Portugal and Spain acceded in 1986.
[6] Austria, Finland and Sweden acceded in 1995.

Figure 1: Evolution of the EU system of own resources

Date	Details
1958	**Ad-hoc national contributions**
1970	**Introduction of an EU system of own resources based on Traditional Own Resources (customs duties and sugar levies)**
1979	**Introduction of VAT-based Own Resource (call up rate up to 1%)**
1984	**Introduction of UK abatement** Calculated as 66% of the difference between UK contributions to and receipts from EU abatable expenditure. **Increase of VAT-based Own Resource call up rate from 1% to 1.4%**
1985	**Complete disappearance of ad-hoc national contributions**
1985-2001	**Germany to contribute only two thirds of the "normal share" towards the UK abatement**
1988	**Introduction of VAT capping** Each member state's VAT base not to exceed 55% of national GNP. **Introduction of GNP (now GNI)-based Own Resource** Shortfall in revenue from Traditional Own Resources and capped VAT base to be made up by direct payments from Member States according to their GNI, therefore yearly updated uniform call up rate. **Introduction of "Correction for UK advantage"** Neutralises any benefit or cost to the UK of VAT base capping and the introduction of the GNP-based Own Resource.
1998-1992	**Introduction of own resources ceiling** Appropriations for payments increasing from 1.15% to 1.2% of EU GNP.
1995-1999	**Increase of payments ceiling in steps from 1.21% to 1.27% of EU GNP** **Reduction of VAT cap in steps from 55% to 50% of GNP** **Reduction of VAT-based Own Resource call up rate in steps from 1.4% to 1%**
1999	**Austria, Germany, the Netherlands and Sweden to contribute only a quarter of the "normal share" towards the UK abatement** **Replacement of GNP by GNI for Own Resources purposes** Adjustment of payments ceilings to 1.24% of GNI accordingly. **Increase of Traditional Own Resources collection costs (retained by Member States) from 10% to 25%**
2001	**Increase of Traditional Own Resources collection costs (retained by Member States) from 10% to 25%**
2002-2003	**Reduction of VAT-based Own Resource call up rate from 1% to 0.75%**
2004	**Reduction of VAT-based Own Resource call up rate from 0.75% to 0.5%**
2007	**Reductions of VAT-based Own Resource** VAT-based Own Resource call up rate reduced from 0.5% to 0.3%. Removal of the frozen rate and uniform rate calculation: Call up rates for Austria, Germany, the Netherlands and Sweden fixed at 0.225%, 0.15%, 0.1% and 0.1% respectively. **Reductions of GNI-based Own Resource** The Netherlands and Sweden receive annual reductions in their GNI-based contributions of € 605 and € 150 million respectively (2004 prices). **Amendment of abatable expenditure** Expenditure in new Member States progressively "disapplied" from the calculation of the UK abatement (expect CAP direct payments, market support and EAGGF guarantee expenditure); 20% disapplication in 2009, 70% in 2010 and 100% in 2011 and beyond.

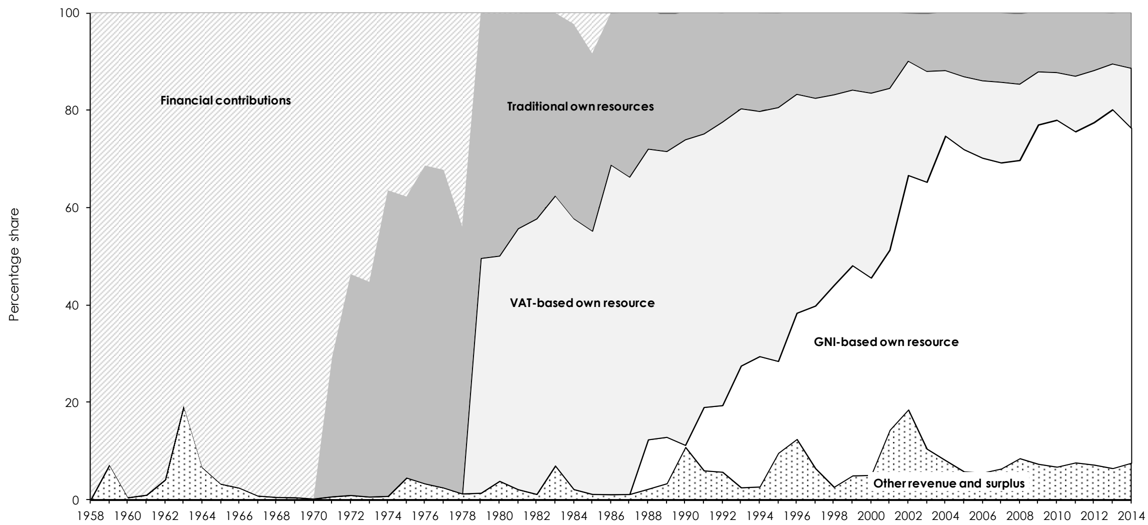
2010	**Adjustment of payments ceiling from 1.24% to 1.23% of GNI (FISIM)**
2014	**Decrease of Traditional Own Resources collection costs (retained by Member States) from 25% to 20%** **Reductions of GNI-based Own Resource** Denmark, the Netherlands and Sweden receive annual reductions in their GNI-based contributions of € 130 million, € 695 and € 185 million respectively; Austria benefits from a reduction in its GNI-based contribution of € 30 million in 2014, € 20 million in 2015 and € 10 million in 2016 (2011 prices). **Reductions of VAT-based Own Resource** Call up rates for Germany, the Netherlands and Sweden fixed at 0.15%.

Source: House of Lords (2007), European Commission (2011a), Council of the European Union (2014), High Level Group on Own Resources (2014), Cipriani (2014), own research and compilation.

The most recent changes were implemented with the current MFF 2014 to 2020. Traditional Own Resources collection costs were reduced from 25% to 20%. Denmark, the Netherlands and Sweden receive annual reductions in their GNI-based contributions of € 130 million, € 695 and € 185 million respectively, and Austria benefits from a reduction in its GNI-based contribution of € 30 million in 2014, € 20 million in 2015 and € 10 million in 2016. Germany, the Netherlands and Sweden were granted a reduced call up rates for the VAT-based Own Resource of 0.15%.

These structural changes brought about by altogether seven own resources decisions by the European Council and the European Parliament since 1970 resulted in a substantial long-term shift in the composition of EU revenues (fig.2).

Figure 2: Composition of EU revenues in a long-term perspective



Source: European Commission 2015c, own calculations.

While EU expenditures were fully covered by voluntary ad-hoc national contributions in the first years after 1958, revenues increasingly stemmed from Traditional Own Resources since 1971. From mid- until the end of the 1970ies, they represented the bulk of revenues. Starting with the end of the 1970ies, ad-hoc contributions were replaced increasingly by VAT-based Own Resources and were completely phased out by 1985. VAT-based Own Resources, which had made up for up to two thirds of own resources in the second half of the 1980ies, again lost significantly in weight from the mid-1990ies on, as GNI-based Own Resources contributed a growing share of overall own resources. With the increasing financing needs caused by the several enlargement rounds between 2004 and 2013[7] the share of GNI-based Own Resources went up with increasing speed from the beginning of the 2000s on, reaching 68.8% of EU revenues in 2014. The share of VAT-based Own Resources has shrunk to 12.3%, that of Traditional Own Resources (as a consequence of the ongoing reduction of tariffs due to trade liberalisation and of raising collection costs of Member States substantially from 2001 on) to 11.4% by 2014. A negligible share of EU revenues (7.6% in 2014) comes from various other sources (in particular penalties, taxes on salaries of employees of EU institutions and interest on financial assets as well as surpluses).

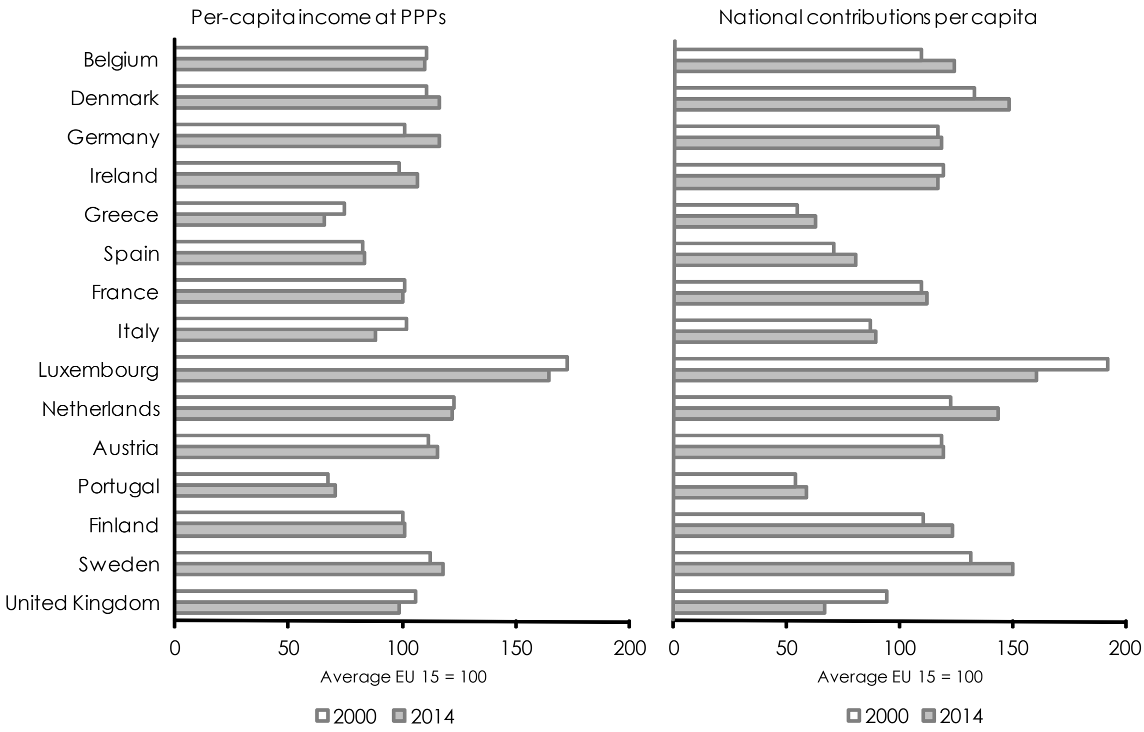
Despite these remarkable long-term changes in overall EU revenue composition, the HLGOR in its first assessment report submitted in December 2014 correctly states that “the system for the financing of the EU budget has not changed significantly for the last 25 years and has become deeply entrenched.” (High Level Group on Own Resources 2014, 6).

As argued in more detail in chapter 4.2.4, one concept on which the determination of Member States’ contributions to the EU budget could be based on their ability-to-pay. If applied on an individual basis, ability-to-pay can be measured in terms of GNI per capita; whereas GNI is an indicator for a Member States’ ability-to-pay.[8]

Fig.3 contains GNI per capita and national contributions (i.e. gross contributions minus Traditional Own Resource payments[9], including UK rebate and various reductions for certain Member States) per capita for the EU 15 Member States for the years 2000 and 2014.

[7] Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia acceded in 2004, Bulgaria and Romania in 2007, and Croatia in 2013.
[8] Due to limitations of space a detailed discussion of the appropriate indicators for ability to pay as well as a thorough analysis of long-term trends cannot be provided in this paper.
[9] The national contribution is more appropriate than the gross contribution for comparisons across Member States, as it is a measure for the resources actually raised by Member States themselves.

Figure 3: GNI and own resources contributions per capita

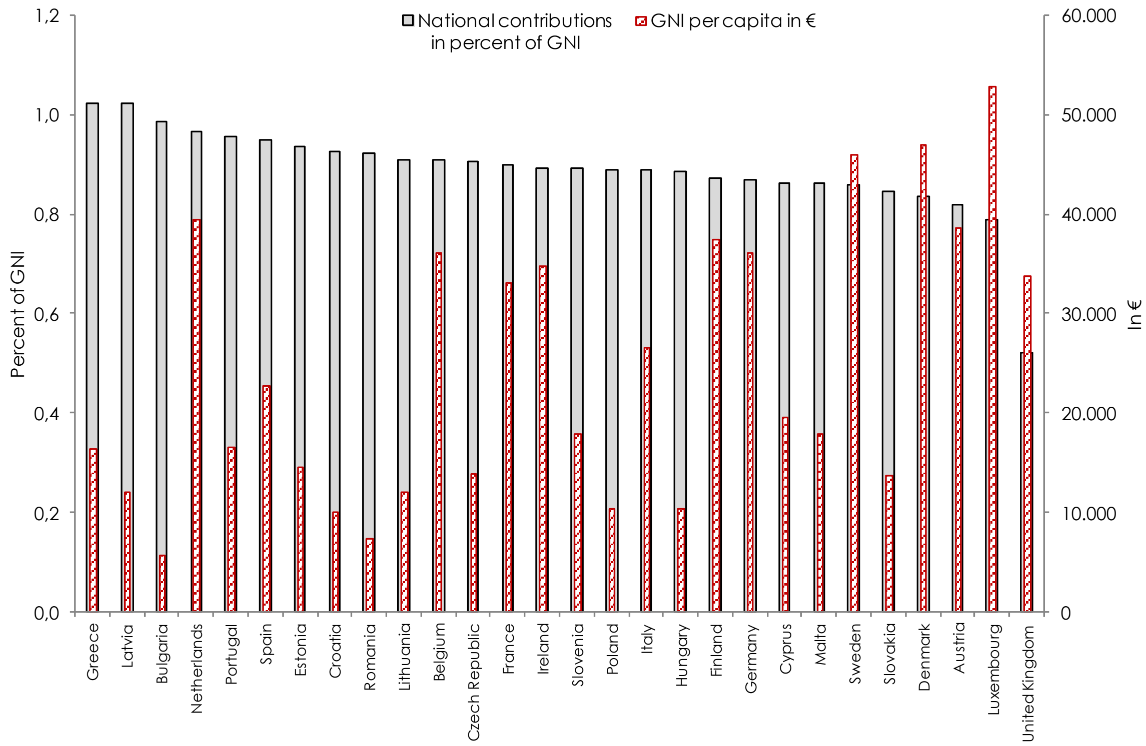


Source: European Commission (2015c; 2015d), own calculations. (Total) National contribution including VAT- and GNI-based Own Resources, UK correction and adjustments.

It is obvious that the development of GNI per capita and that of national contributions are not necessarily parallel. In several countries (Belgium, Greece, France, Italy, and the Netherlands) GNI per capita (related to the EU15 average) decreased between 2000 and 2014, whereas national contributions per capita increased. In contrast, Ireland displays increasing GNI and shrinking national contributions per capita. Of course this development is significantly influenced by the latest three enlargement rounds, with the accession of altogether 13 new Member States.

A look at national contributions in percent of GNI (fig.4) shows that in 2014 the ranking of Member States according to their national contributions in percent of GNI (including the UK rebate and various corrections of national contributions) does not correspond to their ranking according to their GNI per capita. Obviously, national contributions are not systematically progressive against GNI per capita. For example, national contributions (relative to GNI) are lowest in Luxembourg and the United Kingdom, while a number of central and eastern as well as southern European Member States (with below-average GNI per capita) build the country group with the highest national contributions in percent of GNI. Particularly striking are Bulgaria and Romania, the two Member States with the lowest GNI per capita, which can be found in the upper third of Member States regarding national contributions in percent of GNI.

