Finanzwissenschaftliches Forschungsinstitut
an der Universität zu Köln

FiFo Institute for Public Economics at the University of Cologne

The Future of EU-Finances

Working Papers for the Brussels Symposium on 14 January 2016

Research project for the

Federal Ministry of Finance, Germany

Edited by

Thiess Buettner
Michael Thöne

Postfach 13 01 36
D-50495 Köln

Wörthstraße 26
D-50668 Köln

Tel: +49 221 – 139751-0
Fax: +49 221 – 139751-11

www.fifo-koeln.de

Cologne 2016

Finanzwissenschaftliches Forschungsinstitut an der Universität zu Köln

FiFo Institute for Public Economics, University of Cologne

Directors

Felix Bierbrauer

Klaus Mackscheidt

Managing Director

Michael Thöne

Mail / Postadresse:
PO Box 13 01 36
D-50495 Köln
Fon: +49 221 – 139751-0
www.fifo-koeln.de

Office / Hausadresse:
Wörthstr. 26
D-50668 Köln
Fax: + 49 221 – 139751-11
info@fifo-koeln.de

Table of Contents

The Future of EU-Finances – Synopsis*

Thiess Buettner and Michael Thöne

In order to initiate academic research on the EU revenue system and to enrich the current political debate about possible reforms, the German Federal Ministry of Finance has sponsored a research project on the future of EU finances. It brought together a group of scholars mainly from an economic but also from a law background and from different European countries who explore both the need and the options for reforms of the EU revenue system from different perspectives. The project resulted in a collection of policy papers on various specific topics that shed light on strengths and weaknesses of the current system of funding the EU. First drafts of the papers were discussed at a workshop that took place in July 2015 in Berlin. In the light of the discussion the papers were revised and reviewed and this volume includes the finalized papers that have been put together for the Brussels symposium on the 'The Future of EU Finances' on 14 January 2016. This synopsis gives an overview about the findings and draws some conclusions with regard to the reform of the EU revenue system.

1. Introduction

After a tedious bargaining process between European Council, European Commission and European Parliament, the key parameters of EU Budget for the next-seven years, the 'multi annual financial framework', have been settled in 2013. Subsequently, the European institutions have initiated a debate about reforming the funding of the European Union in the future. In February 2014 a high-level group on own resources (HLGOR) comprised of nine members appointed by the Parliament, the Commission and the Council has been set up, whose job is to review strengths and limitations of the revenue system and explore alternatives for the future.

The first HLGOR-report issued on 17 December 2014 highlights four general problems associated with the current system, i.e. lack of simplicity, of transparency, of fairness and of democratic accountability. This indicates that the debate does not deal exclusively with the revenue side, but takes a broader perspective. One stance in the debate is, for example, that reforming the EU funding system might also help to redirect the spending priorities on the expenditure side of the budget. Despite a gradual shift of priorities in the current financial framework, still large parts of the European funds are used for transfers and subsidies to specific sectors and/or countries. Critiques of the own resource system argue that a reform of a funding system might help to shift priorities towards providing services with European added value.

* The editors wish to thank Rebecca Fries, Julie Francoise Graf, Benedikt Hämmerl, Bernhard Koldert, Tobias Müller, Anna Rauch, Johanna Richter and Irene Rodger for editorial assistance and translations.

Important new political challenges, such as the EU's policies towards international conflicts and the refugee crisis, indicate that there is much potential for a stronger role of the EU. Reforming the revenue system may be an important step to ensure that the EU is able to meet these demands. However, it must not be overlooked that there are also important political differences between EU member states. This is exemplified, for instance, by the uncertainty regarding the future EU-membership of the United Kingdom. From this perspective, a revenue reform that is just another step towards creating an 'ever closer Union' may not be suited to overcome these challenges.

The papers that came out of the research project basically use three different approaches to discuss the need and the options for reforming the EU revenue system. The first straightforward approach is to assess whether the current system is useful and consistent given the present "integration architecture" of the EU, i.e. the present set of institutions and treaties. A second perspective on the finances of the EU is to explore the extent to which the EU funding system differs from existing federations and to discuss whether this gap should be closed. This approach is useful in particular since the question of whether a stronger central power is advisable and necessary for the further development of the Union is a fundamental issue behind the debate on the own resources system. The third, more practical approach is to consider the options for a radical change that involves the introduction of an EU tax.

The following three sections briefly summarize the papers taking these approaches and discuss their findings before a last section provides some conclusions regarding the reform of the EU-finances.

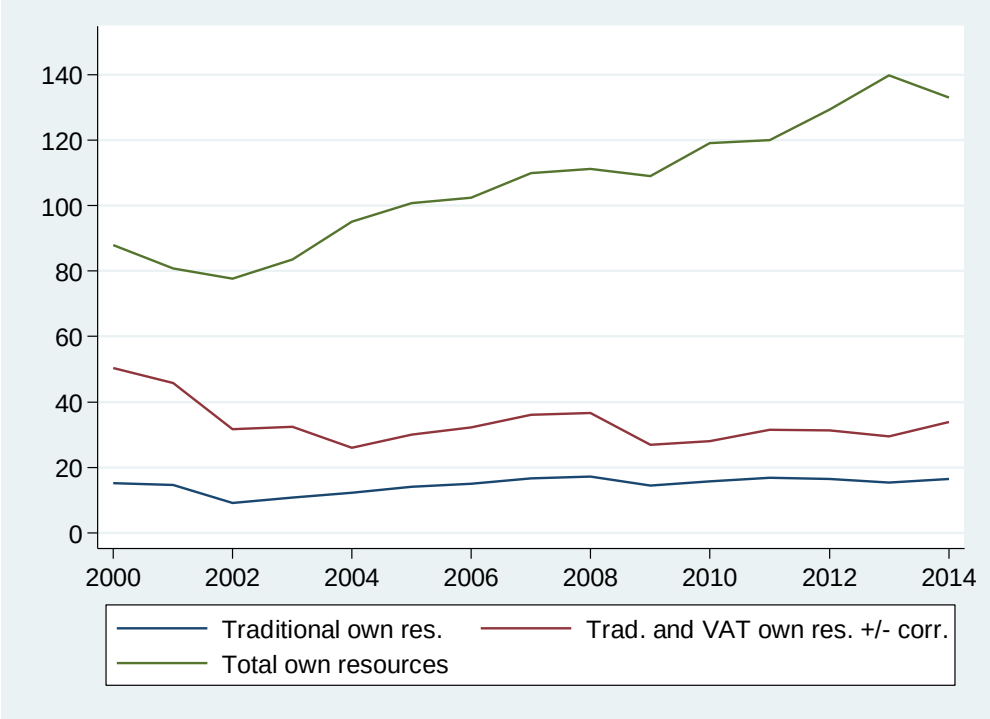
2. Assessing the Current System

Despite frequent criticism, the EU revenue system has continuously been able to generate revenues sufficient to ensure that the EU budget is operated in accordance with the "multiannual financial framework". In 2014 this system generated own revenues of about 133 Billion Euros (see Figure 1).

Over the last decade the funding from so-called "traditional own resources" (customs duties as well as agricultural and sugar levies) has stagnated even in nominal terms, VAT own resources have declined. The nominal increase in the EU budget is due to the strong increase in GNI-contributions.[1] This fourth own resource basically determines contributions by the Member States proportional to the Member States' Gross National Income (GNI).

[1] At the time of its introduction in 1988, this resource was based on gross national product (GNP); from 2002 onwards, the reference to GNP has been replaced by Gross National Income (GNI).

Figure 1: Funding of the EU budget (in Billion EUR)



Source: European Commission and own Calculations

The shift towards GNI-contributions basically reflects two trends, the declining importance of customs duties as well as the increase in the size of the EU budget. The latter factor points to an important characteristic of the EU budget. Unlike the budgeting of national governments, where the effective decision on current expenditures might simply follow the revenue development, the determination EU budget involves a joint decision on spending and revenues. If EU commission and parliament together with the Member States agree on the total budget available for the EU, the agreement also includes the commitment of the Member States to provide sufficient funding. Though this kind of agreement differs in important ways from budgeting at the national level, it seems broadly consistent with the supranational nature of the EU. It should also be noted that this procedure is at least in one respect more consistent with the criteria of simplicity and transparency than a tax-financed budget that is characteristic for national governments: whereas expenditure decisions for tax-financed budgets require revenue forecasts that are associated with substantial uncertainty, revenue uncertainty does not plague the decision about the EU Budget.

As Vilen Lipatov and Alfons Weichenrieder note in chapter two of this volume entitled "**The Subsidiarity Principle as a Guideline for Financing the European Budget**", the funding of the EU budget via GNI-contributions from the Member States is also consistent with the fundamental principles underlying the assignment of responsibilities in the EU. According to the principle of subsidiarity (Article 5 of the TEU), any government task should be assigned to the lowest level of government that can be expected to cope adequately with this responsibility. Following this principle, in economic terms, public policies should be in accordance with the so-called "decentralization theorem:" Policies should be decentralized unless EU action is more effective than actions taken at national, regional or local level. The principle of subsidiarity received rather little attention in the discussion of the revenue side

of the European budget. It has been applied predominantly to discuss the allocation of assignments on the expenditure side between the EU and the Member States. However, the notion that underlies this principle, namely that centralization of a policy may lead to a uniformity that harms the citizens/societies in the associated heterogeneous jurisdictions seems also convincing when the revenue side of the European public sector is considered.

The funding via contributions enables the Member States to decide on their own how the burden of financing the EU is distributed among individual tax payers. There are several reasons why such a differentiation may provide advantages. First of all, Member States' tax systems differ substantially in important respects – reflecting different traditions, institutions etc. There are also different preferences for administrative processes (e.g. high or low tolerance for taxpayer transparency or tax-evasion) and different administrative traditions (centralized versus decentralized tax administration). Moreover, local demand elasticities for goods and leisure may differ, and in different societies different redistributive preferences may exist. From this perspective, the current system of financing the EU budget is consistent with the subsidiarity principle. Of course, Lipatov and Weichenrieder also note that this argument needs to be qualified: If uncoordinated tax policies were associated with major inefficiencies, central collection of taxes to fund the EU could be associated with welfare gains. For example, a low effective rate of corporate taxation may have negative effects on other Member States that lose tax revenue when firms and capital are attracted by the low-tax Member State. But how important is this qualification? If there are spillover effects of a tax, the centralization of this tax – implying a uniform tax base with a common tax schedule and the allocation of the full revenue to the central budget – is just one of several potential measures to respond to these spillovers and to the strategic incentives for national tax policy that arise from them. In many cases, less far-reaching, well-dosed measures such as harmonized lower limits for tax rates may easily suffice to neutralise all relevant spillovers. Moreover, while the economic literature points to important inefficiencies with decentralized taxation in the context of corporate taxation, other taxes that raise much more revenues such as labour income taxes, may need much less coordination in Europe.

The chapter "**Revenue Smoothing by the EU Funding System**" by Thiess Buettner points to a valuable feature of the increasing importance of GNI-contributions in funding the EU budget. Since the burden of financing the EU budget is distributed according to the actual or realized income, the contributions serve as a shock absorber for the budgets of the Member States. The empirical analysis presented in this paper considers the last Multiannual Financial Framework 2007-2013. The results indicate that the current system of funding yields significant smoothing effects of the Member States' revenues net of the funds transferred to the EU. Due to the strong reliance on GNI-contributions the current system reduces the variance in per-capita revenues by about 5%. The theoretical analysis shows that this amount of smoothing is close to the limit that a linear income dependent transfer system could possibly obtain given the size of the EU budget. To provide even stronger smoothing effects on Member States' net-revenues would require replacing the system of income dependent contributions by contributions that depend on some measure of the tax capacity as is practiced in federal countries employing revenue sharing or fiscal equalization while keeping subnational tax autonomy. Applied to the EU, tax capacity would capture the revenues that each of the Member States would collect at some standard level of tax effort. However, in the current setting, where tax law differs substantially among Member States, a proper definition of tax capacity is

plagued with vast difficulties. A precondition for a move to tax-capacity dependent contributions is therefore to harmonize taxation to an extent that makes it possible to really ascertain the tax capacity of the Member States. Thus, leaving aside non-linear systems, without deeper harmonization of tax systems, the current system of EU funding with its emphasis on GNI-contributions is providing almost the maximum possible degree of revenue smoothing.

3. Europe as a Federation

Much of the academic criticism of the EU budget and the way it is financed emphasizes the differences between the EU and federal countries. Whereas in federal countries a central government exists that uses own taxes, the EU Budget is predominantly financed with contributions. As Christos Kotsogiannis notes in the chapter "**European Union and Own Revenue Resources: (Brief) Lessons from Fiscally Decentralized Economies**", even though the EU operates a common market its funding system differs also from common prescriptions in the theory of fiscal federalism which provides the appropriate conceptual approach to analyse public finances in integrated economies. If there are important inefficiencies associated with decentralized taxation, the central government could use own tax instruments to prevent such inefficiencies. This would point indeed to a more active role of the EU in designing revenues than currently observed. However, Kotsogiannis notes that the task to identify appropriate revenue instruments is complicated. Whereas horizontal tax competition is commonly associated with a downward pressure on tax rates resulting in inefficiently low levels of tax effort, the case of *vertical* tax competition is different. Intuitively, if the same tax base is shared by more than one levels of government, the impact of taxation by each level on the revenues of the other will tend to be neglected, resulting in an overuse of the tax. With regard to normative implications, Kotsogiannis emphasizes that an EU own tax should derive from access to the common market. In addition, co-occupation of tax bases should be avoided to minimize efficiency losses associated with vertical tax externalities. From this perspective, the potential introduction of EU taxes in a multilevel system with diversified tax bases which are already intensively used by the Member States and their lower levels might need to actually reconsider the revenue instruments used by the Member States.

Also Massimo Bordignon and Simona Scabrosetti start their consideration in the chapter "**The Political Economy of Financing the EU budget**" with the notion that the EU budget differs fundamentally from the budget of central governments in federations. Only a small fraction of EU expenditures is used to fund European public goods. This state of affairs should be regarded as a consequence of the balance of powers between the Union and the Member States and of the ensuing political economy of the EU budget. The revenue system might be an important determinant of expenditures if it affects the bargaining position of the EU Parliament with respect to the Council in future budget negotiations. According to Bordignon and Scabrosetti even a limited change in the sources for funding the EU budget, moving in the direction of an EU tax paid directly by the citizens to the EU budget, may lead to a dynamic process that strengthens the Union with respect to the Member States. The anticipation of these future political dynamics may be the main reason why some member countries resist the change, while the EU Parliament is pressing for it. However, the authors note that the criticism that is raised against the present system of funding of the EU budget makes little sense if one takes the view that the EU is a supranational agency cooperating in providing some common goods and

bargaining on some side-payments that ensure implementation of EU-wide policies by compensating member states. In this case, triggering a dynamic political process that ultimately transforms the EU more to a federation may be the wrong idea. However, the authors argue that a move in this direction could be helpful as a catalyst of further changes that help to overcome the legitimacy crisis that the EU is facing currently. Yet, the authors also note that given the present low level of consensus towards the European project, it might be risky to pursue a reform that makes European citizens more aware of the cost of the EU budget by financing it with an EU tax.

A contrasting view on the role of the EU funding system in shaping the outcome of the EU budget is provided by Friedrich Heinemann in the chapter "**Strategies for a European EU Budget**". Heinemann shares the critical view by Bordignon and Scabrosetti on the Union's spending priorities. He also notes that an EU budget that follows the prescriptions from fiscal federalism would result in a rather different structure: From a normative perspective, a much lower importance should be assigned to today's big resource absorbers Cohesion and Common Agricultural Policies. These corrections would free the funds needed to foster policies with more obvious properties of European public goods (EPG), e.g. defence, foreign policy, research and innovation. However, Heinemann strongly argues against the view that a reform of the funding system would steer the incentives of budgetary decision makers in a desirable direction. Promising reforms would need to directly address the disincentives for policy makers that result in a spending bias towards public goods of local rather than European character. Thus, Heinemann maintains that reforms are needed which increase the relative attractiveness for the policy makers of European public goods over projects with a strong local impact but little European value added. For this purpose, he proposes the use of strategies which directly make the benefits of European public goods (EPG) more visible, increase the costs of local goods relative to EPG or strengthen those actors in the budgetary process who have a less parochial perspective.

4. EU Taxes

A final set of papers discusses the options to implement an EU tax and the challenges to be faced in this endeavour. In the chapter "**Transferring Taxes to the Union: The Case of European Road Transport Fuel Taxes**" Michael Thöne considers employing an existing tax as an EU tax. Since the only taxes for the EU level foreseen by the Treaties are "provisions primarily of a fiscal nature" in environmental policy (Art 192 TFEU), the paper discusses the effects of a European environmental tax focusing on transport sector excises. The focus is on the transfer and the subsequent reform of the excise duties on gasoline and diesel. The current situation is characterized with vastly differing tax rates on gasoline and diesel due to harmonization failure. As this gives rise to distortions in fuel consumption and to problems of cross-border shopping there are important potential advantages of centralizing these taxes on the supranational level. Yet the hurdles to be taken are high. Effective unanimity must be reached because each single Member State must forego the right to tax transport fuels. Thus, identifying taxes whose transfer to the central level may improve welfare and efficiency is a necessary, but not a sufficient condition for a successful revenue reform. Adequate compensation for the transfer of the tax, for instance by reductions of customary own resources, may also be required in order to reimburse the Member States for the tax revenues foregone. Using data for current revenues across EU Member States the paper shows that the transfer of fuel taxes to the EU has

some counterintuitive effects. The large heterogeneity of taxes may justify the centralization of fuel taxes economically, but it also leads to a setting where difficult asymmetric compensation would be required: The taxes most attractive for centralization are particularly difficult to transfer because the necessary compensations regularly exceed the tax revenue.

The chapter "**Light for Europe - An Electricity Tax for the European Union Budget**" by Kai Konrad explores the case of an electricity tax as a new tax. More specifically, the chapter discusses options how this tax could be implemented, and considers the revenue consequences. The proposed tax is fairly simple: a unit tax on the use of electricity by all consumers, including households, small businesses, companies and the public sector. To arrive at the amount needed to close the gap between current budget size and the amount of import taxes and duties, a tax of approximately 3-4 cent per KWh of electricity consumption would be required. Konrad conducts a first assessment of the electricity tax following the criteria put forward by the HLGOR. A good own revenue source should be simple, transparent, and fair as well as strengthen democratic accountability. Konrad compares the electricity tax with a financial transaction tax (FTT) levied on the value of financial assets traded or of a subset of financial transactions. The results of the criteria-based appraisal turn out to be quite strong: The financial transaction tax would not fulfil any of the criteria suggested by the HLGOR. An EU tax on electricity, in contrast, meets these criteria quite closely: it is in conformity with the ability-to-pay-principle, it has reasonable efficiency properties, the tax revenue is fairly predictable, and is likely to have a low volatility. Moreover, the tax is a transparent tax for the tax payers, and the set of tax payers mostly overlaps with the set of beneficiaries of EU expenditures and with the set of voters in the European Union. These properties of transparency and accountability make such a levy a particularly attractive candidate for an EU tax.

The final chapter by Christian Waldhoff "**Legal Restrictions and Possibilities for greater Revenue Autonomy of the EU**" addresses the options to implement an EU Tax given the legal constraints. From a legal point of view, this problem has to be examined on multiple levels: Which measures of promoting revenue autonomy are feasible without changing primary Union law (i.e. TEU and TFEU)? If changing primary Union law is discussed, this raises (from a German perspective at least) the follow-up question which limitations the Member States' constitutional orders draw to such a redesign of European law. Waldhoff finds that own EU taxes with full legislative and revenue authority of the Union beyond customs and the taxation of EU officials are only possible within narrow limits under the current Treaties: particularly as Pigouvian or steering taxes that are not primarily fiscally motivated, provided that the respective policy issue permits this course of action. Hence, these taxes must not be introduced with the main motivation of funding the EU's budget. A new own resources decision could also be used to introduce EU taxes. However, these taxes would not substantially improve the revenue autonomy of the Union, as they would stay within the framework and system of the own resources decisions, which require unanimous adoption by all Member States. From a German perspective, there are, however, constitutional limits to own rights to tax that stem from the dual legitimation structure of the Union and that are spelled out in particular in the jurisprudence of the German Federal Constitutional Court on this topic.

5. Conclusions

The second chapter of the 2014 report of the high-level group on own resources (HLGOR) is entitled "*What's wrong with the present system?*'', only to continue: "Some argue that there is nothing wrong with the present system. And the discussions […] so far have confirmed that there are many elements that work well in the present revenue system." That is true. Still, many elements of the current own resources systems are clearly far from perfect. The HLGOR report unfolds varied criticism of the current system, mainly brought forward by those most directly affected by the shortcomings – the European Parliament, the Commission and the European Court of Auditors.

Perceived problems relate to very practical issues as well as to pretty fundamental questions. The challenging issues of everyday budgeting are mainly the complexity of the statistical VAT-based resource and an increased annuality-problem in the EU-Budget caused by swelling amounts of 'restes à liquider' (RAL). On the other hand, criticism of the current system touches on fundamental issues of fair burden sharing (mainly with a view to national rebates), on discontent with the principle of unanimity in major fiscal matters, and on perceived differences in the public 'visibility' of the costs and benefits of EU activities. Of these problems, the HLGOR – according to its mandate – focuses on what it considers as the most important shortcomings or the present system': the lack of simplicity, of transparency, of fairness and of democratic accountability.

It is interesting to note, however, that key criteria which are commonly used to discuss the funding of the public sector such as allocative efficiency and appropriate redistribution among tax payers have not been identified as key problems in the current EU revenue system. This omission in a way reflects the fact that in the current institutional setting the Member States are responsible for designing their tax systems in a way that meets allocative and distributive objectives. As noted by Lipatov and Weichenrieder in this volume this assignment is consistent with the subsidiarity principle. As institutions, preferences and economic conditions differ to large extent among the Member States there are certainly good reasons to argue that the national level is best suited to ensure that these allocative and distributional objectives of the Member States are met. One might add that the Member States' own funding should also adhere to fundamental criteria such as simplicity, transparency, fairness and accountability.

This suggests that a debate focusing on the EU finance system from the perspective the European level *alone* is necessarily incomplete. The European Union is a multilevel system with up to distinct four governmental layers: Local communities, regions (provinces or states), nations, and finally, the European Union. It is already a difficult task to design a finance system for only *one* level that complies more or less with all those criteria. With a four-level system as heterogeneous as the European Union with its 28 reasonably dissimilar Member States and with many cooperative arrangements within and across the levels, this task seems virtually insurmountable. As a consequence, any revenue/budgeting structure of a multilevel governmental system will necessarily give the impression of a 'poor compromise' when measured against the above mentioned criteria. This statement is mirrored by the commonplace observation that the lamentation about financing systems not living up to all desirable criteria certainly is not restricted to the European level. That lament is ubiquitous on all levels, and – to a certain degree – unavoidable.

Seen from this overarching perspective, the current own resources system with its strong and increasing reliance on GNI-contributions may looks less problematic than from an one-dimensional 'EU-alone'-perspective. The contributions of the Member States are readily observed in the current system and the most important revenue source, the GNI contributions, is associated with what is probably the most common indicator of international differences in incomes. From this perspective, it seems overstretched to argue that the current system fully fails to adhere to the principles of simplicity and fairness. Even with regard to transparency the EU-finances have some attractive features: National budgets financed through taxes often determine expenditures that exceed actual revenues due to overoptimistic revenue forecasts. EU budgeting, in contrast does not operate under revenue uncertainty as revenues are determined simultaneously with expenditures. Also the multiannual budget period has some virtues as it requires to taking medium-term perspective on EU programs in the budgeting process. One should add that even from an allocative perspective the heavy reliance on GNI contributions seems reasonable. Since contributions vary with the economic performance of Member States the current system serves as an automatic stabilizer of Member States' budgets. Given the common criticism of the European Monetary Union that there is insufficient stabilization of Member States' budgets, this property of the EU funding system seems as an important strength of the current system.

This does not mean that the current system is perfect in all details and dimensions. And certainly, it does not mean, that the current multilevel finance structure with the EU own resources system 'on top' is to be regarded as the unchangeable '*meilleur des mondes possibles'*. We could well imagine better resource systems for multilevel Europe. But the room for improvement is much smaller when we concede that all levels for their own, and that the system as a whole must reflect an acceptable compromise of the quality criteria. This is especially true if one takes into account the limits of the present "integration architecture" of the EU where the Member States have an important position in deciding about the EU funding. This is documented also by the failures of previous reform initiatives to improve the system *for* the European Union. These 'non-results' may be simply traced back to the effective distribution of power within the Union with a weak centre and strong Member States. Strong national governments and the Council did not want reforms; so they didn't happen.

Clearly, the political debate on own tax resources is motivated by the EU's struggle for *additional* funds. In 2012, the parliament had approved by a large majority a 'no budget reform, no deal'-position which explicitly demanded new own resources to better match the EU's 2020 strategic goals. The current institutionalisation of the reform debate through the 'high-level group on own resources' (HLGOR) can be considered a concession made to the European Parliament and to the Commission for their acceptance of the Multiannual Financial Framework 2014-2020 in 2013.

The discontent with the funds available for the EU may explain why much of the debate on the reform of EU finances takes a more fundamental perspective on the own resources system. As noted in various papers in this volume, the current EU funding system differs greatly from the funding of the central government in federal countries which also put much emphasis on decentralization. However, a move of the EU more towards a federation would imply a substantial shift in the current balance of power between the centre of the Union and the Member States. This suggests that the aim of a relative shift of power between the Member States and the European centre may be the main moti-

vation behind the whole discussion on the reform of the own resources system. In a way, disputes over funds are the classic proxy for disputes over power. The question of whether a potential shift of power goes along with a welfare improvement easily becomes a secondary issue.

But, of course, there are good reasons to argue that the future development of the multilevel European Union may require a rebalancing of power between the different levels, namely between the Member States and the Council on the one side and the European Parliament and the Commission on the other side. If this fundamental debate would lead to the conclusion that Europe should develop into a more federal entity with a stronger centre at the heart of the Union, a shift of power away from the national level would be one of the necessary first steps. However, this would require another Treaty reform of the EU Treaties that is not only politically cumbersome but also difficult given the constitutional requirements that exist in some of the member states.

The discussion of a potential reform of the own resources system of the EU does not offer an ideal setting for a discussion of these fundamental issues. As long as the future of own resources is discussed under premises fully or partly inappropriate, multiple misapprehensions, meagre results and ubiquitous frustration are bound to ensue. If we strive to discuss all dimensions of the reforms we have touched upon in their respective *proper* context – i.e. with criteria that can be reasonably employed in this dimension – the issues to be dealt with should be reorganised in three dimensions:

1. The design of the revenue system within the *given* political and constitutional framework can and should be addressed under the qualification that the implied requirements and principles are met. Without considering EU taxes or new European tasks, this first element of the reform debate should concentrate on solving the practical budgeting problems arising, for example, from the VAT own resources and from the increasing amounts of 'restes à liquider' (RAL). With these practical problems addressed, the GNI contributions may turn out to be a reasonable and almost ideal revenue source.

2. Raising the transparency of European policies and improving the democratic accountability involves first of all reconsidering what the European Union *does*, not how it is funded. So the second step of a reform debate on the European budget system would need to addresses more fundamental questions such as: What are the future tasks of the Union? What are the future tasks of the Member States and their regional and local subdivisions? Does a reallocation of tasks require a shift of power to the central level? This is of course, not a one-way road. It may well be that the provision of more European public goods by the Union is useful. But given the frequent criticism of a lack of European added value in the EU budget also the devolution of current EU policies might be necessary part of a reform.

3. The discussion of new taxes for the European Union or of the transfer of existing taxes to the EU is a natural *follow-up* to the discussion of the assignment of tasks to the central level, not a forerunner. In our view, the hope to trigger a process that leads to more transparency, democratic accountability or fairness by a reform of the revenue system rather than by reconsidering the assignment of responsibilities rests on questionable assumptions. Moreover, even if the funding of the EU is discussed as a last step in a reform process, the inherent limitations of the multilevel financing system must be taken into account. So, even in a European Union tailored to providing

true European public goods, conventional GNI based own resources may still appear as a strong contender for the position of 'best *realistic* revenue source'.

These different dimensions suggest that a successful conclusion of the debate on the reform of the EU finances is most likely if the focus is on the first dimension that takes the institutional setting as given. Though improving the transparency of European policies and the democratic accountability should be key issues in any reform of EU institutions, from our reading of the different contributions in this volume it seems rather difficult to reach those goals simply by a reform the revenue system. While not all of the included scholars would necessarily agree on this point, we think that the analysis shows that a broader perspective needs to be taken that starts with the assignment of responsibilities in the EU rather than with the revenue system to design a better union. A successful conclusion of the current reform debate on the system of EU own resources might be a signal that EU reforms are not just reflecting the political pressures towards creating an ever closer union but rather genuine attempts to improve the ability of the European Union to reorganize in the face of the new and existing challenges.

The Subsidiarity Principle as a Guideline for Financing the European Budget

Vilen Lipatov[1]

and

Alfons Weichenrieder[2]

Abstract

From an economic point of view, the principle of subsidiarity may be filled with economic substance by building on Oates' decentralization theorem and the theory of fiscal federalism. So far, the decentralization theorem has been predominantly applied to discuss the allocation of assignments on the expenditure side of the budget. However, the notion that underlies the theorem, namely that centralization of a policy leads to excess uniformity, seems even more convincing when taxes are considered rather than expenditures. The paper discusses the implications of an application of a decentralization theorem of taxation for the financing of the EU budget. It also critically discusses the frequent claim that the introduction of a new EU own resource or a genuine EU tax could change the composition of EU expenditures.

[1] Compass Lexecon, Brussels.

[2] Goethe University Frankfurt, Vienna University of Economics and CESifo, Address: Goethe University Frankfurt, Faculty of Economics and Business Administration, 60323 Frankfurt, Germany. E-mail: a.weichenrieder@em.uni-frankfurt.de

Table of Contents

1 Introduction

The subsidiarity principle generally advises to allocate a certain task or responsibility to the lowest level of government that can be expected to cope adequately with the task or responsibility. On a formal level, the principle of subsidiarity is anchored in the legal framework of the European Union. It is part of the preamble of the Treaty on European Union. More importantly, Article 5 TEU provides that the use of Union competences is governed by the principal of subsidiarity and proportionality. In this context, the principle is meant to restrict the Union in areas where both the European Union and the member states have legislative power. The principle hence may be a procedural safeguard, although with an arguable bite.[4] In yet another context, when it comes to the question of which tasks and competences should be handed to the central level in the future, the subsidiarity principle may also give guidance. Here, questions may also arise about possible future changes of the treaties, not only the policymaking within the inherited set.