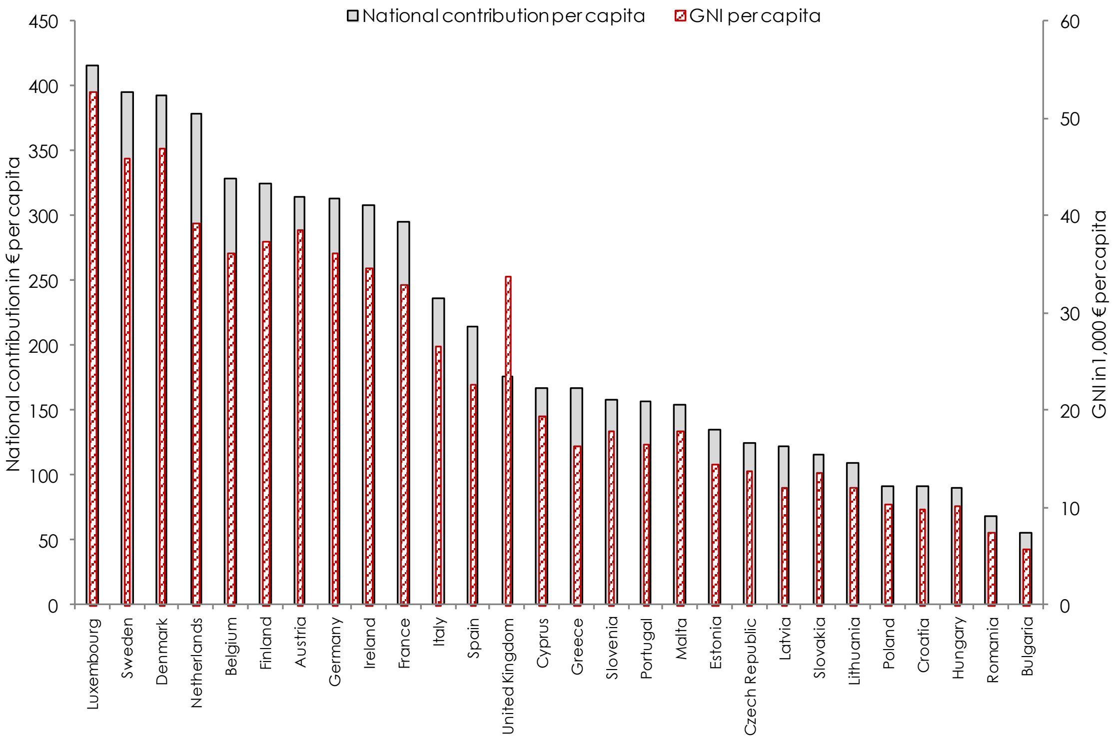
Figure 4: National contributions in percent of GNI, 2014



Source: European Commission 2015c, own calculations.

Fig.5 ranks Member States with respect to national contributions and GNI per capita. It shows that Member States' national contributions per capita only very roughly correspond to their GNI per capita as indicator of their ability-to-pay. It also shows the effect of the UK rebate for the UK itself, which carries a far lower financial burden than would be adequate considering GNI per capita.

Figure 5: National contributions per capita, 2014

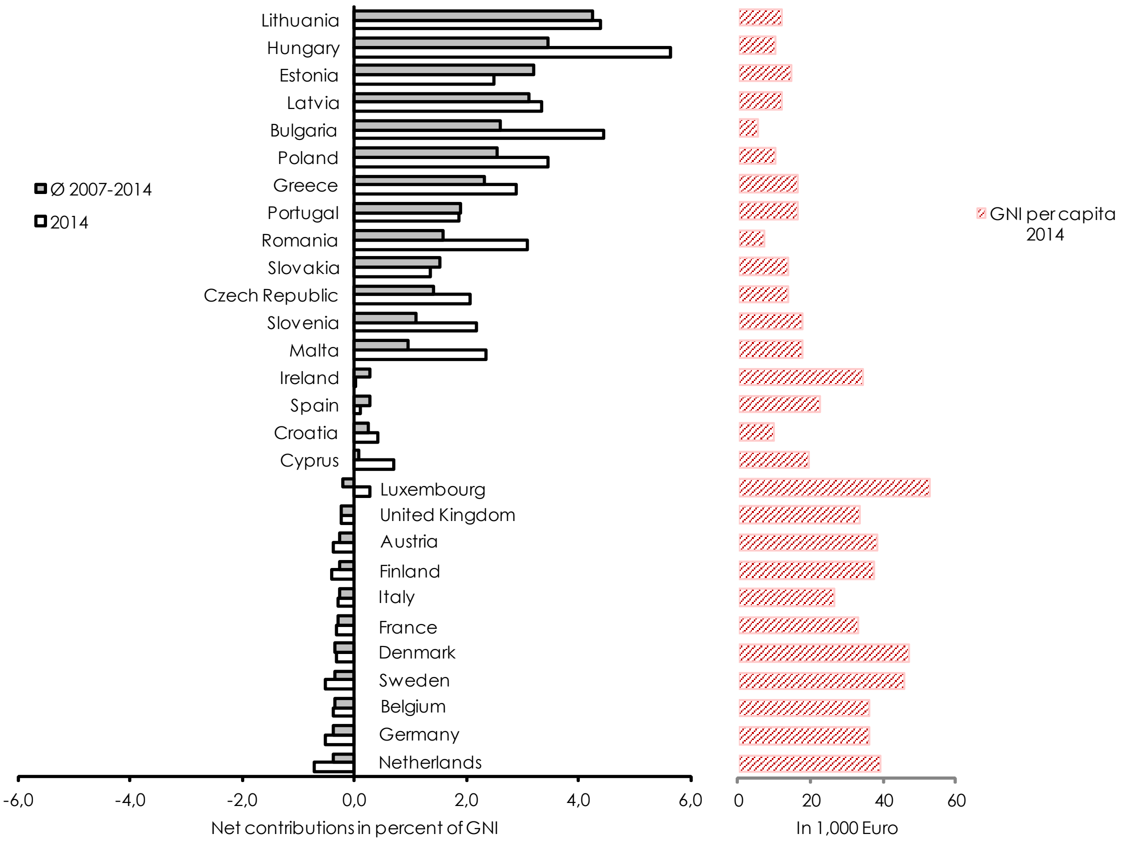


Source: European Commission 2015c, own calculations.

Finally, net balances are of interest. These are calculated as the balance of national contributions and transfers received from the EU and thus represent Member States' financial net benefits or costs incurred by the EU budget. Among the indicators to capture the cross-country distribution of the financial burden, net balances receive most attention in the process of negotiating and determining between Member States the size and the structure of the EU budget: The maximisation of net receipts or the minimisation of net contributions, respectively, are a central objective for Member States (see also section 4.2.1).

Ranking Member States according to their net contributions in percent of GNI against their GNI per capita shows that the distribution of net financial benefits across Member States follows GNI per capita only roughly, similar to national contributions (fig.6). Overall, the poorer Member States are net recipients, while the richer ones are net contributors. However, the ranks of Member States with respect to their net contributions do not exactly correspond to their ranks with respect to GNI per capita. In 2014, ten of the 28 Member States were net contributors; in the period 2007 to 2014 also Luxembourg's net financial position was negative. The largest net contributors in relation to their GNI were the Netherlands and Germany, followed by Belgium and Sweden in the period 2007 to 2014.

Figure 6: Net contributions by Member States, 2014 and 2007-2014



Source: European Commission 2015c, own calculations.

3.2 The current EU system of own resources – most important criticisms in brief

Without aiming to anticipate the evaluation criteria for the assessment of individual own resources for the EU to be elaborated in chapter 5 of this paper, this subsection will briefly review the most important points of criticism put forward in the relevant literature, hereby focusing on the EU's financing system as a whole.

As Núñez Ferrer (2008) and Begg (2011) point out, the current EU system of own resources has certain merits: It provides steady, predictable and reliable revenues to finance EU expenditures; the design of the GNI-based Own Resource as residual revenue source guarantees a balanced budget; and the dominance of the GNI-based Own Resource ex ante (before the application of the various correction mechanisms) results in a "fair" distribution of the financial burden among Member States insofar as each member state is supposed to pay about 1% of GNI.

However, the criticisms the current system is attracting, most of which have been raised for quite some time, are considerably exceeding its merits.

A first point of criticism, put forward for example by the European Commission (2011a), is that the financing of the EU budget is increasingly based on revenue sources which in principle are to be characterised as direct contributions out of Member States' national budgets, implying a continuous curtailment of the EU's financial autonomy. If Traditional Own Resources to which the EU is entitled as the "legitimate institutional recipient" (Cipriani 2014, 9) are considered as the only "true", "genuine" or "autonomous" revenues – with a share of about one tenth of Traditional Own Resources in overall own resources only – meanwhile are of little importance (High Level Group on Own Resources 2014). Iozzo, Micossi and Salvemini (2008) even consider this as non-compliance with the provision of the Treaty to finance the EU budget from own resources.

Secondly, the EU system of own resources has a negative impact on the quality of EU expenditures in general (Núñez Ferrer 2008), and in particular does not support central EU policies. In particular, there is no impact at all to be expected concerning the overarching goal of sustainable growth and development in all its three dimensions, as laid down in the Europe 2020 strategy aiming at "smart, inclusive and sustainable growth" or in the EU's Sustainability Strategy (Schratzenstaller 2013). This lack of support of EU policies, which is also stated by the European Commission (2011a), is not only caused by the concrete design of the individual own resources themselves, which have no direct allocative or distributive impacts. It is also due to the perception of the VAT- and the GNI-based Own Resources as pure national contributions which has already been addressed above. Such a perception induces Member States to measure the benefits derived from the EU budget in terms of net financial contributions, i.e. as balance of national contributions and transfers received from the EU budget. Financing the EU budget primarily by national contributions furthers such a juste-retour-position by Member States (Iozzo, Micossi and Salvemini 2008), demanding the maximisation of net benefits or at least the minimisation of net contributions from their respective country's position instead of the maximisation of a value added from an overall EU perspective: Although, of course, the net balance derived by netting out contributions to the EU budget and transfers received from it only insufficiently reflects the direct and indirect benefits accruing to Member States due to their EU membership (High Level Group of Own Resources 2014). The dispute between “net contributors” and “net beneficiaries” also goes along with increasing tensions between Member States concerning the size and structure of the EU budget (inter alia in the form of the so-called “net contributor debate”, see also High Level Group of Own Resources 2014) and exerts downward pressure on the EU’s budget volume (Haug et al. 2011), which manifested itself in the most recent two MFF, each lower in volume than the preceding one. Therefore the European Commission (2011a) concludes that the current EU system of own resources is one obstacle to further European integration.

Thirdly, the system of own resources can be characterised as increasingly complicated. This is primarily owed to the various permanent or temporary correction mechanisms introduced since the 1984 Fontainebleau Agreement: The permanent UK abatement and the rebate from the UK rebate granted to several Member States which traditionally are the most important net contributors, as well as the temporary reductions in the contributions from several net-contributing Member States in the form of reduced VAT-based Own Resource call up rates and/or reductions in GNI-based Own Resource payments. Obviously, these rebates granted to several Member States are one implication of the just-retour-thinking (Haug et al. 2011). Moreover, the in practice rather complicated method to calculate the harmonised base for the VAT-based Own Resource adds to the complexity of the own resources system (Fuest, Heinemann and Ungerer 2015).

The fourth point of criticism, which is related to the preceding one, is the intransparency of the current EU system of own resources: in particular so for EU citizens, who are increasingly less able to assess their respective country’s contribution to the EU budget and the connection between EU revenues and expenditures (European Commission 2011a). This is a threat to political credibility and the acceptance of Member States’ contributions to the EU budget (Schratzenstaller 2013). It also implies a deficit in democratic accountability (Fuest, Heinemann and Ungerer 2015).

Fifthly, as the various measures presented above indicate (see section 2.1), the burden of financing the EU budget is not adequately distributed among Member States according to their respective ability-to-pay measured by GNI (Begg 2011; Fuest, Heinemann and Ungerer 2015). In particular, the UK rebate and the correction mechanisms surrounding it raise equity concerns (see European Commission 2011a for details). Equity issues are also connected with the capping of the base for the VAT-based Own Resource at 50% of GNI, which – contrary to its actual intention – benefits not only the “poorer” Member States with their (assumed) above-average consumption ratios, but also some of the richer ones, as there is no proportional relationship between the size of the VAT base and Member States’ GNI.

4 Pros and cons of EU taxes

In the debate about EU taxes arguments of three different threads are highly intertwined and are thus often confounded. There are, first of all, those arguments based on the fiscal federalism literature; secondly, those addressing deficits in the EU budget process in general and of the current system of own resources funding the EU budget in particular; and thirdly and lastly, those relating to EU-wide problems such as tax competition for highly mobile tax bases. Here we try to do justice to all of the three relevant discussions in which EU taxes play a major role.

Not every argument brought forward in this chapter is of equal relevance for the European Monetary Union (EMU) and the EU as a whole. Many contributions dealing with the issue of EU fiscal integration in general and EU taxes in particular focus on either EMU or EU relevant arguments. We are trying here to discuss all arguments related to the topic of "European taxes". Generally we will talk of EU taxes but will outline it if an argument is particularly or only important for the monetary union.

4.1 Fiscal federalism arguments

Section 4.1 examines the arguments put forward in the context of fiscal federations and further fiscal integration within the EU. The fiscal federalism literature[10] is not only relevant for national federations. It also offers valuable insights in the context of the EU as a developing "international federation" consisting of independent Member States which render part of their sovereignty to a central institution: although, of course, Cipriani (2014, 1) correctly points out that "[t]he EU revenue system should be considered in the context of the highly innovative and evolutionary nature of the European Union, which is neither an international organisation nor a federal state."[11]

A fundamental dispute in traditional fiscal federalism literature between "centralists" and "decentralists" concerns the extent to which the members of the federation give up sovereignty by ceding competencies to a central level (Eichenberger, 1994). This debate is also being led with respect to the future of the EU as a federation in an early stage.

Moving towards a "true" fiscal union or establishing a genuine economic monetary union as proposed in the various reports of EU Presidents is seen by a number of economists (e.g.

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[10] For the theory of fiscal federalism see e.g. Oates (1972; 2005) or Pitlik (1997).
[11] See also Hoeller, Louppe and Vergriete (1996) who point out that the EU is characterised by a number of specifities limiting the applicability of the theory of fiscal federalism to the assignment of taxation and spending competencies within the EU.

Obstfeld 2013) as well as policy-makers (Van Rompuy 2012; Juncker 2015 – the so-called Presidents' Reports) as a solution to the problems revealed in the European (Monetary) Union by the recent financial and economic crisis. While such policy proposals, which are aiming at deeper European fiscal integration, are drawing heavily on the fiscal federalism literature, they often completely neglect taxation issues in general and in particular do not mention EU taxes at all[12]. Fuest and Peichl (2012) even propose a definition of a fiscal union where the transfer of taxation powers to the EU level is a possible but not an indispensable element of a fiscal union; as the combination of other elements such as common fiscal rules, a crisis resolution mechanism and a joint guarantee for government debt would already suffice to create a fiscal union. Therefore it is important to differentiate between a fiscal union as suggested in the current debate about reforms of governance and institutions on the EU level and a textbook model of a fiscal federation. These two concepts can be, but do not have to be identical. Only a few contributions dealing with further European fiscal integration, as for instance Iara (2015a) or Dullien and Schwarzer (2009), assign an important role to taxation issues and EU taxes, especially because of their potential to act as automatic stabilisers during the business cycle.

The fiscal federalism literature discusses the role of taxes levied at the central governmental level as automatic fiscal stabilisers, their importance in providing a stable source of revenues for servicing federal debt, and their importance in creating fiscal equivalence. In this section the arguments of the fiscal federalism literature in favour of assigning own taxes to the central governmental level shall be scrutinised in order to see if they bear any relevance for the EU. The focus on economic aspects underlying the following considerations implies that constitutional and legal aspects are neglected; these will be elaborated in further research within the FairTax project.

4.1.1 EU taxes as automatic stabilisers

As part of a macroeconomic stabilisation scheme, revenues accruing to the EU level would have to decline automatically – i.e. without discretionary government intervention – in the event of (asymmetric) shocks, while EU expenditure would ideally increase automatically in the region under distress. Typical examples for such automatic stabilisers on the revenue side are corporate income taxes (Dullien and Schwarzer 2009), on the expenditure side unemployment expenditures are the most prominent example (Dullien 2013).

[12] Examples are the various Presidents' Reports mentioned above or IMF (2013b).

Is there a case for EU revenues which are sensitive to the business cycle? In general, the centralisation of cyclical revenues reduces considerably the magnitude of the state-level automatic stabilisers (Cottarelli 2012). Applied to the EU, this would imply that automatic stabilisation on the revenue side of EU Member States' budgets would be cut back accordingly. Dullien and Schwarzer (2009) argue that their empirical data for the EU and other important industrialised countries support the central conclusion drawn by the fiscal federalism literature that economic stabilisation should generally occur on the highest possible level in a monetary union. They highlight the need for a stable macroeconomic environment in order for microeconomic policies at the level of Member States to be successful[13].

Lucas' criticism (Lucas 2003) of stabilisation policies, which takes the US post-WWII era as a benchmark, does not hold in the case of the EU/EMU because of two distinct reasons, an empirical and a theoretical one. First of all, according to Galí, Gertler and Lypez-Salido (2005) actual welfare losses in the US due to major economic recessions are found to be much higher than those stated in Lucas (2003), not to mention that the recent financial and economic crisis produced the biggest welfare losses since the Great Depression both in the US and in Europe. Galí (2005) therefore argues that "these results reinstate the old Keynesian proposition that it might be 'require(d) that appropriate fiscal and monetary policies are undertaken to guarantee that a higher level of activity is attained'." Secondly, and even more importantly, market frictions are much higher in the EU than in the US, which undermines the theoretical basis for this kind of critique. Distortions to the efficiency of an economy due to business cycles can be quite substantial if there are price rigidities or other market frictions. Accordingly, the need for automatic stabilisers such as cyclical revenues would be bigger in the EMU consisting of nation states with different languages, socio-economic and –cultural conditions and separated through formal borders than in other "conventional", i.e. nation-state based fiscal federations, because labour mobility in the EU is lower and wages are less flexible. Additionally it has to be emphasised that the operation of national automatic stabilisers might be restricted due to the strict fiscal requirements of the fiscal framework in the EU anchored in the European Stability and Growth Pact. These arguments in combination with the fact that EMU members can no longer respond individually to shocks to their countries with monetary policies support the claim that at least some automatic stabilisers should be centralised at the EU level. An obvious candidate for a cyclically sensitive revenue source at the EU level would be an EU

[13] See also Maselli and Beblavý (2014) or Kadidlo and Lacina (2015).

corporate income tax. Of course this possible revenue source for the EU/EMU plays a role in other discussion threads related to the desirability of EU taxes as well (see section 4.1.3).

As recommendable, from a theoretical point of view, the introduction of EU/EMU taxes as automatic stabilisers may be, the constraints to their implementation appear insurmountable within the given institutional framework. Considering the EU budget's small size and the fact that EU expenditures and revenues are mostly unrelated to macroeconomic conditions, Fuest and Peichl (2012) conclude that the extent of fiscal stabilisation the EU budget in its current size could offer is very small (see also Kadidlo and Lacina 2015). The EU budget therefore would have to be increased significantly at the expense of national budgets in order to provide macroeconomic stabilisation as outlined above. Taking into account the opposition by Member States towards increasing the respective volumes of the last two MFF in percent of GDP just marginally, which in fact led to slightly decreasing volumes of the EU budget since 2007, this appears as rather unlikely. Moreover, an effective extent of stabilisation policies at the EU level would require some kind of EMU/EU borrowing (Van Rompuy 2012): Borrowing at EU level, as the discussion about Eurobonds demonstrates, is most likely to meet with fierce resistance by a majority of Member States. All these requirements for an EMU/EU macroeconomic stabilisation scheme including cyclically sensitive taxes at the EU level lack every democratic support whatsoever in the near future (Fuest and Peichl 2012). Therefore a potential role for EU taxes as automatic stabilisers, as useful as it may be in principle under current circumstances is no relevant motive for their introduction – the more, as the stabilisation function is more relevant for Eurozone than for non-Eurozone countries. This also implies that stabilising properties currently are no important evaluation criterion for specific options for EU taxes.

4.1.2 EU taxes to avoid negative effects of a reverse vertical fiscal imbalance

Existing "nation state federations" do not show an exact balance between revenues and spending at each level of government. The federal level regularly generates more revenues than it would need for its own spending obligations, such creating a fiscal imbalance at the expense of the lower governmental level(s). This is why there has to be some sort of transfer mechanism directing funds from the central to lower levels of government. There is, however, empirical evidence that such transfers may hamper fiscal performance, exacerbate "common-pool" problems and introduce moral hazard (Escolano et al. 2015). This is due to the fact that regional marginal costs of public goods, which are financed by the common pool, are lower than federal marginal costs. This mismatch then may lead to an oversupply of regional public goods (Heinemann 2006). A certain degree of revenue decentralisation (subnational tax autonomy) is seen as a general solution to this problem.

With respect to fiscal imbalances the EU, however, presents itself as an unusual case. The biggest part of the EU budget is financed through contributions by its Member States, creating a massive reverse vertical fiscal imbalance at the expense of the EU level. According to Escolano et al. (2015) historically central government funding through upward transfers occurred only in early periods of some federations, as for example in the early United States during and after the War of Independence.[14] Under the articles of confederation and perpetual union, approved but not ratified in 1777, the central government was funded by contributions from its member states, which proved to be a narrow and unstable basis for central public finances. However, it is important to mention that it was not primarily the instability of federal revenues but the increase in federal spending obligations due to the centralisation of member states' debt which created the need to transfer taxation powers to the federal level in the case of the United States. This debt was centralised only because most of it was accumulated in order to fight the British in the War of Independence. For the member states of the federation it seemed adequate to commonly service this debt. Thus it was the military threat and the centralisation of debt, which eventually dissolved the reverse vertical fiscal imbalance (Sargent, 2012)[15]. Historical examples like the one of the early United States, therefore, cannot provide convincing arguments for the transfer of taxation powers to the EU level: in particular because an uncontrollable increase in spending obligations at the EU level, for example due to the need to service a common debt, is an unlikely scenario as long as the EU does not have the right to incur own debt.

Whether or not upward transfer dependency may pose similar risks to fiscal performance or discipline as downward transfer dependency remains an open question (Escolano et al. 2015). However, a problem similar to the downward dependency concerning the provision of public goods seems to apply to the reverse upward vertical imbalance existing in the EU. Whereas downward transfer dependency tends to induce an over-supply of regional public goods, upward transfer dependency is likely to produce too little of EU public goods. The reason is that the actors deciding about the volume of EU public goods, especially in the EU Council, do not benefit directly from their provision. As a result, this reverse fiscal imbalance may aggravate the general problem that governments of highly decentralised fiscal federations may find it difficult to implement coordinated economic and other type

[14] Also a substantial share of the budget of the German Kaiserreich consisted of contributions by the Länder (so-called "Matrikularbeiträge") (Schmölders 1970).
[15] For more examples of how and why federations formed in history see Bordo, Jonung and Markiewicz (2013).

of policies and provide federation-wide collective goods (Bordo, Jonung and Markiewicz 2013).

Would a transfer of taxation powers to the EU level solve this problem? Within the existing institutional framework and decision procedures at the EU level the answer is that EU taxes would probably not increase the supply of "true" federal EU public goods with a European value added to an optimal level, because due to the decision procedures for the MFF the EU Council would still have a say about which and how much EU public goods are to be provided. Neither incentives nor bargaining power of the EU Council would change through the introduction of an EU tax. To tackle this specific problem it would be necessary to leave the decision about the future provision of EU public goods to "genuine" EU institutions which do not or at least should not directly represent national interests, such as the European Parliament[16].

4.1.3 EU taxes to establish fiscal equivalence

Another aspect, which is related to the preceding one, is that EU taxes may establish fiscal equivalence at the EU level. According to the well-known definition by Olson (1969), "... there is a need for separate governmental institutions for every collective good with a unique boundary, so that there can be a match between those who receive the benefits of a collective good and those who pay for it. This match we define as fiscal equivalence." Fiscal equivalence implies that each governmental level disposes of sufficient own revenue sources to finance its tasks. Own taxes are commonly seen as best possible revenue source to create fiscal equivalence. The need to establish fiscal equivalence is justified with several arguments. First, strengthening fiscal equivalence by introducing own EU taxes reduces the need for vertical transfers and thus increases efficiency. Secondly, establishing fiscal equivalence is often seen as a prerequisite to improve accountability and legitimacy (for an in-depth discussion, see section 4.2.2). Thirdly, fiscal equivalence helps to avoid the over- or under-provision of public goods if the governmental level supplying a given public good and the level financing it do not correspond.

For the case of the EU the latter argument seems of particular importance. Currently at the EU level a number of European public goods (e.g. research) are provided which are financed by national contributions. This clearly violates the principle of fiscal equivalence and is one of the central reasons behind the current scarcity of EU funds for public goods with European value added, e.g. for research and innovation, which are provided at a sub-

[16] See also Lacina and Tunkrová (2013).

optimally low level. EU taxes establishing a link between the users of public goods with European value added and those financing them may support the provision of an optimal level of European public goods.

4.1.4 Reliability/stability of revenues and common debt

The question whether EU taxes as a source of revenues are more reliable than Member States' contributions is relevant in general, but particularly so with regard to potential European debt issuance. To discuss the pros and cons of European common debt is beyond the scope of this paper.[17] However, it shall be pointed out that this issue is closely related to section 4.1.1 above because the option to incur debt at the EU level and to finance it, whether through EU taxes or national contributions, is also relevant for European macroeconomic stabilisation (Dullien and Schwarzer 2009).

As mentioned already, EMU countries cannot respond to asymmetric shocks with monetary policies and are additionally bound to the strict requirements of the SGP, which restricts their leeway to provide for macroeconomic stability. In the event of large common shocks further problems arise as smaller and more open countries in a monetary union have fewer incentives to apply fiscal stabilisation policies because of substantial spill-overs: a large part of the stabilisation effort can be expected to result in higher imports and will thus benefit the other Member States. After weighing an increase of national debt against the national benefits of stabilisation policies national governments may decide to provide less stabilisation on the national level than would be optimal for the currency union as a whole. The ability to borrow at the central level might therefore be desirable (Dullien and Schwarzer 2009). The degree of reliability of a revenue source from which a potential common debt is financed is therefore essential for every consideration regarding common European debt (Bordo, Jonung and Markiewicz 2013).

National contributions have proved reliable up to this point although due to the recent financial and economic crisis and the fiscal consolidation efforts required in most EU Member States some payments were delayed (High Level Group on Own Resources 2014). However, financing supranational organisations by national contributions always implies a certain potential for blackmailing. Pressure can be applied in the form of withholding national contributions in order to achieve certain political goals (Osterloh, Heinemann and Mohl 2008). However, Heinemann (2006) doubts that this argument is valid to give support for EU taxes, for two reasons. First, withholding national contributions to the EU

[17] See e.g. Delpla and von Weizsäcker (2010) or Claessens, Mody and Vallee (2012).

budget would always constitute a violation of binding international contracts, so that due to legal deterrence the danger of holding back contributions is low compared to other international organisations such as the UN. Second, in the case of most EU tax candidates the EU would still be dependent on national tax administration authorities in collecting the respective tax revenues. In this regard, the degree of reliability would not change. The effect of a national government refusing to pay national contributions or its non-cooperation in collecting EU taxes is identical. Only in the case that an EU tax can be deducted at source by EU institutions, so that cooperation with national tax authorities is not required, EU taxes would increase reliability of revenues from the perspective of the EU budget and would make any form of blackmailing impossible.

While in general EU taxes may enhance the reliability of EU revenues through increasing the EU's fiscal autonomy, EU taxes may reduce revenue reliability significantly under certain circumstances. If revenue elasticity is smaller than 1 or in other words if potential EU tax revenues are not growing proportionally to total EU GDP financing of key policy areas might become increasingly difficult in the long run. Le Cacheux (2007, 10) argues that "the public agent should be equipped with a revenue-raising instrument that allows it to keep in line with the private sector, i.e. revenues should not fall behind the incomes of private agents, so that the financial means of government are at least effectively maintained in relative terms without having to change the parameters of the tax system." In general, fiscal federalism and tax assignment literature, respectively, postulate that each governmental level should dispose of sufficient revenues to cover the expenditures associated with its tasks (Martinez-Vazquez, McLure and Vaillancourt 2006).

In the current EU system of own resources this is guaranteed by the combination of the ceiling for own resources determined in percent of GDP and the GNI-based own resource which is determined yearly according to the residual financing gap remaining after the collection of Traditional Own Resources and the VAT-based Own Resource. Only if revenue shortfalls of EU taxes – be it due to a long-term revenue elasticity below 1 or due to potential short-term cyclical fluctuations of the tax base – are complemented by a residual own resource, a decrease of the reliability of EU revenues by introducing EU taxes can be avoided.

4.2 Pre-federal arguments

Section 4.2 focuses on the so-called “pre-federal arguments” (Le Cacheux 2007). Especially those proponents of EU taxes that are close to European institutions stress these arguments because they expect EU taxes to improve the current functioning of budgetary affairs at the EU level. The most important arguments in this respect are that the introduction of EU taxes could alleviate the net-position thinking, which is poisoning negotiations on the EU budget; and that financing a substantial part of EU expenditures by EU taxes would enhance democratic accountability, transparency and “fairness” regarding the distribution of the financial burden from financing EU expenditures.

In its most recent report on the operation of the EU’s own resource system the European Commission describes the EU’s financing system, while being relatively stable and sufficient at least considering the tasks agreed on in the MFF, as opaque and complex (European Commission 2011a), adjectives also used in the first assessment report of the High Level Group on Own Resources (High Level Group on Own Resources 2014). It is criticised that due to its complexity the existing system to finance the EU budget is lacking democratic oversight and that its overall performance measured by general assessment criteria for public revenues is poor. In the following subsections it will be discussed if EU taxes as main revenue source have the potential to remedy some of the perceived flaws of the current system, which were partially addressed already in section 3.2 above.

4.2.1 Net-position / juste-retour thinking

The problem of Member States’ net position thinking lies at the heart of many academic and policy-oriented contributions analysing EU taxes as alternative revenue source for the EU, but also motivates the respective proposals by EU institutions, in particular by the European Commission (1998; 2004; 2010 and 2011c) and the European Parliament (1997; 2007; 2009). There can be no doubt about the huge inefficiency caused by the fact that Member States’ positions in the negotiations about the level and structure of EU expenditures are determined by their own national interests as defined by their individual net positions (Richter 2008): Every member state tries to achieve a positive balance between national contributions to the EU budget and EU transfers received or – in the case of the “rich” Member States – to at least minimise the negative balance they have to accept.

Due to its relatively small size the EU budget’s potential for providing EU public goods is limited in the first place. This per se already modest potential, however, is almost completely locked because the fight about slightly negative or positive net balances and about so-called "pork barrels" (Heinemann 2006) is dominant in the negotiations on the MFF. "Pork barrels" describe most visible but often inefficient (in terms of marginal costs weighed against marginal benefits) regional public goods which are provided mainly due to the commitment of regional or national representatives in EU institutions who hope to increase their chances of being re-elected (Heinemann, Mohl and Osterloh 2010).

Furthermore it has to be stressed that disputes about the revenue side of the EU budget do not only arise because the own resources per se are criticised on account of their design and their individual effects. Additionally, and probably more importantly, the revenue side as a whole – regardless of the sources and structure of overall revenues – is assessed in its function as counterpart to the expenditure side. Considering the partly unsystematic redistributive effects of EU expenditures, this perspective inspires demands for abatements by countries perceiving themselves as disadvantaged concerning payments received from the EU budget (Cipriani 2014). The existence of the UK abatement, for example, can only be understood against the background that France is preferred in receiving an over-proportionate share of overall transfers from EU common agricultural policy.