As with other levels of governmental bodies, the activities of the European Union affect the expenditure side of the budget and the revenue side. This said, the subsidiarity principle received rather little attention in the discussion of the revenue side of the European budget. Partly, the attention may have been low because, until recently, the revision of the own resources system was largely outside the political agenda. This has changed somewhat. While the Treaty of Lisbon certainly gives no strict mandate to revise the revenue side, it spelled out that the Union may establish new categories of own resources or abolish an existing category (Article 311 TFEU). Since then, prominent figures as Martin Schulz have suggested that a change was desirable.[5]

A short reference to the principle has been made, though, in the first assessment report of the High Level Group on Own Resources (2014, p. 31):

> *The subsidiarity principle and fiscal sovereignty of member states are criteria inherently linked with decision-making at EU level and the split of competences between the EU and national levels. Subsidiarity is a general principle of European Union law and must be respected for any legislative proposal made in an area which is not of exclusive competence of the Union. In such case, the Union acts only if the results of an action can be better achieved at EU level, which requires a thorough examination of the foreseeable impacts of a proposal.*

As this quote makes clear, stating that it is better to allocate a task to the central level if it is better achieved at this central level is tautological. What is more important is that the subsidiary principle has been laid down to put the burden of proof on those who argue in favour of centralization (Tabellini 2003). In addition, somewhat in line with the above quote, it has been argued that the subsidiarity principle is meaningless (e.g., Sinn 1994) unless we clearly spell out criteria that give guidance as to whether a certain level of government can efficiently take on a specific task.

[4] Cf. Groussot and Bogojevic (2014).

[5] According to a European Parliament Press Release of 25 February 2014, he called the current system “outdated” and “overly complicated”.

Possible guidance is provided by the well-established theory of fiscal federalism as argued by Sinn (1994) and Tabellini (2003), among others. In this fiscal federalism literature, several authors have emphasized that in the absence of spillover effects and the lack of economies of scale, the provision of common goods and public services should be delegated to the lowest level of government available. This result is known as Oates' *decentralization theorem* (Oates 1972), although other authors have stressed the same point.[6] The theorem is based on the plausible, yet not uncontested assumption that service levels will have to be similar within jurisdictions. In this case, divergent service levels that are needed to cater regionally diverging tastes preclude allocation to an upper level of government, as this would unnecessarily reduce adjustment to local tastes.

So far, the decentralization theorem has been predominantly applied to discuss the allocation of assignments on the expenditure side of the budget.[7] However, the notion that underlies the theorem, namely that centralization of a policy leads to its uniformity, seems even much more convincing when taxes are considered rather than expenditures. For example, when Germany introduced the solidarity surcharge to finance the accession of East Germany in the 1990s, the tax was introduced in the West as well as in the East. Tresch (2002, p. 839) emphasizes the role of the U.S. constitution in preventing a differentiation of federal taxes across U.S. states. While intra-jurisdictional differentiation in taxes is rare, admittedly some examples exist if there are regional development goals. In West-Germany, before German unification, more generous allowances for investment near the border to East-Germany were available and Sweden had introduced a regionally differentiated energy tax.[8] Yet, differences that are not directly related to those regional development goals are rare and may be difficult to defend given constitutional restrictions. While an explicit principle of equality is missing in the EU (Wouters 2001), the prohibition of discrimination should be most relevant for speaking against differentiation of a possible European-wide tax, whether it should be a differentiation of a specific tax across member states or the use of completely diverging taxes in different parts of the Union.

While strong legal restrictions prevent the regional differentiation of taxes within a jurisdiction, there are several reasons why such a differentiation may provide advantages.

A first set of reasons may derive from different preferences for bureaucratic processes. For some countries, some taxes may be considered a stronger intrusion into privacy than other taxes. For example, the introduction of the window tax in Britain, a former property tax based on the number of windows used in the 18th and 19th century, has been explained by the English preference for privacy. Unlike the previous hearth tax or an alternative income tax, the window tax did not require a huge amount of intrusion. Conversely, the tolerance for taxpayer transparency is high in Nordic countries where detailed information on individual income tax payments is sometimes put online.

Even without different preferences, there may be comparative advantages for different taxes due to different bureaucratic traditions. For example, within the EU some countries have a tax administra-

[6] Cf. Barzel (1969) and Tullock (1969).

[7] An exception is the short reference in McLure and Martinez-Vazquez (2004).

[8] Cf. European Commission (2006).

tion that is centralized. Some countries have a decentralized system with independent sub federal units, which may create disadvantages for taxes particularly susceptible to fraud.[9]

A regional differentiation of taxes may also be worthwhile since local demand elasticities for goods and leisure may differ. Those differences suggest that a tax that is optimal for one region may not be optimal for another as it may produce a higher excess burden of taxation there.

Federal taxation with uniform nominal tax schemes effectively constitutes a differentiated, yet unintended real taxation if the price level differs regionally (Albouy 2009). To correct this unintended differentiation, explicit differential taxation is needed in order to minimize distortions.

Yet another reason for optimal differences in regional taxes are different redistributive preferences of different societies. Arguably, attempts to push the redistribution in the UK to the level of that in Sweden would result in social unrests. Conversely, it may be a political suicide for the Swedish government to propose Bulgarian levels of social security for its citizens.

Below, we will not explicitly deal with the different possible sources of heterogeneity of tastes, but will model it in a rather abstract way. Yet, the above discussion should help to clarify that those differences in taste may well exist. In addition to the work on the decentralization theorem, a part of the literature on the spillover effects of taxation is related to the present paper. An established argument in the literature is to assign benefit taxes and taxes on immobile tax bases to lower-level governments and to reserve the more mobile tax bases to the central level to avoid fiscal externalities that may occur if lower-tier governments are using mobile tax bases (Musgrave 1983; Oates 1999). An extensive taxonomy of possible spillover effects that may result from taxation of mobile tax bases by subnational governments has been provided by Gordon (1983). Further related contributions include Inman and Rubinfeld (1996) and Goodspeed (2000).

The usual fiscal federalism framework, however, is somewhat different from the present European discussion. While a large amount of literature in fiscal federalism is concerned about financing the sub-central provision of public goods, the discussion below in sections 2 and 3 is about financing the central budget by either a centralized tax or by regional contributions levied by regional taxes.

After this discussion, section 4 proceeds by highlighting the additional incentive problems for national governments when a genuine EU tax has to be raised locally and forwarded to the EU. Section 5 of this paper contributes to the discussion about the structure of EU expenditures. Indeed, an important motivation behind the current discussion of an alternative financing of the EU budget is the concern about the structure of the EU expenditures that may have too little emphasis on genuine European public goods (European Commission, 2010). To what extent does the goal of a larger fraction of EU expenditures with a genuine European value add a convincing argument for an EU tax? As our discussion here suggests, rather than a new revenue source, more pronounced rebates and a higher national co-financing of those EU expenditures that directly benefit particular member states seem to be the correct response. Section 6 summarizes and concludes the paper.

[9] E.g., VAT tax fraud may be a particular large problem for decentralized tax authorities, as the German. See Präsident des Bundesrechnungshofes als Bundesbeauftragter für Wirtschaftlichkeit in der Verwaltung (2006, p. 119).

2 Decentralizing a central revenue requirement

A crucial question that arises when evaluating the subsidiarity principle for the revenue side of the budget is whether the fiscal decentralization theorem can be taken as an economic interpretation of the subsidiarity principle just like it was done on the expenditure side of the budget. We start the discussion by looking at the case where an exogenously given amount of central (union) expenditure needs to be financed by either a centralized or decentralized tax system to comply with the public budget constraint. We introduce an abstract notation to talk about different tax choices that jurisdictions may make. For a jurisdiction *m*, we define the combination of a specific tax base n_m combined with a set of ultimate individual tax contributions or payments $\{C_{j,m}\}$ as a tax instrument. The choice of n_m does not necessarily define the individual payments as different degrees of progressivity and various exemptions may be chosen for a given n_m. Depending on the tax base, say income or capital, a certain individual contribution may have a different implication on the individual utility and this connection between tax instruments and utility may differ between regions. This is owed to the various reasons we discussed in the introduction.

To structure the discussion, we will rely on a set of initial assumptions and discuss possible implications for relaxing these.[10]

Assumption 1: Exogenous revenue requirement G that is spent on a union wide good.

Assumption 2: Uniform tax policy at the decision level. Assume there are N possible tax instruments that can be used. Public policy has to select at most one of these at the relevant decision level. The decision level may be the central level or the individual jurisdiction.

Assumption 3: No spillover. Utility depends on taxes of an individual's own jurisdiction only. For an individual j in jurisdiction m this implies that the utility depends only on her contribution, the chosen tax instrument and the amount of union wide public good, G: $u_{jm} = u_{jm}(C_{jm}, G, n_m)$.

Assumption 4: Non-paternalistic union. Central welfare Ω is an increasing function of local welfare(s) W_m.

Assumption 1 is reflecting the special situation in the European setting where the current discussion is about financing a central budget through centralized or decentralized taxes. Assumption 2 introduces the tax uniformity discussed above. The assumption may appear overly restrictive as it restricts the selection to one tax instrument, but it is easy to extend to cases where a tax instrument is a combination of single tax instruments. For example, a tax instrument n_m may be a combination of two underlying sub-instruments $n_m^1, \{C_{jm}^1\}$ and $n_m^2, \{C_{jm}^2\}$. What is critical is that a given tax mix must be the same across the union if imposed centrally, as opposed to different mixes chosen across regions if taxation decisions are decentralized. Assumption 3 is preserved from the original Oates' decentralization theorem. Assumption 4 is meant to avoid a situation in which centralization tends to produce inconsistent policies automatically.

[10] See also Lipatov and Weichenrieder (2015).

In agreement with these four assumptions, as well as the requirement that the sum of all contributions must be equal to G, one can easily show that decentralization is always weakly preferable to a centralized solution (see Lipatov and Weichenrieder 2015). This is a simple extension of the decentralization theorem to taxes. The intuition is that for any overall contribution that the citizens of a jurisdiction pay under a centralization, this could be replicated by a decentralized solution. At the same time, each jurisdiction has the option to improve on this by either choosing a different tax base or the same tax base but a different set of individual contributions $\{C_{j,m}\}$. For example, implying possibly a different progressivity, holding constant aggregate contributions by this country .

Obviously, a similar argument can be made for arbitrary amounts of total funding requirements. Splitting up a total amount of spending requirement at the central jurisdiction to regional jurisdictions is (weakly) better than prescribing how jurisdictions have to raise these amounts.

The current system of financing the European Union is quite similar to the system that has been sketched above. Basically, despite some confounding exceptions,[11] the national contributions are related to the GNI of countries and it is left to member countries how they structure their taxes to finance their GNI related contributions. However, there are some EU wide constraints on national tax legislation that derive from the non-discrimination principle, the fundamental economic freedoms and the directives on direct taxation. These constraints may be explained by spillover effects of taxation, which will be discussed in the connection with the centralization-decentralization question in the next section.

3 Decentralizing the revenue requirement with tax spillovers

The absence of spillover effects of taxes may of course be crucial. Once the tax policy of one jurisdiction affects the utility in other jurisdictions, there may be scope for outperforming the decentralized solution. However, not any type of externality destroys the result in the above section.

For simplicity, consider again the case where the total expenditures *G* are fixed and therefore *G* can be dropped from the utility function maximization. We may distinguish between two forms in which taxation may produce spillover effects.

Case A: Assume $u_{jm} = u_{jm}(C_{jm}, C_{-m}, n_m)$, where C_{-m} stands for the aggregate contributions (tax revenues) in the other jurisdiction(s).

Spillover effects in this case do depend on the overall taxes that any other jurisdiction –m raises, but not on the exact tax instrument or the distribution of tax contributions across individuals that this jurisdiction –m implements. In this case, the decentralized solution in which the decentralized aggregate contributions are set on a central level and the individual jurisdictions are free to decide on the micro level how to raise this contribution, is still weakly better than a centralized solution where the additional uniformity requirement is imposed on the jurisdictions.[12] By setting the national contribu-

[11] To the extent that the confounding exceptions are undesired, they could be abolished without ending the decentralization of taxation.

[12] Again, refer to Lipatov and Weichenrieder (2015) for a formal proof.

tions ($C'_m s$), the central government, which, according to Assumption 4, makes its decisions on the base of local welfares, can internalize the spillovers, while the freedom of the individual governments to choose the instrument maximizes local welfare $W_m = \sum_i u_{jm}$. This together maximizes overall welfare.

Note that in Case A the method of raising the revenue C_{-m} is irrelevant. That is the utility u_{jm}does not directly depend on n_{-m}, the tax base used in the member state *–m*.

Case B: Assume $u_{jm} = u_{jm}(C_{jm}, C_{-m}, b(n_m, n_{-m}))$.

Spillover effects in this case do not only depend on the overall taxes in the other jurisdictions *–m*, but also on the exact tax bases that are used in the respective countries. It may be, for example, that the use of a corporate tax in the other country may have different spillover effects depending on my jurisdiction using a corporate tax as well or some other source. In this case, limiting the choice of the member states to the set of tax bases that have least interstate spillovers would minimize the negative effects of decentralization. This said, as long as it is the total tax revenue and not the distribution of tax burden across individuals that determines the spillover effects, there is a case for decentralization to avoid unnecessary conformity.

Only in cases where differences in spillover effects are not only dependent on a country's tax base and the amount of total revenues collected, there is a potential efficiency case for introducing a single tax, i.e., harmonizing the set of $\{C_{j,m}\}$ as well. In this case, we need to trade off the possible efficiency gains from reducing distortions from spillovers with possible efficiency losses deriving from uniformity of taxes.

Note that spillover effects may also be taken into account by harmonizing tax bases and tax rates without revenue sharing. The next section lays out an argument why this may have advantages over revenue sharing if tax administration stays decentralized.

4 Implications of decentralized revenue collection

As mentioned in the introduction, the mere possibility of benefits arising from a centralized policy is not sufficient to comply with the requirement of the subsidiarity principle. The principle puts the burden of proof on those who argue in favour of centralization. In addition, centralization may come with other problems absent in decentralized systems of taxation. A possible reason for those additional problems is that the central level may not have the administrative means of tax collection.

Indeed, an equivalent of the U.S. Internal Revenue Service for the EU is out of the question for a long time to come. Yet, local tax administration may create a possible tension between centralized tax policy and decentralized collection. While the centralization of taxes may internalize regional spillover effects of taxation, new spillover effects may be created if the tax authorities continue to be part of local governments. Decentralized systems as modelled above imply that a centrally set revenue requirement is handed down to members of the union and it is left to these members to decide how the taxes are raised. In reality, this is the case for the GNI-based own resource of the EU. Accordingly,

regional laxness in raising tax revenues does not exempt a country from contributing to the union budget. Conversely, in a central system, the formal harmonization of tax bases and tax schedules means that a reduction in the effort exerted by national tax authorities reduces the common own resources while saving national cost of tax administration and national taxpayer money.

This is a well-known issue in federal structure but to our knowledge, it has not yet received attention when discussing the possibility of new own resources according to Article 311 FTEU. This is surprising, as tariff revenues as part of the traditional own resource create an example where concerns about the effort cost of tax authorities are virulent and has led to the decision to leave 20 percent (previously 25 percent) of revenues for the national budget. Since the cost of collecting taxes and customs duties is often lower than 3 percent in developed countries,[13] these high numbers can be better explained by the fear of incentive effects than by being the correct remuneration of actual cost.

Indeed, empirical research suggests that jurisdictions that are required to cede a huge part of their tax revenues to upper tier levels are reacting to these incentives. An example where this has been studied (Baretti et al. 2002) is Germany where the individual states are bearing the cost of tax administration, but the state revenues are very inelastic towards additional tax revenues. The reason is that the fiscal federalism scheme involves high implicit marginal tax rates on revenues of the states, with some differences depending on size. Larger states in effect keep parts of the revenues and Baretti et al. (2002) have indeed shown that larger states and states that may keep a large share of their revenues also cash in larger tax revenues after controlling for other factors. As the data used covers a period in which German states had no control over tax rates, the interpretation is that the effect is running via an increase in tax authorities' laxity. A more recent paper on Germany (Bönke et al. 2013) confirms the empirical relevance of the incentive effects on states.

The empirical evidence on the incentive effects with locally raised taxes that have to be forwarded to an upper level is discomforting. When translated to the European setting, it means that the efficiency of a national tax administration may become a general concern for other member states as a country that drags its feet in tax collection can expect that part of the budgetary cost can be shifted. At a minimum, just as in the case of customs duties, the introduction of supra-national tax may have to be combined with a sizeable allowance for a fraction of revenues to be kept by the member state who bears the effort cost of tax collection and tax fraud detection.

The incentive to exert sufficient effort in tax collection could depend, however, on whether a new own resource will lead to a one to one reduction of the GNI-based own resource. Such a move has been suggested by the European Commission (2010) and has been emphasized by the High Level Group on Own Resources (2014). Note, however, that a compensating reduction of the GNI own resource can be achieved in two ways.

First, the revenues of the new own resource may reduce overall GNI resources. This is the system currently used for tariff revenues. French GNI related contributions, for example, are reduced in the

[13] See, e.g., the OECD tax administration database (http://www.oecd.org/site/ctpfta/taxadministrationdatabase.htm).

same way, irrespective of whether some additional tariff revenue is coming from France or from Austria. In such a system, the detrimental incentive effects when levying the new own resources are virtually the same as in the above discussion: the fruits of any additional effort in tax collection are socialized among member states.

In an alternative scenario, additional revenues are only reducing the GNI-related contributions of the country that collected these additional revenues. This obviously requires that the localization of the actual tax burden is possible with adequate certainty.[14] In such a case, the introduction of a new own resource is not connected to detrimental incentive effects in tax collection and administration as there is no socialization of the additional revenues. When the individual GNI-based resource is reduced on a one-to-one basis, a member state can effectively keep the additional revenue from any increased tax administration effort exerted in collection of the new own resource.

In both cases, the introduction of a new own-resource is not very convincing as it crowds out national contributions that have been shown to be preferential under a wide set of situations in sections 2 and 3.

5 The recent critique of the GNI own resource

The current system of own resources is subject to intensive critique.[15] As mentioned in the introduction, the President of the EU Parliament has recently called it outdated and overly complex. Others called it opaque and criticized the rate reductions for several countries, including the UK. As the redistributive consequences of discounts could in principle be easily fixed within the existing system, other issues may be more interesting from a scientific perspective. In particular, the current system is sometimes held responsible for impeding the financing of projects with a European value added since it fostered thinking in national net-contributions ("Juste Retour").[16]

At the same time, emphasis is put on the intention to change the structure of own resources, but not the overall revenues flowing into the European budget (European Commission 2010). The High Level Group on Own Resources (2014, p. 17) puts it as follows: "The Commission […] clearly asserted that the revenue stemming from a new own resource, or a revised one, would be fully compensated by a decrease of the GNI-based resource."

Yet if the promise of a constant overall budget is taken seriously, then a better funding of European projects with a real European value added requires that funds are directed away from projects with a low European value added. In other words, we are required to expect that a change of the structure of the financial resources of the EU budget has repercussions on the structure of EU expenditures,

[14] This may be particularly difficult with a financial transaction tax where transactions that benefit clients in various member countries but are taxed depending on the locations the financial institutions working on their behalf.

[15] A long list of ad hoc allegations found in the debate is collected in High Level Group on Own Resources (2014).

[16] The reliance on the GNI-based own resource, according to one view, creates a situation where the financing of the EU is detached from citizens. Another complaint is that the EU Parliament played a too small role in the set-up of the own-resource decision. A change of this required a revision of Article 311 TFEU. Another impediment may be the violation of proportionality in representation in the Parliament of the various member states as it is currently enshrined in the Treaties.

for example away from agricultural expenditures and regional projects towards cross-border infrastructure and policy areas like defense.

To evaluate this hope, assume there are two sorts of players in a bargaining game. First, let there be a central player, say the European Commission, which has a strong preference for European wide public goods that imply a strong "European value added". Examples may be a European defence, pan-European research networks, or extensions of the European traffic network. The other players are the member states who, at least compared to the central player, are supposed to have a stronger preference on pork barrel type expenditures. Furthermore, assume that the own resource decisions are taken for years if not decades and that based on this financing framework (chosen exogenously), a bargaining on the financial structure takes place in a second step.

As the decision on the member states' contributions is given from the perspective of the second round, rational players' moves in the second round may depend on income effects in the first round. For example, reducing the GNI-related resource and introducing a European corporate tax may give a relief to member states with a small corporate sector. However, absent such possible income effects, it is not rational for member states or the central player to change bargaining demands and the bargaining solution of rational players is unchanged as long as the preference for goods provided at the European level is independent on the exact source of financing. Without a credible exit threat, the status quo of expenditures may be considered the threat point of negotiations and the financing decision does not change it.

Considering the exit threat, an unequal financing scheme gives more bargaining power to those countries that regain particularly high taxing powers by leaving the Union. For example, a financial transaction tax (FTT) that may imply a disproportionate burden on the UK will give more voice to the UK as it lowers the UK's exit costs. It then depends on the exact preferences of the members that have a changed threat point how the change in financing may change the structure of expenditures. It could well be that in the new equilibrium, the fraction of pork-barrel expenditures would be increased rather than reduced if member countries that bear a disproportionate burden of the new own resource have a weaker preference for common European policies and a higher preference for projects that benefit national member states.

Overall, standard game theoretic thinking therefore does not support the hope that a change in the financial structure triggered by a new own resource will improve the structure of expenditures as sometimes claimed in the political discussion.

Possibly, member states are not completely rational when bargaining over the structure of expenditures. Yet, as the literature discussed in the introduction made clear, the subsidiarity principle has been implemented to put the burden of proof onto those who argue in favour of harmonization and centralization on the EU level. However, our reading of the literature suggests that there is neither theoretical nor empirical evidence that supports the alleged connection between financing structure and expenditure structure. Given that European institutions may have a preference for projects with a genuine European value added than the member states' representatives in the Council, a more direct (and hence ceteris paribus more efficient) approach to change the structure of expenditures

would be to give more weight to European players (e.g., the EU Parliament) in the decision making process.

While the hope that a new own resource will change the structure of EU expenditures is dubious, there may be other, more plausible, measures to facilitate such a change. A change in the financing structure could be helpful to increase the share of expenditures with a European value added if the financial contributions are more strongly correlated with nationally egoistic ("pork barrel") expenditures than in the current system. Along this line of thinking, rebates that tend to correct the net payer positions may be best suited to shift the structure of expenditures. A country that is lobbying for additional expenditures for its own sake would be urged to pay a higher contribution to the EU budget and the payoff of national lobbying would be reduced.[17]

This result is in stark contradiction to the usual European rhetoric that denounces rebates and may therefore appear surprising. Yet, the intuition is simple. Consider a country that may lobby for expenditures that lead to the receipt of transfers. The incentives for lobbying in favour of these transfers will be diminished if the country's rebate will be cut due to these transfers. Accordingly, a player with a stronger preference for pan-European public goods (the EU Commission) will find it easier to push through their preferences in a system with rebates, in particular if overall expenditures are fixed.

The above discussion of whether the structure of revenues may change the structure of expenditures started from the premise that the size of the budget is given. Things are different once the promise of an unchanged budget ceiling is lifted. With an endogenous budget, the financing of the budget may have important repercussions on the overall size of the budget. Standard fiscal federalism theory prescribes to spread the tax burden among the beneficiaries to produce optimal incentives. Conversely, if the tax burden predominantly falls on a small group of member states, then the majority of states has an incentive to vote (or, in the case of unanimity, strongly push) for an inefficiently large budget. Such a situation would be in stark contrast to the recommendations of the theory of fiscal federalism that advises to have equivalence (i.e., congruency) between the groups that decide on, pay for and derive benefits from a public good (Olson 1969). Fiscal equivalence maximizes the hope that the political process will lead to an efficient provision level of public goods. Again, the broad GNI-based own resource looks good when compared to a less broad-based own resource that will have a more asymmetric distribution among member states.

6 Conclusions

In this paper, we evaluated the case for a potential revision of the EU's own resource system by looking through the lens of the subsidiarity principle. In the absence of spillovers of taxation, differences in national preferences for taxation suggest a preference for a system in which national contributions are set and member states are free in how they want to raise these contributions. From this perspec-

[17] For a related formal argument see Osterloh et al. (2009).

tive, the current system of financing the EU budget looks exactly adequate to cater the needs of subsidiarity and the heterogeneity of preferences in tax matters.

However, some national taxes may clearly have spillover effects on other member states. For example, a low effective rate of corporate taxation may have negative effects on other member states that lose tax revenue when firms and capital are attracted by the low-tax member state.

Yet, when there are spillover effects of a tax, centralization of this tax – implying a harmonized tax base, a uniform tax schedule and the allocation of the revenue to the central budget – is just one of several potential measures to respond to these spillovers and to the strategic incentives for national tax policy that arise from them.

One alternative is a system in which the member states have to levy a certain amount of tax revenue for the central budget, but the details of tax, like the exact progressivity or the details of exemptions are left to the national level. Such a system leaves some leeway for member states and has advantages if different tax preferences prevail in different jurisdictions. If the spillover effects depend on the overall tax level, but not on these details, then the spillover effects may be (at least largely) internalized by the central revenue requirement. For example, the corporate tax revenue could be reserved to the central level, but details of the tax could remain in the national domain. For example, a country that tried to be generous to some firms would have to raise more from others, putting severe limits to tax competition without outright centralization. With the revenue requirement fixed, the average effective tax rate is largely predetermined with corresponding limits to revenue stealing.

A fixed revenue requirement may be deemed insufficient to cope with all potential spillover effects. In this case, a second alternative that is sufficient to solve the policy problems deriving from tax spillovers and tax-base stealing is the coordination of the tax base and the tax schedule. Forwarding the revenues to the EU budget is not a requirement. Indeed, as we have discussed above, as compared with a centralization of revenues, such a decentralization may have the important advantage that local efforts of tax administration are preserved. Conversely, for member states that know that nationally levied tax revenue has to be forwarded to the EU level, a race to the bottom in national tax administration effort can be a natural reaction, unless the locally raised tax revenue exactly sets off other national contributions of the same member state. Yet in this case, it is not justified to speak of a genuine EU tax. Such a “tax” would just be a national contribution in disguise.

Sometimes the concerns about an infringement of the subsidiarity principle are countered by the argument that the current system of EU finance would lead to a bias in expenditures. A system of national contributions, according to this argument, would favour pork-barrel expenditures over EU expenditures with a genuine European value added. However, a game theoretic discussion of the claim that an EU tax can influence the structure (of a given size of expenditures) suggests that the argument is not theoretically convincing; there seems to be no empirical support to it either. Therefore, it would be a striking negligence of the principle of subsidiarity to motivate a far-reaching intrusion into member states’ tax policy by such an ad hoc proposition.

Surprisingly, one suggestion that has been put forward to increase the fraction of expenditures that goes on projects with a genuine European value has been largely overlooked. According to this suggestion, member states that receive a large amount of attributable expenditures should pay a higher

contribution or, alternatively, may receive a smaller rebate. Unlike in the case of an EU tax, this measure would create a predictable incentive to shift towards EU expenditures that are hard to attribute, like expenditures on a common foreign policy or the protection of EU borders.

7 References

Albouy, David (2009): "The Unequal Geographic Burden of Federal Taxation," Journal of Political Economy 117, 635-667.

Baretti, C., B. Huber and K. Lichtblau (2002), “A Tax on Tax Revenue: The Incentive Effects of Equalizing Transfers: Evidence from Germany”, International Tax and Public Finance 9, 631-649.

Barzel, Y. (1969), "Two Propositions on the Optimum Level of Producing Collective Goods", Public Choice 6, 31-37.

Bönke, T., B. Jochimsen and C. Schröder (2013), Fiscal Federalism and Tax Administration: Evidence from German, DIW.

European Commission (2006), Prolongation of the Regionally Differentiated Energy Tax for Service Sector, Brussels, C(2006) 244 final.

European Commission (2010), The EU Budget Review, SEC(2010) 7000 final.

Goodspeed, T.J. (2000), Tax Structure in a Federation, Journal of Public Economics 75, 493-506.

Gordon, R.H. (1983), An Optimal Taxation Approach to Fiscal Federalism, Quarterly Journal of Economics 98, 567-586.

Groussot, X. and S. Bogojevic (2014), Subsidiarity as a Principle of European Constitutional Law, in: L. Azoilai (ed.), The European Union as a Federal Order of Competences, Oxford University Press, 234-252.

High Level Working Group on Own Resources (2014), First Assessment Report, Brussels, 17 December 2014.

Inman, P.I. and Rubinfeld, D.L. (1996), Designing Tax Policy in Federalist Countries: An Overview, Journal of Public Economics 60, 307-334.

Lipatov, V. and A.J. Weichenrieder (2015), A Decentralization Theorem of Taxation, SAFE Discussion Paper 105.

Musgrave, R.A. (1983), Who Should Tax, Where and What?, In: Charles E. McLure, Jr., ed. Tax Assignment in Federal Countries. Canberra: Centre for Research on Federal Financial Relations.

McLure, C. and Martinez-Vazquez, J. (2004), The Assignment of Revenues and Expenditures in Intergovernmental Fiscal Relations, World Bank, Washington D.C.

Olson, M. (1969), The Principle of “Fiscal Equivalence”: The Division of Responsibilities Among Different Levels of Government, American Economic Review 59, 479 - 487.

Oates, W. (1972), Fiscal Federalism. New York: Harcourt.

Oates, W. (1999), “An Essay on Fiscal Federalism”, Journal of Economic Literature 37, 1120-1149. 13

Sinn, H.-W. (1994), “How much Europe? : Subsidiarity, centralization and fiscal competition”, Scottish Journal of Political Economy 41, 85-107.

Tabellini, G. (2003), “Principles of Policymaking in the European Union: An Economic Perspective”, CESifo Economic Studies 49, 75-102.

Tresch, R.W. (2002), Public Finance: A Normative Theory, 2nd ed., San Diego, Academic Press.

Tullock, G. (1969), "Problems of Scale", Public Choice 6, 19-29.

Wouters, J. (2001), Constitutional Limits of Differentiation: The Principle of Equality.

Revenue Smoothing by the EU Funding System

Thiess Buettner[1]

Abstract:

In the current institutional setting of the European Union there is some degree of flexibility as to how the EU budget is financed. This paper explores the extent to which different EU funding schemes may help to stabilize member states' budgets. Based on a stylized formal description of the EU funding system, the paper provides empirical evidence about the degree of revenue smoothing achieved in the current system. The results show that due to the reliance on GNI contributions the current system reduces the variance in the member states' per-capita revenues net of contributions by about 5%. This amount of smoothing is close to the limit that a linear income-dependent system of contributions could possibly obtain given the size of the EU budget.

[1] FAU Erlangen-Nuremberg, CESifo, Chairman of the Scientific Advisory Board of the Federal Ministry of Finance and FiFo Policy Fellow, Address: Friedrich-Alexander-University, Lange Gasse 20, 90403 Nuremberg, Germany. Phone: +49 911 5302 200, Fax: +49 911 5302 396. E-mail: thiess.buettner@fau.de

Table of Contents

List of Tables

List of Figures

1 Introduction

A central government that provides public services to all citizens and raises the necessary funds through a set of uniformly defined tax instruments is a key feature of federations, such as the US, Canada or Switzerland. Though the primary task of the central government is to provide national services and public goods, it is commonly regarded as an institution that coordinates local policies through provision of intergovernmental revenue to the individual states (e.g., Wildasin, 1989), local tax deductibility (Feldstein and Metcalf, 1987), or through tax base co-occupancy (e.g., Keen and Kotsogiannis, 2002). The central government's budget is also regarded as an important absorber of regional shocks (e.g., von Hagen, 1992, Bayoumi and Masson, 1995). A key characteristic of economic integration in Europe, however, is the absence of such a central government.

Nevertheless, the European Union has a budget that is used to fund the European Commission, the European Parliament and their various programs. The extent to which this budget may also serve as a shock absorber or help to coordinate member states' policies depends on the tasks assigned to the European Union and the size of its budget. The size of the budget is determined politically by the European Council in negotiations with the European Commission and the European Parliament that take place every seventh year. Though there may be good reasons to reassign the competencies between member states and the EU, this would possibly require major reforms of the EU. Without such reforms however, it seems unlikely that the size of the budget will change relative to the total public sector in Europe.[2]

Even if the size of the budget and the range of competencies are fixed, the EU budget may have effects on the fiscal policy of the member states. On the expenditure side of the budget this depends on the programs run by the European Union, as each program exerts different effects on the budgets of the member states and on their economies. Many EU programs involve 'intergovernmental' expenditures and there are substantial funds flowing from the EU budget to the individual member states. However, despite frequent monitoring of the distribution of these flows and accompanying political discussion, EU funds are very different from grants used to coordinate local policies and to stabilize sub-national government budgets in federal countries.[3] Each EU program addresses certain specific aims and goals and the distribution of funds within and across these programs determines how these objectives are met. Even if studies suggest that the distribution of EU funds among member states is correlated with the relative political power of member states in EU policymaking (Kauppi and Widgren, 1997), each program attaches certain strings and requirements to the use of EU funds such as eligible activities, co-financing, reporting mandates, etc. Attempts to utilize the distribution of the EU funds among member states for purposes of revenue smoothing would therefore create vast inefficiencies.
Coordinating and stabilizing effects on national budgets could also be exerted through the revenue side. While the primary objective is to fund the EU budget, provided that sufficient funds

[2] For a discussion of the political dimension see the paper by Massimo Bordignon.

[3] For a discussion of the federal structure of the European Union see the paper by Christos Kostsogiannis.

are generated, there are some degrees of freedom in choosing from a large variety of financing schemes, each of which may have different effects on the member states' budgets. To some extent, the choice of the funding scheme might be used to contribute to stabilization and coordination of the member states' fiscal and tax policies. This paper therefore focuses on the revenue side of the EU budget and discusses different options to finance the EU both theoretically and empirically.

The following section discusses different options for funding schemes from a theoretical point of view. Section 3 then uses data for the EU budget and in particular for the EU's Multiannual Financial Framework (MFF) 2007-2013 to analyze empirically the extent to which the different revenue instruments are related with incomes and tax revenues of member states. Based on the empirical estimates, Section 4 provides a quantification of the amount of revenue smoothing provided during the last multi-annual financial framework and discusses whether and to what extent those effects could be strengthened by adjusting the EU funding system. Section 5 concludes.

2 Smoothing effects of funding schemes

In comparison with federal countries, the public sector in the European Union is characterized by a strong degree of decentralization where not only most public service provision is assigned to the individual member states, but also taxation as well. Each member state employs a more or less sophisticated tax system, involving mostly progressive taxes on residents' incomes, source based taxes on profits, as well as general and specific sales taxes. These tax systems produce substantial amounts of revenue but are subject to fluctuations in tax bases due to business cycles and other economic shocks.

In federal countries with large central governments revenue fluctuations are partly pooled as important taxes are centralized. Some part of the remaining revenue fluctuations would also show up in the central government budget that accommodates those fluctuations by issuing public debt and engaging in tax smoothing (Barro, 1979). The institutional architecture in Europe is quite different. In the decentralized setting of the European Union, no pooling is obtained since taxation is decentralized and the revenue fluctuations show up in the individual member states' budgets. Facing revenue fluctuations, the member states could engage in tax smoothing and adjust debt finance rather than tax parameters to finance current expenditures. While member states' fiscal policies are regulated through the Stability and Growth Pact and its recent reforms, the fiscal rules enacted do not involve strict balanced budget requirements but rather focus on cyclically adjusted 'structural' deficits. Hence, implicit in the current institutional setting is the assignment of tax smoothing to the member states. However, at least for small countries and countries with higher levels of debt, tax smoothing could be costly in the decentralized setting of the EU, such that less smoothing is obtained in the current institutional setting compared to federal countries.

Another challenge for the decentralized public sector in the EU is associated with mobility of citizens, factors and products that tend to be responsive to the member states' tax policies. As a consequence, the tax policy by individual member states generates various fiscal externalities that give rise to inefficiencies such as tax competition or tax exporting. While similar problems also arise from revenue decentralization in federal countries, arguably the scale of the problems is bigger in the EU. While the member states have conducted important steps towards economic integration, which have substantially increased trade and mobility in the last few decades, the tax systems are still run by the national governments. The theoretical literature on tax competition has noted that governments could mutually gain from the coordination of their tax policies. However, the literature also emphasizes that coordination is difficult to establish, in particular, since countries not joining a coordinating agreement or institution can often not be excluded from the benefits associated with coordination (Keen and Konrad, 2013).

In practice, coordination is on the European agenda. This is exemplified by the EU savings- directive featuring information exchange, by the debates on CCCTB and on formula apportionment. In some areas such as VAT or taxation of diesel fuels, the member states have even agreed on minimum tax rates. Coordination of tax policies might also be regarded as promising since EU member states also coordinate on policies more broadly in other fields of fiscal policies. However, progress on tax coordination has proved difficult in the recent years, as the EU has been expanded to 28 member states, and changes to the status-quo often require unanimous decisions by all member states.

Federal countries often combine decentralized taxation and fiscal policies with systems of revenue sharing that tend to redistribute funds from jurisdictions with high incomes and high tax revenues to jurisdictions with relatively less income and a weaker revenue performance. As the literature has emphasized, revenue sharing could help to mitigate the extent to which local jurisdictions suffer from revenue fluctuation (e.g., Areaza, Soerensen, Yosha, 2002). Theoretical and empirical research also indicates that the sharing of revenues based on fiscal capacity exerts incentive effects that work against non-cooperative tax policies (Bucovetsky and Smart, 2006, Buettner, 2006). Applied to the European Union, this would suggest that the financing scheme could be used to smooth revenues of member states and to exert incentives on tax policy.

2.1 Alternative funding schemes

The implications of alternative funding schemes can be illustrated using a stylized description of member states' revenues net of contributions to finance the central budget. Revenues net of contributions per capita in country i are defined as

$$r_i = t_i - z_i$$

where the first component t_i is tax revenue per-capita and z_i denotes the transfer paid to the EU, also in per-capita terms. Transfers per capita are determined using a simple linear formula

$$z_i = \frac{\sigma_i B}{N_i},$$

$$\sigma_i = \frac{b_i N_i}{bN}: \; z_{1,i} = b_i$$

where $b_i = B_i/N_i$ is a fixed amount of contributions per capita and the sum of the contributions makes up the total budget $\sum N_i b_i = bN$, with b denoting the EU budget per- capita.

A special case is one where all per capita contributions are equal $b_i = b$. In this case, the budget shares correspond to the population shares $\sigma_i = \frac{N_i}{N}$: $z_1 = b$.

If the contributions are fixed lump-sum or if they simply follow the population size, no smoothing of revenues takes place. It is straightforward to show that in this case

$$\mathrm{Var}\,(r_i) = \mathrm{Var}\,(t_i),$$

stating that the variance of net revenues per- capita is equal to the variance of tax revenues per-capita.

A second option is to take account of differences in income

$$\sigma_i = \frac{Y_i}{Y}: \quad z_{2,i} = (1-\gamma)b_i + \beta_{zy} y_i, \;\; \text{with } \beta_{zy} = \gamma \frac{B}{Y} \qquad (1)$$

β_{zy} captures the extent to which higher incomes are reflected in higher contributions. $0 \leq y \leq 1$ indicates the relative weight attached to income and $\frac{B}{Y}$ denotes the EU budget relative to total income in the EU ($Y = \sum_i Y_i$). $y_i = Y_i/N_i$ denotes per capita income.

If EU funding follows this second option, smoothing of member states' budgets takes place depending on how close the tax revenues are correlated with income per capita. As shown in the appendix, if the income share of the central budget is fixed, the variance in revenues net of contributions per capita is

$$\mathrm{Var}\,(r_i) = \mathrm{Var}\,(t_{it}) - \beta_{zy}\left(2\beta_{ty} - \beta_{zy}\right)\mathrm{Var}\,(y_{it}) \qquad (2)$$

Hence, depending on the relationship between tax revenues and income – captured by β_{ty}, and on the relationship between EU contributions and income – captured by β_{zy}, the variance of net revenues is reduced relative to the variance of tax revenues. More specifically, a variance reduction is obtained if $\beta_{ty} \geq \beta_{zy}$. From the definition of contributions (1), this condition is likely to be fulfilled since the income share of total tax revenues is much larger than the income share of the EU budget.[4]

[4] Note that the analysis deviates from the macro-economic literature that tends to discuss stabilizing effects of transfers in a setting where shocks are multiplicative to income (e.g., Asdrubali, Soerensen, Yosha, 1996). In this literature, stabilization of a jurisdiction's income implies that an income shock of say 10 percentage points would result in a less than 10 percentage shock of income after transfers. In contrast, the approach taken in the current paper considers the budget stabilization achieved relative to a fixed contribution. As a consequence, smoothing is obtained when the variance of revenues per capita is reduced.

A third option is to rely on revenues and to set up a system of revenue sharing. As tax revenues are depending on the tax-effort, the usual procedure taken in systems of revenue sharing is to define the tax capacity as a measure of tax revenues at standardized tax effort (e.g., Boadway, 2004). Formally, this would imply to define the contribution shares as

$$\sigma_i = (1-\delta)\frac{b_i N_i}{bN} + \delta\frac{K_i}{K}: \quad z_i^3 = (1-\delta)b_i + \beta_{zk}k_i, \text{ with } \beta_{zk} = \delta\frac{B}{K}, \qquad (3)$$

with β_{zk} denoting the effect of a higher tax capacity on contributions, $0 \leq \delta \leq 1$ capturing the relative weight of tax capacity and K_i denoting the tax capacity in country i and $k_i = K_i/N_i$ denotes tax capacity per capita. Assuming for simplicity a linear tax system, with this funding scheme the variance of revenues is determined by the difference between the tax rate and the degree by which higher tax capacity is reflected in higher contributions (see appendix).

$$Var(r_i) = \text{Var}\,(t_i)\left(\frac{\tau_i - \beta_{zk}}{\tau_i}\right)^2 \qquad (4)$$

Depending on how close contributions are varying with tax capacity, the funding scheme would tend to smooth member states' revenues. $\tau_i = \beta_{zk}$ is a limiting case of complete revenue equalization. In this case, the variance of revenues would be zero.

Revenue sharing of this form would also alter the incentives for tax policy. To see this, note that a tax rate increase under revenue sharing tends to reduce K_i and hence results in lower contributions. As emphasized in the tax competition literature, due to mobility, the decline in K_i resulting from higher taxes could be strong. As a consequence, a policy of high tax rates could be self-defeating since tax revenues tend to be relatively low with high tax rates. This would induce governments to set lower tax rates. Since a part of the tax rate effects is just due to relocation, the tax competition equilibrium tends to be inefficient. However, with revenue sharing $\beta_{zk} > 0$ and, hence, the revenue implications of a tax rate increase would be more positive.[5]

3 Empirical analysis

The above stylized discussion distinguishes three types of funding: lump-sum, income de- pendent and tax capacity dependent contributions. The current system of EU funding being a mixture of different types, the emphasis lies on income dependent contributions. Table 1 gives an overview about the revenue structure of the EU budget in 2013.

[5] In order to provide member states with an incentive to impose certain taxes, such as the financial trans- action tax, the tax could be made part of the EU funding system. To ensure that the fixed budget of the EU is financed, the GNI contributions would have to be adjusted as in the current system. In order to avoid a scenario where member states do not agree with the distributional consequences, it has been suggested that the tax revenues collected in a member state are deducted from the country's GNI contribution. Another option would be to deduct a country's own transaction tax. With these options, even if a transaction tax is imposed, member states could reap the full gain from imposing the tax, without altering their EU contributions.

Table 1: EU revenues in 2013

#	Item		(1) Mill.Eur	(2) % of GNI	(3) share
	Direct national contributions				
1	VAT-based own resource	+	14020	0.11%	0.100
2	GNI-based own resource	+	110195	0.84%	0.789
3	UK correction	+	170	0.00%	0.001
4	Lump sum reduction granted for NL, SE	./.	6	0.00%	0.000
5	JHA adjustment for DK, IE, UK	./.	0	0.00%	0.000
	Total national contribution	∑	124378	0.95%	0.890
	Traditional own resources (TOR)				
6	Agricultural Duties (100%)	+	0	0.00%	0.000
7	Sugar levies (100%)	+	269	0.00%	0.002
8	Customs duties (100%)	+	20218	0.15%	0.145
9	Amounts (25%) retained as TOR collection costs	./.	5122	0.04%	0.037
	Total trad. own resources	∑	15365	0.12%	0.110
	Total own resources	∑	139744	1.07%	1.000

EU revenues by source in 2013. Column (1) total volumes in Euro millions, column (2) volumes expressed in percentage of total EU's gross national income (GNI), which is reported with 13061 EUR billions.

Source: European Commission's revenue and expenditure table for 2013 and own calculations. 'JHA adjustment' involves reduction in the contributions for Denmark, Ireland and the United Kingdom reflecting their decision not to participate in certain justice and home affairs.

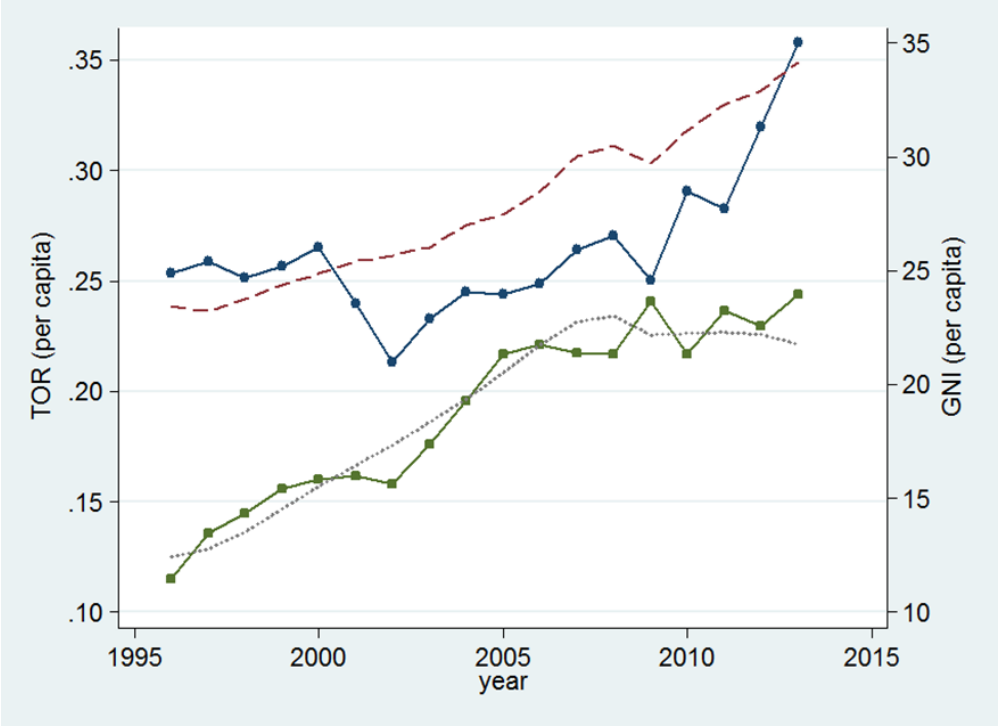
The upper part of the table (items 1 to 5) shows the direct national contributions in terms of total volume, GNI share (in %), and share of revenues. The lower part provides figures for the so-called traditional own resources. In total, the EU has obtained about 140 billion Euro in 2013, or 1.07% of total GNI. From the above discussion it seems useful to distinguish revenue sources that are lump-sum from those that are related to national income or specific taxes. GNI-based own resources constitute the most important item generating more than a fourth of total revenues. This raises the expectation that the revenue system displays a high sensitivity to local income shocks thus and mitigates fluctuations in revenues. However, since GNI-based own resource serves as a residual in the EU budget, the total volume of GNI-based resources depends on all other sources of revenue.

The second most important revenue source are the customs duties. Taking into account that in the budget period ending 2013 a share of 25% has been retained by the member states, the revenue share is only slightly larger than that of VAT-based own resources. Both of these revenues have some resemblance to measures of tax capacity. This holds particularly in the context of commonly defined duties. Also VAT-based own resources are determined by some measure of tax capacity, as differences in VAT rates as well as differences in the tax base are principally taken into account to produce some standardized measure of VAT revenues. However, the defi-

nition of standardized VAT revenues is problematic and it is not clear how close they are related to the actual tax base.[6]

A first hint on the stabilizing effect of the contributions is provided by Figure 1, which depicts total revenues raised in Germany and Greece as well as the development of GNI (before 2000: GDP) per capita. In the Greek case, the time path shows a close relationship

Figure 1: EU contributions and GNI (GDP) per capita: Germany and Greece



Descriptive statics in Euro per capita. Source: European Commission's revenue and expenditure tables, Eurostat national accounts, and own calculations. Solid lines with circles (squares) indicate Germany's (Greece's) total own revenues relative to the number of residents in EUR 1000. Dashed (Dotted) lines GNI/GDP per capita in Germany (Greece) in Euro

[6] See Heinemann, Mohl and Osterloh (2008, 48p). To increase transparency, Gros and Micossi (2005) have recommended a reform that involves a 2% base VAT surcharge.

Table 2: Descriptive statistics

Variable		Mean	Std.Dev.	Min	Max
VAT own	1	0.027	0.017	0.006	0.090
GNI own	2	0.171	0.098	0.032	0.452
Total nat.contr.	3	0.204	0.117	0.041	0.569
Trad. Own	4	0.030	0.029	0.003	0.145
Total own resources	5	0.235	0.132	0.047	0.590
GNI		22.83	12.95	4.502	60.49
Total tax revenues		10.99	7.762	1.665	36.89

Descriptive statistics in 1000 Euro per capita. 136 Observations for 27(28) European countries for 2009 to 2013.
Source: European Commission's revenue and expenditure table for 2007-2013 and own calculations. Total government revenues are taking from Eurostat. The 2009 re-implementation of the own revenue sources decision has led to significant one-time contributions or reductions. These are corrected in the data.

between EU budget contribution and income. The poor performance of the Greek economy over the last few years has led to a stagnation of the per capita contribution. Also for Germany a relationship between GNI/GDP and the contribution is found. However, over the last five years, the German contribution has increased much more than GNI – reflecting the good economic performance relative to the EU in recent years as well as the weight of Germany in the European economy.

The extent by which stabilization effects are achieved depends not only on the details that determine the contributions but also on the variances and covariances of the different revenue sources. To quantify the effects, I utilize data for the revenue structure of the EU budget across countries and time as well as data on GNI and total government revenues. Since the EU and its revenue system have been changed repeatedly, I focus mainly on the last multi-annual financial framework (2007-2013). More specifically, in the empirical analysis of EU funding due to the revision of the national accounts I restrict attention to the time period from 2009 to 2013 that includes the EU-27 from 2009 to 2013 as well as Croatia for 2013. All variables are denoted in euro per capita. Table 2 provides descriptive statistics.

Table 3: Regression results: Predicting EU resources with GNI

	(1) VAT own	(2) GNI own	(3) TNC	(4) Trad. own	(5) Total
GNI per capita	0.001	0.007**	0.009*	0.001**	0.010*
	(0.000)	(0.003)	(0.005)	(0.000)	(0.005)
Year 2010	-0.002*	0.005***	-0.004	0.000	-0.003
	(0.001)	(0.002)	(0.006)	(0.001)	(0.006)
Year 2011	0.001	-0.001	-0.007	0.002	-0.006
	(0.001)	(0.003)	(0.008)	(0.001)	(0.008)
Year 2012	0.000	0.010***	0.002	0.000	0.002
	(0.001)	(0.003)	(0.008)	(0.001)	(0.008)
Year 2013	0.000	0.032***	0.025**	-0.002	0.023**
	(0.001)	(0.005)	(0.010)	(0.002)	(0.011)
Constant	0.014*	0.010	-0.004	0.012	0.007
	(0.007)	(0.057)	(0.114)	(0.007)	(0.119)
R^2	0.226	0.766	0.530	0.299	0.519
N	136	136	136	136	136

Dependent variable member states contributions to the EU budget per capita by source, 2009-2013. Column (1) VAT own resource, (2) GNI own resource, (3) total national contribution (after corrections), (4) Traditional own resource, (5) total contribution. Regressions include fixed member state and time effects. Robust standard errors in parentheses.

The empirical analysis focuses on providing estimates of the effect that income has on the EU contributions paid. Formally, I run regressions

$$z_{it} = \alpha_i + \beta_{zy} y_{it} + \omega_t + u_{it},$$

that control for time-specific effects as well as fixed effects for each country to obtain consistent estimates for $\hat{\beta}_{zy}$. Fixed country effects are taken into account in order to focus on transitory deviations in contributions. The time effects capture common shocks such as the accession of Croatia in 2013. Due to the inclusion of time-effects the analysis is concerned with the variation of GNI and EU resources relative to the EU.

The results are presented in Table 3. They show how total EU contributions can be predicted by current income per capita. As expected, the GNI-based own contributions display a significant correlation with GNI per capita. The total effect of higher income on EU contributions indicates that an increase in income by 1,000 EUR per capita is associated with an increase of funding contributions by about 10 EUR per capita. Note that this estimate accounts for all revenue sources as well as the corrections for Justice and Home Affairs (JHA), the corrections for UK and the reductions for NL and SE.

Note that the point estimate of the smoothing is quite similar to the size of the EU budget relative to the total EU member states' GNI: In the multi-annual financial framework that determined the revenues explored in the empirical analysis, the budget share is about 1.07% (see

Table 1). While the point estimate shows a relatively large standard error, this finding indicates that the contributions follow GNI, on average, despite various corrections applied to individual member states' contributions.

As the system of EU funding already involves some element of revenue sharing based on tax capacity, I have also explored the statistical correlation between EU contribution and member states tax revenues. Of course, tax revenues are imperfect measures of tax capacity since tax policies differ across countries and time. Since I use country-level fixed effects, time-invariant differences in tax policy across countries are removed. Yet changes in tax policy over time are not controlled for. With this caveat in mind, I run regressions

$$z_{it} = \alpha_i + \beta_{zt} t_{it} + \omega_t + u_{it},$$

that control for time- and country-specific effects to obtain estimates for $\hat{\beta}_{zt}$.

Table 4 provides results for the effect on EU contributions. Interestingly, the VAT-based own resources display no significant correlation with member states tax revenues. However, the sum of the contributions displays a statistically significant correlation with tax revenues per capita.

Table 4: Regression results: Prediction own resources with t ax revenues

	(1) VAT own	(2) GNI own	(3) TNC	(4) Trad. own	(5) Total
Total revenue per capita	0.001	0.019***	0.024***	0.002**	0.026***
	(0.001)	(0.003)	(0.008)	(0.001)	(0.008)
Year 2010	-0.002*	0.004**	-0.005	0.000	-0.004
	(0.001)	(0.002)	(0.007)	(0.001)	(0.007)
Year 2011	0.001	-0.004	-0.011	0.002	-0.009
	(0.001)	(0.003)	(0.008)	(0.001)	(0.009)
Year 2012	0.000	0.004	-0.005	-0.000	-0.006
	(0.001)	(0.002)	(0.009)	(0.002)	(0.009)
Year 2013	-0.000	0.021***	0.012	-0.003	0.009
	(0.001)	(0.004)	(0.010)	(0.002)	(0.011)
Constant	0.013	-0.040	-0.059	0.011	-0.048
	(0.008)	(0.035)	(0.085)	(0.008)	(0.088)
R^2	0.223	0.828	0.572	0.278	0.560
N	136	136	136	136	136

Dependent variable member states contributions to the EU budget per capita by source, 2009-2013. Column (1) VAT own resource, (2) GNI own resource, (3) total national contribution (after corrections), (4) Traditional own resource, (5) total contribution. Regressions include fixed member state and time effects. Robust standard errors in parentheses.

4 Implications for smoothing and incentives

In order to estimate the implied smoothing effect on revenues, expressions (2) and (4) need to be evaluated. From column (5) of Table 3 the point estimate of the effect of GNI per capita on EU contributions is $\hat{\beta}_{zy}$= 0.01. Evaluation of the variance reduction also requires to estimate the effect of income shocks on tax revenues. Using data for the time period from 2000 to 2014, I have regressed the actual tax revenue per capita for EU member states on GNI to obtain a parameter.

$$t_{it} = \alpha_i + \underset{(0.017)}{0{,}431 y_{it}} + \omega_t + u_{it}$$

Taking the point estimate this result indicates $\hat{\beta}_{zy}$ = 0.431. Noting that the ratio of the sampling variance of tax revenues per capita to the variance in GNI per capita, after controlling for common shocks, is 0.17, the implied variance reduction in revenues due to the EU funding system is

$$\frac{\hat{\sigma}_r^2 - \hat{\sigma}_t^2}{\hat{\sigma}_t^2} = -\hat{\beta}_{zy}\left(2\hat{\beta}_{ty} - \hat{\beta}_{zy}\right)\frac{\hat{\sigma}_y^2}{\hat{\sigma}_t^2} = -0{,}0478 \qquad (5)$$

Noting that the EU budget in the period analyzed amounted to 1.048% of GNI, the implied variance reductions is close to the theoretical limit that pure GNI based contributions would produce. Since replacing $\hat{\beta}_{zy}$ with 0.0148, the smoothing effect is computed to be −0.05.
While the significant relationship between incomes and EU contributions is in accordance with Domenech et al. (2000), the interpretation is different: even though the EU funding scheme may be characterized as a linear system, there is a significant variance reduction in revenues relative to a setting with lump-sum grants.

As noted by equation (4) also a true tax capacity dependent funding system would exert a smoothing effect on revenues. Making the simplifying assumption of a linear tax system, I can approximate the effect of the tax base on contributions by the effect of tax revenues on contributions

$$\beta_{zk} \simeq \beta_{zt}\bar{\tau}$$

From equation (4), the implied variance reduction in revenues due to the EU funding system is

$$\frac{\hat{\sigma}_r^2 - \hat{\sigma}_t^2}{\hat{\sigma}_t^2} = -\left(1 - \hat{\beta}_{zt}\right)^2 - 1 = -0.0513.$$

In order to contrast this with the theoretical benchmark, if tax capacity is equal to income, using 2013 data, β_{zk} = 0.0148. Approximating the tax rate by the ratio of tax revenues to GNI among the EU-28, I obtain $\bar{\tau}$= 0.46. With these parameter values $\frac{\beta_{zk}}{\bar{\tau}} = 0.032$. The maximum smoothing effect obtained would be a variance reduction of about 6.3%.

5 Conclusions

Given the institutional environment as defined by the EU treaties, the EU is not a federation and the public sector in the EU is decentralized. Key institutions known from federal countries, such as a central government or a system of revenue sharing do not exist. Nevertheless, the EU has a budget that is financed through contributions from the member states. Though the responsibilities of the EU and its budget are limited, the funding of this budget offers some potential for smoothing member states' budgets and may even help to coordinate the member states' policies.

The analysis presented in this paper indicates that the current system of funding yields significant smoothing effects. Due to the strong reliance on GNI contributions the current system reduces the variance in per capita revenues by about 5%. This amount of smoothing is close to the limit that a linear income dependent transfer system could possibly obtain given the size of the EU budget.

To provide even stronger smoothing effects would require to replace the system of income dependent contributions by contributions that depend on tax capacity. However, in the current setting, where tax law differs substantially among member states, a proper definition of tax capacity is plagued with vast difficulties. A precondition for a move to tax capacity dependent contributions is therefore to harmonize taxation to an extent that makes it possible to really ascertain the tax capacity of the member states.

To conclude, without deeper harmonization of tax systems, the current system of EU funding with its emphasis on GNI contributions is providing almost the maximum possible degree of revenue smoothing.