Proponents of an EU tax claim that it would cut the direct link between national budgets and the EU budget and thus cure the net position thinking (see, e.g., Haug et al. 2011; Schratzenstaller 2013). Without that link, so the argument goes, national actors would become more open to shifting EU expenditures away from pork-barrel projects and transfers mainly serving specific national interests instead of overarching common EU interests towards the financing of European public goods with a "European value added"[18]. However, this argument has two weak points. Firstly, for several (although not all) options for EU taxes national shares in EU tax revenues – based on national shares in the respective tax base or in the group of tax payers – would be easily calculated. Osterloh, Heinemann and Mohl (2008) conclude that any EU tax would have significant cross-country distributional effects. The easily calculated distributive effects imply that arguing about net positions is likely to be intensified by the introduction at least of such EU taxes whose revenues could be attributed to individual Member States to determine the given tax' regional incidence (Heinemann, Mohl and Osterloh 2008a). At the same time – and this aspect again counters the scepticism regarding the potential of an EU tax to mitigate the juste-retour logic – it can be expected that an EU tax would shift the focus from the national to the individual (i.e. regarding individual tax payers) incidence of the tax burden (Haug et al. 2011).

[18] For the concept of "EU added value", see European Commission (2011b).

Secondly, the argument ignores the above-mentioned behaviour of political agents. Even if an EU tax would succeed in significantly loosening the link between national budgets and the EU budget, for example through exploiting completely new tax bases, rent seeking behaviour of national representatives would still persist. The political struggles would rather continue as long as the existing decision-making process is unchanged. Therefore a reform which addresses the revenue side of the EU budget only is not capable to fundamentally remedy the net-position thinking. Based on an analysis of budgetary votes in the European Parliament it must be concluded that this would also be the case for such taxes which due to the high mobility of the respective tax base cannot be enforced effectively by introducing them nationally: Even if national representatives agreed that revenues out of such new tax bases are to be assigned as EU taxes to specific EU tasks, which are to be administrated and checked by the European Commission and Parliament only: It is unlikely that this would reduce the net-position thinking, as it can be shown that in the case of strong national interests party cohesion in the European Parliament is undermined (Heinemann, Mohl and Osterloh 2008a). Circumventing the European Council therefore does not automatically neutralise the net-position thinking, although the European Parliament in comparison to the European Council is more likely to set aside national considerations.

To sum up, there are two basic preconditions that EU taxes actually may counteract effectively Member States' net-position thinking: First, they should exploit tax bases which are characterised by a low degree of regional attribution. Secondly, EU taxes need to be embedded into reforms of European decision structures and institutions which strengthen the representation of overarching common EU interest vis-à-vis pure national interest. On the expenditure side, one may add, thirdly, the more the EU confines it activities to the provision of real European public goods with a European value added, the less the "juste-retour"-thinking will probably prevail.

4.2.2 Accountability and legitimacy

Another perceived shortcoming of the current "system of own resources" is its lack of "democratic accountability" due to the missing direct and visible fiscal link between EU citizens and EU institutions. The European Commission in its various reports as well as the High Level Group of Own Resources (2014) stress this point of criticism. According to this view the current EU system of own resources causes a "democratic deficit" in the EU. In the relevant political science literature the term "democratic deficit" is usually used in the debate about whether or not the EU in its current institutional setting is democratically legitimate (Moravcsik 2002; Follesdale and Hix 2006). In the debate about reforming the EU budget this term is used more narrowly and shall indicate that EU citizens cannot assess their individual contributions to the EU budget[19] and are thus ill informed about the true costs of the EU. Proponents of EU taxes argue that a direct and visible fiscal link established through the introduction of European taxes enhances political accountability and would reduce the "democratic deficit" of the EU (Le Cacheux, 2007). From strengthening political accountability a more efficient and less wasteful use of own resources may be expected (Cattoir 2004; Cipriani 2014).

Indeed public assessment of costs but also of benefits generated by the EU is difficult. Much of the value added generated by the EU and its institutions has and will have low levels of awareness among EU citizens. According to Moravcsik (2002) this is simply a consequence of the limited scope of EU politics. Most issues handled at EU level lack salience in the minds of European voters. None of the five most salient issues – health care provision, education, law and order, pension and taxation – is primarily an EU competence. Putting taxation issues on the European agenda therefore might increase interest for and attachment to the EU. A poll by Eurobarometer (2006), however, shows that only 11% of the respondents stated that the replacement of the national income tax by a European income tax would strengthen their feeling about being a European citizen (Osterloh, Heinemann and Mohl 2008). This outcome of course does not mean that public scrutiny of EU budgetary affairs could not be enhanced through the introduction of EU taxes. But it clearly shows the limits of measures aiming at the increase of public involvement in European affairs.

However, even if democratic accountability and legitimacy could in fact be improved through the introduction of visible EU taxes it is more than questionable if pro-EU politicians under current circumstances should really want to go for measures increasing the visibility of EU costs. In any case the EU's increasing unpopularity suggests increasing citizens' awareness of the value added generated by EU institutions by making it more visible in a first step, before increasing the visibility of the costs for the EU for its citizens. Otherwise introducing an EU tax may – in contrast to the intended effects – rather further EU citizens' scepticism towards the EU.[20]

Furthermore it must be pointed out that visibility of EU own resources and thus democratic accountability can only be improved by the introduction of a few potential EU tax candidates. Only VAT, personal income tax and excise taxes payable by all or at least

[19] After all, VAT-based and GNI-based own resources yielded € 116.5 billion or € 228.7 per capita in 2014.
[20] See also Wyplosz (2015) who makes the point that since the outbreak of the recent financial and economic crisis and the associated turbulences in the E(M)U, EU citizens are more conscious of the trade-offs associated with further EU integration, and that there is wide-spread scepticism against further integration steps.

large shares private households are tangible to (the majority of) EU citizens (Osterloh, Heinemann and Mohl 2008). As the introduction of a EU personal income tax would face considerable political and technical obstacles (as, for example, the harmonisation of 28 income tax bases) only a EU VAT and certain excise duties appear as suitable options for EU taxes to increase the visibility of EU costs. This might be the reason why most recent proposals such as Fuest, Heinemann and Ungerer (2015) and Cipriani (2014) are focussing on a VAT-based tax approach. Cipriani (2014) proposes the introduction of a VAT-based resource that would take the form of an EU VAT rate, offset by a corresponding decrease of the national VAT rate. Fuest, Heinemann and Ungerer (2015) suggest translating GNI-based national contributions into a hypothetical EU VAT rate. Essential to both proposals is that the costs of the EU would be clearly visible on every invoice and receipt to the final consumer. However, these proposals in fact may be counterproductive with respect to their objective to strengthen the attachment of EU citizens to the EU and its budgetary affairs. To indicate to the public that contributions to the EU are borne out of a regressive tax, thus over-proportionally burdening lower income groups with the costs of the EU (which currently due to the more or less progressive taxation systems of Member States is not the case), may simply stir further EU antagonism.

In addition to the criticism of the missing fiscal link between the EU and its citizens it is claimed that the EU's democratic deficit is enforced by the weak role of the European Parliament with respect to the decision about revenue sources for the EU budget. Goulard and Nava (2002, 10) state that the European Parliament "is the only parliament in the world that debates expenditure but has no competence to determine the revenue that must be collected in order to finance that expenditure". Osterloh, Heinemann and Mohl (2008; 449) argue that "…this view claims that if the parliament was not only responsible for the expenditures but also for the revenues towards the citizens, the involvement of the voters in European policies would be strengthened." Accordingly, democratic accountability would be enhanced through EU taxes because EU citizens would have a larger incentive to hold EU parliamentarians accountable by voting them in or out of the European Parliament. This line of thought, however, is flawed as well. First of all, neither the European Commission in its various proposals nor any other proponent of EU taxes can provide any (empirical) evidence that involvement in EU politics, e.g. in the form of higher turnout in European parliamentary elections, would be increased if the European Parliament would be granted the competence to raise its own revenues. Therefore, if voter turnout of European parliamentary elections, which in many Member States is low compared to national ones, would not be increased drastically by granting the European

Parliament revenue competences, democratic accountability would de facto even decline (Osterloh, Heinemann and Mohl 2008).

Secondly, it is debatable if the concept of democratic accountability should be preferred over other mechanisms of accountability. Grant and Keohane (2005) conclude that strict analogies from national democratic politics should be regarded with scepticism and that one should resist the temptation to narrow the issue of accountability to that of democratic control at the EU level. Before discussing different mechanisms of accountability it has to be emphasised that strong checks and balances are important as well as to constrain those who wield political power. “Checks and balances are mechanisms designed to prevent action that oversteps legitimate boundaries by requiring the cooperation of actors with different institutional interests to produce an authoritative decision. Accountability mechanisms, on the other hand, always operate after the fact: exposing actions to view, judging and sanctioning them.” (Grant and Keohane 2005, 30) In the European context, enhancing democratic accountability through transferring taxation powers to the European Parliament must be seen as problematic based on two substantial arguments. A transfer of taxation powers would, depending on the degree of change in fiscal sovereignty (the right to set tax rates, tax administration competences etc.), weaken the system of checks and balances within the EU as possibly the options, but certainly the incentives for national governments to constrain the EU budget would be reduced (Osterloh, Heinemann and Mohl 2008). This might be desirable concerning other issues such as the net position thinking but it will certainly not help to keep the powerful in check. Enhancing a kind of accountability through weakening the system of checks and balances therefore seems illogical. Moreover, it takes a high rate of participation of the governed in the electoral process, easy and accessible information about the actions of EU institutions, some expertise to judge these actions and effective sanctioning tools for democratic accountability to work. Several of these requirements are definitely not met at the EU level. Delegating the power to hold EU institutions accountable from EU citizens to the EU Council therefore seems fully appropriate.

Altogether, the aim to enhance (democratic) accountability is a weak argument for the introduction of EU taxes. It would require the visibility of EU taxes, which would reduce the range of available tax candidates drastically and would almost certainly damage EU popularity even further. Moreover, such an EU tax would not increase the quality of sanctioning tools, which is absolutely essential for an increase in democratic accountability. There is no evidence to be found in the relevant literature that involvement of EU citizens in EU affairs would be increased through a transfer of taxation powers to the EU level. The expectation that mechanisms that hardly work efficiently at a national level, such as exposing, analysing and efficiently sanctioning the work of members of parliament, will work at a supranational level may be unfounded. And there are other and better mechanisms at a supranational level to hold the powerful accountable, such as a strong system of checks and balances as well as supervisory and fiscal accountability mechanisms. The European Council, to give a simple example, can employ such mechanisms. It can supervise the actions of the European Commission and in case of non-compliance can heavily restrain the commission's ability to act. Additionally the European Council imposes strict budget restrictions and scrutinises expenditure and is thus employing fiscal mechanisms of accountability.

4.2.3 Transparency

As stated above, the revenue side of the EU budget is rather complex. Against this background the question arises whether the introduction of EU taxes would make the budgeting process more transparent and would simplify the EU budget. First of all, it has to be noted that many complexities such as the UK abatement result from the unbalanced expenditure side of the EU budget, especially regarding CAP grants (Cipriani 2014). These problems will remain regardless of the design of the system of own resources and therefore cannot be remedied by introducing EU taxes. Secondly, substituting (part of) current own revenues by EU taxes can be expected to create further imbalances on the revenue side. None of those EU tax candidates whose revenues would be attributable to individual Member States would be able to provide a distribution of the tax burden similar to the current distribution of the gross burden of national contributions, which is roughly proportional to GNI. Therefore demands for a correction mechanism can be expected, which would add another dimension of complexity to the EU's financing system. In the case of new tax bases depending on a certain infrastructure provided by individual Member States (such as taxes on the financial or the aviation sector) it can be expected that the respective countries will demand tax exemptions or other kinds of compensation, thus again increasing the financing system's complexity. Thirdly, and very generally, it will also depend on the number of EU taxes and their specific design as well as on the design of the residual own resource (which will remain indispensable to make up for short-term revenue shortfalls considering the prohibition of debt financing).

4.2.4 *Fair and equitable distribution of the financial burden*

Can the introduction of EU taxes contribute to an equitable distribution of the fiscal burden of financing EU expenditures? The answer to this question on the one hand depends on whether an agreement on a distinct definition of fairness can be reached and on the other hand on the type of expenditure to be financed by potential EU tax candidates. Basically there are two possible cases. In case 1, an EU tax is designated to finance larger parts of the EU budget in its current structure, implying no major changes regarding the expenditure side. In case 2, an EU tax is introduced to finance very specific tasks of the EU, in particular the provision of "true" federal-type public goods. For these two types of expenditure (structures), two distinct decisions regarding the concept of "fairness" would have to be made (Iozzo, Micossi and Salvemini 2008; Cipriani 2014).

First of all, it has to be agreed on the fundamental taxation principle.[21] The benefit principle implies that the tax (contributing) subject shall receive a benefit from its membership in the EU which is valued as high as the contribution paid to the EU. The ability-to-pay principle requires that economically stronger subjects pay more compared to weaker ones.

The second decision concerns the choice of the tax subject. The two fundamental taxation principles can apply to either nation states, i.e. EU Member States, or to the individual EU citizen. That means that fairness of the EU system of own resources may be evaluated from a perspective of interpersonal distribution of the financial burden from financing the EU budget or from a perspective of international distribution. For Case 2 we propose the introduction of a third choice regarding the tax subject.

Of course this view on the fairness of the EU financing system is a simplified and very hypothetical one. It may well be debated – particularly from a socio-legal perspective – whether it is justified to just apply the ability-to-pay and the benefit principle as fundamental taxation principles which have been developed in the context of national tax systems and refer to individual tax payers to whole nation states as tax payers.[22] Nonetheless, this perspective may clarify some of the misunderstandings occurring in current debates on the issue.

[21] The term "taxation principle" refers to every kind of contribution paid to a common budget, while these contributions do not necessarily have to be taxes. It thus also refers to the GNI-based contributions of EU Member States.

[22] See for fundamental taxation principles and tax policy norms and their development over time with regard to national tax policy Lahey et al. (2016).

Case 1:

The relevance of EU taxes in financing the EU budget in its current structure in an equitable way

This case is particularly difficult as it includes the question of how the two main expenditure categories, namely cohesion policy and common agricultural policy, which are officially tools to foster economic convergence within the EU and thus serve a redistributive purpose, should be financed.[23] Once the choices regarding taxation principle and tax subject have been made, three “fair” financing scenarios can be derived.

Figure 7: Dimensions of equitable distribution of the tax burden and taxation principles

		Taxation principle	
		Benefit principle	*Ability-To-Pay principle*
Tax subject	*Nation state*	Scenario 1: Zero net balances	Scenario 2: Positive/negative net balances
	EU citizen	Scenario 3: Progressive taxation at either national or EU level	

Source: own.

Scenario 1: If all EU Member States agree on the benefit principle, thus negating at least the redistributive purpose of cohesion and common agricultural policy, and on the nation state as the entity of reference, national contributions should equal the benefits received from EU membership, which implies zero net balances for each and every Member State. At first glance, this scenario seems simple and transparent. However, it entails the severe problem of evaluating the “true” benefits of EU membership[24] (a problem which is relevant for all the other scenarios regarded in the following as well). These “true” benefits should for example also include the advantages associated with a large common market in addition to financial flows connected with the EU budget. There are definitely better alternatives in determining “true” net balances compared to the status quo (see for example “net balances calculated according to ‘operating budgetary balances’ and ‘induced’ production demand’” in Cipriani 2014, 14). If scenario 1 is preferred, EU taxes play a less important role from a fairness perspective, as it should be clear that no potential EU tax

[23] The redistributive purpose of cohesion and agricultural policy, as instruments to support regional convergence in the EU, could motivate the introduction of an interregional category of possible tax subjects. For reasons of simplicity this category, however, is not included in the present considerations, especially because it bears no relevance in the current discussion about EU taxes.
[24] For a detailed discussion of the problems associated with the identification and quantification of benefits from EU membership see Cipriani (2014).

candidate could produce a distribution of the financial burden identical to the cross-country distribution of EU membership benefits.