6 Appendix

6.1 Variance of net revenues under income dependent contributions

An EU funding scheme that relies on income dependent contributions contributes to smoothing member states' budgets, depending on how close the tax revenues are correlated with income per capita. Abstracting from variation in total EU income, I treat the income share of the central budget as fixed,[7] and the revenue equation is

$$r_{it} = t_{it} - (1 - \gamma)b_i - \beta_{zy}y_{it},$$

[7] In a more general setting, if the total EU budget is fixed, its share varies with the total income in the EU and for large countries smoothing is reduced.

where $\beta_{zy} \equiv \gamma \frac{B}{Y}$, as above. Averaging over the budget period t = 1, ..., T yields mean values for revenues, tax revenues and income per capita $\bar{r}_i$, $\bar{t}_i$, $\bar{y}_i$. The lump-sum part of the contributions does not vary. Mean differencing and taking squares I obtain

$$(r_{it} - \bar{r}_i)^2 = (t_{it} - \bar{t}_i)^2 + (\beta_{zy})^2 (y_{it} - \bar{y}_i)^2 - 2(\beta_{zy})\,(t_{it} - \bar{t}_i)\,(y_{it} - \bar{y}_i).$$

Summing up over all periods t = 1, ...T

$$\sum_t (r_{it} - \bar{r}_i)^2 = \sum_t (t_{it} - \bar{t}_i)^2 + (\beta_{zy})^2 \sum_t (y_{it} - \bar{y}_i) - 2(\beta_{zy})\beta_{ty} \sum_i (y_{it} - \bar{y}_i)^2$$

where β_{ty} is the slope parameter of a regression of per-capita tax revenue on per-capita income

$$\beta_{ty} = \frac{\sum_t (t_{it} - \bar{t}_i)(y_{it} - \bar{y}_i)}{\sum_t (y_{it} - \bar{y}_i)^2}$$

Taking averages, and rearranging terms, this leads to equation (2) above.

6.2 Variance of net revenues under tax capacity dependent contributions

Assuming that the underlying tax is linear, revenues net of contributions are

$$r_{it} = \underbrace{\tau_i k_{it}}_{t_{it}} - (1 - \delta) b_i - \beta_{zk} k_{it}$$

where $\beta_{zk} \equiv \delta \frac{B}{K}$ determines the degree to which higher tax capacity is reflected in higher contributions. This depends on the size of the EU budget relative to the EU-wide tax capacity and on the weight of tax capacity δ in the transfer formula (3). Similar to the above setting, I treat the ratio of the EU budget to the total tax capacity as fixed. The implication for the variance is

$$\mathrm{Var}(r_i) = (\tau_i - \beta_{zk})^2 \,\mathrm{Var}\,(k_i).$$

Rearranging terms, I obtain (4).

7 References

Arreaza, A., B. E. Sorensen and O. Yosha (1999). Consumption smoothing through fiscal policy in OECD and EU countries, in Poterba, J.A., and J.von Hagen (eds.). Fiscal Institutions and Fiscal Performance, University of Chicago Press, 59–80.

Asdrubali, P., B. E. Soerensen, and O. Yosha, 1996, Channels of Interstate Risk Sharing: United States 1963-1990, The Quarterly Journal of Economics 111, 1081–1110.

Barro, R. J. (1979). On the determination of the public debt. Journal of Political Economy 87, 940–971.

Bayoumi, T. and P. Masson (1995), Fiscal Flows in the United States and Canada: Lessons for Monetary Union in Europe, European Economic Review 39, 253–274.

Boadway, R. (2004). The Theory and Practice of Equalization. CESifo Economic Studies 50, 211–254.

Bucovetsky, S., and M. Smart (2006). The efficiency consequences of local revenue equalization: Tax competition and tax distortions. Journal of Public Economic Theory, 8(1), 119–144.

Buettner, T. (2003). Tax base effects and fiscal externalities of local capital taxation: evidence from a panel of German jurisdictions, Journal of Urban Economics 54 (1), 110–128.

Buettner, T. (2006). The Incentive Effect of Fiscal Equalization Transfers on Tax Policy, Journal of Public Economics 90, 477–497.

Domenech, R., A. Maudes and J. Varela (2000). Fiscal flows in Europe: The redistributive effects of the EU-Budget. Weltwirtschaftliches Archiv 136, 631–656.

Feldstein, M. S., and G. E. Metcalf (1987). The Effect of Federal Tax Deductibility on State and Local Taxes and Spending. Journal of Political Economy 95, 710–736.

Gros, D., and S. Micossi (2005), A Better Budget for the European Union: More Value for Money, More Money for Value, CEPS Policy Brief 66/February 2005.

Heinemann, F., P. Mohl and S. Osterloh (2008). Reform Options for the EU Own Resource System, ZEW Economic Studies, 40.

Kauppi, H., and M. Widgren (2007). Voting rules and budget allocation in the enlarged EU. European Journal of Political Economy, 23(3), 693–706.

Keen, M., and K. Konrad (2013). The theory of international tax competition and coordination, Handbook of Public Economics, Volume 5, 257–328.

Keen, M. J. and C. Kotsogiannis (2002). Does federalism lead to excessively high taxes? American Economic Review 92, 363–370.

Wildasin, D. E. (1989). Interjurisdictional capital mobility: Fiscal externality and a corrective subsidy, Journal of Urban Economics, 25(2), 193-212.

von Hagen, J. (1992). Fiscal arrangements in a monetary union: Evidence from the US, in D.E. Fair and C. de Boissieu (eds.). Fiscal Policy, Taxation and the Financial System in an Increasingly Integrated Europe, 337–359.

European Union and Own Revenue Resources: (Brief) Lessons from Fiscally Decentralized Economies[1]

Christos Kotsogiannis[2]

Abstract:

The European Union (EU) was created (Article 14 TEC; now Article 26 TFEU) for people to exploit the benefits derived from a substantial reduction in the barriers to the mobility of commodity and factors of production, the exploitation from economies of scale, the enhancement of competitive pressures and the reduction of fiscal spillovers. While it has achieved significant harmonization of policies across Member States during a short period of time, yet a broader question arises regarding the need for stronger economic governance and coordination at the EU level, which might necessitate a more prominent role of the EU in tax matters, and so a rebalance of the policy mandate between the EU and Member States. This is a complex issue, both economically and politically, and the prospects of making progress will depend on understanding the underlying economic arguments. The objective of this paper is to shed some light on the issue by looking at some of the recent conceptual developments from the theory of fiscal federalism (and drawn from the experience of already established federations) and examining whether there are important lessons to be learned, paying particular attention to the issue of own-revenue resources.

[1] I would like to thank Thiess Buettner and Michael Thöne and participants at the Future of EU Finances Workshop (July 10, 2015, Berlin) for comments on an earlier version of this paper. The usual caveat applies.

[2] University of Exeter Business School, Address: University of Exeter Business School, Department of Economics, Streatham Court, Rennes Drive, Exeter, EX4 4PU, England, UK. E-mail: c.kotsogiannis@exeter.ac.uk

Table of Contents

List of Tables

1 Introduction

The European Union (EU) was created (Article 14 TEC; now Article 26 TFEU) for people to exploit the benefits, from a unified internal market embracing distinct Member States, derived from a substantial reduction in the barriers to the mobility of commodity and factors of production, the exploitation from economies of scale, the enhancement of competitive pressures and the reduction of fiscal spillovers. While significant harmonization and regulation measures across Member States have been implemented during the last few decades,[3] recently there have been concerns (amplified by the recent sovereign debt crisis) that economic governance and coordination at the EU needs to be strengthened, with the EU having a more prominent role in fiscal matters both on the expenditure and revenue sides. Whether there will be overwhelming support from the Member States for deeper coordination[4] remains to be seen,[5] but the importance of the issue requires, at least, careful evaluation of the economic arguments for those concerns. There is currently some urgency in discussing these issues, reflected at the EU level by the appointment, in 2014, of the high-level group on own-resources (and the Future of EU Finances Workshop in 2015 organised by the German Ministry of Finance).

The EU as an institution shares two important features with 'federations', taken to mean a 'hierarchical' system of governments each of which enjoys some degree of autonomy in fiscal matters.[6] Firstly, the internal market is highly integrated and so there is free flow of commodities and factors of production, and, secondly, the Member State governments have autonomous capacity over the use of fiscal instruments (subject to tax harmonization directives that might have been enacted) while there is broad similarity about the functions undertaken (such as, for example, public good provision and social security benefits).

But, with the risk of oversimplification, there are also two distinctive and important differences between most federations and the EU, in its current shape and form:

- Firstly, the EU has neither the legal mandate nor the political means for independent tax policy activities (a key feature in most federations) and, therefore, it has limited direct control over Member State tax policy. Indeed, for tax matters, the EU requires unanimous intergovernmental agreement and endows each Member State with veto power. This, while it makes sure that all Member States gain from policy reforms,[7] it also places a constraint on

[3] A particular barrier to the mobility across Member States of commodities and factors of production is taxes, as far as they vary across countries, and they impede efficiency-enhancing cross-country reallocations of commodities and factors. This concern is reflected in, for instance, tax legislation in the EU of provision for tax coordination and tax harmonization. Directive 2006/112/EC—a recast of the Sixth VAT Directive of 1977—has achieved some degree of tax harmonization with the common bands of VAT, which require a minimum VAT rate of 15% on all products (apart from exemptions and special authorizations).

[4] The political dimension of this issue (as important as it is) is not taken up here (being discussed elsewhere, see Bordignon and Scabrosetti (2015).

[5] The signs suggest otherwise, at least, for the foreseeable future. Though the EU budget is only around two per cent of aggregate public expenditure by general government in the EU, the EU financing has been a source of considerable friction. It seems that discussions on more integration are unlikely to raise the pulse of policy-makers.

[6] As a matter of convention I refer to the top tier as the 'Central' government and the second tier as 'Member States', and sometimes referred to as just 'States'.

[7] Otherwise they will not be accepted. In the jargon of economics, reforms are thus Pareto improving (in the strict sense).

the policy proposals that are likely to be acceptable, and, perhaps more importantly, it makes difficult for the EU (as the recent economic crisis has shown) to design policies that mitigate any adverse effects arising from Member State policies.
Indeed, in practice, the role of the EU is restricted in designing harmonization (and regulation) measures through secondary tax legislation of the Commission and the Council and the case law of the European Council of Justice.[8] Admittedly, this lack of flexibility, from an economics point of view, seems to be a serious restriction as it implies a restriction on the capacity of the EU to pursue effective fiscal and redistributive policies.

- Secondly, in almost all federations there is an explicit system of redistributive (and equalizing) Central-State transfers that tend to equalize the capacity of Member-State governments so they provide comparable levels of public services, thereby removing any inefficiency and inequity that could result from decentralized fiscal responsibility.[9] These transfers give a distinct role in fiscal responsibility to the Central government and are necessary to close the fiscal gap between State expenditure responsibilities and State own-resource revenues. While in the EU, and as part of its regional policy, there is a system of transfers (structural funds) aiming to reduce regional disparities in economic development they are distinctively different to the explicit transfers that exist in most federations.

There is thus one central function that both the EU and federations have in common: the efficient functioning and use of resources of the unified market. This is an important commonality in the objectives, but, more fundamentally, the lack of legal and political mandate for independent tax policy activities makes the EU distinctively different to a central government in federal countries. This raises an important issue regarding the efficient functioning (both in terms of allocative efficiency and equity) of the EU—something that is of distinctive policy concern.

In broad terms, the key issue is, therefore, whether the current EU system of financing is fit for purpose so it delivers the EU's objective as laid out in the Article 2 of the EEC Treaty.[10] Can these objectives be achieved, or the current system of financing requires substantial reform and rethinking? What can be learned from the experiences of other federally structured economies that, as argued above, share similar characteristics with the EU? While universal truths on fiscal policy issues do not exist, some guidance can be offered by looking at the fiscal arrangements that are present in institutions that share similar characteristics with the EU.

Even without delving into the fine details of a comparison, it is immediate clear that by the nature of the EU institution key features that characterize almost all federations cannot be replicated. Nevertheless, it is possible, and indeed desirable, to draw some broad lessons and practices for the EU,

[8] This lack of political mandate has led many to believe that there is a fundamental weakness in the existing institutional arrangements within the EU, see Riekmann and Wydra (2015).

[9] They could also be in the form of revenue sharing, with revenues shared between Central government and Member States in some prespecified proportions, or in the form of conditional grants. The precise form of the grants is not of importance here. What is important is the recognition that, in general, it is not optimal to match own-expenditure with own-resources.

[10] Article 2 of the EEC Treaty states that '[t]he Community shall have as its task, by establishing a common market and progressively approximating the economic policies of member states, to promote throughout the community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the states belonging to it'.

from the principles and practices of existing federal countries (and fiscal federalism more generally). And this is the objective of this paper: to discuss some of the recent conceptual developments in public finance and what they mean (from an economics point of view) for the financing of the EU budget.

The structure of this paper is the following. Section 2, discusses, albeit briefly, the key features of an integrated and unified market viewed from a public finance perspective. Section 3 describes the main features of the existing system of financing the budget in the EU. Section 4 discusses the arguments for EU own-revenue resources, and highlights a particular design problems, the one associated with the taxation of a common tax base (implicit or explicit). Section 5 turns attention to the tax assignment in federal countries, drawing on their experience. Finally, Section 6 briefly concludes.

2 Aspects of an integrated and unified market

This section starts by setting out the key features of an integrated and unified market.

From an economics point of view, any distortions encapsulated in divergences in consumer and producer prices impede efficiency-enhancing cross-country reallocations of commodities and factors of production. The EU was created (Article 14 TEC; now Article 26 TFEU) for people to exploit the benefits, from a unified internal market embracing distinct Member States, derived from a substantial reduction in the barriers to the mobility of commodity and factors of production, the exploitation of economies of scale and the enhancement of competitive pressures.

Externalities: Absence of a fiscally unified internal market (and the existence of fiscal autonomy for Member States that comes with it) is likely to create international expenditure and tax externalities that are conducive to welfare losses. The reason for this stems from the fact that in deploying their expenditure and tax instruments available to them, Member States will attach considerably less importance to the welfare 'abroad' than at 'home'. An expenditure (tax) externality occurs when a government's expenditure (tax) policy affects the interests of at least one other, and these interests are not directly taken into account in that decision. Externalities can be either positive (beneficial) or negative (harmful). It is easy to think of examples of an externality (positive). Consider, for example, an increase in the tax on capital in one Member State, keeping the other Member States' taxes unchanged. This, as the net benefit from owning capital diminishes, will induce (since owners of capital will be seeking more profitable opportunities abroad) a capital tax-base flight that expands the capital tax-base and, therefore, capital tax revenues of at least one other Member State.

What are the implications of these externalities? It is that they are liable to result in an inefficient allocation of EU's resources. The reason of this is straightforward. Take for example again the capital tax externality: a Member State that looks only to its own welfare gain will set the capital tax in such a way that the additional cost of raising one unit of revenue is equal to the additional benefit (for that Member State) from doing so. But such calculus ignores the gain that will be derived from other Member States from, since an increase in the capital tax rate in the home country increases the capital tax base in those other Member States. This gives rise to a 'beggar-thy-neighbor' incentive, which, in practice, implies that the final outcome of this (non-cooperative) interaction between Member

States will be inefficient from a global welfare point of view (a process which has been termed harmful tax competition).[11]

Externalities therefore require coordination: Clearly, then, whatever the type of the externality the existence of spillovers between Member States creates a case for coordination across Member States. Broadly speaking, such coordination can take two forms:

- One in which, as the current system has it, there is coordination through negotiation over policies, or
- One in which the instrument is allocated to the level that internalizes those externalities.

Is one type of coordination better than the other? In principle, it is conceivable that an outcome achieved under centralized policy-making can also be achieved under a decentralized one, where Member States enjoy fiscal autonomy. But, in reality, and in the presence of information asymmetries,[12] this equivalence does not hold. What is then to be preferred?

But there are equity considerations too: Equity considerations, the role of which in an integrated market is typically allocated to a Central government (as noted shortly below) require an explicit system (and has been a distinguishing feature of almost all federations) of Central/Member State transfers to equalize the fiscal capacity of the Member States so they provide comparable levels of public services at comparable tax rates. To put it differently, these transfers are required to close the gap between Member State expenditure responsibilities and Member State own-source revenues.

A form of transfers (structural funds) in the EU exists but (as Section 3 briefly shows) it can be hardly argued that it delivers such outcome. Conventional wisdom (though, as it will be seen later on, it is not absolute) has it that these transfers should follow the direction from the Central government to the States. But, importantly, this, as it requires the Central government having fiscal responsibility for the design of such transfers, necessitates a more active role of the EU, and more akin to the role-played by 'federal' governments.

Admittedly, it is especially important to note, both of these aspects (efficiency and equity) require a more active role for the EU than it currently has—to which we turn next.

[11] Externalities may extend beyond the overall level of taxation and may include distortion of the allocation of factors across uses, distortion in the pattern of public spending (see Keen and Marchand (1997)) and distortion of mobile and immobile commodities and factors.

[12] And, it should be added, of political incentives.

3 EU own resources: The current position

Article 311 (TFEU) states that '[…] the budget shall be financed wholly from own resources'[13] and that the Council 'may establish new categories of own resources or abolish an existing category'. Currently, the EU budget (with spending ceiling of 1.23%) is financed by four 'own resources' that have been in place since the last major reform of the EU budget, in 1988. The Own Resources Decision, which was ratified by all 27 Member States (and last formally agreed in April 2007), provides the EU a legally binding right to receive the revenue emanating from these resources. These are:[14]

- Traditional own resources. These are revenues from agricultural levies and customs duties and sugar levies collected by Member States as agents for the European Commission (these are known as the 'traditional own resources', introduced in 1971 when the concept of own resources was introduced). These proceeds generated a fairly substantial proportion of total EU revenue in the early years, which has subsequently decreased as a consequence of the lowering of tariffs in the EU, consisting mainly of customs duties on imports from outside the EU and sugar levies. EU Member States keep 25% of the amounts as collection costs.
- Own resources based on value added tax (VAT). A proportion of the VAT collected by Member States, based on a uniform rate of 0.3% is levied on the harmonized VAT base of each Member States. The VAT receipts are corrected to reflect differences in national rates and coverage of the tax, so that they do not directly flow from the VAT collected.
- Own resources based on Gross National Income (GNI): Each Member State transfers a standard percentage of its GNI to the EU. Although designed simply to cover the balance of total expenditure not covered by the other own resources, this system has become the largest source of revenue of the EU budget.
- Other sources of revenue (around 1%) include tax and other deductions from EU staff remunerations, bank interest, contributions from non-EU countries to certain programs, interest on late payments and fines.

In 2014 the Council adopted a legislative package, including a new own resources decision, introducing some changes to the own resources system for the period 2014-2020. The current system, however, continues to apply until this new Council Decision is approved by every Member State.[15]

Views on the current position: Significant criticism has been directed to the current system, ranging from lack of simplicity/transparency/democratic accountability to it being overly complicated in rev-

[13] And it must always be balanced.

[14] There is also a correction mechanisms designed to correct excessive contribution by certain Member States. Currently, there are three corrective measures: The UK is reimbursed by 66% of the difference between its contribution and what it receives back from the budget. The cost of the UK rebate is divided among EU Member States in proportion to the share they contribute to the EU's GNI. However, Germany, the Netherlands, Austria and Sweden, who considered their relative contributions to the budget to be too high, pay only 25% of their normal financing share of the UK correction. The Netherlands and Sweden benefit from gross reductions in their annual GNI contribution of EUR 605 million and EUR 150 million respectively. Austria (0.225%), Germany (0.15%), the Netherlands and Sweden (0.1%) face a reduced VAT rate.

[15] The new own resources rules will then apply retroactively as of 1 January 2014. There are also some additional principles that will apply to the 2014-20 Multiannual Financial Framework. These are: Collection costs for traditional own resources will be lowered to 20%; The UK rebate will continue to apply; Denmark, the Netherlands and Sweden will benefit from gross reductions in their annual GNI contribution of EUR 130 million, EUR 695 million and EUR 185 million, respectively. Austria will benefit from gross reduction in its annual GNI contribution of EUR 30 million in 2014, EUR 20 million in 2015 and EUR 10 million in 2016.

enue collection and calculation.[16] But there is also a large academic literature on the aspect of 'optimal taxation': the central conclusion there is that the appropriate tax structure is likely to be context-specific, depending on detailed aspects of consumer and producer behavior and on the range of tax instruments as the policy-makers' disposal. Clearly, even without going into the fine details of the existing system, it is difficult to see how it satisfies any of those optimal tax considerations.

This begs the question: What are the arguments for a more active role for the EU? I turn to this next.

4 Arguments for a more active role for the EU in expenditure and tax matters

Fiscal decentralization, from a fiscal perspective, offers an opportunity to centralize decision-making on those economic matters where national policies are needed and to allow local fiscal choices where it is more advantageous, and has been seen (Musgrave (1959) and Oates (1972, 1992)) as the appropriate government structure to: (a) ensure an efficient allocation of resources within the unified market **(efficiency)**; (b) establish an equitable allocation of income between Member States **(equity)**; and (c) to maintain the high levels of employment and stability of the economy **(stabilization)**.

Efficiency: Efficiency is achieved through factor mobility. If citizens feel discontent with the pattern of local taxes and spending in their own jurisdiction, they may express this by 'voting with their feet' and move to other jurisdictions which they find more suited to their preferences. This sorting process implies that (even in the absence of Central government coordination) the allocation of labour will be efficient, Tiebout (1956). This is, however, a limiting argument and is unlikely to hold.

What is the role of the Central government? There is a fiscal role for the Central government, which encompasses all States, in **stabilization** (which refers to the Central government having access to money supply, the ability to issue non-monetary debt and the use of discretionary tax policy to counter cyclical economic movements), and in **redistribution**, so to maintain or enhance equity (vertical and horizontal). It needs to be emphasized, however, that any redistribution between Member States might be problematic since any attempt on the part of the federal government to redistribute resources from one state to the other is liable to asymmetric information (moral hazard and adverse selection).[17]

Accountability: Decentralization of fiscal responsibility to sub-central government is also thought to influence the degree of accountability of government that stems from the existence of local elections in decentralized structures. With decentralized policy decision-making politicians are elected on the

[16] A good account of this is given in Le Cacheux (2007) and Cipriani (2014).

[17] To put it differently, any decision of the federal government regarding the magnitude, and the sign, of intergovernmental grants will be based on the information transmitted from the Member State to the Central government—information that might not be available, or extremely costly to extract. See, for example, Bordignon et al., (2001), Lockwood (2002) and Dreher et al., (2015).

basis of their performance on the local policies as this performance is compared to the performance of the policy-makers of neighboring jurisdiction that share similar characteristics.[18]

Fundamental trade off: In all this, there is a fundamental trade off: on the one hand, preserving national autonomy (in the sense of decentralizing policy decision-making) confers the benefit of tailoring local public goods to local preferences but it risks non-cooperative tax setting and associated fiscal externalities, and, on the other, centralized policy decision-making mitigates local fiscal externalities but it risks uniformity in public good provision. The real problem, therefore, is to strike the optimal balance between these two objectives and thus the appropriate vertical allocation of tax-setting powers revenues and public goods provision across the different level of governments. Whatever forms this allocation takes, however, there is a need of coordination between the levels of government to mitigate against potential vertical tax externalities, to which I know turn.

Vertical externalities: A vertical tax externality arises when two (or more) levels of government occupy the same tax base. Where a tax base is shared by more than one level of government, the impact of taxation by one level on the revenues of the other, through change in the size of the base, will be neglected, resulted in overuse of the tax.[19] These externalities can be either implicit or explicit and maybe sizeable and may affect the progressivity of the tax system. Vertical externalities can be on the expenditure side too—if the benefits of expenditure are partially captured by the other level of government, there will be under-expenditure.[20] What the implication of all this is, is that the where lower-level governments share bases with higher levels; the overall mix of taxation will be sub-optimal. Whether these are too much or too little taxation of a particular base depends on the nature of the externality.[21]

But there is a more subtle point behind these externalities: they could be implicit. Take the significant regulatory power (derived from its competence for developing the single market). Though, in tax matters, Member States continue to have veto power, the EU institutions seem to shape them through the secondary tax legislation of the Commission and the Council and the case law of the European Court of Justice.

Which way transfers should go? A common feature of federal fiscal systems is the transfer of funds between levels of governments necessary to address any fiscal gap between expenditure and revenues in a given State. Conventional wisdom has it that these transfers should be directed from the Central government to the Member States, so they (Member States) can offer comparable levels of public goods and services. The existence of externalities, however, might suggest the possibility of the fiscal gap to be negative, requiring a transfer of resources from the States to the Central government.[22] This result is intuitive. As noted in the preceding paragraphs, tax base co-occupancy by levels

[18] See, among others, Besley and Smart (2007) and Kotsogiannis and Schwager (2008).

[19] Details of this appear in Dahlby (1996), Keen (1998), Keen and Kotsogiannis (2002, 2003, 2004) and Wrede (1996). See also Wilson (1999) and Keen and Konrad (2013).

[20] And they also depend on the type of tax and, in particular, can be positive if an ad valorem tax can be imposed on the seller's side of the market, Dahlby and Wilson (2003). Similar effects can be if for instance the 'lower-level' government taxes are deductible from the 'federal' income tax: the effect of deductibility at the 'federal' level will affect the amount of revenue collected by the 'lower-level' governments.

[21] They can also be detrimental to investment, Kessing et al. (2009).

[22] See Boadway and Keen (1996).

of government creates negative vertical (between levels) fiscal externalities. To undo such externalities, and achieve second-best efficiency in public good provision, the Central government sets a negative (specific) tax. This creates a need of resources that, in the absence of other revenues, must come from other levels of government. The type of tax also matters for the direction of transfers. If taxes are ad valorem the direction of the transfer, in the present of vertical externalities, might be from the States to the Central government, Kotsogiannis and Martinez (2008).

Equalization grants can improve efficiency: Another important feature of federal fiscal arrangements is equalization grants. The principle underlying equalization grants is that the Central government has the responsibility to ensure that each jurisdiction has adequate revenues to provide a minimum level of public service without recourse to exceptionally high levels of taxation.[23] But they also distort fiscal policy incentives of the receiving jurisdictions and, thus, they have efficiency consequences for the level of lower-level government taxation. The reason for this is that they compensate jurisdictions for the adverse effect of an increased tax rate on their tax bases thereby inducing them to raise taxes higher than it is desirable from a national point of view. To put it somewhat differently, a tax increase by a single lower-level government causes an outflow of tax base from that jurisdiction (and so a reduction in its tax revenues) and an increase in the tax base of all other jurisdictions. But the reduction in the tax base of that jurisdiction, relative to the average tax base of the federation, increases its entitlement under an equalization formula. This additional increment in equalization entitlement compensates the deviating jurisdictions for the adverse effect of the increased tax rate on their tax base and induces them to set taxes higher than would be chosen by a social planner.[24]

Tax base co-occupation and efficiency: But there is another important point in that taxing a co-occupied tax base can induce efficiency in the level of Member States taxes. To see this consider two Member States who tax a co-occupied commodity tax base and each has the strategic incentive to exploit their terms of trade. Suppose now that the Central government maximizes the sum of utilities, by choice of a tax levied on the common tax base and with the revenues being distributed to the Member States in proportion to their individual tax bases. The Central government's optimization delivers a tax that is a weighted average of the two Member States taxes. Through the adjustment of commodity prices (and thus the general equilibrium effects that the model allows through price adjustments), it is in the best interest of the Member States to choose taxes that are symmetric that is, the optimal Central government tax induces tax harmonization. What the common tax base does is to counteract the impact on the flow of trade of inappropriate levels of[25] Member State taxes.

Where does all this imply for policy? There is a well-established conventional prescription though on optimal tax assignment in federal countries, and it has four elements.

- Firstly, the Central government should take responsibility of equity aspects in tax policy. In reality, and from a public finance perspective, there is no particular difficulty in the EU de-

[23] A typical equalization system sets the per capita transfer to each jurisdiction equal to the difference between its fiscal capacity (measured by the observed per capita tax base of that jurisdiction) and the average fiscal capacity of the federation, multiplied by a standard tax rate that is usually equal to the average of jurisdictions' tax rates (as in Canada). Such equalization system aims to equalize difference in tax revenues, but implements transfers through an indirect formula that is based on differences in observed tax bases.

[24] See Buettner (2006), Bucovetsky and Smart (2006), Kotsogiannis (2010) and Buettner et al., (2011).

[25] See Kotsogiannis and Raimondos (2015) and Haufler and Lülfesmann (2015).

signing a tax and sharing the proceeds with the Member States either as part of a broader equalization program (as in Canada) or by applying some sharing rules (as in Germany).

- Second, the tax bases assigned to each level of government should be relatively immobile at that level to avoid efficiency losses associated with the kind of fiscal externalities discussed in Section 2.
- Thirdly, taxes that derive from access to the common market should accrue to the Central government, and
- Fourthly, co-occupation of tax bases should be minimal to avoid the efficiency losses associated with the vertical tax externalities discussed above.

What is the experience regarding the assignment of tax powers to different level of government established federal countries? I turn to this next.

5 Experience in federal countries

Table 1 reports the tax revenues as percentage of GDP in 2012 in eight OECD federal countries (where there is tax autonomy) and the average across these countries. The experience in federal countries to achieve their objective requires around on average 31.4% of tax/GDP ratio. At 31.4 percent the (un-weighted) average is about 8 percentage points lower than that for the EU-28 Members, of 39.6% (reported in Table 2).

Table 1: Tax revenues as % of GDP in OECD federal countries in 2012

AUS	AUT	BEL	CAN	GER	MEX	SWZ	US	AVE
27.3	41.7	44	30.7	36.5	19.6	26.9	24.4	31.4

Source: OECD.Stat.

Table 2 reports the tax revenues as percentage of GDP in 2012 in five EU countries and the average of EU-28. The highest tax/GDP ratio is in Denmark (DEN) and France (48.1% and 45.0%, respectively); the lowest shares were recorded in Lithuania (27.2% of GDP), Bulgaria (27.9% of GDP) and Latvia (27.9% of GDP).

Table 2: Tax revenues as % of GDP in selective EU countries in 2012

DEN	FRAU	LIT	BUL	LAT	EU-28 AVE
48.1	45	27.2	27.9	27.9	39.6

Source:
http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_structures/2014/report.pdf

The tax shares in 2012 by level of government in those eight federations (of Table 1) are given in Table 3. These shares vary fairly widely across countries. Table 3 also reports the Herfindahl index which gives a measure of the size of tax revenue shares in relation to the total, and taken to reflect

the degree of decentralization in those countries. A higher number of the index indicates the presence of less decentralization, as more revenues are collected by the Central government.

Table 3: Tax shares by level of government in eight federal countries, 2012

	AUS	AUT	BEL	CAN	GER	MEX	SWZ	US	AVE
Central	81	95	90	50	70	96	60	64	68
State	15	2	5	40	22	3	25	21	15
Local	3	3	5	10	8	1	15	15	7
Centralization	69	91	82	42	55	92	45	48	75

Source: Author's calculations.