Scenario 2: If EU Member States agree on the ability-to-pay principle and on the nation state as the entity of reference, a system providing for progressive cross-country distribution of net contributions should be appropriate: Member states with above-average GNI per capita should pay more than they receive from the EU budget and the other way round. In principle, progressivity could be established both on the expenditure and the revenue side. Assuming that cross-country fairness according to this definition is mainly secured by redistribution via the expenditure side national contributions should be roughly proportional to GNI. In any case, also within this scenario 2 there is no significant role for EU taxes from a fairness perspective as no EU tax candidate could produce the distribution of the financial burden required in this scenario.

Scenario 3: If EU Member States agree that the individual EU citizen should be the entity of reference when designing a "fair" financing system of the EU budget, EU taxes might be relevant. Grüner (2013) states that through being an EU citizen and particularly having access to an integrated market the owners of capital and highly skilled labour profit more from membership in the EU compared to the average individual. This is necessarily the case because of the narrow political areas the EU specialises in such as trade liberalisation, the removal of non-tariff barriers, technical regulation in environmental and other areas, as well as foreign aid and general foreign policy co-ordination Moravcsik (2002). In this case, also the benefit principle requires that wealthier citizens contribute more than the average citizen because they over-proportionally benefit from being EU citizens. If Member States' contributions are paid out of their general tax revenues generated by progressive national tax systems the issue is solved. However, national taxation systems vary strongly in their degree of progressivity and the overall progressivity of taxation systems of EU Member States has in fact been declining for the last decades (Förster, Llena-Nozal and Nafilyan 2014; Iara 2015b). The introduction of a progressive EU tax in order to finance the EU budget might therefore be adequate to establish a fair EU system of own resources. The considerations presented above become even more powerful if EU Member States agree on the ability-to-pay principle in combination with the EU citizen being the entity of reference. In this scenario the main beneficiaries of the EU would be approximately the same group of people which is characterised by an above-average ability to pay compared to the average EU citizen. Progressive EU taxes, in the sense that the wealthy and the beneficiaries of an integrated market are burdened over-proportionately, would then contribute to a fair EU system of own resources.

Case 2:

The relevance of EU taxes in financing "true" EU public goods in an equitable way

Iozzo, Micossi and Salvemini (2008) argue for a clear separation between redistributive and allocative expenditure items in the EU budget, which should be financed by different kinds of EU own resources. Cross-country infrastructure, research expenditures and environmental protection are clearly allocative items and should be financed by "true" own resources, whereas cohesion and common agricultural policy are clearly redistributive items and should be financed out of national budgets in the form of GNI-based contributions. Heinemann, Mohl and Osterloh (2010) convincingly argue for renationalisation of many functions provided by cohesion and agricultural policy. To uphold the redistributive functions of cohesion and agricultural policy losers of market integration should be compensated by direct cash transfers, which compared to the status quo would be far more efficient. Then the question remains of how to finance the remaining expenditure items of the EU budget, namely the administrative expenditures and the expenditures for the provision of "true" public goods. Whether EU taxes have the potential to finance those public goods in an equitable way certainly depends on the type of public good. For every type of public good again two decisions are required: one on the taxation principle and another one on the tax subject.

Determining the tax subject

Determining the tax subject for the financing of "true" public goods is a non-trivial issue. Iozzo, Micossi and Salvemini (2008) argue that the nation state as a point of reference is far less important than the individual EU citizen (or individual tax subjects in general) for financing true public goods, as it is mainly European consumers or companies who profit from the provision of EU-wide public goods and not nation states. Accordingly EU taxes would appear more adequate than GNI contributions to finance these goods. Indeed this is mainly true when the provision of specific EU-wide public goods such as a clean environment or stable European financial markets is made more expensive not by whole individual nation states or the whole group (or at least the majority) of European citizens, but rather by specific homogenous groups of individual tax subjects within the EU such as air travellers or individual firms engaged in high frequency trade. Taxing these groups and earmarking the revenues for the provision of the respective EU-wide public goods could indeed enhance equity of the distribution of the financial burden of the EU. For many other EU-wide public goods, however, it is not obvious why the single EU citizen should be a more adequate tax subject than EU Member States. As pointed out above and also acknowledged by Iozzo, Micossi and Salvemini (2008) simply changing the tax subject will not improve budgetary processes as long as the decision process regarding the provision of true public goods is not changed as well. Regarding equity and depending on the choice of tax subject and taxation principle four possible financing scenarios can be derived as is demonstrated below for the example of financing a European security policy.

Determining the taxation principle

Deciding on a taxation principle regarding the financing of specific EU public goods seems somewhat artificial but has nevertheless the potential to clarify potential misunderstandings. The benefits of a single public good are even more difficult to measure than the benefits derived from EU membership in general. For public goods like security policy the benefits cannot be measured at all. Trying to apply the benefit principle therefore seems misplaced. If, however, it can be assumed that every EU citizen or Member State benefits equally from the provision of certain public goods, such as security policy, then the benefit principle would require to equally distribute the cost of provision across individual citizens or Member States. The ability-to-pay principle would simply require taking into account the economic performance of either individual citizens or Member States.

Figure 8: Dimensions of equitable distribution of the tax burden and taxation principles for "true" public goods

<table>
<tr><th colspan="4">Example of financing European security policy</th></tr>
<tr><td colspan="2" rowspan="2"></td><th colspan="2">Taxation principle</th></tr>
<tr><td>Benefit principle</td><td>Ability-To-Pay principle</td></tr>
<tr><th rowspan="2">Tax subject</th><td>Nation state</td><td>Scenario 1:
uniform percentage of GNI</td><td>Scenario 2:
under-/over-proportionate percentage of GNI for economically weaker/stronger member states</td></tr>
<tr><td>EU citizen</td><td>Scenario 3:
lump-sum tax</td><td>Scenario 4:
Progressive taxation</td></tr>
</table>

Source: own.

Scenario 1: In this scenario EU Member States agree on the benefit principle and the nation state as the entity of reference. In the case of expenditures for European security policy, the benefits are not, if at all, clearly attributable to individual Member States. It seems thus legitimate to assume that every Member State benefits equally, so that a uniform percentage of GNI to finance European security policy would be appropriate. European taxes play no role in this scenario.

Scenario 2: In this scenario EU Member States agree on the ability-to-pay principle and the nation state as the entity of reference. Taking into account the economic performance of Member States would require under-/over-proportionate contributions in terms of GNI for economically weaker/stronger member states. EU taxes play no role in this scenario.

Scenario 3: If the individual EU citizen should be the tax subject to finance European security policy and if it can be assumed that the benefits are equally distributed among EU citizens an EU lump-sum tax could be a "fair" financing tool.

Scenario 4: If the single EU citizen should be the tax subject and EU Member States agree on the ability-to-pay principle a progressive form of EU taxation (for example a progressive EU personal income tax) would be appropriate.

4.3 Potential contribution of EU taxes to sustainability-oriented taxation in the EU

The preceding sections focused on two aspects: First, how in general EU taxes may improve the functioning of the EU as a political and economic entity which can be characterised as a kind of evolving "international federation" (which is the essential concern of the fiscal federalism literature) (section 4.1). Secondly, how in particular EU taxes may act as a remedy to the shortcomings of the current EU system of own resources (section 4.2). In addition to these fiscal federalism and pre-federal considerations, several authors make the point that EU taxes may address much more specific issues connected with the non-fiscal functions and objectives of tax systems (e.g. Le Cacheux 2007). Also the European Commission (2011a) points out that the current EU system of own resources hardly contributes to central objectives of EU policy as laid down in the Europe 2020 strategy aiming at making the EU a "smart, sustainable and inclusive economy". Thus EU taxes may serve as instruments to increase economic, social and environmental sustainability of taxation in the EU – a potential function which, however, has not received much attention in the relevant literature until now.

After specifying the objectives of and the requirements to sustainable taxation, this section identifies sustainability gaps in EU Member States' tax systems and discusses on a very general basis the potential role of EU taxes to close these. We will argue that EU taxes are a particularly interesting financing option for the EU budget to strengthen sustainability-orientation within taxation in the EU. Thus this section provides a conceptual basis for the development of sustainability-oriented evaluation criteria for potential candidates for EU taxes undertaken in chapter 5.

4.3.1 Objectives of sustainability-oriented taxation

Also under the impression of weak growth rates in the aftermath of the recent financial and economic crisis, current theoretical and empirical work focuses strongly on the growth implications of taxation. Econometric evidence provided by researchers close to the OECD and the IMF (Arnold et al. 2011; Acosta-Ormaechea and Yoo 2012), which is corroborated by a number of recent empirical studies[25], suggests a "tax-and-growth hierarchy", according to which certain tax categories (property-based taxes and consumption taxes and here in particular environmental taxes) are more growth-friendly than others (income taxes including social security contributions and profit taxes). The regular evaluations of Member States' tax systems by the European Commission within the European Semester[26], which strongly refer to this empirical evidence, center around the growth-friendliness of EU Member States' tax systems. The focus of this work, however, is on "pure" growth, less on "sustainable" growth. Social and environmental impacts of taxation are not completely ignored but play a subordinated role. From a comprehensive sustainability perspective this "pure" growth focus is incomplete.

This is the more remarkable as the Europe 2020 strategy, which was launched in 2010 as integrated long-term strategy for jobs and growth, is based on a concept of comprehensive sustainability. The Europe 2020 strategy aims at "smart, sustainable and inclusive growth" and is based on five headlines: employment, research and development, climate and energy, education, and the alleviation of poverty and social inclusion. Thus it explicitly refers to the three pillars of sustainable development: the economic, the social, and the environmental pillar[27]. Already before devising and implementing the Europe 2020 strategy, the EU has committed itself to a sustainability strategy. Nerudová et al. (2016) define sustainable behaviour of economic agents (consumers, firms, government bodies, etc.) as a behaviour which will not limit the options of at least the next generation. In that connection the authors understand a sustainable tax system as a system of taxation which contributes to economic, social, environmental and institutional sustainability of national economies. The objective of achieving sustainability of tax system is to contribute to stable public finances and financial systems, to return to sustainable growth of output and employment, to maintain a fair distribution of disposable income and to address environmental issues.

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[25] For a recent review of the theoretical and empirical literature on the growth effects of tax shifts, i.e. changes in tax structures, see Mathé, Nicodème and Ruà (2015).
[26] See for the most recent one European Commission (2015a), see also Garnier et al. (2014).
[27] For the concept of sustainability and its dimensions see the literature reviews by Nerudová et al. (2016) and Dimitrova et al. (2013).

To achieve the envisaged smart, sustainable and inclusive growth in the EU appropriate policy instruments that have the potential to support sustainable development are required. Taking into account the considerable levels tax ratios have reached in many EU Member States (almost 40% of GDP on average for the EU28), tax systems can be a powerful lever to support – or to hamper – sustainable development. Thus any strategy aiming at improving sustainability should include the design of tax systems.

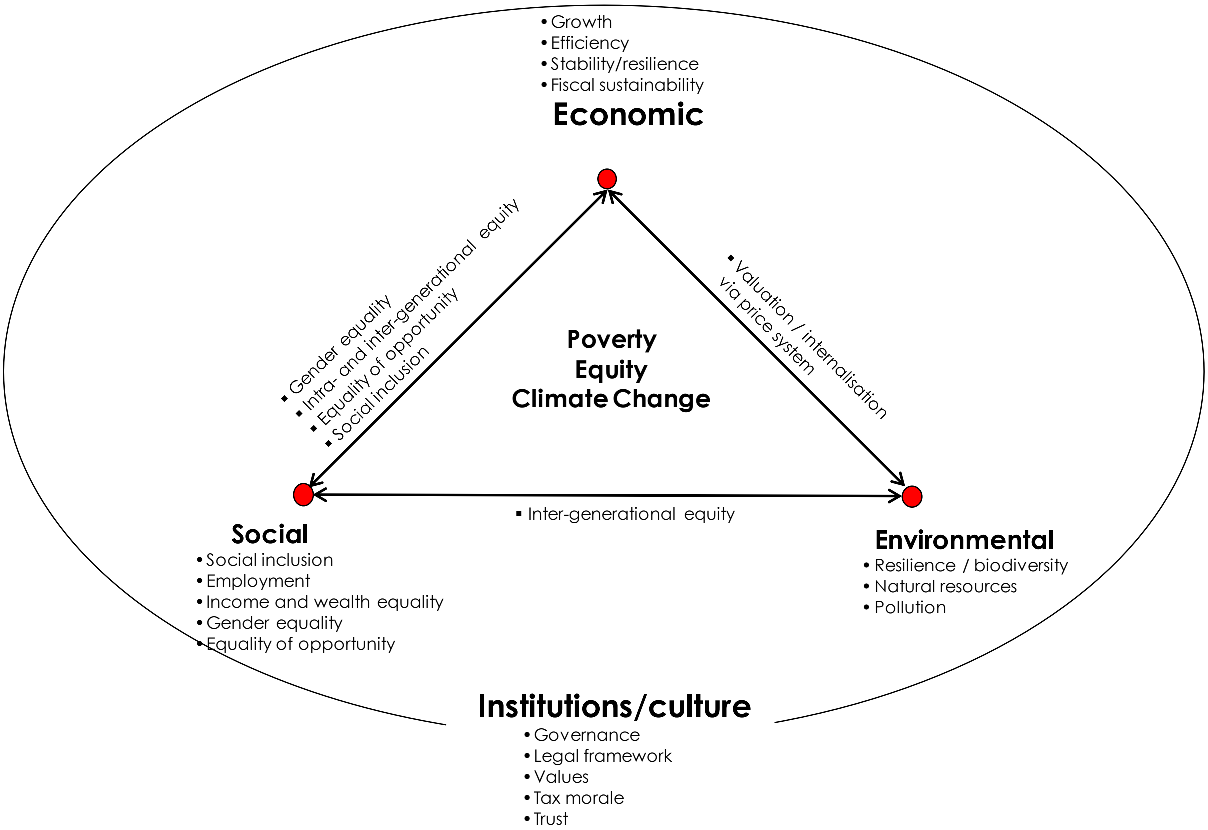
Fig.9 is based on the well-known triangle of sustainability (Munasinghe 2011) and attempts at bringing together the dimensions and objectives of sustainability-oriented taxation, hereby assuming equal importance of all three sustainability dimensions[28]. Sustainability-oriented taxation is based on the three pillars of sustainability: the social dimension (social inclusion; employment; inter- and intragenerational equity including gender equality; equality of opportunity), the environmental dimension (securing of resilience/biodiversity; preservation of natural resources; prevention of climate change and reduction of pollution), and the economic dimension (growth; efficiency; stability/resilience; fiscal sustainability, i.e. sufficient long-term revenue elasticity to finance public expenditures and prevention of tax base erosion).