Clearly, these shares vary across Member States (the average in the EU-28 being 50.6%—not shown—and significantly lower than the one of 68% between the federal countries of Table 3).

What is clear from the preceding paragraphs is that a common feature of all fiscally decentralized economies is that the Central government maintains a dominant position in tax revenues so to achieve their main objectives of equity and efficiency. What this shows is that in existing federal countries there are markedly different arrangements in place, in terms of both the revenues allocation and own-resources, to the current state of affairs in the EU.

6 Concluding remarks

From an economics perspective, good governance should enable the objectives of efficiency and equity to be achieved. While it is, arguably, difficult to describe an 'ideal' governance structure, it is clear that some form of fiscal decentralization can achieve these benefits in a unified internal market embracing distinct Member States.

The EU shares remarkably common features with well-established federations, and some of the issues that the EU is now facing have worried those federations for decades. No doubt the issues of tax and expenditure assignment across levels of government are complex but if the experience of those federations can offer some guidance to policy-making in EU, both efficiency and equity considerations seem to suggest a more active role for the EU than it currently has.

What this experience points to? It points to the fact that key features of federations (with respect to efficiency and equity) cannot be replicated in the EU, in its current form. Though, for example, a system of transfers exists, differences in fiscal capacity between Member States cannot be mitigated without the design of an explicit equalization system that plays the dual role of transferring resources to jurisdictions whose tax capacity is insufficient. To finance the necessary expenditures, EU own resources is required—these can be collected through a system of taxation that satisfies two criteria: these taxes should derive from access to the common market, and co-occupation of tax bases should be minimal to avoid the efficiency losses associated with the vertical tax externalities.

The approach is of course incomplete. Aspects of the appropriate EU-own instruments have been, intentionally, sidestepped: these are discussed in some detail elsewhere (see Begg (2011) for a general discussion, Keen and Smith (1996) and Keen (2000) for a discussion on EU-own VAT and Konrad (2015) for a discussion on an electricity tax). But I hope that this short paper has shown that, at least, the issues are complex and they warrant further discussion and analysis.

7 References

Besley, T. and M. Smart (2007). 'Fiscal restraints and voter welfare', *Journal of Public Economics* 91, 755-773.

Bordignon, M., P. Manasse, and G. Tabellini (2001). 'Optimal redistribution under asymmetric information', *American Economic Review* 91(3), 709-723.

Buettner, T., S. Hauptmeier, and R. Schwager (2011). 'Efficient revenue sharing and upper level governments: Theory and application to Germany', *Journal of Institutional and Theoretical Economics* 167(4), 647-667.

Buettner, T. (2006). 'The incentive effect of fiscal equalization transfers on tax policy', *Journal of Public Economics* 90, 477-497.

Diamond, P., and J. Mirrlees (1971). 'Optimal taxation and public production I: Production efficiency,' *American Economic Review* 61, 8-27.

Dreher, A., K. Gehring, C. Kotsogiannis, and S. Marchesi (2015). 'Information transmission within fiscal architecture: Theory and evidence', mimeograph, University of Exeter.

Boadway, R., and M. Keen (1996). 'Efficiency and the optimal direction of federal-state transfer', *International Tax and Public Finance* 3, 137-155.

Dahlby. B. (1996). 'Fiscal externalities and the design of intergovernmental grants,' *International Tax and Public Finance* 3, 397-411.

Dahlby, B., and L. S. Wilson (2003). 'Vertical fiscal externalities in a federation', *Journal of Public Economics* 87, 917-930.

Haufler, A., and C. Lülfesmann (2015). 'Reforming an asymmetric union: on the virtues of dual tier capital taxation,' *Journal of Public Economics*, forthcoming.

Keen, M. J. (1998). 'Vertical tax externalities in the theory of fiscal federalism', *IMF Staff Papers* 45, 454–85.

Keen, M. J. (2000). 'CVAT, VIVAT, and all that: New forms of VAT for federal systems,' *Canadian Tax Journal* 48, 409-24.

Keen, M. J., and K. Konrad (2013). The theory of international ax competition and coordination, Handbook of Public Economics, Chapter 5, Eds, A. Auerbach, R. Chetty, M. Feldstein, and E. Saez, Vol. 5, 257-328.

Keen, M. J., and C. Kotsogiannis (2002). 'Does federalism lead to excessively high taxes?', *American Economic Review* 92(1), 363–70.

Keen, M. J., and C. Kotsogiannis (2003). 'Leviathan and capital tax competition in federations', *Journal of Public Economic Theory* 5, 177–99.

Keen, M. J., and C. Kotsogiannis (2004). 'Tax competition in federations and the welfare consequences of decentralization', *Journal of Urban Economics* 56, 397–407.

Keen, M.J., and M. Marchand (1997). 'Fiscal competition and the pattern of public spending', *Journal of Public Economics* 66(1), 33–53.

Kessing, S.G., K.A. Konrad and C. Kotsogiannis (2009). 'Federalism, weak institutions and the competition for foreign direct investment', *International Tax and Public Finance* 16, 105-123.

Keen, M.J., and C. Kotsogiannis. (2006). 'Federal tax autonomy and the limit of cooperation', *Journal of Urban Economics* 59, 317–29.

Kessler, A., C. Lülfesmann, and G. Myers (2005). 'Federations, constitutions and bargaining', *mimeo*.

Karkalakos, S., and C. Kotsogiannis (2007). 'A spatial analysis of provincial corporate income responses: Evidence from Canada,' *Canadian Journal of Economics* 40, 782-811.

Kotsogiannis, C. (2010). 'Federal tax competition and the efficiency consequences of local taxation of revenue equalization,' *International Tax and Public Finance* 17(1), 1-14.

Kotsogiannis, C., and L. Raimondos (2014). 'Tax base co-occupation and Pareto efficiency,' mimeograph, University of Exeter.

Kotsogiannis, C., and R. Schwager (2008). 'Accountability and fiscal equalization', Journal of Public Economics 92, 2336-2349.

Keen, M. J., and D. Wildasin (2004). 'Pareto-efficient international taxation,' American Economic Review 94, 259-275.

Musgrave, R.A. (1959). The theory of public finance: A study in public economy. New York: McGraw-Hill.

Lockwood, B. (2002). 'Distributive politics and the costs of centralization', *Review of Economic Studies* 69, 313-337.

Oates, W.E. (1972). *Fiscal federalism*, Harcourt-Brace, New York.

Oates, W.E. (1992). 'An essay on fiscal federalism', *Journal of Economic Literature* 37, 1120–49.

Tiebout, C.M. (1956). 'A pure theory of local expenditures', *Journal of Political Economy* 64, 416–24.

Wildasin, D.E. (1989). 'Interjurisdictional capital mobility: Fiscal externality and a corrective subsidy', *Journal of Urban Economics* 25, 193–212.

Wilson, J. D. (1999). 'Theories of tax competition,' *National Tax Journal* 52, 269-304,

Wrede, M. (1996). 'Vertical and horizontal tax competition: Will uncoordinated L*eviathans* end up on the wrong side of the Laffer curve?,' *FinanzArchiv* 53, 461–79.

The Political Economy of Financing the EU Budget

Massimo Bordignon[1]

and

Simona Scabrosetti[2]

Abstract

By adopting a more specific political economy perspective, this paper aims to contribute to the debate on reforming the actual system of funding the EU budget. We argue that the present debate is often ill focused and that what is really at stake is the nature of the European Union, whether this is just a club of sovereign states or a true federation directly affecting European citizens who have the right to be represented even on matters concerning the EU budget. We also argue that the main reason to reform the present system lies in the legitimacy crisis the EU is currently facing and that proposed reforms should be assessed on the basis of their ability to address this problem. Also, a dynamic perspective, asking how a budget reform would affect the bargaining positions of the different European institutions, is essential to understand the forces at play and to assess the possibility that a reform will take place.

[1] Università Cattolica di Milano. E-mail: massimo.bordignon@unicatt.it.

[2] Università di Pavia. E-mail: simona.scabrosetti@unipv.it.

Table of Contents

List of Figures

1 Introduction

Following the rejection of the Commission proposal in 2011 by the Council, the debate on how to reform the funding of the EU budget is once again on the table. Critics focus on the lack of transparency and political accountability of the present system, as well as on the distorted incentives that the system offers to finance "pork barrel projects" of limited national interest, rather than true European "public goods" that might benefit European citizens at large. Indeed, there is now a large body of academic literature proposing normative criteria for a "true" European tax and discussing possible candidates on these grounds. A High Level Group, made up by experts and representatives of the Commission, the EU Parliament and the Council, has also been set up to analyze the problem with the aim to advance a proposal by mid-2016.

This paper reviews this debate, adopting a specific perspective suggested by the literature on political economics. Thus, rather than asking which would be the "optimal" normative criteria for the creation of a European tax, the paper tries to raise issues about the political economic reasons for a reform, enquiring on the agents that would benefit or be damaged by the reform, and which elements of a possible reform could find support across member states and public opinion. We also argue that the discussion should be set from a dynamic perspective; to understand the forces at play, one should ask how the funding reform might affect the bargaining position of the EU Parliament with respect to the Council in future negotiations, or more generally how would it change the relationship between the Union and member states.

Specifically, we argue that the debate about the funding of the EU budget is really a debate about the nature of the European Union, whether this is just a club of sovereign states or a true federation directly affecting European citizens who have the right to be represented even on matters concerning the EU budget. This nature remains presently unsettled both on legal grounds, with contrasting statements in the Treaties, and matter of fact, in terms of the actual functioning of the Union. If the former view is taken, perhaps no action should be started and what is perceived as defects of the EU budget can be conceptualized as the equilibrium result of a bargaining game with side payments, where lack of transparency and what apparently may appear as "unfairness" in spending allocation may in reality play an important and useful role.

Things change if the second view is taken. In this case, criticisms are founded and the Union should move towards a more transparent funding system, largely based on taxes raised directly on citizens. In a political economics perspective, what determines which view should prevail depends more on the political forces at play than on legal or normative arguments. Among the European institutions, the pressure to reform comes mostly from the European Parliament, which however seems to be too weak to be able to bring about a serious reform. Decisive political support might instead come from (some or a subset of) member countries, as a reform of the budget might be a way to address the legitimacy crisis that the EU (and the EMU) is currently facing and to allow for focusing spending on policies of more interest for an European constituency. This also has implications on the type of funding reform one should envisage, as "cosmetic" changes are unlikely to be enough to address a legitimacy problem.

We also argue that in a dynamic framework, even a limited change in the source of funding for the EU budget would lead to a political dynamic strengthening the Union with respect to member states, eventually putting strains on some fundamental features of the present budget (such as the fact that the EU budget always has to be in equilibrium). Anticipations on this future political dynamic are probably the main reason why many member countries resist the change, while the EU Parliament is pressing for it.

Given what is really at stake in the debate, the issue of which are the "optimal" European taxes is of relative importance. Still, we argue for a basket of European taxes, rather than just one tax, and on taxes that at least apparently (that is, in terms of formal incidence) rely on more subjects to allow for a better balancing of the burden across different groups in the society and across member states. This would be important on political economic grounds, to increase the acceptability of the reform. Finally, we also believe that in a transitory period, GNI countries' contributions should be maintained, although reduced in size (to allow for compensation across countries), and that the Council should maintain the right to set a ceiling on maximal multi-annual expenditure. In a situation where democratic accountability at the European level is far from being properly established, this should limit the incentives for excessive tax and spending.

The rest of the paper is organized as follows. Section 2 describes the actual system of financing the EU budget. Section 3 discusses the limits of the present system, while Section 4 deals with the most recent proposals for reform. Section 5 is devoted to discuss the revenue side of the EU budget by adopting a specific political economy perspective. Section 6 concludes.

2 The present system of funding the EU budget

The principle of financing the EU budget by means of own resources, already envisaged by the European Economic Community Rome Treaty of 1957 (art. 200 and art. 201), is laid down by the art. 311 of the amended Treaty on the Functioning of the European Union (TFEU): "without prejudice to other revenue, the budget shall be financed wholly from own resources". In the fiscal federalism literature (Ambrosanio and Bordignon, 2007), a political body has "own resources" if these revenues are levied directly from taxpayers and accrue directly to the budget of the entity, without being determined by decisions taken by some other superior political bodies. Differently from "tax shares", own resources are also usually accompanied by some autonomy (for instance, at least the possibility of varying the tax rate), although not necessarily by the right to impose the tax or to set up its characteristics. For instance, local governments around the world are typically partly financed by "own taxes" and they have at least the right to choose the tax rate within some interval, but the legal right to impose the tax lies in the central government who also defines the tax base.

The reason why the EU should be financed partly or fully by own taxes lies in its dual legitimacy, with respect not only to member states, but also to their citizens, a role that has been strengthened with the introduction of an elected European Parliament. Putting it differently, the EU legislation binds not only member states, but also their nationals, and this may provide an argument for having both democratic accountability and financing at the EU level.

However, the general principle of financial autonomy at the EU level is accompanied by a heavy legislative procedure that goes exactly in the opposite direction. This is based on unanimity by member countries and ratification by national parliaments for adopting the Own Resources Decision (ORD) by the Council, in order to respect the principle of national sovereignty in tax matters.

Regarding this decision, the European Parliament, that directly represents European citizens, plays only an advisory role. Moreover, art. 322(2) of the same TFEU says that the Council, after consulting the European Parliament and the Court of Auditors, regulates methods and procedures through which revenue from own resources are made available to the Commission.

The heavy limitations on the revenues side of the EU budget are accompanied by even sharper limitations on the expenditure side. More specifically: 1) the overall volume of EU revenue is limited by an own resources ceiling (currently payments from the EU budget should not exceed 1.23% of the EU GNI);[3] 2) the EU budget must be in equilibrium each year, with annual expenditure that determines the revenue accruing to the EU budget in the same year; 3) a multiannual financial framework (MFF) sets up the maximum annual amount of payments for broad categories of expenditure for a period of 5-7 years, with only marginal adjustments, allowed year by year, and a mid-term revision.[4] In turn, as already stated, the MFF is adopted unanimously by the Council following a proposal of the Commission. The European Parliament must give its consent, but it can only adopt or reject the MFF proposal, without deciding its contents. As a matter of fact, this means that expenditure out of the EU budget, as well as its distribution across member countries (over 90% of the budget, according to Cipriani, 2014), is predetermined by the MFF.

Against this scenario, the definition of "own resources" that is currently used for the EU budget has little to do with the notion of own resources as discussed in the fiscal federalism literature. More precisely, the current system includes in the EU "own resources", traditional own resources (TOR), the VAT-based resources, the GNI-based resources, and several correction mechanisms for "budgetary imbalances" specifically devoted to net contributions of Member States (see details below)[5]. Among these sources, only TOR (which include customs duties, agricultural duties, and sugar and isoglucose levies) can be thought of as "true" own source of financing, in the sense that they accrue automatically to the EU budget (net of a 25% flat-rate deduction to the member states collecting these revenues, as a form of refund for "collection costs"). The rest are in fact contributions from member states based on some key value, such as each country's GNI, that should represent a measure of the relative contributive capacity (prosperity) of individual member states. Even the VAT-

[3] ORD No. 2007/436 of 23 June 2007. On 26 May 2014 the Council adopted the new ORD, the seventh one since 1970, but its ratification by each Member State will probably happen only at the beginning of 2016. According to this decision there will be a reduction in the amount of payment appropriations; in the rate of VAT-based resources for Germany, the Netherlands and Sweden; in the GNI-based resources for Denmark, the Netherlands, Sweden and Austria; and in the collection costs of traditional own resources (TOR) from 25 to 20%.

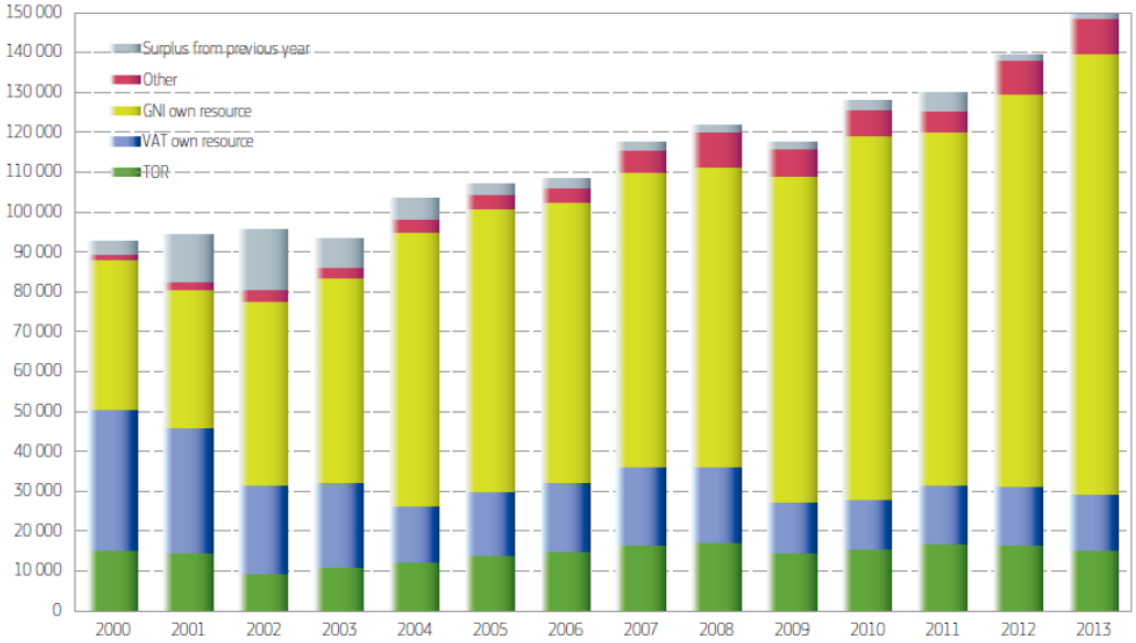
[4] According to the Council Regulation n. 1311/2013 laying down the MFF 2014-2020, the compulsory mid-term review has to allow the institutions to upgrade the priorities, and to take into account the suddenly developed changes in the economic situation and in macroeconomic projections (art. 2). The annual technical adjustments to the MFF refer instead to recalculation of ceilings, overall figures, and margins (art. 6). Adjustments for cohesion policy envelopes (art. 7), and adjustments related to measures linking effectiveness of funds to sound economic governance (art. 8) are also envisaged.

[5] Notice that the legal texts define all EU financing sources as own resources. A minor part of the EU budget is financed by other revenue (surplus from previous years) and miscellaneous revenue. With the exception of TOR, VAT and GNI-based own resources are provided to the EU budget by national Treasuries and they are more frequently recorded in the national budgets of member states as government expenditure rather than government revenue reduction.

based resources have little to do with the VAT revenues as collected by member states. They come from the application of a call rate of 0.3% to the VAT theoretical harmonized tax base of each member state, which is further capped at 50% of each member country's GNI.[6] Besides, the "rebates" that are guaranteed to different member states are computed out of the VAT-based resources. Specifically, there is a permanent correction mechanism, introduced in 1984[7] and then further revised, that reimburses to the UK up to 66% of its budgetary imbalance (i.e. the difference between the UK share in the EU total allocated expenditure and the UK share in the EU total VAT-based and GNI-based resources).[8] Temporary rebates, in the form of reductions on GNI-based resource payments or reduced VAT call rates, refer also to Germany, the Netherlands, Sweden and Austria.

As shown in Figure 1, the evolution of the EU revenue system has seen relevant changes over the years, with an increasing role of GNI-based resource, originally introduced as a residual source of financing covering the difference between expenditure needs and the revenues generated by other sources. By now, the GNI-based resource has become the dominant source of revenue for the EU budget, covering more than 74% of total EU revenues in 2014. In contrast, in the same year, TOR accounted for 12% of total revenues and VAT-based resources for about 13%.

Figure 1: EU Revenue 2000-2013 (million EUR)



Source: European Commission (2013a), p.39

[6] This capping was introduced in 1988 in order to take into account the fact that the VAT base tends to be relatively broader in poorer member states.

[7] The 1984 Fontainebleau European Council fixed the principles of the existing correction mechanisms. The UK correction was introduced in 1985 because of the country's unique situation arising from its low prosperity and its high contribution to the financing of the Community.

[8] Operating budgetary balances are a limited and misleading way to measure the wealth and benefits that member states get from the EU budget. This issue will be further discussed in Section 3.

3 The limits of the present system

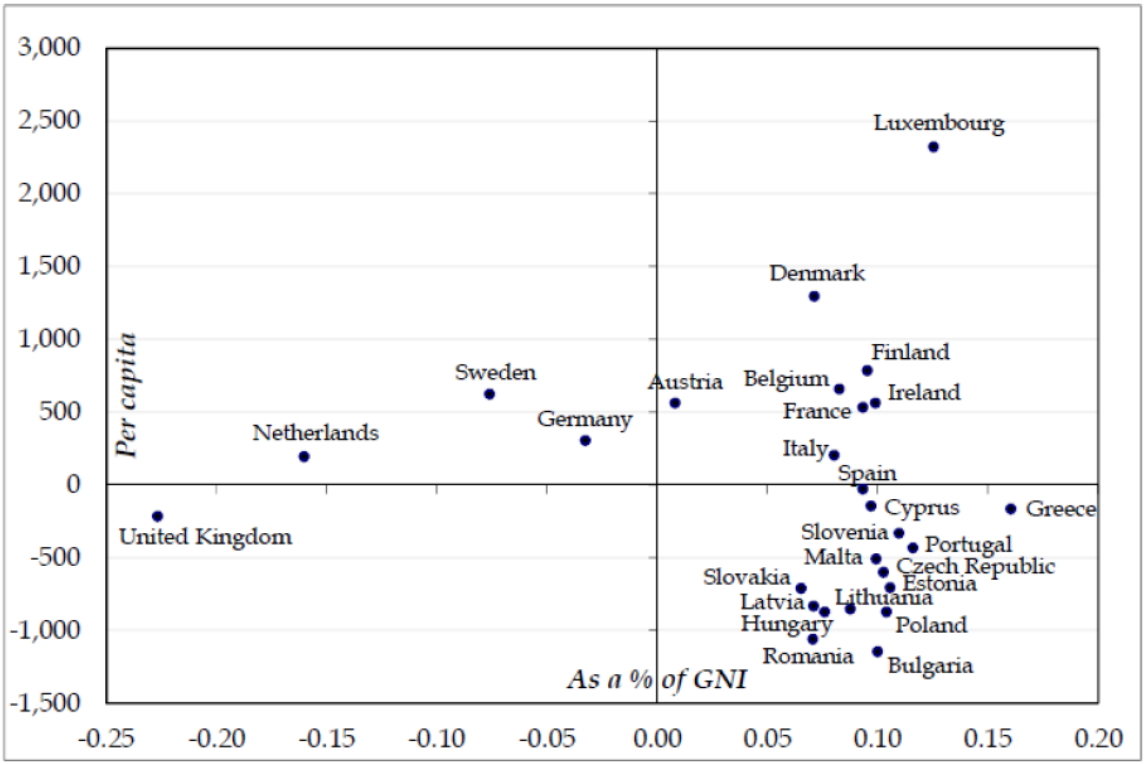
The present funding system has both advantages and potential limits. The main advantage, as stressed by the first report by the High Level Group (2014), is that it works. Money flows regularly to the EU budget (despite some recent problems with delayed payments) and it is regularly spent on the agreed upon expenditure items. The actual spending is slightly below the ceiling of 1.23% of EU GNI (in fact it is close to 1.1% of EU GNI), but on the whole mandated expenditure is financed, and the EU budget is maintained in equilibrium both on an annual and multiannual basis.

However, the current system also presents several limits and is increasingly stressed by the Commission and the European Parliament. In particular, according to the Court of Auditors, it lacks "simplicity, equity, transparency and democratic accountability". Complexity refers to revenue collection, calculation, and control of contributions. The system of computing the VAT-based resources is utterly complex and open to several reservations, while the issues of statistical reliability and comparability of data on GNI for the different member states create problems in determining the GNI-based resources. This complexity gives room to "reservations" from the European Commission concerning the reliability of the data supplied by the member states and therefore the accuracy of their relative payments. At the end of 2013, there were 288 reservations awaiting solutions for the GNI-based resources and 108 reservations concerning the VAT-based resources (Cipriani, 2014).

Equity is a complex notion to establish, as it is not obvious whether it should refer to citizens or member states, and whether it should also take into account the expenditure side of the budget. Moreover, every quantitative indicator raises problems of reliability, particularly in an international contest and this makes any assessment even more complicated. However, the present system is generally thought of as being "unfair" because the final allocation of the burden to pay to the EU violates a notion of "horizontal equity" across member countries. The final payments show a large variance both with respect to member states GDP per capita and in percentage of their GNI (see Cipriani, 2014; Fuest et al., 2015), largely as a result of the different national "rebates".[9] In particular, in some cases, poorer countries pay to the EU budget more than richer ones. As an illustration of the argument, figure 2 reports the detailed computations made by Cipriani (2014) on member states' contributions.

[9] Although one should remember the problems of reliability and comparability of the GNI indicators that make it difficult to evaluate and give normative meanings to variations from the standard.

Figure 2: Contribution to EU budget as a percentage of GNI and per capita – Deviation from EU-27 average (outturn 2007-2013)

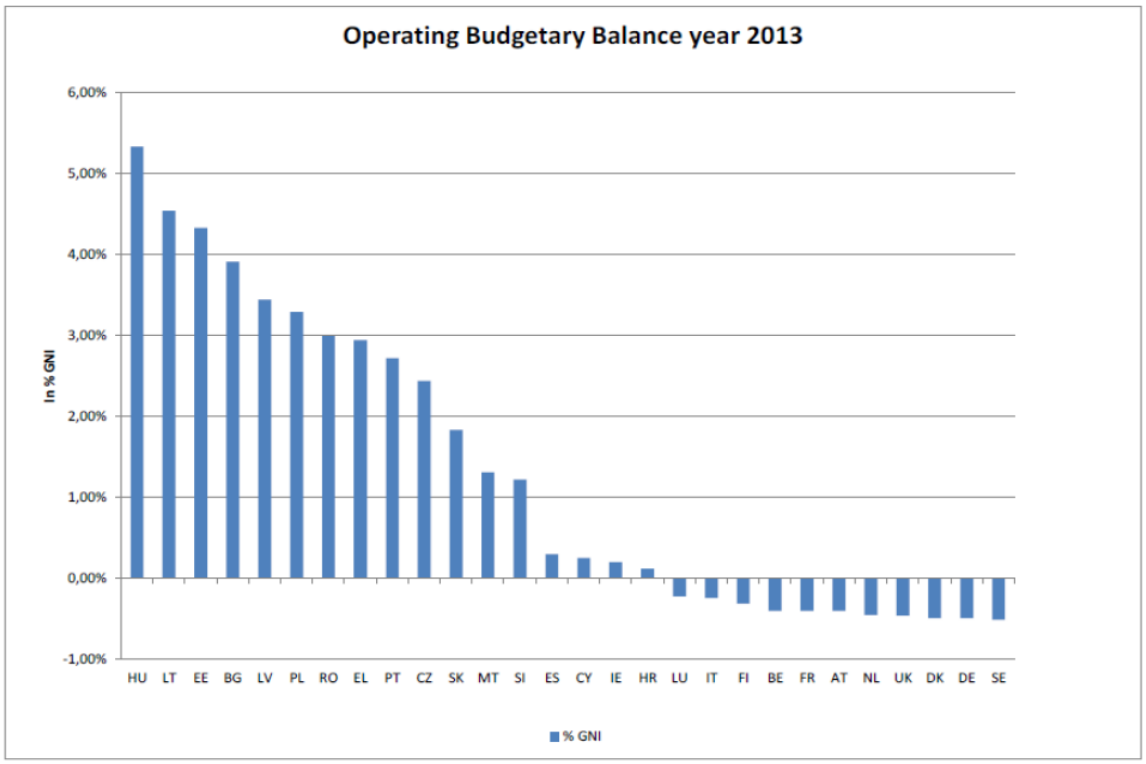


Source: Cipriani (2014), p. 23

Being so complex, the system is obviously not transparent and it does not allow for democratic control by European citizens. For instance, a number of surveys show that the large majority of European citizens are unaware both of the size of the European budget and of the way in which the EU money is spent (see for instance, TSN Opinion & Social, 2011).

But, according to several critics (see for example, HLG, 2014; Cipriani, 2014; Le Cacheux, 2007), this is just the tip of the iceberg concerning the difficulties of the present funding system. The main problem is that by being de facto based on national contributions, the present funding system focuses all political attention in the determination of the budget on the "operating budgetary balances" of the different member states, that is on the difference between their "national contributions" to the EU (VAT and GNI-based resources) and their share in the "operating expenditure". Figure 3 shows the operating budgetary balances for 2013.

Figure 3: Operating Budgetary Balance (2013)



Source: High Level Group on Own Resources (2014), p. 28

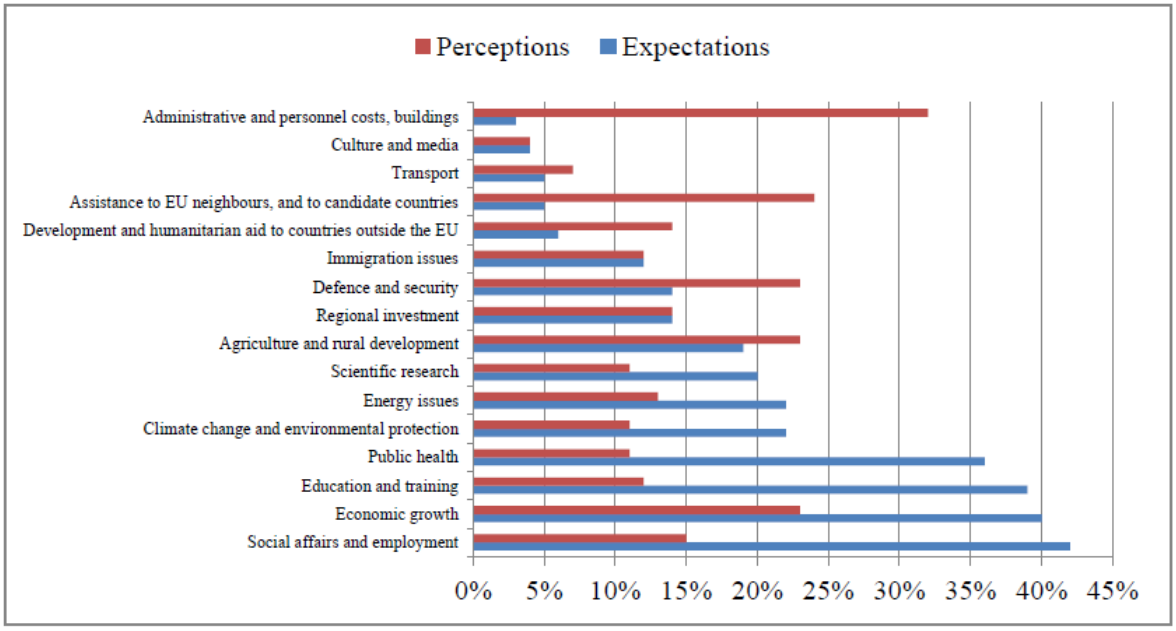
Operating Budgetary Balance (2013)

As widely recognized, "budgetary balances" are just an accounting exercise provided by the Commission, and are questionable even as an exercise according to the Commission itself (as it based on "highly arbitrary conventions"). Budgetary balances do not measure the real benefits accruing to countries for their participation to the Union (the consumption of European "public goods"), not even in the strict sense of the benefits deriving from the EU expenditure, as spillover effects across countries are not computed in the exercise (see Cipriani, 2014: p.14). Still, budgetary balances (as well as national rebates) have become the focal point for the bargaining across countries to determine the MFF, with each country trying to get even in terms of resources given and received, asking for more expenditure allocated to its territory or for "rebates" from contributions if the budgetary balances are too negative. Additionally, budgetary balances are the part of the EU budget that is subject to more scrutiny by the (national) media, adding pressures on national politicians to show that they have "won" at the bargaining table and "brought the bacon back home".