These three "traditional" sustainability dimensions can be interlinked and bound together by a fourth one, the dimension of institutions and culture, respectively. The institutional dimension covers governance aspects, but also the institutional design into which tax systems are embedded, as well as the legal framework including the design of tax laws. Institutional sustainability requires an appropriate legal and administrative design underpinning the tax system's legitimacy and to enable the attainment of economic, social and environmental sustainability of taxation. As Kleven (2014) shows for the case of the Scandinavian countries and the example of capital taxes institutions (e.g. information exchange) may considerably influence the implementation and enforceability of taxes. Important in the institutional context to secure sustainability of taxation are tax collection and enforcement mechanisms on the national level (OECD 2004) and increasingly on the supra-national level. Altogether institutions can be seen as a decisive prerequisite to make tax systems sustainable. This is true as well for the cultural dimension, which is closely intertwined with the institutional one. The cultural dimension relates to values, in this context to the attitude of the population towards the size and the structure of tasks and responsibilities of the state and accordingly towards the extent of the public sector measured also in terms of tax-to-GDP-ratios. Besides cultural aspects comprise attitudes not only towards the overall tax burden, but also towards the structure of taxation. Tax

[28] For an overview over the various approaches in the literature on sustainability regarding the hierarchical position of the three dimensions of sustainability see Dimitrova et al. (2013).

morale is an important aspect of the cultural sustainability of tax systems, which is closely interrelated with institutional sustainability.

Figure 9: Dimensions and objectives of a sustainability-oriented tax system



Source: Adapted version of Schratzenstaller (2015) following Munasinghe (2011).

There are manifold interlinkages between the individual dimensions of sustainability. They can appear as synergies, if a specific tax affects more than one dimension of sustainability simultaneously in the same direction, or they can take the form of trade-offs, if a specific tax has opposing effects on two or more sustainability dimensions.

Potential synergies include, first of all, redistributive taxation in the case of rather unequally distributed market incomes, as recent empirical research suggests that limiting excessive inequality also may further economic growth (Berg and Ostry 2011; Stiglitz 2012; Cingano 2014; Acemoglu and Robinson 2013; Dabla-Norris et al. 2015; Iara 2015b). This is particularly the case with respect to improving equality of opportunity, which is negatively related to wealth distribution (Kohler 2015). Joumard, Pisu and Bloch (2012) and IMF (2014) stress the importance of taxes as redistributive instruments.

Ostry, Berg and Tsangarides (2014) show that redistribution via taxes to decrease inequality can be conducive to economic growth. A positive relation between the economic and the social dimension of sustainability may also be created via trust between members in a society, which may be strengthened by the redistributive capacity of a tax system and thus its ability to decrease inequality and as such can be seen an important determinant of economic growth[29]. Grüner (2013) stresses that efficiency-enhancing reforms in general need to consider also the distributional implications as otherwise they risk losing broad public support and acceptance; this is also true for tax systems.

Another synergy may be exploited through environmental taxes, which can be a powerful environmental tool and are growth-friendly as well as innovation-enhancing at the same time, particularly if combined with complementary instruments (see e.g. OECD 2010; van den Bergh 2013; Veugelers 2014; Nerudová and Dobranschi 2016). Environmental taxes have proven to be cost-effective tools within environmental policy (OECD 2013). They help to internalise external environmental costs caused by production and consumption activities and thus provide market-based disincentives for environmentally harmful activities. The concept of green tax reforms explicitly combines environmental and employment goals via the „double dividend hypothesis“ (Pearce 1991; Bovenberg 1999): Revenue-neutral green tax reforms aim at reducing environmental damage by increasing ecotaxes, the proceeds of which are used to cut labour taxes and thus to increase employment[30], as there is ample empirical evidence that high taxes on labour incomes may negatively impact labour demand and supply[31]. A special case of green tax reform is an "environmental fiscal devaluation" as suggested by Kratena and Sommer (2014): Cuts in employees' and employers' social security contributions making exports cheaper and thus more competitive are compensated by taxing GHG emissions and inputs of resources embodied in private consumption, thus increasing internal consumer prices. Barrios, Nicodème and Sanchez Fuentes (2014) show that increasing taxes on energy consumption and decreasing labour taxes can produce efficiency gains for firms by decreasing their effective tax rates.

Other Pigovian taxes – so-called sin taxes (Samuelson and Nordhaus 2009) aiming at providing disincentives for consumption activities associated with negative externalities as well as individual costs neglected by the consumer – may also generate synergies: Tobacco

[29] See Schjelderup (2015); a review of the literature on the relationship between trust and economic growth is provided by Bjørnskov (2012). Bergh and Bjørnskov (2014) point out that direction of causality is not clear.
[30] See e.g. the contributions in Ekins and Speck (eds.) (2011).
[31] For an extensive review of the literature see European Commission (2015b).

and alcohol taxes[32] – as preventive instruments within a comprehensive health policy package – may indirectly contribute to social goals by improving the population's health status, while their proceeds may be used to lower taxes with undesirable sustainability properties from a social and economic perspective (e.g. labour taxes).

A potential synergy may also be realised by limiting a potential race to the bottom within company taxation and by establishing barriers to profit shifting. Profit shifting first of all is associated with negative economic effects. It may result in a distortion of competition in favour of multinational firms, which – as empirical results by Egger, Eggert and Winner (2010) suggest – face considerably lower effective tax rates than comparable, purely domestically-oriented firms. Thus, the benefit principle as one rationale for company taxation is violated, as multinational firms use public goods and infrastructure services without contributing their fair share via taxes. According to Huizinga and Laeven (2006), profit shifting in the EU results in considerable reallocation of corporate tax receipts within in the EU. Moreover, there is increasing econometric evidence that international capital/company tax competition induces a shift of the tax burden from mobile capital towards immobile labour incomes[33] as well as indirect taxes. Altogether company/capital tax competition and profit shifting by multinational firms and their consequences touch various sustainability dimensions.

Profit shifting as well as tax competition endanger the fiscal sustainability of tax systems. Moreover, fairness considerations are violated and the general tax morale may be undermined if a group of tax-payers does not contribute adequately to financing public expenditures. Combating tax fraud and tax evasion may improve several sustainability dimensions simultaneously: by strengthening tax morale and fiscal sustainability at the same time. Combating tax fraud may improve several sustainability dimensions simultaneously: by strengthening tax morale and fiscal sustainability at the same time. Tax morale is one determinant of a tax systems' ability to prevent tax base erosion by legal and illegal avoidance measures – and thus to contribute to fiscal sustainability. A shift of the tax burden away from capital and company profits towards labour incomes may harm employment and may be perceived as undesirable also for equity reasons. Undesirable distributional consequences also result from shifting the tax burden to indirect taxes.

[32] For the potential of alcohol taxes to decrease harmful alcohol use see OECD (2015b); for a review of a large number of empirical studies showing that tobacco taxes can be an effective tool to curb tobacco consumption see Chaloupka (1999) or Chaloupka, Yurekli and Fong (2012).

[33] See e.g. Schwarz (2007) and Winner (2005); for a review of recent literature, see Genschel and Schwarz (2012). See European Commission (2015e) for a brief overview of potential negative welfare effects of tax competition.

Removing barriers for female labour market participation within tax systems simultaneously improves gender equality as an important aspect of social inclusion and employment- and growth-friendliness of taxation.

Such potential synergies, which may create multiple dividends, are indeed acknowledged and indicated by the European Commission's assessment of Member States' tax systems (see for the most recent one European Commission 2015a). However, this is not done systematically, and the focus on growth-friendliness is maintained, i.e. potential synergies in relation to social inclusiveness and environmental sustainability are only pointed out for those tax categories positively assessed from a growth perspective in a first step.

Interlinkages between the individual sustainability dimensions may also take the form of trade-offs if a specific tax furthers one dimension of sustainability but harms another one simultaneously. Such trade-offs are largely neglected in the European Commission's assessment exercises. An obvious example for potential trade-offs is the value added tax, which – while being assessed as rather growth-friendly – due to its overall regressive effect (OECD 2014) negatively impacts on the social dimension of sustainability. This is true for tobacco and alcohol taxes as well (OECD 2014), which therefore carry counteracting effects with respect to two aspects of the social dimension (a positive impact on public health versus regressive distributional effects). Another potential trade-off may be inherent in green fiscal reforms approaches. As is generally the case for all policy instruments increasing the price of energy to reduce energy consumption to improve environmental sustainability, also certain environmental taxes (in particular taxes on electricity and heating, less so taxes on transport fuels (Kosonen 2012; Sterner 2011)) have immediate undesirable distributional consequences, as they burden lower incomes over-proportionately (OECD 2014). Even if, as Dissou and Siddiqui (2014) correctly point out, an exclusive focus on commodity prices to assess the distributional impact of carbon taxes is misleading, as they can be expected to have opposing effects on factor prices, they need to be carefully designed such as to avoid undesirable regressive effects. Some of the green fiscal reform approaches pay attention to the potential regressive effects of environmental taxes by foreseeing compensating measures, e.g. recycling eco-tax revenues by compensating poorer households via tax rebates or transfers (e.g. Morris and Munnings 2013). However, they do not assign a pro-active role to tax systems as a tool to combat increasing income and wealth inequality. To our knowledge, Chancel and Piketty (2015) are the only authors who directly and explicitly address this sustainability trade-off by designing a progressive carbon tax burdening high-income individuals over-proportionally. It should, however, be pointed out that potential undesirable distributional effects are not exclusively limited to price instruments (as taxes, for example), but are inherent to other non-monetary instruments as well: They therefore do not speak against price instruments as such, but rather for embedding them into policy packages also containing measures to mitigate undesirable distributional consequences (van den Bergh 2013).

To conclude, it shall be also stressed here that with regard to taxation issues there is no theoretical or empirical work addressing all pillars of sustainability simultaneously.

4.3.2 Sustainability gaps in taxation in the EU

EU Member States' tax systems show various sustainability gaps, i.e. tax provisions and structures which are problematic from a sustainability perspective. The development of important tax categories which are sketched in this section often touch on more than one sustainability dimension.

4.3.2.1 High and increasing weight of labour taxes

A considerable and – at least for the EU15 – increasing share of overall tax revenues stems from taxes on labour which generally negatively impact on labour supply and demand (European Commission 2015b) and thus can be regarded as little employment- and growth-friendly; with a share of about 50% in overall tax revenues on average in the EU15 and about 47% in the EU28 (fig.10).

4.3.2.2 Decreasing progressivity of tax systems

Also the weight of revenues from the value added tax with its regressive distributional effects increased. While the share of property taxes in overall tax revenues has remained fairly stable over the last decade, their contribution to overall tax revenues has remained rather limited, at 5% of overall tax revenues in the EU15 and 3.7% in the EU28. Together with the declining trend in the shares of taxes on capital and the increasing weight of VAT and social security contributions, this suggests that the redistributive power of taxation and thus its contribution to social inclusion has weakened over time. Also the IMF (2013a) and the OECD (Förster, Llena-Nozal and Nafilyan 2014) recently pointed out this general international trend of decreasing progressivity of tax systems and the long-term decrease of taxes on capital income and wealth (see also Iara 2015b; Schjelderup 2015). This long-term trend of decreasing progressivity of taxation and declining taxes on capital incomes and wealth stands in direct contrast to the increasing inequality of income and wealth, which can be observed in many developed countries (Atkinson 2015; OECD 2015a).

Piketty, Saez and Stantcheva (2011) suggest that tax reductions implemented during the last decades particularly for high incomes and wealth may have contributed to the long-term increase in inequality taking place in many countries.

These shifts in tax revenues result from some general trends that can be observed in the majority of EU Member States' tax systems and which have been increasingly eroding the progressivity of tax systems. First, there is a trend of declining top income tax rates. Between 1995 and 2014, average top income tax rates, which can be interpreted as indicator for the envisaged degree of progressivity of income tax systems, dropped by 3.5 percentage points (7.8 percentage points) to 50.4 percent (39.5%) in the EU15 (EU28). Secondly, almost all EU Member States (if they do not apply a flat income tax system in the first place, taxing all incomes regardless of their source and size at a proportional and rather modest income tax rate) have to some degree dualised their personal income tax systems (Schratzenstaller 2004). While all or at least some kinds of capital incomes are taxed at source at rather moderate and proportional rates, labour and other (e.g. pension) incomes are taxed at progressive tax schedules. Thus, while the average top income tax rate for those incomes to which the progressive income tax tariff applies lies at about 50% (40%) in the EU15 (EU28), interest incomes are taxed at an average of about 28% (23%) in the EU15 (EU28), capital gains at an average of 25% (19%) in the EU15 (EU28), dividend incomes (excluding corporate income tax at the corporate level) at an average of 28% (22%) in the EU15 (EU28) (ZEW 2014), and dividend incomes at the shareholder level (including corporate income tax at the company level) at an average of over 47% (39%) in the EU15 (EU28) (Bundesministerium der Finanzen, 2015). Thirdly, the taxation of net wealth and of inheritances has lost in importance in the EU[34]. Except France and Spain, no EU Member State applies a net wealth tax, and while 19 EU Member States still have an inheritance tax, their revenue potential is increasingly eroded by tax exemptions. Altogether, there is a trend in the EU of decreasing taxes on high incomes and wealth in the EU, which can also be observed in the OECD (Förster, Llena-Nozal and Nafilyan 2014; Godar, Paetz and Truger 2016). Simultaneously, regular VAT rates have been steadily increasing in the longer run on average: from 19.4% to 21.5% (both EU15 and EU28) from 2000 to 2014. The structural shift within the overall tax burden away from taxes on high incomes and wealth towards taxes on labour and value added taxes implies a shift of the tax burden away from men towards women: Due to the unequal distribution of wealth between men and women, the relatively small share of females among top income earners, and the comparatively high share of labour income in women's total income.

[34] For details, see the contributions in Astarita (ed.) (2015).

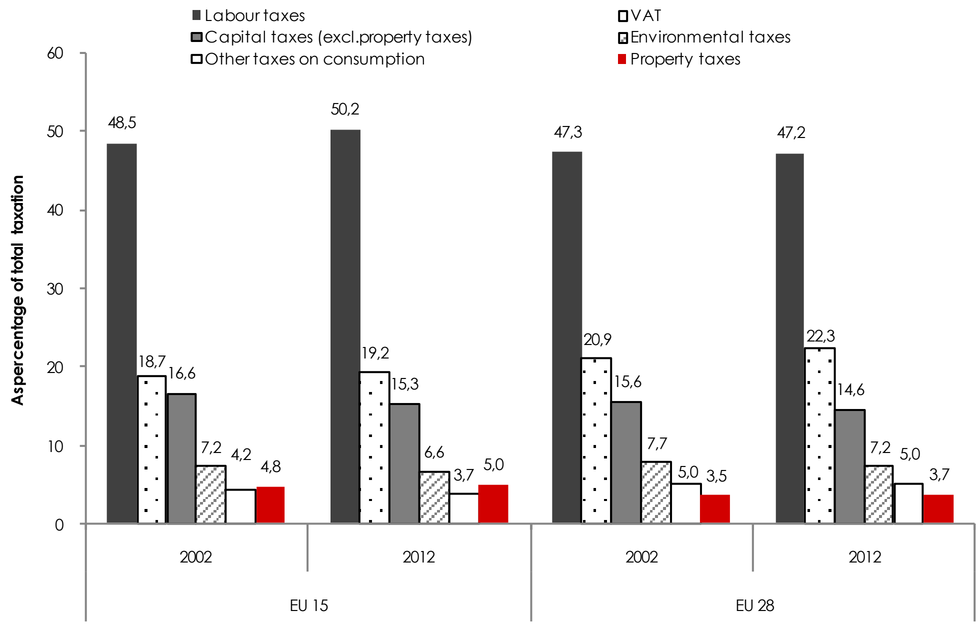
4.3.2.3 Decreasing importance of Pigovian taxes

Moreover, a diminishing importance of Pigovian taxes can be observed. Pigovian taxes make up for a rather small – and decreasing – share in overall tax revenues. In the EU28 (EU15), the share of environmental taxes in overall tax revenues decreased to 6.6% (7.2%), the share of other taxes on consumption (among others sin taxes on alcohol and tobacco consumption) reached 3.7% (5%) in the EU15 (EU28) (Fig.10). From a sustainability perspective, this development is ambiguous. One the hand, certain environmental taxes as well as alcohol and tobacco taxes have undesirable distributional consequences. On the other hand, tobacco and alcohol taxes may contribute to social goals, and environmental taxes are effective instruments of environmental policy. In the last few years, many EU countries have increased environmental taxes as a result of consolidation needs due to the fiscal costs of the recent crisis. However, the predominant goal of these increases was to generate additional revenue to consolidate budgets[35], not to recycle revenues to decrease taxes more detrimental for growth and employment. Thus, the potential synergies of green tax reforms could not be reaped in terms of competitiveness and positive employment effects. Moreover, a one-sided increase of environmental taxes without compensation by tax cuts or targeted transfers tends to burden low-income households over-proportionately, and also leads to political opposition against further increases of environmental taxes, thus endangering social and cultural sustainability.