The negative aspect of this process, according to critics, is that it distorts EU expenditure away from financing true European "public goods" (goods and services that offer benefits to European citizens at large), that are then under provided, with respect to "pork-barrel projects" of limited interest to

European citizens at large.[10] Indeed, as argued by several authors (see for instance Alesina et al. 2005), it would be hard to defend the actual pattern of EU expenditure, with reference to both the targets that the EU sets for itself (like the well-known statement of "becoming the most innovative economy of the world" in the Lisbon agenda, while 40% of the budget is still spent on Agriculture) and the policy priorities and preferences as expressed by the European citizens (TSN Opinion & Social, 2011). As an example, the relevant differences between Europeans' perceptions and their expectations regarding the EU budget are shown in Figure 4.

Figure 4: European expectations and perceptions of the EU Budget



Source: TSN Opinion & Social (2011)
Note: the figure shows the answers to the following questions QD1: On which of the following do you think most of the EU budget is spent? Firstly? Any others? and QD2: And on which of the following would you like the EU budget to be spent? Firstly? Any others?

4 Proposals for reform

A large debate on possible reforms of the present funding system has emerged both among scholars (see Iara, 2015 for a recent survey) and the European institutions themselves. In particular, from 2004 on, different reform proposals have been put forwards by the Parliament and the Commission, although all without success. Specifically, in 2011 the Commission proposal that was part of the 2014-2020 MFF consisted of:

(i) the abolition of the VAT-based own resource;

[10] See for instance the example of the drinking water reservoir in Brandenburg, co-financed by the EU, in Fuest et al. (2015). Did really Germany need EU money to finance a water reservoir?

(ii) the introduction of two new own resources from 1 January 2018:[11] a financial transaction tax (FTT)[12] and a new VAT-based resource which should provide the most important revenue share for the EU budget by 2020. The introduction of the FTT would aim at ensuring the (fair and substantial) contribution of the (under-taxed) financial sector to cover the costs of the crisis; discouraging inefficient and excessively risky financial transactions; and coordinating the otherwise fragmented internal financial market.[13] Regarding the new VAT-based resource, the proposal would apply a single EU rate (max 2%) on the VAT tax base referred to the standard VAT rate in each member state. The introduction of this new own resource could also help to improve the general performance of the VAT system in terms of broadening the tax base, reducing tax evasion, and improving tax administration;

(iii) the introduction of lump sum reductions in the GNI-based resource payments to replace all the existing correction mechanisms in case of excessive burden compared to the relative prosperity of a country;[14]

(iv) the reduction of the TOR collection costs retained by member states, often envisaged as a hidden correction mechanism, from the actual (unreasonably high) level of 25% to a more realistic 10%, i.e. the percentage of collection costs in place until 2000.

The proposal also contains some revisions concerning the ORD which should make it more transparent and easier to understand not only by the parliaments of the member states but also by EU citizens. According to the Commission estimates (European Commission, 2011b), with an EU budget of about €163 billion, in 2020 the two new own resources would account for €66.3 billion and then would finance 40.8% of the EU budget.[15] The remaining 59.2 % would be financed by GNI-based resources (40.3%) and by TOR (18.9%).

However, the proposed abolition of the actual VAT-based own resource was not supported by all member states. Critical issues were also raised against the new VAT: it had to be levied on member

[11] In 2010, in its Communication on the EU Budget Review, the European Commission listed six possible candidates for the own resources system. Apart from an EU taxation of the financial sector and an EU VAT, this non-exhaustive list also included: EU revenues from auctioning under the greenhouse gas Emissions Trading System (ETS), in line with the polluter-pays principle stated by the art. 191 of the Treaty of Lisbon; EU charge related to air transport which could take the shape of either a departure tax on passengers or a flight duty on passengers and freights transport; EU energy tax which could be placed side by side to the resources coming from the auctioning of emission allowances in order to better face the problem of CO2 emissions; and EU corporate tax facing the challenge of imposing a harmonized tax base to all firms (EU Commission, 2010).

[12] The legal basis for the FTT is the art. 113 of the TFEU: "The Council shall, acting unanimously in accordance with a special legislative procedure and after consulting the European Parliament and the Economic and Social Committee, adopt provisions for the harmonization of legislation concerning turnover taxes, excise duties and other forms of indirect taxation to the extent that such harmonization is necessary to ensure the establishment and the functioning of the internal market and to avoid distortion of competition".

[13] After the financial crisis, some member states, not only those that further signed the ECA (see below), introduced different taxes and levies on the financial sector which increased the risks of relocation of financial activities and of double taxation, and distorted competition in the market. For a description of the different taxes on financial instruments in the European Union see European Commission (2013b), Annex 1.

[14] The lump sum reductions amounted to € 3600 million for the UK; €2500 million for Germany; €1050 million for the Netherlands; € 350 million for Sweden. They should be better than the alternative system, i.e. the generalized correction mechanism (GCM), in different respects: fairness, simplicity and transparency, efficiency (incentives to implement EU programs) and the possibility to be limited in its duration (see European Commission, 2011d).

[15] According to the initial EU estimates, FTT revenues could amount to € 57 billion per year across the whole EU (EU Commission, 2011c). Despite a high degree of uncertainty, further estimates indicate that revenues from FTT could go from € 30 billion to €50 billion per year for the EU-27 by 2020 if the tax should be applied not only to bonds, stocks and derivatives, but also to currency transactions. Concerning the new VAT, a 1% rate could raise revenue from € 20.9 billion to € 50.4 billion depending on the degree of harmonization of VAT systems (EU Commission, 2011d).

states and not on citizens with no improvement in citizens' awareness; and the average share of VAT revenue from an EU common basket of goods and services taxed at the standard rate would not have been so easy to calculate due to the different sources and statistical methods across member states.

At the same time, the idea of a FTT at the EU level, with a high risk of relocation due to the fact that it was not internationally coordinated and had some potential negative effects on economic growth and employment, was opposed by several member states. Following the request of eleven member states (Austria, Belgium, Estonia, France, Germany, Greece, Italy, Portugal, Slovakia, Slovenia and Spain), the EU Commission proposed a Council Decision on an Enhanced Cooperation Agreement (ECA) in the area of FTT, that had to be based on the same aims as the original proposal of 2011.[16]

After having surveyed the 2011 proposal, in February 2013 the European Council encouraged both the Commission to further work on the new VAT-based resource idea and the member states involved into the ECA to investigate the way in which the FTT could really become a new own resource for the EU budget. In November 2013 the European Parliament, the European Council and the European Commission established the High Level Group on Own Resources (HLG from now on) with the specific aim to go on with reflections on reforming the own resources system.

In December 2014, the HLG presented its first report. Besides summarizing the evolution of the EU funding and discussing the proposals advanced to date to reform the financing side of the budget, the HLG sets up a series of criteria that the taxes devolved to the EU budget should satisfy in order to be considered as a proper source of financing for the EU. These criteria are not very different from those advanced and already discussed by a large body of literature (e.g. Begg, 2011; Le Cacheux, 2007; Cipriani, 2014). Some of them are desirable features of any tax system (equity/fairness, efficiency, stability and sufficiency, transparency and simplicity, democratic accountability and budgetary discipline), others are more specific to the EU system (focus on European added value-e.g. the benefit principle, respect the subsidiary principles, limit political transaction costs).

As an exercise, one can always contrast the desiderata of an "EU tax" with respect to the various candidates proposed in the literature, and see how the different proposed taxes fare with respect to these criteria. Indeed, several exercises of this kind have already been made in the literature (see for instance the summary in Iara, 2015).

[16] The revenue collected in this case, with respect to the original FTT proposal, should account for € 34-38 billion per year - that is 0.4% of the GDP referred to EU11. It has been claimed that the original FTT proposal could be amended with respect to three different points: exempting some financial instruments and some actors, and integrating the residence principle with aspects of the issuance principle. The EU11 FTT revenue should decrease to €30-34 billion if specific products (i.e. UCITS and AIF) are exempted (European Commission, 2013b).

5 A political economy approach to reforming the revenue side of the EU budget

5.1 On the political economy advantages of the present system

Section 3 makes it clear that the present system of funding the EU budget, despite some advantages, suffers from many potential problems. Summing up, there is a wide consensus in the literature that the present system is: 1) opaque; 2) utterly complex; 3) it does not allow for citizen's political accountability; 4) it is "unfair" in its distribution across countries; and 5) it is in clear contrast with the spirit of the Treaty because national contributions de facto dominate "true" own taxes.

However, before rushing to argue for a reform, one should ask with respect to which normative standards these features should be considered as negative. This in turn depends on the view about the nature of the EU: a true federation, with a sovereignty of its own which transcends that of the member states; or just a club of sovereign states, which join forces in providing some common goods (say, participation in the common market) and also bargain on some payments as a side issue (the EU budget). The answer is not obvious. From a political economy perspective, what really matters in order to clarify the political role of the EU is not the legal status of the EU per se, but its actual interpretation and implementation, and the way in which it evolved through history and politics.

On these grounds, the EU institutional structure clearly shows contradictory elements, the results of several compromises, which in turn testify to the difficulty of building a supranational structure in Europe. So the EU has an elected European Parliament, representing European peoples, but differently from any other Parliament, the EU one does not have the right to decide the size of the budget or how to allocate expenditure, except for marginal annual variations on a predetermined long term budget (Hix et al., 2006). The EU Parliament cannot even propose new legislation, because this is a prerogative of the Commission. There is "representation" but not "taxation".

In contrast, legislation about a set of devolved functions (basically, the ones related to the common market) is decided according to a three-tier structure that closely resembles that of a bicameral federal state (with an executive, the Commission, appointed by the Council, but partly accountable to the Parliament, and two legislative chambers, one representing member states, the Council, and the other one representing citizens, the Parliament, who co-decide the policies), the so-called "supranational or 'Community' method". Besides, strong regulatory powers have been exclusively assigned to the Commission, given its nature as guardian of the Treaty (defending the common market).

On the other hand, all decisions concerning resources, fiscal policies or other politically sensitive policy issues (such as foreign policy or defense) are taken up by member countries that decide according to the unanimity rule (Fabbrini, 2014a and 2015), the so-called "intergovernmental method". The Lisbon Treaty strengthened this role of member states by institutionalizing the European Council (that now even appoints a President), which has become a second, and even more important, executive government of the Union.

Depending on the view that one has about the nature of the EU, the normative judgments about the financing of the EU budget are bound to differ. In particular, if one thinks of the EU as just a club of

sovereign states, it is not difficult to provide arguments in support of points 1) to 5) above, arguing au contraire that these are the features that one would expect, and perhaps also the ones that one would wish for, for the funding of the EU budget.

For instance, neither opacity nor complexity (and complexity is functional to get opacity) are a real issue, and indeed they may actually play a very important role from a political economy view (Dorussen and Nanou, 2006). Opacity allows each country leader to get back home and say "we won" in the intergovernmental bargaining in order to save face, even if the result was in fact negative for their country.

The lack of citizen's accountability is also not an issue, as money belongs to member state governments, not to citizens. Finally, "unfairness" across member states is also not an issue; it is the potential result of a bargaining game across countries with side payments where some countries might have gained more in some periods and less in others, to accommodate changing bargaining powers.

Indeed, what is perceived as "unfairness" might well be the equilibrium result of the need to compensate some countries, through rebates or increased budget expenditures, for having accepted some changes in legislature, even in fields not formerly covered by the budget. The EU is mostly a legislative body and most EU policies are pursued by drafting legislation that is later adopted by member states. EU expenditure traditionally plays a minor role, not least because of the small dimension of the EU budget. It is therefore not unthinkable that the apparent unfairness in budget financing (and expenditure) might be just the result of a compensating mechanism, to persuade some countries to accept modifications in other parts of the legislature. So "unfairness" may actually be not only useful, but indeed necessary.

There is some evidence in the political economy literature that supports this "bargaining view" of the EU budget. For instance, Kauppi and Widgren (2004, 2007, 2009) use different "power indexes" derived from cooperative game theory (Shapley-Shubik value, Banzhaf index etc.) to measure the bargaining power of each member country in the Council in different periods (depending on the number of countries and on the distribution of voting rights, that has changed over time with the different revisions of the Treaties) and use these indexes as explanatory variables in regressions aimed at predicting the allocation of the European budget expenditure. They find that power indexes typically outperform other indicators (such as "needs" indicators), as explanatory variables.[17] Interestingly, in analyzing the period before the Lisbon Treaty, Kauppi and Widgren (2009) also distinguish between "compulsory" and "not compulsory" expenditure (a distinction existing before the Lisbon Treaty), on the basis of the different role played by the EU Parliament in determining these expenditure (more limited on the larger "compulsory" component). They find evidence that in the "compulsory" part power indexes perform better than in the "not compulsory" part, while the opposite is true for "needs indicators". Given the greater importance of the EU Parliament in determining the "not compulsory" expenditure, this supports the idea that the EU Parliament tends to divide itself more along policy lines rather than country lines, a point already raised in the literature on the EU Parliament (see Hix et al., 2006). We will come back to this in the next paragraph.

[17] Baldwin et al. (2001) make a similar point for the distribution of expenditure in the years preceding the introduction of the Nice Treaty.

More generally, one could even argue that "distorting" the budget might have allowed to make substantial progress in the supply of "true" European public goods. The distortion of EU budget expenditure in favor of agriculture (originally a French request), or the UK rebate are probably the clearest examples. On normative grounds, they both probably did not make much sense, but they kept both France and the UK on board, so allowing the Union to make progress on other grounds.

Investments in "true" European public goods are probably sub-optimal, because the present system incentivizes too much the "just return" behavior. However it is an open question whether without this "inefficient" EU budget funding system, the progress that has been made even on more European wide public goods would have been possible at all.

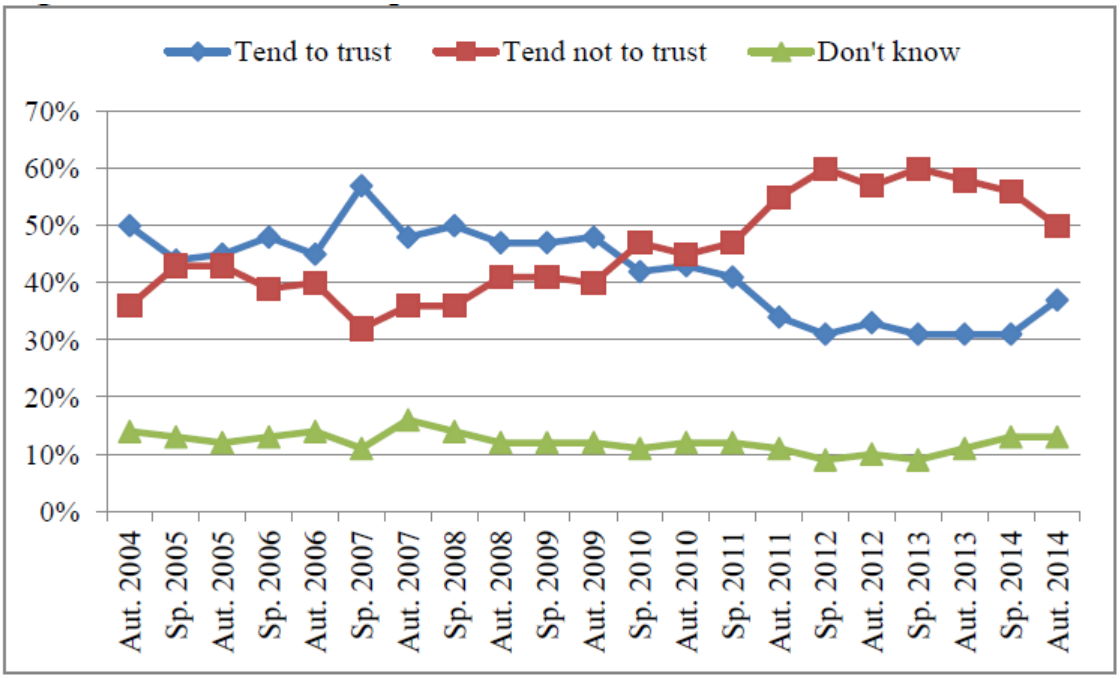
A corollary of this argument is that making the system more transparent, still maintaining the present format of an EU budget financed by country contributions – for instance, by abolishing VAT-based resources and making everything paid in terms of GNI, and transforming the various "rebates" in lump sum deductions, as in the 2011 Commission's proposal – might not be a very good idea. It would not solve the problem of political accountability by citizens, while making the distributive conflict across member countries harsher.

5.2 So why change?

Among the main European institutions, the only one that is really pressing for change is the European Parliament; the Commission just follows. This is quite easy to understand: leaving aside legal disputes, there is an obvious contradiction between the status of the European Parliament and its limited powers on the EU budget. As we argue below, the European Parliament would likely be the main winner of any reform of the EU budget involving increased own resources. However, it is unlikely that the Parliament alone could be the decisive agent for change, given its limited powers, and also given its limited political legitimacy with respect to national governments. Indeed, as we saw above, the proposal of the Commission in 2011, supported by the European Parliament, was rejected by the Council.

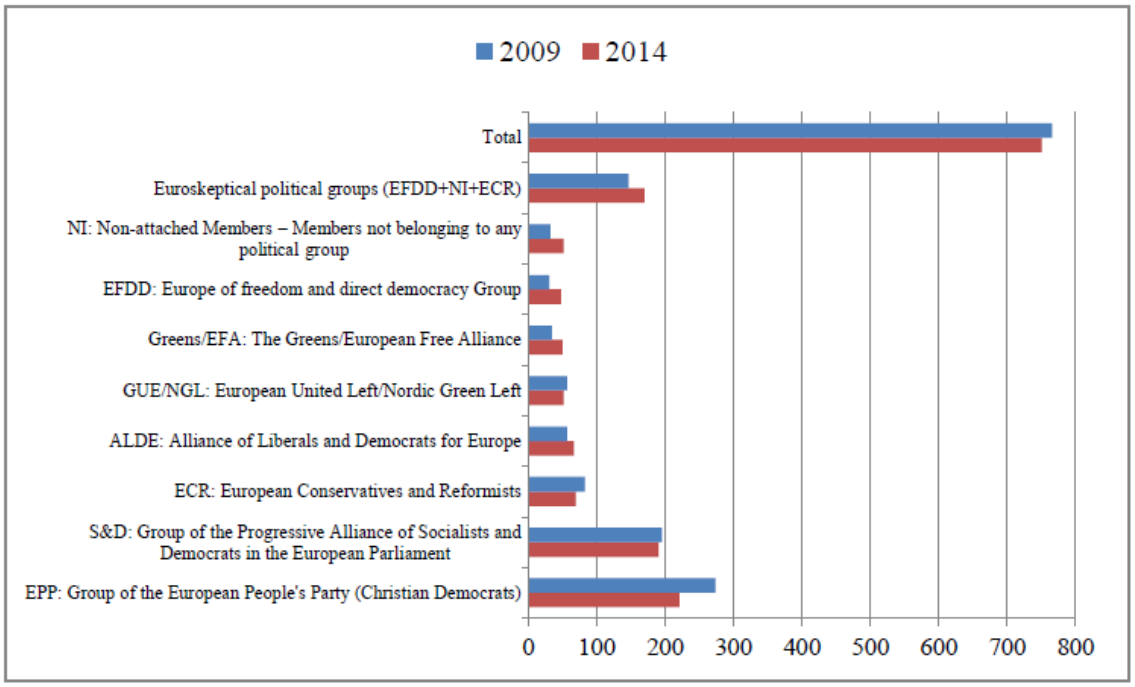
The real question on political economy grounds is whether the present system, that has served the Union pretty well in the past, is still sustainable. This is of course up for debate, but there are several signals that point to a negative answer. For instance, surveys show that citizens' support for the Union has been declining in the last few years. As an example, figure 5 shows that by now only 40% of European citizens say that they trust the European Union, while that same figure was 50% just 10 years ago (although the last Eurobarometer survey (May 2015) again shows some improvements). As a further example, figure 6 displays the increasing number of seats in the European Parliament allocated to Eurosceptic parties.

Figure 5: Trust in the European Union



Source: TSN Opinion & Social (2014)
Note: The figure shows the answers to the question QA8a.13: For each of the following media and institutions, please tell me if you tend to trust it or tend not to trust it. The European Union. For only the 19 member states of the euro area, the percentage of the three different answers referred to Aut. 2014 are as follows: 41.7% "Tend to trust", 46.1% "Tend not to trust", 12.2% "Don't know".

Figure 6: European Parliament: seats by political group (2009 and 2014 elections)



Source: our elaborations from http://www.europarl.europa.eu/elections2014-results/en/seats-group-member-2014.html
Note: EFDD, NI and ECR group the different Euroskeptical national parties.

If this were not enough, one should add the UK's decision to reconsider its position in the EU, leading to a referendum that might lead the country to secede from the Union (a Brexit), and the ascension to power in several EU member countries of political parties that have an explicit anti-EU ideological platform (e.g. Poland, Hungary, Greece). The criticisms raised against the Union from all these different movements and political parties are almost the same: lack of legitimacy of the European institutions, technocratic bodies that do not respond to citizens' preferences, little value for money in EU spending, inability to face citizens' true economic problems and so on ("populism" in Acemoglu et al., 2013).

It is then hard to escape the conclusion that the EU is facing a legitimacy problem and that it needs to find ways to overcome the distance that has emerged between EU institutions and EU citizens. Concerning the debate on the EU budget, this of course could go both ways.

Given the current low level of consensus for the EU institutions, revising the EU budget funding system in the direction of increasing own financing to make it more transparent to citizens and also giving more power to the EU Parliament on the determination of the budget, may be a very risky move, even threatening the survival of the Union or the maintained participation in the Union of all present member states.

On the other hand, it is hard to think of any better move to start regaining legitimacy among European citizens than giving them a more direct say through their representatives in the EU Parliament on how money is raised and spent at the European level. Countries and their leaders are conscious of this legitimacy crisis, and perhaps this might provide the political push needed to support a reform of the budget, above and beyond legal prescriptions or the pressures coming from the European Parliament.

5.3 Which change?

The above argument has several corollaries.

First, if the main reason to reform the budget is a legitimacy crisis, middle grounds solutions are unlikely to solve the problem. For instance, the 2011 Commission proposal, had it been accepted, would not have addressed the accountability problem sufficiently. As already discussed, the newly proposed VAT would have been levied on member states instead of citizens, and therefore would not have been visible to them.[18] If the point is to make citizens more aware of EU costs and expenditure and EU institutions more accountable to them, it is difficult to escape the conclusions that a reform of the EU budget would require some type of EU tax, paid directly by citizens to the EU budget.

The second observation is that given the present situation, it looks unlikely that all countries would accept a more fully fledged move towards own financing through an EU tax. It is hard to see any substantial proposal that in the present context would find the unanimous consensus of all member

[18] Notice that this proposal in itself is a retreat from a Commission proposal advanced in 2004 and confirmed in 2010, which aimed at introducing VAT-based resources through an EU VAT tax rate, incorporated and levied together with the national rate and so on the same taxable base.

countries. Thus, if one insists on having the proposal approved by unanimity, the most likely result is that the status quo will prevail, in spite of the widespread consensus, even among many member states, that the present system is outdated and unable to answer citizens' demands.

The conclusion is that a bolder mode towards own tax financing for the EU budget could and should be probably adopted by only a subset of countries. Clearly, this could not happen with a new tax, because the other countries might object (as indeed happened with the FTT, which is then going to be adopted, if ever, through an enhanced cooperation agreement). However, there is nothing that could forbid a subset of EU countries to pool together some existing tax resource (say, a fraction of VAT), and use it to finance their share of the EU budget, if they wish to do so.

Countries within the Eurozone, or more generally the EU countries who have either adopted or are thinking of adopting the Euro in the future, are the obvious candidates to form this subset.

5.4 An EMU budget?

There is quite a large consensus that the EU countries need to integrate more on the economic side, and that adopting some mechanisms to share risks and supporting more growth friendly policies may be necessary if the monetary union is going to survive. The dismal performance of many EMU countries in the recent international crisis, in comparison to the United States or the UK, suggests that the macroeconomic governance of the area has been suboptimal (see for a recent discussion, Blanchard et al., 2015). This dismal outcome is also probably one of the reasons behind citizens' increased discontent in several countries. Conceptually, an EMU budget could be part of the solution as it might provide resources to support more growth friendly policies.

Indeed there is an increasing body of literature, not only purely academic, that openly talks about the need to introduce an "EMU budget". The two "Reports of the Presidents" (Van Rompuy et al., 2012; Juncker et al., 2015), written by the highest authorities of the EU, explicitly underline the need for a "fiscal union" that together with the "banking union" and the "capital union" should accompany in the future the functioning of the "monetary union". "Fiscal union" might of course mean several things, but one plausible interpretation, certainly in the academic literature, is the EMU budget (see for instance, Benassy et al., 2014; Baglioni, et al., 2015; Trannoy and Wolf, 2014; Fuest et al. 2015). On these grounds, it is telling that the countries that have decided to go on with an Enhanced Cooperation Agreement on the FTT are mostly EMU countries.

Such a change could perhaps be accommodated in the present EU institutional framework in the short run,[19] but it is hard to think that it could be sustainable in the long run. An EMU budget would further add to the dynamics of "internal secession" of the EMU countries inside the EU (Fabbrini, 2015) and sooner or later an institutional change (such as a revision of the Treaty) would become necessary. On the other hand, pending the UK referendum, such a revision of the Treaty might be unavoidable anyhow. Different European countries have different views about the nature and the

[19] Begg (2011) for instance proposes a system where some countries, say the EMU countries, pool resources for the EU budget through a common tax, while the others keep their contributions unchanged.

future of the EU, and the rhetoric of a common destiny which admits only temporary deviations is getting more and more inadequate to represent this reality (Bordignon and Brusco, 2007).

Furthermore, an EMU budget would probably need to be larger than the 1% of GNI envisaged in the present EU budget and cover different policies to be of use. A future equilibrium institutional structure would then be based on two "budgets", inside the larger EU budget, one for the policies supported commonly by all countries, and another (larger) one only for the EMU countries to support policies specific to the common currency area.[20]

5.5 Political dynamics of EU taxes

As discussed in Section 3, the debate on own EU financing is mainly focused on drawing up a list of criteria that the "optimal" European financing scheme should satisfy. From a normative perspective, this is of course a desirable way to proceed. However, from a political economy point of view, this discussion seems of secondary importance. First, because there is no tax that meets all principles at once, as largely acknowledged by the literature, and trade-offs are necessary. Second, because the true question about financing is how this is going to change the relationship between the Union and the member states, or more specifically between the EU Parliament and the Council.

Political economics is mostly about distribution; who wins and who loses from the different proposals in terms of both power and resources. A move towards a new financing of the EU budget based on own resources would affect this balance across at least three different levels:

a) the relationship between different groups in society (e.g. producers versus consumers, poor versus rich people, agriculture versus services, and so on);

b) the relationship between member states (who is going to win or lose with respect to the actual distribution in terms of resources);

c) the relationship between the Union and the member states, that is, to simplify, between the EU Parliament and the Council.

The specific characteristics of the tax eventually chosen are surely going to be important in determining a) and b). However, in the current situation, the most relevant relationship appears to be the last one listed above. Reforming the EU budget, so that it is fully or largely financed out of own taxes, paid directly by citizens, rather than national contributions, is not a marginal change; and even if the change was marginal at the beginning, it would certainly start political dynamics that might eventually lead to permanent changes in the relationships between the Union and the member countries.[21]

Let us illustrate these dynamics with a simple example. Suppose, following Cipriani (2014), that an EU-VAT at 2% is introduced (with an offsetting variation in the national rate, in order not to increase

[20] The EMU budget should remain inside the EU structure, so as to maintain scrutiny by the European Parliament. But which Parliament? The answer is again not obvious, but it stands to reason that on EMU policies only legislators belonging to EMU countries should have the right to vote. Indeed, the German Minister of Finance has already advocated such a move.

[21] The relevant scientific literature discusses these phenomena under the general heading of "evolving federations". For examples, see for instance, Bordignon and Brusco (2001, 2007), Alesina et al. (2005), and the collection of essays in Wildasin (2010). See also Cipriani (2014).

the tax burden for each consumer) on the subset of goods and services that in all EU member states are taxed at the standard rate, thus avoiding redistributive effects across countries. National contributions are then set up to keep the total contribution of each member state (the new EU-VAT plus GNI-based resources) unchanged. And finally suppose that all the rest of the system remains unaffected, including the MFF decisions about EU spending and all other spending decision rules. What would be the difference with respect to the present situation? Apparently none, expect for the fact that voters/consumers would now be more conscious of how much they pay to the EU if the 2% EU-VAT rate was clearly indicated in their VAT receipts (this is Cipriani's proposal).

But this would create a difference in future negotiations. The EU Parliament, having established the principle that the EU is, and ought to be, financed with own tax resources, would naturally start to ask for more power on this tax base, according to the principle of Western democracies that links representation and taxation. To begin with, more power to set the European tax rate, to finance European services.