Taxes on the financial sector, which besides fairness aspects (IMF 2010) can also be motivated by Pigovian considerations (Keen 2010), still play an overall rather limited role in the EU[36], although several EU Member States introduced taxes on the financial sector in various designs (Hemmelgarn et al. 2016).

[35] See, e.g., Mayor and Tol (2007) for the example of the UK aviation tax.
[36] See Cannas et al. (2014) for analyses showing the under-taxation of the financial sector.

Figure 10: Taxation Structure in the EU15 and EU28, 2002 and 2012



Source: European Commission (2014), own calculations.

4.3.2.4 Intense company tax competition

Intense company tax competition is another sustainability-relevant issue in taxation in the EU. Company tax competition in the EU manifests itself in a considerable decrease of statutory and effective corporate tax rates (fig.11). The survey by Leibrecht and Hochgatterer (2012) shows that declining corporate tax rates – which can be observed in practically all developed countries – are indeed a consequence of tax competition.

Figure 11: Nominal and effective corporate tax rates in the EU, 2005 and 2013

	EU 15	EU 28	EU 15	EU 28
	2013		Difference 2005-2013	
	In percent		Percentage points	
Statutory corporate tax rate	27.0	23.2	-3.0	-2.1
Effective average tax rate (EATR)	24.8	21.1	-3.0	-1.9
Effective marginal tax rate (EMTR)	18.8	15.5	-3.7	-2.1
Implicit corporate tax rate[1,2]	19.0	.	-2.3	.
Corporate income tax as a percentage of GDP[1]	2.6	2.6	-0.7	-0.4

Source: European Commission (2014), ZEW (2014), own compilation and calculations. Arithmetic mean.
. - 1 Last available data: 2012. - 2 EU 15 excluding Germany, Greece, Denmark, Luxembourg.

Whether company tax competition is beneficial, as it holds ever-growing and wasteful Leviathan governments in check, or whether it has reached a dimension with is associated with harmful effects, e.g. the under-provision of public goods or the shift of the tax burden from mobile to immobile tax bases, is still debated in the literature (Bénassy-Quéré, Trannoy and Wolff 2014). In any case, however, there is broad agreement that profit shifting by multinational firms inside and outside the EU to minimise corporate tax payments by exploiting nominal tax rate differentials or by making use of special tax regimes including "treaty shopping"[37] is one of the most serious accompaniments of international/European company tax competition. Recent empirical results suggest – and are corroborated by ample anecdotal evidence (see, e.g., "LuxLeaks") – that profit shifting is indeed taking place on a large scale. Empirical studies corroborate the assumption that tax avoidance activities by multinational firms lead to sizeable company tax losses for EU countries, while the various estimates deliver a broad range for the magnitude of these tax losses (see also Fuest et al. 2013). For the United States Zucman (2014) estimates that US-owned multinationals reduce their corporate tax payments by 20% via profit shifting activities. According to his calculations, tax avoidance via tax havens like Bermuda contributes to at least two third to the reduction of the effective tax rate from 30% to 20% between 1998 and 2013, which reduces tax payments not only in the US but also in those European countries where US companies' activities are located.[38] According to an estimate by Credit Suisse, 386 OECD-based multinationals reduce their yearly tax payments by more than € 100 billion through "aggressive tax planning" (Gratwohl 2013). Recent empirical work by the OECD within its BEPS (base erosion and profit shifting) project (OECD 2015c) suggests that profit shifting by multinational enterprises leads to losses in corporate income tax revenues of 4% to 10% world-wide. A recent study conducted for the European Parliament (Dover et al. 2015) estimates corporate income tax losses by profit shifting in the EU at € 50 billion to € 70 billion per year.

4.3.2.5 Tax compliance and tax fraud

In addition to profit shifting to avoid corporate taxation, further tax compliance and tax fraud issues, based on legal as well as illegal actions by taxpayers and labelled "tax compliance gap" by the European Commission (2015a), induce sustainability gaps in taxation in the EU. It is by nature difficult to measure the size of the tax revenues due to the tax compliance gap. Most work has been done with regard to value added taxes. The

[37] For overviews over the techniques used to avoid taxes via profit shifting see Fuest et al. (2013), Hebous (2014) or European Commission (2015e).
[38] See also Gravelle (2015) for an overview over estimation results for corporate tax losses for the US due to profit shifting.

most recent study commissioned by the European Commission estimates the tax compliance gap (resulting from tax fraud, tax evasion and other problems affecting VAT payment, e.g. non-payment due to bankruptcy) in 26 Member States (CPB/CASE 2015). In 2015, the VAT gap for this country group amounted to 15% of the theoretical tax liability according to tax law. It is thus lower than in 2009 when it had reached 19%, but still of a considerable size. Considering that overall VAT revenues for these countries were € 168 billion in 2013, revenue losses due to the VAT gap reach a remarkable magnitude.

4.3.3 Potential contribution of EU taxes to sustainability-oriented taxation

Granting taxation powers to the EU may contribute to economic sustainability of taxation in several ways. First, overall economic sustainability of taxation in the EU can be improved by introducing relatively growth- and employment-friendly taxes at the EU level which substitute for national contributions by Member States and thus allow them to cut taxes which are more harmful for growth and employment. Cipriani's (2014) objection that such a reduction of the burden on national budgets would hardly be useful because the burden would just be shifted from the national to the EU may be contested by pointing out that such a shift can – if EU taxes affect appropriate tax payers and/or tax bases – well improve sustainability-orientation of overall taxation in the EU. Thus revenue-neutral tax shifts involving the EU level and the level of Member States may be sustainability-enhancing.

Secondly, introducing taxes at the EU level which cannot be enforced effectively any more at the level of Member States due to tax flight based on high international mobility of tax bases would improve fiscal sustainability of taxation. This implication is supported by the traditional fiscal federalism and tax assignment literature, according to which taxes levied on highly mobile tax bases and/or redistributive taxes should be levied at the central level to avoid their erosion (Martinez-Vazquez, McLure and Vaillancourt 2006; Musgrave 1959; Oates 1972; Wildasin (1989). Such considerations are particularly relevant in the case of Pigovian taxes, whose effectiveness may be undermined by tax flight: Legal tax avoidance as well as illegal tax evasion endanger fiscal sustainability. Moreover, it undermines social inclusiveness by putting the redistributive potential of taxation under pressure, and cultural sustainability by reducing the (perceived) fairness of tax systems. The tax competition literature shows that countries are likely to set environmental policy efficiently only if they can capture regulatory rents (e.g. Wellisch 1995). The case for assigning Pigovian taxes to the EU level is strengthened further if tax rates due to spill-overs are set at a sub-optimally low level at national levels. The conclusions presented here in principle also apply to taxes on mobile capital (incomes) levied on individuals and firms.

Admittedly, these strands of the literature and the implications derived from them assume away potential inefficiencies from an over-centralisation of tax and spending competencies at the European level. The Political Economy literature argues that competition among governments for internationally mobile tax bases is beneficial because it generates strong incentives to reduce government inefficiencies and would thus help to “tame the Leviathan” (e.g. Brennan and Buchanan 1980; Sinn 1992). From that perspective, tax harmonisation would be equivalent to forming a tax cartel of national governments at the expense of citizens (Bernholz et al. 2004). To be sure, this is a rather malevolent view of government behaviour. Edwards and Keen (1996) and Janeba and Schjelderup (2009) model economic effects of tax harmonisation and centralised policy-making under different political regimes, so that the inefficiencies of fiscal competition among Member States can be compared against a more realistic benchmark. In any case, the potential benefits from harmonisation or centralisation of taxes at the European level should also be weighed against the potential economic and political cost from a reduction of intergovernmental competition.

4.4 Conclusion

The central aim of chapter 4 was to review the pros and cons of granting tax competencies to the EU brought forward in the relevant literature. A central conclusion of this review is that the fiscal federalism as well as the literature considering pre-federal and political economy considerations can provide some arguments why at least part of EU expenditures should be financed by own EU taxes. In addition, recent empirical research by Blöchliger and Kantorowicz (2015) suggests that the coherence of institutional arrangements within fiscal constitutions may be more relevant than the degree of (de)centralisation. From this perspective, the growing divergence of an increasing centralisation of tasks within the EU on the one hand and the lack of revenue autonomy at the EU level (which has even decreased over the last decades) on the other hand, may be assessed as increasingly incoherent and thus taken as another argument in favour of own EU taxes. Altogether, however, these arguments are not able to provide a sufficient foundation upon which a convincing case for EU taxes could be built. EU taxes indeed are theoretically of interest once EU Member States aim at further (fiscal) integration in the direction of a true European federation. This, however, for the near and medium-term future, appears as a rather unlikely scenario, so that some of the arguments from the fiscal federalism literature are less important in the current discussion about the future of the EU system of own resources.

Starting out from this conclusion, we develop an innovative framework of sustainability-orientation of taxation. This framework defines the objectives of sustainability-oriented tax systems, based on the economic, the social, the environmental, and the institutional/cultural pillar of sustainability. Against these objectives several sustainability gaps in taxation in the EU are identified which provide a broad justification for the introduction of EU taxes as alternative own revenue sources for the EU substituting a substantial share of current own resources which contribute not at all to sustainability (of taxation) in the EU. From this perspective, EU taxes could help to internalise market imperfections (e.g. environmental damage or excessive liquidity and speculation in financial markets), further sustainable growth and contribute to the restoration of the social contract and trust within the EU.

5 Evaluation criteria for EU own resources and/or own EU taxes

This chapter starts with a review of the conventional evaluation criteria for EU own resources and/or own EU taxes established by the European Commission and by recent academic contributions. It then develops – based on the innovative framework of comprehensive sustainability comprising the economic, the social, the environmental and the institutional/cultural sustainability dimension developed above (see section 4.3) – sustainability-oriented evaluation criteria to evaluate the suitability of potential candidates for own EU taxes.

5.1 Review of existing evaluation criteria for the EU own resources system and/or own EU taxes

Up to now, a number of suggestions for evaluation criteria to assess the suitability of potential candidates for own EU taxes have been put forward in the academic and policy-oriented literature dealing with the future of EU finances. These evaluation criteria are based on general economic/public finance criteria for the design and the evaluation of criteria, but also consider fiscal federalism and political economy considerations as well as considerations relevant for the specific case of the EU. This section reviews the evaluation criteria for the EU system of own resources and/or own EU taxes established in the relevant European Commission documents and in the academic literature.

5.1.1 Evaluation criteria established by the European Commission

The European Commission (2004) establishes seven evaluation criteria for the EU own resources system:

- visibility and simplicity: the EU's financing system should be easy to understand for the general public;
- financial autonomy: the financing of the EU budget should be secured and reliable;
- efficient allocation of economic resources: the EU's financing system should avoid distorting economic decisions unless this is deemed desirable, for instance due to the existence of external effects;

- sufficiency: the own resources should meet the EU's financing needs and be able to match changes in these needs;
- administrative cost-effectiveness: the costs of levying and administering the own resources should be low in relation to the revenues they generate;
- revenue stability: the own resources should generate stable revenues;
- fairness in gross contributions: the burden from financing EU expenditures should be distributed fairly among Member States.

In a more detailed analysis the European Commission (2011a) states that the EU own resources system should respect the four main categories of evaluation criteria applied to the current own resources of EU budget:

- Budgetary criteria: These require ensuring sufficient and stable EU financing and budgetary discipline.
- Integration criteria: According to these, own resources should ensure financial autonomy, transparency and a link to EU policies. Another important aspect of the integration criteria is the principle of fiscal equivalence for the provision of (public) goods and services which states that primarily those individuals benefiting from certain spending programmes should also be those financing it.
- Efficiency criteria include the internalisation of externalities, the implementation of the subsidiary principle, and the limitation of operating costs.
- Equity criteria include ensuring fairness at the level of Member States plus horizontal and vertical equity for taxpayers.

Another important contribution in this context is the First Assessment Report by the High Level Group on Own Resources (2014) already mentioned above. The report analyses in detail the traditional evaluation criteria established by the European Commission (2011a), and it proposes new evaluation criteria for EU own resources, as shown in Fig.12.

Figure 12: Evaluation criteria according by European Commission and HLGOR in comparison

Criteria proposed by HLGOR (2014)	**Criteria proposed by European Commission (2011a)**
I. General criteria	
1. Equity/fairness	Fair application and impact of correction mechanisms
Underlying principle: Vertical equity: would it involve income redistribution? Horizontal equity: would it have an equal impact on equivalent taxpayers across the EU? Fair contributions: would this resource raise revenues from the Member States in line with their economic strength?	
2. Efficiency	Additional burden on specific sectors Administrative burden for the EU administration
Underlying principle Efficient allocation of resources: would it lead to an efficient allocation of resources in the EU? Low operating costs: would it be simple to administer and involve low compliance costs?	
3. Sufficiency and Stability	Revenue estimate
Underlying principle Sufficiency: would the revenues be sufficient to cover the expenditures of the EU in the long run? Stability: would the system bring about stable revenues for the EU budget?	
4. Transparency and Simplicity	Autonomous resource collection Time needed for implementation
Underlying principle Visibility and simplicity: would it be visible to EU citizens and would it be understood by them? Progressive phasing-in of the new system	
5. Democratic accountability and budgetary discipline	
II. EU specific criteria	
6. Focus on European added value and constraint of narrow self-interest	Link to the acquis and the objectives of the EU Cross-border aspect and internal market coverage
Underlying principle: Establishment of a clear political link between a reform of revenue and a reform of expenditure	
7. Subsidiarity principle and fiscal sovereignty of Member States	Legal issues Base harmonisation and application throughout the Union
Underlying principle: Full respect for the principle of fiscal sovereignty of the Member States	
8. Limit political transactions costs	
Underlying principle: Fiscal neutrality	

Source: High Level Group on Own Resources (2014).

5.1.2 Conventional evaluation criteria for EU own resources and potential candidates for EU taxes – a brief review of the literature

The literature regarding evaluation criteria for the EU own resources system in general and for own EU taxes in particular uses four different theoretical approaches, which were also the basis for the discussion of the pros and cons of own EU taxes in the preceding chapter 4. The first approach is the theory of fiscal federalism which proposes the optimal distribution of responsibilities between the different levels (i.e. tiers) of government within a federation. The second approach uses the public choice theory focused on the role of self-interested public agents. The third approach is connected with the EU's specific features (i.e. pre-federation aspects) regarding the issue of political integration of the EU. The last approach used by the authors is the general tax theory in order to build a sustainability-oriented tax system. An overview over the evaluation criteria for EU own resources proposed in recent academic contributions is presented in Fig.13.

As can be taken from Fig.13, the contributions by Cattoir (2004; 2009), Begg et al. (2008), Heinemann, Mohl and Osterloh (2008b), Le Cacheux (2009), Cipriani (2014), Nerudová (2007; 2013) and Schratzenstaller (2013) tend to use as starting point the evaluation criteria established by the European Commission (2004) in order to develop these further and to propose additional evaluation criteria for EU own resources in general, sometimes with a particular focus on own EU taxes (Begg et al. 2008; Schratzenstaller 2013). Thus there is a clear overlap with the European Commission's (2004) traditional evaluation criteria and the evaluation criteria proposed by these authors.