Furthermore, the fact that the main source of revenue for the EU budget is now a tax, instead of national contributions, would naturally lead to questioning the idea that the EU budget must always be in equilibrium. If EU tax revenue falls, because of a downturn, why should EU expenditure remain unchanged? There are of course technical ways to insure a stability of EU expenditure, but how could one argue that a tax financed expenditure at the EU level should be stable, while member countries expenditure should not? But then, if the EU budget must not be necessarily in equilibrium, why should the EU not borrow money in some periods, say during a downturn, and use tax revenues as collateral? EU bonds issuance and EU debt would become an obvious chance.

Finally, if EU tax financing is made more transparent, citizens might then feel more entitled to ask how their money is spent. Would this be compatible with the actual multiannual financial framework that leads member countries to decide not only how much, but also how and where EU money is going to be spent, so largely constraining the choices of the present EU parliament by decisions taken five or seven years before? This seems very unlikely. On the contrary, the EU Parliament would start asking for more power on the expenditure side, both on the annual and multiannual framework. More autonomy on the spending side would capture more attention of European media and probably lead to an increased polarization of the European Parliament on policy lines. This, in turn, would probably require some institutional changes to keep the system running (for instance the direct election of the President, see the discussion in Hix, 2008). And so on.

Clearly, this process would take time and might not at all be linear or incremental. History suggests that central governments in federations acquire (or lose) powers in reactions to crises, not in a smooth way or because it is prescribed in the Constitution (see for instance, Bordo et al., 2012 for a history of the US federation, and Rodden et al., 2003 for examples about other federations). But the introduction of a true EU tax would ignite the process, with consequences that are foreseeable, although timing may be not. These future political dynamics are probably clear to all actors involved; and this is quite likely the reason why the EU Parliament is pressing for a change in the budget funding, while many member countries resist this change. What is at stake is the balance of power between the two bodies, or more precisely between the Union and its members.

Finally, one might ask whether introducing an EU tax is really necessary to start this dynamic. Perhaps the same result could be achieved by letting the present funding system remain unchanged (that is, basically financed with member country contributions) and just by giving more power in the determination of spending allocations to the European Parliament. Member countries would still try to affect the distribution of the budget, of course, but as discussed above, there is already some empirical evidence proving that where the EU Parliament has a larger say on spending allocation, outcomes are different and are less affected by the bargaining power of member countries. Wouldn't this be enough?

Possibly, but there are two serious counter-arguments to this view. First, it is very difficult to imagine that member countries would be willing to give up their sovereignty on "their" money to another entity such as the EU. As long as it is "their" money, for which national governments are directly accountable to their citizens, member countries would (rightly) demand for strict controls on how it is spent. Some compromise could be struck of course, but certainly member countries would ask to retain most of their power in determining expenditure.

The story would be completely different if instead it was the "money" of the European "federation", assigned directly to the Union by giving up some tax base or a portion of tax base of the member countries. The political logic would be entirely different. If it is the money of the Union, it is the latter's job to decide how to allocate it, through its democratic institutions (the interplay of the Parliament, the Council and the Commission through the 'Community' method) and it is these institutions that would become jointly responsible for its use in front of the European constituency.

Second, the main advantage of an EU tax: the greater visibility for citizens with its implied effect in terms of increased accountability, would be completely lost if the money kept arriving by the member countries' treasuries. An important piece of the political dynamic discussed above would then be missing.

Finally, one might wonder if the issue of an EU tax is also linked to the size of the budget. Shouldn't one need a larger EU budget to advocate for an EU tax? Does the EU really need to introduce an EU tax to finance expenditure for 1% of GDP? But this argument misses the main point of the discussion. The issue of how much money should be allocated to the EU budget and the issue of how it should be financed are conceptually separated problems. There might be arguments in favor of allocating more functions at the European level (or at least for a subset of EU countries in the multi-speed Europe that is emerging), but they should be discussed separately from the issue of how to finance them. It is an easy bet to predict that had the 1% of EU GDI accruing to the EU budget been financed differently, through EU taxes, it would also have been spent differently.

5.6 On the implementation of an EU tax

Assuming a move towards the financing of the EU budget with own resources takes place, the question then becomes which kind of taxes and how many. On one hand, a single tax would have the advantage of making it clearer to citizens where the money is drawn and to some extent who pays for it. On the other hand, a multiple taxes system would have the advantage to cover potentially more subjects, thus allowing to redistribute the burden more evenly across different groups of society, and might also have a different distribution across member states, thus limiting distributive conflicts.

In discussing this point, it must be realized that from a political economic point of view the apparent distribution of the tax burden is at least as important as the real one. Tax incidence is a cornerstone of economic analysis, and it is well known that the true payers of a tax might be very different from the agents formally subject to that tax. For instance, economic literature would suggest that corporate income taxation is borne by workers and consumers, in a proportion that depends on market conditions (the standard reference is Auerbach, 2006; see Fuest et al., 2013 for a recent analysis). Still, from the citizens' perspective a tax on banks or companies is a tax on these subjects and it is very hard to convince them otherwise.

Then the general suggestion is that it might be more advisable, to avoid conflicts and make the change more acceptable, to consider a (limited) basket of EU taxes, that give at least the impression of a widespread distribution of the burden, rather than focusing on a single tax. Especially from the outset, it would be important that no member country (or subset of member countries) loses from accepting the reform of the financing of the EU budget. In fact, even if this loss could always be accommodated ex post by reducing national contributions, it would be better to reach this goal ex ante with a balanced set of taxes. Finally, a restricted basket of EU taxes might also make revenues more stable to economic cycles.

As argued above, there is already a large body of literature discussing the pros and cons of the different possible EU taxes, using different sets of normative criteria. Without going into details, some considerations are in order, again from a political economy perspective.

First, many proposed taxes (e.g. various forms of energy taxes, carbon taxes, air transport taxes) reflect a "polluter pays" principle. Even the rationale for the FTT proposed by the Commission referred to the same principle, as the FTT was supposed to reduce high frequency speculative transactions of financial activities. However, this kind of tax seems to be unfit to finance the EU budget for several reasons. First, if they work, they do so precisely by reducing their tax base and therefore by definition are unfit to regularly finance a budget. In some cases, tax elasticity is known and can be computed, because these taxes already exist; in others, such as in the case of the proposed FTT, tax elasticity is not known and can only be vaguely guessed from other experiences. So in spite of the political advantage of introducing a new tax on a tax base that does not clearly belong to any country (nobody can complain of losing revenues), the FTT amounts to a particularly implausible tax to found the EU budget autonomy.

Second, Pigouvian taxes are more adapted to be earmarked to some specific kind of expenditure, rather than to finance a general budget. In other words, they can be proposed to support EU policies

in some specific areas (assuming that these policies need financing and are not just regulatory policies) and not to become a constant source of revenue for the EU budget.

The same is true for the hypothesis of introducing a specific banking tax (similarly to the Financial Activity Tax proposed by the IMF in 2010) which would replace all the existing taxes on banks, and using part of its revenues to finance first the "fiscal backstop" for the resolution mechanism in the new EMU banking union, and then the general budget (Bénassy-Quéréa et al., 2014). These taxes are good to finance a specific activity and can become part of an EMU budget together with other sources of revenue, but certainly they are not the right resources for funding an EU budget, as many EU countries have not agreed to the banking union and related supervisory mechanism.

Many proposals have stressed the importance on normative grounds that EU own resources adhere to the "benefit principle"; EU taxes should be related to some functions explicitly conducted by the Union. This is even more important on political economy grounds because it might increase the acceptability of the EU tax across citizens.

Thus, for instance, VAT is a robust candidate on these grounds, because one could easily argue that consumption captures the advantages that consumers get from the unique European market. Moreover, VAT is already largely harmonized at the EU level and, if adopted with some modifications, an EU VAT might also enable authorities to fight frauds and tax evasion, induced by the incomplete shift to the origin principle in the EU model. Further, VAT has a large tax base and even a small EU rate (say, 2%) would generate a large revenue, covering a substantial part of the EU budget. A true EU VAT rate, restricted to the subset of goods that are taxed at the standard rate in all countries, with offsetting reduction in the national rate, could then be introduced and made clearly visible to citizens by indicating the EU rate in the VAT receipts (see the detailed proposal in Cipriani, 2014).

One problem with this proposal is that the bundle of goods and services subject to the standard rate is not the same in all countries, and as we discussed already in section 3, there are substantial differences in implementation and monitoring of the VAT across member countries. This is probably the reason why the 2011 EU Commission proposal still maintained that the new VAT revenues (accordingly statistically harmonized by the EU Commission) had to be collected from the member states and not directly by citizens. In an academic contest, this is also the reason why Fuest et al. (2015), while in favor of making the payments to the EU budget transparent by indicating them in the VAT receipt of consumers (the same proposal as in Cipriani, 2014), propose a "fictional" rate, computed as the ratio of each country present contribution to the EU budget on the country total VAT revenues, or as the average common percentage of all VAT revenues that would be necessary to finance the EU budget.

On political economy grounds, both these proposals do not seem very convincing. As we argued above, if the objective is to improve accountability of the European institutions, tax payments to the EU budget must be made visible to citizens/consumers and therefore maintaining indirect payments through the countries' budgets cannot solve the problem. The idea of a "fictional" EU tax rate, while certainly an improvement in terms of visibility of the EU budget across citizens, would have the defect of being misleading for citizens, as no real flow of resources to the EU budget would actually follow from this "fictional" rate.

Thus, it would seem to be preferable to introduce a true EU VAT rate with revenues paid directly to the EU budget (as in the proposal by Cipriani, 2014), and in any case try to correct the difference in definition and monitoring across EU countries by adjusting the GNI-based resources or some other tax resources that might also simultaneously be introduced to finance the EU budget. The need to introduce corrections and adjustment mechanisms would undoubtedly create complexity and opacity at the EU level, plus bargaining and conflict across member countries, and between the member countries and the Commission. However, similar adjustments and conflicts would probably arise with any other conceivable EU tax, and none of the other proposals seem to have the advantages that the VAT has on other grounds (visibility, benefit principle, revenues etc.). Moreover, the introduction of an EU VAT would probably push towards greater uniformity across EU countries on VAT bases and rates, and also leads to more scrutiny by European institutions on national implementation and monitoring mechanisms, both useful outcomes for their own sake.

The same kind of double benefit would seem to clearly emerge in the case of a European tax rate levied on a common definition of corporate income at the European level (CCCT), and with some redistributive mechanism of the tax base across countries, as proposed by the Commission in 2011 (EU Commission, 2011a). It satisfies a benefit principle, because the common market has certainly increased the profitability of the companies operating at the European level, and the adoption of a common consolidated tax base would certainly work in the direction of reducing tax frauds and elusive behaviors, based on profits shifting and the tax avoidance tricks allowed by the different national tax codes. Furthermore, such a tax would not limit member countries' autonomy in determining the tax rate, and because of the large tax base, even a small EU tax rate would be enough to produce large revenues (although fluctuating with the economic cycle).

Finally, if accompanied by an EU VAT rate, the European corporate income tax would at least give the impression of a balance between taxing consumers and taxing companies (leaving aside the issue of the "true" incidence of the different taxes) that would be important on the political economy grounds.

5.7 Transitory period

As already argued, what is really at stake in the debate about reforming the financing of the EU budget is the nature of the Union. Even the introduction of a limited form of direct taxation on citizens to finance the EU budget, provided that this tax or set of taxes is sufficiently large (that is, covering a consistent part of the EU budget) and visible to taxpayers to establish the principle that the Union has the "right" to collect own resources, is going to produce large changes in the future. This is the "bolder move" that is probably necessary to try to address the legitimacy problem at the EU level, by modifying the funding of the EU budget. Provided this move is taken, however, all steps should be taken in order to make the transition as smooth as possible and create the largest possible consensus across member countries and public opinions.

For instance, it seems advisable that, at least for a period, a role in the financing of the EU budget should be maintained to national contributions (GNI-based) as this would stabilize expenditure and compensate member countries for the variations in payments induced by the shift to own tax financ-

ing. Adjustments are probably necessary whichever tax is chosen, for the reasons stressed in the previous paragraph, and having national contributions that can act as a buffer would be important. National contributions should however be reduced sharply in size, going back to the dimensions they had at the time of their introduction (see figure 1).

Similarly, in a transitory period the Council should be allowed to set up through the MFF the maximum amount of expenditure for each of the years covered by the decision, as proposed by Fuest et al. (2015). Democratic accountability at the European level is still not properly established. European MPs are not elected at the moment by European citizens to decide on taxes and budget, as they had not played this role before, and it will take time for the political debate at the national and European level, involving the selection of European MPs, to adjust to the new situation. An interim budget with fixed upper limit would also placate the fears that the Union uses its increased autonomy to excessively expand the budget.[22]

On the other hand, it would not make sense to offer this increased financing autonomy to the EU institutions, with the idea of making them more accountable to citizens, and then maintain the right of the member states to predetermine most expenditure for the next 5-7 years with the MFF's approval. This would only increase the conflict between European institutions and frustrate citizens' demands for representation. Once the maximum amount of spending for a given year is determined, the European institutions, through the (by now) well-established supranational method, should have the chance to freely determine how they want to spend this money.

6 Conclusions

In the previous sections, we revised the debate on the funding of the EU budget, and in particular on the introduction of an EU tax as an own source of financing for the EU budget. This debate is once again on the fore as the EU Commission will probably put forward a new proposal in 2016, after the rejection by the European Council of the proposal advanced in 2011, and the set-up of a High Level Group to examine the possible alternatives. In considering the different options, we deliberately adopted a political economics approach rather than a normative or legal one, asking which agents or political forces would benefit from the reform and which agents would instead oppose it.

A key point of the analysis is the adoption of a dynamic perspective; we argue that in order to understand the forces at play, one should ask how a funding reform today might affect the bargaining position of the EU Parliament with respect to the Council in tomorrow negotiations, or more generally how it would change the relationship between the Union and member states. Even a limited change in the source of funding the EU budget, moving in the direction of an EU tax paid directly by the citizens to the EU budget, would lead to a political dynamic strengthening the Union with respect to member states, possibly also putting strains on some fundamental features of the present budget

[22] Tabellini and Persson (2003) study the setting up of the budget in a Presidential system, where budget allocation is seen as the result of a division of roles between the Congress, who sets up the size of the budget, and the President, who chooses where to spend the money. The basic conclusion is that separation of powers induces lower spending than in a Parliamentary system. A similar insight would apply here, with the Council taking the place of the Congress and the Parliament of the President.

(such as the fact that the EU budget always has to be in equilibrium). Anticipations on these future political dynamics are probably the main reason why some member countries resist the change, while the EU Parliament is pressing for it.

From this perspective, the large discussion in the scientific literature on the "optimal" characteristics of an EU tax seems to be ill posed. What is really at stake in the debate on the EU tax is the nature of the European Union, whether it will remain just a club of sovereign states or it will evolve into a true federation. The answer to this question is more dependent on establishing the principle that the EU budget ought to be financed with own taxes directly levied on citizens than on the specifics of the chosen EU tax. Indeed, we also argue that the criticisms that are raised against the present system of funding of the EU budget make little sense if one takes the view that the EU is, and must remain, just a club of sovereign states, cooperating in providing some common goods and bargaining on some payments as a side issue (the EU budget).

Finally, we also claim that the main rationale for introducing a reform of the EU budget is to cope with the legitimacy crisis that the EU is currently facing. Although it is a risky move, given the present low level of consensus towards the European project, making European citizens more aware of the cost of the EU budget by financing it with a visible EU tax might be a way to force more accountability in European institutions and move European expenditure more in the direction of satisfying citizens' demands. On these grounds, we have discussed the different proposals concerning the EU taxes and advanced suggestions for a transitory period.

7 References

Acemoglu, D., Egorov, G. and Sonin, K. (2013) A Political Theory of Populism, *The Quarterly Journal of Economics*, vol 128, issue 2, pp. 771–805.

Alesina, A., Angeloni, I. and Etro, F. (2005) "International Unions", *American Economic Review*, vol.95, p. 602-15.

Alesina, A., Angeloni, I. and Schuknecht L. (2005) What does the European Union do?, *Public Choice*, vol. 123, issue 3, pp. 275-319, June.

Ambrosanio, M. and Bordignon, M. (2007) "Normative versus positive theories of revenue assignments in federations, in Handbook of fiscal federalism" in E. Ahmad - G. Brosio (eds), *Handbook on Fiscal Federalism* Edward Elgar, Camberley: 306-338.

Auerbach, A. J. (2006) "Who bears the corporate tax? A review of what we know", in Poterba, J. M. (ed) *Tax Policy and the Economy*, vol. 20, The MIT Press.

Baglioni, A., Boitani, A. and Bordignon, M. (2015) "Labor Mobility and Fiscal Policy in a Currency Union", CESifo Working Paper n. 5159, Category 1: Public Finance, January.

Begg, I. (2011) "An EU Tax: Overdue Reform Or Federalist Fantasy?", FES Briefing Paper, Friedrich Ebert Stiftung, February (http://library.fes.de/pdffiles/id/ipa/07832.pdf).

Bénassy-Quéréa, A., Trannoy, A. and Wolff, G. (2014) "Tax Harmonization in Europe: Moving Forward", *Les notes du conseil d'analyse économique*, n. 14, July.

Bordignon, M. and Brusco, S. (2001) "Optimal Secession Rules", *European Economic Review*, 45, pp. 1811-34.

Bordignon, M. and Brusco, S. (2007) "On Enhanced Cooperation", *Journal of Public Economics*, 90 (10), p. 2063-2090.

Bordignon, M., Buettner, T. and van der Ploeg, F. (2009) "Reinventing Europe: Introduction", *CESifo Economic Studies*, CESifo, vol. 55(1), pp. 1-14, March.

Bordignon, M., Buettner, T. and van der Ploeg, F.(2012) "Europe at a crossroads: reforming political institutions and public sectors" in Buettner T. and Ochel W. *The continuing evolution of Europe*, Cambridge Mit Press.

Bordo, M. D., Markiewicz, A. and Jonung, L. (2012) "A Fiscal Union for the Euro: Some Lessons from History", NBER Working Paper, NR. 17380.

Cipriani, G. (2014) *Financing the EU budget*, Centre for European Policy Studies.

Dorussen, H. and Nanou, K. (2006) European Integration, Intergovernmental Bargaining, and Convergence of Party Programmes, *European Union Politics*, vol. 7, issue 2, pp. 235–256.

European Commission (2010) "Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee, The Committee of the Regions and the National Parliaments. The EU Budget Review", SEC (2010) 700, Brussels, 19 October. 21

European Commission (2011a) "Proposal for a Council Decision on a Common Consolidated Corporate Tax Base (CCCTB)", COM (2011) 121, Brussels, 16 March.

European Commission (2011b) "Proposal for a Council Decision on the system of own resources of the European Union", COM (2011) 510, Brussels, 29 June.

European Commission (2011c) "Proposal for a Council Directive on a common system of financial transaction tax and amending Directive 2008/7/EC", COM (2011) 594, Brussels, 28 September.

European Commission (2011d) "Financing the EU budget: Report on the operation of the own resources system", SEC (2011) 876, Brussels, 27 October.

European Commission (2013a) "EU budget 2013 – Financial Report".

European Commission (2013b) "Impact Assessment. Accompanying the document: Proposal for a Council Directive implementing enhanced cooperation in the area of financial transaction tax. Analysis of policy options and impacts", SWD (2013) 28, 14 February.

Fabbrini, S. (2014a) The constitutional conundrum of the European Union: Sources, features and outcomes, *Les Cahiers Europeens De Sciences Po.*, n. 01/2014.

Fabbrini, S. (2014b) On Banks, Courts and International Law: The Intergovernmental Agreement on the Single Resolution Fund in Context, *Maastricht Journal of European & International Law*, 3.

Fabbrini, S. (2015) *Which European Union*, Cambridge University Press.

Fuest, C., Peichl, A. and Siegloch (2013) “Do higher corporate taxes reduce wages? Micro evidence from Germany”. Discussion Paper 13-039, ZEW

Fuest, C., Heinemann, F. and Ungerer, M. (2015) “Reforming the Financing of the European Union: A Proposal”, Preliminary version, EESC Hearing ‘A European Tax as an EU Own Resource’.

High Level Group on Own Resources (2014) “First Assessment Report”, December.

Hix, S., Noury, A. and Roland, G. (2006) Dimensions of Politics in the European Parliament, *American Journal of Political Science*, vol. 50, issue 2, pp: 494–520, April.

Hix, S. (2008) What is wrong with the European Union and how to fix it Polity UP.

Junker, J.C. (2015) “Completing Europe’s Economic and Monetary Union” The European Commission, Brussel.

Iara, A. (2015) “Revenue for EMU: A contribution to the debate on Fiscal Union”, European Commission Taxation Papers, Working Paper n. 54.

Le Cacheux, J. (2007) “Funding the EU Budget with a Genuine Own Resource: The Case for a European Tax”, Notre Europe Studies n. 57. 22

Persson, T. and Tabellini, G. (2003) *The Economic Effects of Constitutions*, Cambridge, MA: The MIT Press.

Rodden, J., Eskeland G. S., and Litvack, J. (eds) (2003) *Fiscal Decentralization and the Challenge of Hard Budget Constraints*, The MIT Press.

Trésor-Economics (2013) *A budget for the euro area*, n. 120, October.

TSN Opinion & Social (2011) “Standard Eurobarometer 75: Europeans and the European Union Budget”, August.

TSN Opinion & Social (2014) “Standard Eurobarometer 82: Public Opinion in the European Union”, Autumn 2014.

Van Rompuy, H. (2012) “Towards a Genuine Economic and Monetary Union”, Report by President of the European Council, EUCO 120/12.

Wildasin, D. (2010) Fiscal aspect of evolving federations, Cambridge UP.

Strategies for a European EU Budget

Friedrich Heinemann[1]

Abstract:

This contribution shares the consensus that current spending priorities of the EU budget contradict principles of an efficient federal assignment of competencies. However, it contests the popular view that innovations to the revenue side are key to correct the underlying budgetary disincentives. Instead, it recommends precisely targeted reforms which increase the relative attraction of European public goods (EPG) over local spending projects. For that purpose, it proposes strategies which make the benefits of EPG more visible, increase the costs of local goods relative to EPG or strengthen those actors in the budgetary process who have a less parochial perspective.

[1] ZEW Mannheim and University of Heidelberg. E-mail: heinemann@zew.de.

Table of Contents

List of Tables

1 Introduction

Even in the rich EU member states, European citizens have ample opportunity to see what money from Brussels is doing for them in their home localities. Scrolling through the project database of the Commission's Regional Policy Directorate General one can find manifold projects with a high local visibility:[2] In Lower Saxony, the European Regional Development Fund (ERDF) has supported the construction of a visitor center of an ancient battle site on which German tribes defeated three Roman legions led by their commander Varus in the year 9 AD. The ERDF co-financed the project with 1.5 million euro. The Fund also invested 5.5 million euro into the "Academy of Pop" based in Mannheim, Baden-Württemberg. In the same rich German state, the EFRD has spent 3.2 million on the transformation of a disused public bath to office space for "cultural and creative industries" in Pforzheim.

Doubtless, projects like these are highly visible, popular and warmly welcome by local politicians and voters alike. Nevertheless, it is a very different question whether the EU should spend money to develop tourist attractions, selective tertiary education institutions or simply office space in affluent regions of the richer EU member countries. Taking the idea of subsidiarity seriously, it is difficult to argue why member states need assistance from the European budget to promote their tourist industry or education system, let alone their market for office space.

These thought-provoking single projects already illustrate what is problematic with the EU budget as a whole. Over the 2014-2020 Multiannual Financial Framework (MFF) there is, like in the preceding financial periods, a strong financial priority on cohesion spending, i.e. transfers to regions and countries, and the Common Agricultural Policy (CAP). 34 per cent of the 960 billion euro in overall spending over these seven years are committed for cohesion spending and another 29 percent for the CAP (market related expenditure and direct payments to farmers) with additional money for rural development projects.

It has been repeated over and over in the literature that these spending priorities are inconsistent with a rational division of tasks between the EU and the member states (e.g. Alesina and Wacziarg, 1999; Sapir et al., 2004; Alesina et al., 2005; Heinemann and Begg, 2006; ECORYS et al., 2008; Ederveen et al., 2008). An EU budget designed from a scratch and solely guided by criteria for efficient centralization (e.g. realization of European economies of scale, internalization of spillovers across national borders, reflection of preference homogeneity) would result in a different structure. The common message of these normative contributions is that a much lower importance should be assigned to today's big resource absorbers' cohesion and CAP. These corrections would free the money needed to foster policies with more obvious properties of European public goods (EPG) in the following, e.g. defence, foreign policy, research and innovation etc.

The problem has been recognized for decades. In this context, a regularity of a seven-year discussion cycle has emerged: Prior to a new MFF agreement, European and national politicians embark on far-reaching reform debate "without taboos" which consequently includes bold reform options. When negotiations draw to a close the courage evaporates. And finally, when it comes to the decision itself,

[2] Examples are taken from the Regional Policy project database: http://ec.europa.eu/regional_policy/en/projects/.

the status quo bias demonstrates its overwhelming power. After the MFF decision, there is typically a phase of frustration and regret paired with the firm intention to have a far-reaching reform the next time. This time, when the current MFF was decided in 2013, the phase of regret has led to the establishment of the High Level Group on Own Resources (Council of the European Union, 2013). This Group has the task to reflect on potential new sources to finance the EU.

This revenue focus assigned to the High Level Group signals a specific diagnosis of the underlying fundamental problem: According to this view, it is predominantly the deficient revenue side which must be reformed in order to pave the way for a more fundamental transformation of the budget. And indeed, both representatives from the Commission and the Parliament tend to argue that an EU tax could limit the "juste retour" thinking. The argument is that contributions paid from the member states intensify the national interests in money flowing back (Molino and Zuleeg, 2011).

This paper contends that the literature's preoccupation with an EU tax is mistaken. It argues that new revenue types are unable to steer the incentives of budgetary decision makers in a desirable direction. Instead, promising reforms should directly address incentives which under the status quo bias the spending side towards public goods of local rather than European character. Reforms are needed which increase the relative attraction of EPG over projects with a strong local impact (but lacking the European dimension). For that purpose, it proposes the use of strategies which (a) directly try to make the benefits of EPG more visible, (b) increase the costs of local goods relative to EPG or (c) strengthen those actors in the budgetary process who have a less parochial perspective.

The setup of this paper is as follows: Section 2 explains the underlying disincentives and the bias against European public goods in EU spending. Section 3 clarifies why revenue reforms in isolation are unable to correct the misbalanced spending or may even worsen the situation. Section 4 presents a list of better targeted innovations counteracting the bias against EPG.

2 The core of the problem

If a "benevolent dictator" had the say on the EU budget she would concentrate EU spending on policies which create a "European added value" (EAV) over national spending.

EAV may emerge from different sources: Europe might be able to realize economies of scale and provide certain public services cheaper compared to the national level. This could be the case, for example, if a united EU army makes defence capabilities available at lower costs than it is the case with 28 national armies and their multitude of parallel structures and excessive overheads (Weiss, 2013). Moreover, European involvement could correct inefficiently high or low spending levels which result from uncoordinated national provision if there are negative or positive externalities. The current refugee situation in Europe demonstrates how national responsibility creates massive spillovers and phenomena of free riding of some member states with a dissatisfactory outcome. There might even be policy fields, where only a European activity has a problem solving capacity whereas the national level would be completely unable to address a certain challenge. Very large investment projects ("Galileo") or foreign policy issues are possible examples where a sole national responsibility might result in a complete failure to deliver. Thus, the benevolent dictator would finance, for in-

stance, a European army, a joint European refugee policy and foreign policy programs – but provide few subsidies for farmers or office space in Germany.

Fortunately, no dictator determines the EU budget, but representatives of national governments in the Council and directly elected Members of the European Parliaments (MEPs). These decision makers face fiscal incentives typical in democracies where politicians are elected in locally defined constituencies and where the financing of local public goods and services is not local but from country-wide revenues, the "common pool". In this setting, there will be an excessive demand for local goods (LG) which are not necessarily characterized by creating any significant EAV. Politicians seeking re-election have to use their influence in the budgetary process to promote expenditures which particularly please their local voters. Local spending might not offer EAV but it offers an attractive political-economic "value for money": The spending's benefit is targeted at the relevant constituency but costs are spread across the whole of Europe with a negligible share for local voters.

Compared to the local spending projects, Europe-wide public goods which create benefits for all citizens are less attractive because these benefits are more dispersed and less visible. Dispersion does not only refer to benefits being realized all over Europe but also to benefits being created through activities only directly visible outside of Europe (like development aid or military missions abroad).[3]

While the dispersed benefit is a natural outcome of a policy with a European dimension, some additional reflections on the low visibility of EPG are important: If Europe takes over a policy like defence and realizes economies of scale, member states could save money in their national budgets. They could get the same output (security in this case) for less money. Thus sticking to pure national defence is costly. These costs are of an opportunity cost type since they correspond to unrealized cost savings. It is known from behavioral economics that opportunity costs have less relevance for actual decisions than direct "out-of-pocket" costs (Tversky and Kahneman, 1986). A further handicap for the political impact of these opportunity costs is that they may be uncertain. After an actual European centralization of policies it may turn out that economies of scale are smaller than expected or even non-existent, e.g. as a consequence of an unfavorable European cost function possibly driven by high salaries of EU civil servants. Thus psychology and uncertainty prevent potential cost savings to have an appropriate influence on decisions about the spending structure of the EU Budget.

The consequence from all these incentives and perceptions is that EPG[4] which create EAV may be nice to have but are no political priority over LG. With a binding budget constraint (as set through the current own resource ceiling) there is a trade-off between an EAV policy and an existing EU policy which produces highly visible backflows to home constituencies. Under current conditions and incentives, the latter policy will often be best suited when it comes to the final budgetary decision.

---

[3] The problem of low visibility of EPG is distinct from the classical free riding issue. A free riding problem emerges if the benefits of public good provision extend beyond the borders of the financing jurisdiction. The consequence is under-provision since there is an asymmetry between costs which fall on the financing jurisdiction and benefits which are external to some extent. The standard implication for EPG is that national responsibility leads to a suboptimal level of provision. Shifting the competency to the EU budget could be seen as an internalization strategy which prevents free riding since all EU member countries contribute to the financing according to the contribution formula. This is a classical argument for an EU provision of EPG instead relying on the member states. However, even European financing will not necessarily guarantee a sufficient provision level because EPG compete with national or local public goods on the European level as well.