Figure 13: Review of conventional evaluation criteria for EU own resources and/or own EU taxes

Author(s)	Year	Evaluation Criteria proposed
Cattoir	2004	*General evaluation criteria for EU own resources* Budgetary criteria Integration criteria Efficiency criteria Equity criteria
Cattoir	2009	*General evaluation criteria for EU own resources* Visibility criteria Fair contributions criteria
Begg et al.	2008	*Evaluation criteria for own EU taxes* EU tax should aim at minimising inefficiencies by targeting broad tax bases at low marginal rates EU tax should deliberately introduce price distortions in order to eliminate negative external effects EU tax should play an important role in macroeconomic stabilization EU tax should aim to fulfil both horizontal and vertical equity EU tax should establish a compromise between individual ability to pay and ability to pay of EU Member States EU tax should be reliable enough to gradually replace the current EU budget own resources
Heinemann, Mohl and Osterloh	2008a and b	*General evaluation criteria for EU own resources* Non-interference with the national tax system Elimination of fiscal externalities Tax harmonisation Constant overall tax burden Integration compatibility Tangibility Budgetary autonomy at EU level
Le Cacheux	2009	*General evaluation criteria for EU own resources* General Evaluation Criteria: Simplicity and transparency Economic efficiency and equity Elimination of externalities

		EU Specific Evaluation Criteria: Tax harmonisation Fairness criteria Deliberate interventionism (positive and negative externalities)
Cipriani	2014	*General evaluation criteria for EU own resources* Main evaluation criteria: Simplicity Transparency Equity Democratic accountability Specific evaluation criteria: Neutrality Anti-cyclical Non-distortionary effect (for own EU tax) Addressability criteria
Nerudová	2007, 2013	*General evaluation criteria for EU own resources* Sufficiency Stability Visibility Low operating costs Efficiency Allocation of resources Horizontal and vertical equity Fair contribution
Leen	2012	Criterion of political consensus among the EU Member States regarding tax harmonisation and implementation of a new EU own resource
Medarova-Bergstrom, Volkery and Baldock	2012	EU own resources should not impose a disproportionate burden on some EU Member States at the expense of others (Fair distribution of gross burden at national level)
Schratzenstaller	2013	*Evaluation criteria for own EU taxes* Regional attribution Negative cross-border externalities Mobility of the tax base Short-term volatility Long-term yield (revenue elasticity) Visibility Fair distribution of gross burden at national level
Palenik	2015	*Evaluation criteria for own EU taxes* Support of generation of European added value Limitation of political transaction cost Accountability and budget discipline

Source: Own compilation.

Fig.14 contains the evaluation criteria put forward the European Commission (2004) and a synthesis of the additional evaluation criteria put forward in the academic and policy-oriented literature.

Figure 14: Summary of EU own resources evaluation criteria suggested in the literature

Traditional Evaluation Criteria (established by European Commission 2004)	**Additional Evaluation Criteria**
Visibility and simplicity Financial autonomy Efficient allocation of economic resources Sufficiency Administrative cost-effectiveness Revenue stability Fairness in gross contributions	Non-interference of EU own resources with the national tax system Tax harmonization Integration compatibility Tangibility Budgetary autonomy at EU level Deliberate interventionism (positive and negative externalities) Addressability criteria Anti-cyclical, non-distortionary effect of own EU tax Focus on European added value Constraint of narrow self-interest Subsidiarity principle and fiscal sovereignty of Member States Limitation of political transactions costs

Source: Fig.13, own compilation.

5.2 Sustainability-oriented criteria to evaluate the potential candidates for own EU taxes

The conventional evaluation criteria put forward in the existing literature reflect the fiscal federalism and political economy view as well as general considerations based on tax theory how to design “good” EU taxes. The central drawback of the existing proposals for evaluation criteria for potential candidates for EU taxes, however, is that they are not structured along the political priorities pursued by the European Commission as, for example, laid down in the Europe 2020 strategy, which is based on a concept of comprehensive sustainability including the economic, the social and the environmental pillar of sustainability. The innovative, explicitly sustainability-oriented approach in this paper allows to explicitly consider and to make visible the political priorities pursued in the EU. The sustainability-oriented evaluation criteria developed in this section of the paper enable to assess the potential contribution of candidates for own EU taxes to the political priorities pursued at the EU level. Besides the conventional three pillars of sustainability, the evaluation criteria also consider cultural/institutional sustainability as a fourth pillar which is seen as particularly important when designing institutions in general and taxes/tax systems in particular.

Literature on the concept of (tax) revenue sustainability is scarce. One of the few examples is the New Zealand Government Report (New Zealand Treasury 2013) which uses a sustainability-oriented criterion to evaluate tax revenues: Revenue sustainability is defined as the ability of taxes to ensure a sustainable and reliable source of revenues to fund public expenditures. Another aspect of revenue sustainability is that the tax instrument should be hard to avoid, easy to enforce and will cope with the changing patterns of the economy.

Hence, the sustainability criteria proposed by the New Zealand Treasury Report (2013) are kind of a synthesis of the traditional criteria established by the European Commission (2004). Although this proposed criterion is rather innovative, it does not, however, establish a connection to the concept of sustainable development. However, any potential EU tax which is considered as an alternative source for the current EU system of own resources should be also evaluated under the scope of sustainability criteria directly relating to the issue of sustainable development, thus to place also the EU system of own resources at the service of the central policy objectives pursued at the EU level. In this context it should be mentioned that we apply a slightly different approach to the evaluation

A tax revenue source representing a sustainable EU contributes to sustainable development of EU Member States and their citizens. In order to be sustainable, an EU tax should support a kind of development that meets the needs of the present generation without compromising the abilities of future generations to meet their own needs. This very general evaluation criterion is in fact a composite criterion which should relate to and cover simultaneously the four pillars of sustainable development: the economic, the social, the environmental and the cultural/institutional pillar (see section 4.3 and Fig.9). It is important to note that in the context of the evaluation of potential candidates for EU taxes levied at the EU level, slightly different criteria need to be applied compared to the evaluation of individual taxes levied at the national levels or to whole tax systems of individual EU Member States. The concrete meaning and implications of the various sustainability dimensions, while showing large overlaps, may differ in some areas between individual taxes and whole tax systems, respectively, belonging to the national level, and individual EU taxes and a whole system of EU taxes, respectively, where legislative and revenue competences are attributed to the EU level as an additional layer of government which – compared to the levels of government making up EU Member States – is rather small in terms of revenue and expenditure size. Moreover, a system of own EU taxes has to meet additional institutional requirements which are not relevant for taxes levied at the national level. Therefore, some of the policy areas and evaluation criteria developed by Nerudová et al. (2016) to evaluate the sustainability of Member States' tax systems are not applicable to evaluate the sustainability properties of potential EU taxes.

In a broader sense *economic sustainability* is the ability of a tax to not distort and to support a defined level of economic production substantially. Economic sustainability places economic growth to another level, where production, consumption and growth should be limited and dependent on the natural, social and human capital. According to Bartlett (2002) the present population growth and the present rate of consumption of resources cannot be sustainable in the long run. Asheim (1994) defines economic sustainability as a requirement of our generation to manage the resource base (i.e. natural, human and social capital) such that the average quality of life that can be achieved for the present generation can be shared by all future generations. Therefore economic sustainability is closely associated to the concept of "smart" growth.

In a nutshell, the replacement of economic growth with economic development moves the attention from quantitative growth to qualitative growth. As presented in fig.15 we select three policy areas in order to break down the criterion of economic sustainability of a potential EU tax into three sub-criteria: economic growth, fiscal sustainability, and economic welfare.

Figure 15: Criteria to evaluate the sustainability of potential EU taxes

Evaluation Criteria for Economic Sustainability	
Policy Areas	*Evaluation criterion*
Economic Growth	Does the EU tax impact economic growth?
Fiscal Sustainability	Does the EU tax raise sufficient revenues so that revenues grow in line with future spending obligations?
Economic Welfare	Does the EU tax affect net disposable household income?
Evaluation Criteria for Social Sustainability	
Policy Areas	*Evaluation Criteria*
Employment	Does the EU tax affect the unemployment rate?
Social inclusion, cohesion and mobility	Does the EU tax affect income and/or wealth distribution?
Wellbeing and quality of life	Does the EU tax affect well-being?
Evaluation Criteria for Environmental Sustainability	
Policy Areas	*Evaluation Criteria*
Air pollution	Does the EU tax affect the emission of air pollutants and greenhouse gases?
Green Innovation	Does the EU tax affect green innovation?
Renewable energy	Does the EU tax affect the production and consumption of renewable energy?
Evaluation Criteria for Cultural/Institutional Sustainability	
Policy Areas	*Evaluation Criteria*
Horizontal tax harmonisation	Does the EU tax respect the principle of tax harmonisation?
Tax non-interference	Does the EU tax interfere with national public budgets?
Fair distribution	Does the EU tax promote the fair distribution of the financial burden across EU Member States?

Source: Own compilation.

According to New Zealand Treasury (2013) fiscal sustainability is a concept that describes the “affordability” of government taxation and spending programmes. Fiscal sustainability represents the ability of the government to maintain its current policies without major adjustments in the future, such as the need to increase taxes, to reduce spending, and recourse to public debt (Blanchard 1990). In order to be sustainable fiscal policy should not incur (excessive) public debt. In this particular context, it is important to refer to the Article 269 of the Treaty of Amsterdam and Articles 310 and 311 of the Treaty on the Functioning of the European Union, which stipulate that the EU budget should be exclusively financed by own resources (i.e. taxes, contributions) without being allowed to finance its programmes through public loans. Therefore fiscal sustainability with regard to a potential EU tax requires that it would provide sufficient revenues for the EU budget without major adjustments in the future that would restrict the EU’s spending programmes to a sub-optimally low level or would increase the tax burden on EU’s citizens.

The third policy area refers to net disposable household income which is defined as the sum of household final consumption expenditure and savings, minus the change in net equity of households in pension funds.

Thus the evaluation of the economic sustainability of a potential EU tax is based on the following questions: Does the EU tax affect economic growth? Does the EU tax raise sufficient revenues so that revenues grow in line with future spending obligations? Does the EU tax affect net disposable household income?

In order to evaluate the *social sustainability* of candidates for EU tax we propose three policy areas: employment, social inclusion, cohesion and mobility, and wellbeing and quality of life. Thus the sub-criteria of social sustainability of a potential EU tax establish that it should not affect negatively the quality of life and the development of human society. An EU tax is considered to be socially sustainable if is able to contribute to distributional equity, to the adequate provision of social services, to gender equality, and to well-being and quality of life. The social sustainability sub-criteria require that a new EU tax should enhance human development in all aspects. Thus the evaluation of the social sustainability of a potential EU tax will be guided by the following questions: Does the EU tax affect the unemployment rate? Does the EU tax affect income and/or wealth distribution? Does the EU tax affect well-being?

Thirdly *environmental sustainability* of a potential EU tax relates to the role of tax to promote environmental conservation and protection, achieving sustainable development by maintaining human economic activities within the carrying capacity of supporting ecosystems. In order to evaluate the environmental sustainability of candidates for EU taxes we break this criterion down into three policy areas: air pollution, green innovation, and renewable energy. Regarding environmental sustainability, an EU tax should promote environment protection and maintaining a stable (natural) resource base, penalising the over-use of environmental sinks and correcting the over-exploitation of renewable resources. On the other hand an environmentally sustainable EU tax should also limit the depletion of non-renewable resources and enhance the behavioural change towards protection of biodiversity, atmospheric stability and ecosystem functions. The guiding questions for the evaluation of potential candidates for EU taxes from a sustainability perspective are as follows: Does the EU tax affect the emission of air pollutants and greenhouse gases? Does the EU tax affect green innovation? Does the EU tax affect the production and consumption of renewable energy?

The fourth pillar of sustainability, the *cultural/institutional* pillar (Spangenberg, Pfahl and Deller 2002), does not only represent the organisations, but also the system of rules that governs the interaction between the members of society. This pillar can be divided into three parts: institutional orientation (norms, system values), institutional mechanism (procedures, legislative system), and organisations. In order to be institutionally sustainable, an EU tax should be applicable at the EU level, taking into consideration its ability to adapt to the organisational framework of each EU member state and its system of rules. Therefore, as presented in Fig.15, we choose three policy areas for cultural/institutional sustainability as evaluation sub-criteria of potential EU taxes, namely: tax harmonisation, tax non-interference and fair distribution of the financial burden across Member States. With respect to each policy area, in order to evaluate cultural/institutional sustainability of potential EU taxes, the following questions should be addressed: Does the EU tax respect the principle of tax harmonisation? Does the EU tax interfere with national public budgets? Does the EU tax promote a fair distribution of the financial burden among EU Member States? The sub-criterion of tax harmonisation relates to the process of making taxes similar across the EU Member States, by increasing taxes in lower-tax states matching the level of high-tax states. Tax harmonisation is one form of coordination of tax policy at the EU level. According to Bénassy-Quéré, Trannoy and Wolff (2014), tax harmonisation refers to the alignment of tax bases and tax rates across EU Member States. The objective of tax harmonisation is to avoid a “race to the bottom” and tax competition between Member States. Horizontal tax harmonisation refers to equal tax rates applied to the same tax base in each member state in the case of the introduction of a new EU tax. The tax non-interference principle represents the condition that a new EU tax should not affect the stream of revenues to the budgets of EU Member States and their fiscal policy. The indicator of fair distribution refers to the equitable sharing of EU tax burden distribution among EU Member States.

6 Conclusion

The current EU system of own resources is exposed to considerable criticism. Among the deficits addressed most often are its complexity and in-transparency, the decreasing fiscal autonomy for the EU it implies, and that it fuels the juste-retour-debate and thus bears the danger of a sub-optimal level of the EU budget. Departing from these points of critique, the review of the pros and cons of own EU taxes provided in the first part of the paper shows that the fiscal federalism as well as the literature considering pre-federal and political economy considerations can provide some arguments why at least part of EU expenditures should be financed by own EU taxes. However, altogether these arguments put forward in the conventional fiscal federalism and political economy literature do not provide a convincing case for the introduction of own EU taxes.

This paper develops an innovative framework of sustainability-orientation of taxation which rests on the economic, the social, the environmental, and the institutional/cultural pillar of sustainability. Against these objectives several sustainability gaps in taxation in the EU are identified which provide a broad justification for the introduction of EU taxes as alternative own revenue sources for the EU substituting a substantial share of current own resources which contribute not at all to sustainability (of taxation) in the EU. From this perspective, EU taxes are a suitable instrument to reduce existing sustainability gaps in taxation in the EU.

With this innovative sustainability-oriented view at EU taxes, conventional evaluation criteria put forward in the literature analysing potential candidates for own EU taxes need to be re-arranged and complemented by evaluation criteria reflecting the four dimensions of sustainability. Such alternative criteria based on the four dimensions of sustainability are developed in the second part of the paper. These sustainability-oriented evaluation criteria can be used in a next step to evaluate potential candidates for EU taxes. Of course, such an evaluation requires the development of adequate indicators beforehand.

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8 Project information

FairTax

FairTax is a cross-disciplinary four year H2020 EU project aiming to produce recommendations on how fair and sustainable taxation and social policy reforms can increase the economic stability of EU member states, promoting economic equality and security, enhancing coordination and harmonisation of tax, social inclusion, environmental, legitimacy, and compliance measures, support deepening of the European Monetary Union, and expanding the EU's own resource revenue bases. Under the coordination of Umeå University (Sweden), comparative and international policy fiscal experts from eleven universities in six EU countries and three non-EU countries (Brazil, Canada and Norway) contribute to FairTax research.

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