[4] Note that there may well be European policies which create EAV (e.g. because they reap economies of scale compared to national provision) but which do not fulfill the textbook conditions of a pure "public good" (i.e. both non-rivalry and non-excludability). Nevertheless, this analysis refers to these European policies as "Europe-an public goods" as well.

While common pool disincentives are at work in any jurisdiction with locally elected politicians, they are particularly powerful in the EU budgetary system given the size of the EU, the number of member states after several enlargement rounds and also the very large size of the European Parliament with its current 751 members.

3 The misguided focus on the revenue side

The view that a new autonomous EU revenue source like an EU tax could pave the way for more efficiency in the spending structure is frequently heard. For example, Haug et al. (2011, p. 3) argue: "Fully funding the European Union with independent sources of revenue is the only way to put an end to the fair return approach. This will then make the necessary change to its spending possible in order to provide the EU with adequate means to meet its needs. This is the key for the success of the EU 2020 strategy."

This optimism of EU tax proponents is not obvious if one asks how a revenue innovation would change the disincentives analyzed above. A new direct revenue source might not necessarily diminish the higher attraction of expenditure with high local visibility. This disincentive is the outcome of both a lack of benefit awareness for the merits of EPG and the financing of the budget from a common European pool. A new direct revenue source would not address either of these two problems. It would as such not boost the benefit awareness of EPG. And it would not stop the European financing of LG with the only difference that a contribution-fed European common pool is replaced by a tax-fed European common pool. Thus, it is not clear why an EU tax could improve cost-benefit-perceptions for EPG relative to LG and make a shift in the budgetary structure towards EPG politically feasible.

It is true that a European tax might make it more difficult to calculate net gains or net losses if the new revenue source is not transparent or the localization of tax receipts is difficult (Le Cacheux, 2004). But not much would be gained if national representatives maximize gross gains from the EU budget instead of net gains as long as there is too narrow a perception of "gains" (which excludes the benefit to Europe as a whole). Even with a setting where the financing for the budget comes from a black box, policies like cohesion or agricultural spending remain of undiminished attraction for national policy makers if there are no other changes in the fiscal incentive structure.

Insofar as the new revenue source is highly visible and transparent for all voters it may in-crease cost awareness for EU policies in general.[5] However, this general effect would not impact on the relative high attraction of LG over EPG. The poor political support for genuine European policies compared to local spending projects is the consequence of a misperception of EPGs' relative benefits compared to that of local spending projects. It is not clear where a new European revenue source contributes to correct this bias.

[5] Increasingly, the EU tax debate favors highly nontransparent taxes like a financial transaction tax or green taxes. This would lower cost awareness further and, hence, could even increase the inefficient political demand for local spending projects.

Summing up, the debate's fixation on new revenue sources as the clue to the problem has led the reform discussion on an unproductive track. Instead, strategies are needed which precisely target the underlying problem: the high popularity of LG over EPG in the eyes of voters and their representatives who decide on the EU budget.

4 Strategies for a better spending structure

The incentives inherent under the status quo bias the EU budget against the provision of EPG and in favor of policies of a rather local or national character. To correct this bias there are, in principle, three available triggers: First, increasing the salience of EPGs' benefits; second, increasing the costs in the provision of LG relative to the costs of providing EPG; and third, changing budgetary decision making in order to increase the power of agents with a European perspective vis-à-vis the representatives of local interests. The table summarizes these three dimensions and lists the respective strategies which are subsequently developed in more detail.

Table 1: Triggers to promote EU policies with European added value

Higher salience of EPG benefit relative to LG benefit		
4.1	Marketing	Campaigning the European added value of specific EU policies
4.2	Experiments	Assigning EAV policies to EU on an experimental basis
4.3	Accounting	Augmenting the "budgetary balance" by including measures for indirect national benefits
4.4	Evaluation	Rigorous evaluation of European added value of EU spending
4.5	Contracting	Contracts on EU service provision between EU and member states
Increasing costs/lowering benefits of LG relative to EPG		
4.6	Differentiated co-financing	National co-financing rates correlate with locality of policy
4.7	Pre-defined net balances	Neutralizing effect of modified expenditure structure on net balances
Reforms to budgetary decision making process		
4.8	Power shift to EP	Strengthening relative power of EP over Council
4.9	European finance minister	Internalizing European benefits through strong finance minister

4.1 Marketing efforts to make EPG more visible

A first straightforward approach is to increase the visibility of European policies through European marketing campaigns. Voters can only appreciate a policy if they have a chance to take notice of it. Local spending projects like those funded from cohesion policy and cited in the introduction have an inherent advantage: The infrastructure financed from structural funds is located all over Europe in the immediate neighborhoods of voters. Recipients are obliged to indicate the EU funding with the

consequence that the EU flag decorates the projects. European development aid, European diplomatic service or European refugee programs lack this communicative advantage. An EU flag which indicates that a school in a developing country is EU-financed hardly has a chance to impress European voters. Larger efforts to communicate better what Europe is doing (and achieving) might contribute to correct this perceptional imbalance.

However, given the bureaucratic logic in the provision of EU policies, this strategy will be particularly hard to realize. It would imply that an EU image campaign should concentrate on those policies which are most remote from voters and for which the smallest share of the EU budget is being spent. With certainty any such marketing approach would provoke the strong resistance of those Directorates-General who provide the more local goods.

This difficulty points to another general reason for the persistence of the budget structure: Large budget shares increase bureaucratic support for the currently favored policies. Fierce and influential defenders of CAP are to be found not exclusively in farmers' associations and particularly benefitting member countries but also in DG Agriculture and Rural Development.

Therefore, without more significant changes imposed on the system from outside it is highly unlikely that marketing campaigns could implicitly acknowledge that one type of EU policy is more valuable than another.

4.2 Reform experiments

A handicap of potential new EU policies with EAV is that these policies do not yet exist. As a consequence there is uncertainty to which extent an alleged EAV would really materialize. Furthermore, even with certainty of potential benefits, it is still the case that potential cost savings in national budgets have the character of opportunity costs of the status quo: Sticking to the status quo of national provision is costly because possible benefits from European pro-vision are not realized. Compared to actual out of pocket costs, opportunity costs have a lower decision impact (Tversky and Kahneman, 1986).

Temporary reform experiments with a Europeanization of a policy would help to address these handicaps. Reform experiments help to reduce uncertainty on the actual EAV (in terms of cost savings and/or quality improvements). Furthermore, an experiment can transform opportunity costs into out of pocket costs: If during an experiment cost savings are being realized, a later termination of the experiment will increase the directly perceivable budgetary costs on the national level (which would have to be taken over again).

The experimental approach has a regional and a time dimension. To some extent, regional experiments are already possible since EU primary law allows for flexible integration. The problem with the current two speed-Europe approach is that it is irreversible: Once a country takes part in an integration step it is not allowed to leave the closer integration group in future. This makes flexible integration rather unattractive and risky from an individual country's perspective. Furthermore, it is an insight from conventional fiscal federalism research that centralized jurisdictions are less eager to experiment compared to lower tier jurisdictions in horizontal competition. Hence, institutional innova-

tions are needed which simplify the conduct of policy experiments on the European level. For example, it is desirable that flexible integration experiments can also be terminated unilaterally by single EU member countries (Reimer, 2015). This encourages member states to embark on joint European policies of a sub-group of EU members. Each single country would know that it is able to leave the group and to return to national responsibility if the European way proves disappointing.

The time dimension would be easy to realize within the given primary law: It is not prohibited to define EU policies in combination with a definite sunset-clause so that another future decision would be necessary to continue with this particular service provision.

Currently, refugee policies are a possible example where a reform experiment with limited duration might help to learn about the advantages of a European provision. EU countries (or possibly a sub-group of EU countries) could agree to delegate their responsibilities for refugees to the EU and agree to a joint financing scheme for the European provision.

4.3 Accounting exercises: Quantify "equivalent national expenditure"

The current use of "net balances" as indicator for the national advantage from the EU budget is fundamentally flawed. First, contributions paid to Brussels are usually not very informative on the regional incidence of the underlying taxes. Second, payments received by member countries may entail economic benefits to other countries as well. And third, the net balance approach implicitly assumes that the EU budget is part of a zero-sum-game where the ad-vantage of one country must be the disadvantage of another country. This is wrong if the EU budget finances what it should do and creates an EAV. In this case, financing the European budget is a positive-sum-game from the perspective of member states (Le Cacheux, 2012), i.e. the benefit to all EU countries exceeds national contributions.

In spite of this poor substance, the "net balance" is nevertheless used as the key yardstick for the success of budgetary negotiations by member states. One explanation is the indicator's easy calculability and availability. As long as governments do not have better quantitative indicators to assess their country's advantage they will stick to what they have even if this is an often misleading compass.

As argued above, a possible transition to an EU tax is no solution since it does nothing to widen the perspective to the EAV dimension of EU spending. The problem could be ad-dressed much more precisely by the development and promotion of more meaningful indicators for the national fiscal advantage from the EU budget.

Ideally, a comprehensive indicator should address both incidence and EAV. A pragmatic broadening of the net balance could start with the identification of a proxy for the "equivalent national expenditure" (ENE, see Heinemann, 2011). ENE represents the national expenditure (of all EU member countries) on a certain policy required if the EU would not finance this policy. For EU policies without an EAV it just amounts to the EU spending level for this good – which is the world of the zero-sum-

game.[6] For EU policies which create EAV, ENE would exceed actual EU spending: With a national provision, member states would have to pay more than Brussels to realize the same output level. In the calculation, this implies that EU spending would have to be multiplied by a factor above one, if there is evidence for an actual EAV, before it is allocated to the member states as a "backflow".[7]

With an ENE-augmented net balance in place, a spending shift from LG to EPG will improve the sum of member states' balances – which is a consequence of the positive-sum-character. Hence, this indicator would be a much better yardstick to guide the "national interest". The identification of correct EAV multipliers is obviously no trivial task.[8] Research is required to quantify its components such as the potential savings from a European provision or the extent of a possible externality problem.[9] But even rough approximations of policy field-specific EAV would be a progress over the status quo where "benefit" is equated with backflows. A resulting comprehensive net benefit indicator reflecting the positive sum game properties of EPG would be a much better guide for governments compared to the simple net balance.

4.4 EPG evaluation

EU spending is evaluated on a regular basis across all policy fields. However, it is highly questionable whether the current evaluation standards really allow detecting EAV given a conceptual deficiency. Relatively basic tools like interviews or surveys still dominate much of the evaluation exercises and are far away from providing convincing causal identification.[10] An even more fundamental methodological challenge is that a genuine EAV evaluation would have to compare the benefit of European spending with the benefit of comparable spending on the national level. This is currently not the case where the impact of EU policies is assessed as such without comparing it to the impact of similar national policies. The demonstration that EU projects such as an infrastructure investment or a qualification program create jobs does not prove the existence of European added value. For that purpose, evidence that the involvement of Europe in the infrastructure provision creates more jobs than a purely national provision is required. Thus, EU spending projects would have to be compared with adequate national control groups wherever this is possible.

To the extent that such genuine EAV evaluation procedures can be developed and are rigorously used to restructure the EU budget, this would be a major contribution to a more efficient division of labor between the governmental layers in Europe.

---

[6] E.g. if the EU does not pay subsidies to national farmers, the member states have to finance these subsidies from their national budgets. There might be effects on the burden sharing of member states but the costs of these subsidies in total would hardly increase.

[7] A "backflow" might not literally occur if the money is spent outside of member countries. But this would, nevertheless, constitute ENE as long as it saves national money (e.g. for development aid or foreign policy). The allocation of the ENE aggregate to member countries should, in theory, be guided by the relative benefits. A more pragmatic solution would be GNI proportionality in allocation.

[8] For an attempt to develop a more comprehensive net benefit indicator on basis of EU spending-induced production see Cipriani (2014, p. 14).

[9] Weiss (2013) quantifies the potential benefits of European consulates/embassies and a European army (land forces).

[10] For regional policy, for example, an impression of the state of the art in EU policy evaluation can be gained from the following database: http://ec.europa.eu/regional_policy/en/policy/evaluations/member-states/.

4.5 Contractual arrangements

If there is a potential fiscal yield from a European provision, this might be earned by the creation of a "market". In the market for public service provisions the EU (represented by the European Commission or a European agency) might "sell" the provision of services to the member states through voluntary contracts (Heinemann, 2011). The financing would originate from the savings in the national budgets. The resulting "contracted EU budget" could supplement the conventionally contribution-financed budget. The contracts would define the service provided by the Commission, the price and the duration of the contract. At the contract's expiry, partners could check the extent of promised savings and decide on a continuation.

A contracting approach may help to overcome certain obstacles which prevent a European provision through a constitutional decision. One can argue that the Commission has an information advantage regarding the cost function of a European provision over member states. At the same time, member states may lack trust that the promise of the Commission of allegedly high economies of scale really materialize. A contract solution can both limit these problems and lower cost risks for member states.

However, a solution would be needed in case the Commission fails to stick to the contractual arrangements i.e. by not delivering a public service at the quantity, quality or costs as agreed upon in the contract. Contractual penalties financed from the EU budget are only a limited solution since they have to be financed by the member states themselves (through an increase in own resource payments). And the ultimate threat of the supplier's insolvency does not exist in this context. Therefore, sanctions should fall either on the responsible individuals in the Commission, e.g. through cuts in salaries or job losses or on the Commission as a whole through cuts in administrative expenditure (which would imply income cuts for all civil servants).

The contracting approach is most promising for types of public services where European free riding can be excluded and only those countries that are willing to pay benefit from a European service. It would not be necessary that all member countries become "clients" as long as a European added value materializes for a subgroup of member countries. Policy fields with contracting potential are among others (see for details: Heinemann, 2011): the provision of CO2 emission reductions (the EU price quote can easily be defined in euro/ton reduction), defence (costs/deployable soldier), long-term unemployment (costs/re-entry into labor market) or diplomatic services (costs/consulate).

Contracting approaches increase the visibility of EPG through the price mechanism: Member states would be able to compare the costs of national provision (e.g. for running a consulate) with the quote from the Commission.

4.6 Differentiate co-financing

As argued above, a new revenue source as such does nothing to promote the attractiveness of EPG over LG since it does not change the relative costs of both types of policies from the member states' perspective. By contrast, the differentiation of national co-financing according to the locality of a service is a much better targeted strategy for the promotion of EPG.

So far, co-financing rules do not follow the desirable principle that national co-financing rates are systematically higher for policies without a large potential for EAV. The most striking example for a bad design in this respect is that national co-financing is completely absent for the first pillar of CAP. Market interventions and direct income support are fully financed from the EU budget without a national financing share. For cohesion policy the rules are somewhat better designed since national co-financing is a basic principle for cohesion projects. Yet still, co-financing rates vary across member states with lower national shares for poorer countries. This feature makes this policy a good bargain for numerous EU countries with significant voting shares in budgetary decisions and contributes to the ill incentives favoring the provision of LG.

It is highly desirable to systematically redefine co-financing rules so that member states have to pay higher shares for European policies with a LG character than for EPG policies. For this redesign, insights from other reforms suggested above (experiments, genuine EPG evaluations or contractual approaches) which contribute to identify different degrees of EAV across policies could help. These findings should then guide the differentiation of co-financing rates. These differentiated co-financing rates could counterbalance both the anti-EPG bias resulting from the common pool problem and the EPG handicap of low benefit visibility.

But even if such a fine differentiation is not realistic, one single adjustment would already suffice to realize a major breakthrough: the co-financing of CAP alone would pave the way for a major restructuring of EU expenditures. It would free significant EU expenditures for a new use and it would decrease the political-economic attraction of CAP from the perspective of those member countries with significant agricultural shares.[11]

4.7 Pre-defined net balances

Under the status quo, national net balances are endogenous to expenditure shifts. A country benefits from an increasing net balance whenever expenditures shift towards a policy which entails particularly high backflows to the country.

The resulting disincentives could be neutralized with reforms which make the member states' net balances exogenous to the expenditure decisions. Pre-defined net balances would achieve this objective (de la Fuente and Doménech, 2001; de la Fuente et al., 2010): With this approach a country's net balance is determined ex ante (i.e. conceptually before the budget structure is decided) based on relative prosperity. Whenever the actual spending decisions create net balances which diverge from the pre-defined levels, correction payments are triggered. These fully compensate for the distributive impact of the spending decision so that the pre-defined net balances prevail. In such a model, the distributive decision on relative burden sharing for the budget is completely separated from the allocative decisions on the expenditure side. The idea of pre-defined net balances is similar to that of a

[11] Cipriani (2014, p. 80) is critical that co-financing changes the incentives for the better. He argues that member states do everything to fill the national financing share to avoid losing cohesion money allocated to them. How-ever, this observation refers to the situation in which money is already allocated to a specific program in a specific member country. By contrast, the argument in favor of national co-financing refers to the incentive effect for budgetary negotiations (particularly for the negotiations on the Multiannual Financial Framework). If high national co-financing of CAP and cohesion policy is an established rule at the outset of these negotiations, this will decrease the enthusiasm of member country representatives to defend these policies since they appear particularly expensive.

generalized correction mechanism (GCM) as it had been proposed by the Commission (European Commission, 2004) or elaborated by Heinemann et al. (2008). The only difference is that in case of a GCM the decoupling of net balances and expenditure decisions may not be perfect (depending on the formula applied). For instance, decoupling is imperfect if the GCM only kicks in when a net balance surpasses a specific critical threshold.

With pre-defined net balances, there is an implicit 100% tax on additional backflows realized through spending on LG. Such a decoupling strategy would clearly lower the attraction of LG and, hence, prepare the ground for rebalancing the spending side towards EPG.

4.8 Power shift to European Parliament with Europe-wide party lists

The reform strategies described so far are intended to increase the costs of LG from a member state perspective and, conversely, to increase the benefit perception of EPG on the national level. Another type of reform strategy would change budgetary decision making in order to weaken those players who have a particularly national perspective. The Commission, the Council and the European Parliament are actors who are likely to differ in their appreciation of EPG relative to that of LG. If one disregards the Commission which has the budget initiative but no final say, the crucial question is whether the Council or the Parliament favours more European views.

One should not jump to the conclusion that the Parliament is the more European institution. Members of the European Parliament have local constituencies in their home countries and may therefore be equally interested in EU spending with a high visibility for their voters back at home and rather neglect spending on EPG. However, there is some evidence that country-specific aspects play a smaller role in the Parliament than in the Council. For the Council, the net-receiver and net-payer positions explain preferences and coalition formation much better than the party orientation of national governments (Zimmer et al., 2005; Rant and Mrak, 2010). By contrast, transnational party lines are often more important for voting behavior in the Parliament (Hix, 2002; Hix and Noury, 2009; Hix et al., 2007; Kreppel and Tsebelis, 1999). This indicates that a power shift in budgetary policy from the Council to the Parliament would diminish parochial thinking in budgetary decision making to some extent (see also Gros and Micossi, 2005).

For that purpose, Fuest, Heinemann and Ungerer (2015) have suggested to change the character of the decision on the Multiannual Financial Framework (MFF). In this decision, the Council has a strong say since with its initial Council draft on the MFF it effectively predetermines the final outcome even if the Parliament formally has to give its consent. The strong power of the Council over the expenditure structure would considerably diminish if the MFF no longer included the determination of the expenditure structure but were limited to the definition of the spending cap. A strong say of the Council on the budget cap remains highly desirable to counterbalance the spending enthusiasm of the Commission and the Parliament. This innovation would leave the decisions on the expenditure structure to the annual budgetary procedure where the Parliament effectively is on an equal footing with the Council.

As argued before, it would be naïve to regard the Parliament as an institution where national or local particular interests do not play any role. Indeed, there is evidence that national views have a strong-

er impact on preference formation and voting in the Parliament if voting refers to policies with clearly defined national interests (like for example the decision to introduce a European tax, see Heinemann, Mohl and Osterloh, 2009). Thus the relatively low importance of the country dimension in EP voting in general (as mentioned above) may not hold for budgetary decisions with their clearly predictable consequences for national budgetary balances. Therefore, a power shift to the Parliament may only indicate minor progress for EPG expenditures.

Yet an additional reform would strengthen the case of a stronger say for the Parliament: the introduction of pan-European party lists for the European elections. Such a move would foster the European orientation of the Members of Parliament. To gain a seat through a pan-European party list it is no longer a promising strategy to mobilize budgetary resources just for a single local electorate. But even this reform might only have a limited impact to increase the attraction of EPG. Still, those LG that have a high visibility across all member states would benefit politically, but at least those LG that are the pet projects of specific member states would lose support.

4.9 European Finance Minister

Another innovation with a certain potential for a better spending structure might be the establishment of a strong European Finance Minister. The literature on budget procedures has helped to clarify that a strong finance minister is one of the available tools to neutralize com-mon pool disincentives (von Hagen, 2002). However, there are limits to such a strategy and it poses questions. First, the current constitutional stage of the European Union with the absence of a European government would hardly allow such an innovation. And conceptually, it is not clear whether a European Finance Minister would actually be able to correct biases in the spending structure. In the literature on budgetary institutions, the finance minister's role is to provide a check against the spending desires of the spending ministers and to make the sum of spending wishes consistent with aggregate spending targets. Thus, a finance minister is to exert discipline with respect to the level of spending. The literature does not discuss to which extent a finance minister with veto power should or could have a strong say in correcting a certain spending structure. More theoretical research would be needed on that issue.

5 Conclusion

The preoccupation of much of the literature on EU budget reforms with the revenue side has led astray the debate on a better spending structure. Revenue side innovations are ill-targeted and therefore hardly capable to address the problem of the highly dissatisfactory priorities on the expenditure side of the European budget. Instead, a promising strategy should increase the attraction of EU policies with a European added value. In addition, budgetary reforms should try to increase the costs encountered by member states if policies without a significant EAV potential are financed from the EU budget.

This contribution has identified several and much better targeted triggers which could achieve these objectives. Many of the strategies sketched above can be applied in combination or would have a

mutually reinforcing character. Methodologically convincing evaluation designs, for example, could guide the definition of differentiated co-financing rates. Learning from reform experiments would allow for the calculation of a more comprehensive net balance measure. Or a larger say of the European Parliament on the spending structure may pave the way for new EU activities which again would allow for a better understanding about the actual EAV.

As usual, reforms are confronted with the problem that they may foster the common good but may not be in the interest of policy makers with veto power in the reform process. However, some of the reform options are hardly against the self-interest of policy makers: If, for example, more comprehensive measures for the national benefit of EU spending can be established and if they have an impact on public debates, this would not be against the interest of national politicians seeking reelection. These reforms would just modify the common understanding of "national interest" and guide political competition towards a more efficient outcome.

Obviously, the reform approaches outlined above need more research and substantiation. Nevertheless, the list of possible triggers clearly shows that there is a rich field for reform designs beyond the issue of new budgetary resources. It is highly desirable that the reform debate enters these new avenues.

6 References

Alesina, Alberto and Romain Wacziarg (1999), Is Europe Going Too Far?, NBER Working Paper 6883.

Alesina, Alberto, Ignazio Angeloni and Ludger Schuknecht (2005), What does the European Union do?, Public Choice 2005 (123), 275-319.

Council of the European Union (2013), Joint Declaration on Own Resources, 15997/13, ADD1, POLGEN 216, CADREFIN 297, Brussels, 25 November 2013.

Cipriani, Gabriele (2014), Financing the EU Budget. Moving forward or backwards?, CEPS, Rowman and Littlefield, London.

De la Fuente, Angel and Rafael Doménech (2001), The Redistributive Effects of the EU Budget: An Analysis and Proposal for Reform, Journal of Common Market Studies 39 (2), 307-330.

De la Fuente, Angel, Rafael Doménech and Vasja Rant (2010), Addressing the Net Balances Problem as a Prerequisite for EU Budget Reform: A Proposal, CESifo Economic Studies 56 (2), 221-250.

ECORYS, CPB and IFO (2008), A Study on EU Spending, Final Report, Rotterdam.

Ederveen, Sjef, George Gelauff and Jacques Pelkmans (2008), Assessing subsidiarity, in: G. Gelauff, I. Grilo and A. Lejour (Eds.), Subsidiarity and Economic Reform in Europe, Springer, Berlin, 19-40.

European Commission (2004), Financing the European Union, Commission report on the operation of the own resources system, DG XIX, Brussels.

Fuest, Clemens, Friedrich Heinemann and Martin Ungerer (2015), Reforming the Financing of the European Union - A Proposal, Intereconomics, 50 (5), 288-293.

Gros, Daniel and Stefano Micossi (2005), A better budget for the European Union, More value for money, More money for value, CEPS Policy Brief No 66/2005.

Haug, Jutta, Alain Lamassoure, Guy Verhofstadt, Daniel Gros, Paul De Grauwe, Gaëtane Ricard-Nihoul and Eulalia Rubio (2011), Europe for growth, for a radical change in financing the EU, CEPS: Brussels.

Heinemann, Friedrich (2011), European Added Value for the EU Budget, in: D. Tarschys (Ed.), The EU Budget, What Should Go In? What Should Go Out?, Swedish Institute for European Policy Studies, Stockholm, 58-73.

Heinemann, Friedrich and Iain Begg (2006), New Budget, Old Dilemmas, Centre for European Reform Briefing Note, 22nd February 2006, London.

Heinemann, Friedrich, Philipp Mohl and Steffen Osterloh (2008), Reform Options for the EU Own Resource System, Physica: Heidelberg.

Heinemann, Friedrich, Philipp Mohl and Steffen Osterloh (2009), Who's Afraid of an EU Tax and Why? Revenue System Preferences in the European Parliament, The Review of International Organizations 4 (1), 73-99.

Hix, Simon (2002), Parliamentary behavior with two principals: preferences, parties, and voting in the European Parliament, American Journal of Political Science 46(3), 688–698.

Hix, Simon and Abdul Noury (2009), After Enlargement: Voting Patterns in the Sixth European Parliament, Legislative Studies Quarterly 34 (2), 159-174.

Hix, Simon, Abdul Noury and Gerard Roland (2007), Democratic politics in the Europe-an Parliament, Cambridge University Press, Cambridge.

Kreppel, Amie and George Tsebelis (1999), Coalition formation in the European Parliament, Comparative Political Studies 32 (8), 933-966.

Le Cacheux, Jacques (2004), Negotiating the medium-term financial perspectives in the enlarged EU: The future of the European budget, Revue de l'OFCE 91 (5), 175-189.

Le Cacheux, Jacques (2012), European Budget: The poisonous budget rebate debate, Studies & Research N°41, Notre Europe.

Molino, Elias and Fabian Zuleeg (2011), The Impact of New EU Own Resources on Regional and Local Governments, Note for the Temporary Ad hoc Commission on the EU budget of the Committee of the Regions, European Policy Centre, Brussels.

Rant, Vasja and Mojmir Mrak (2010), The 2007–13 Financial Perspective: Domination of National Interests, Journal of Common Market Studies 48 (2), 347-372.

Reimer, Ekkehart (2015), Der atmende Bund. Perspektiven einer Flexibilisierung der Europäischen Integration, Arbeitspapier Institut für Finanz- und Steuerrecht, Universität Heidelberg.

Sapir, André, Philippe Aghion, Guiseppe Bertola, Martin Hellwig, Jean Pisani-Ferry, Dariusz Rosati, José Viñals and Helen Wallace (2004), An agenda for a growing Europe: The Sapir report, Oxford University Press, Oxford.

Tversky, Amos and Daniel Kahneman (1986), Rational Choice and the Framing of Deci-sions, Journal of Business 59 (4), 251-278.

von Hagen, Jürgen (2002), Fiscal Rules, Fiscal Institutions, and Fiscal Performance, The Economic and Social Review 33 (3), 263-284.

Weiss, Stefani (Ed.) (2013), The European Added Value of EU Spending: Can the EU Help its Member States to Save Money? Exploratory Study, Bertelsmann-Stiftung, Gütersloh.

Zimmer, Christina, Gerald Schneider and Michael Dobbins (2005), The contested council: conflict dimensions of an intergovernmental EU institution, Political Studies 53 (2), 403–422.

Transferring Taxes to the Union: The Case of European Road Transport Fuel Taxes

Michael Thöne[1]

Abstract

The only possible taxes foreseen by the EU treaties so far are “provisions primarily of a fiscal nature” in environmental policy (art 192 TFEU). Among potential environmental taxes, levies for road traffic and transport are credible candidates for an EU tax. With a focus on excises on gasoline and diesel, the paper models an EU fuel tax as a means of financing the European Union. Here, our main interest lies in the transfer of such a tax from the Member States to the Union. We identify an incongruity of centralisation: Because of environmental and fiscal externalities and on account of harmonisation failure, the taxation of diesel and gasoline appears as a resource particularly attractive for centralisation. But just these taxes are particularly difficult to transfer because the necessary compensation for the Member States regularly exceeds the tax revenue.

[1] FiFo Institute for Public Economics at the University of Cologne. E-mail: thoene@fifo-koeln.de.

Table of Contents

List of Figures

1 Introduction

The current discussions on the reform of the EU's own resources focus on transferring a higher degree of tax autonomy to the European level, i.e. to the European Parliament. Heinemann's paper in this volume shows that the revenue side of the EU budget is not the natural starting point for a reform discussion. Instead, a 'more European' EU budget should be defined primarily via European common goods and the *tasks* of the EU level. Distinctively *European* tasks determine EU expenses which in turn give rise to the question of EU revenues. Without denying the fundamental prerogative - the expenditure side - our paper directly addresses taxation, the trigger of the ongoing discussion.

Today the only taxes for the EU level foreseen by the Treaties are 'provisions primarily of a fiscal nature' in environmental policy (Art 192 TFEU). The paper discusses the effects of a European environmental tax focusing on transport sector excises. The focus of our research is the transfer and the subsequent reform of the excise duties on gasoline[2] and diesel.

As is shown below, the current situation is characterized by vastly differing tax rates on gasoline and diesel. As this gives rise to distortions in fuel consumption and to problems of cross-border shopping, there are important potential advantages of centralising these taxes on the supranational level. In addition, given Art 192 TFEU, the treaties could remain unchanged for an EU environmental tax. Nevertheless, the political hurdles to be overcome are high. To establish such an environmental provision the Council has to act unanimously in accordance with a special legislative procedure and after consulting the European Parliament, the Economic and Social Committee and the Committee of the Regions. Furthermore, effective unanimity must be reached because each individual Member State must *forego* the right to tax transport fuels.

The current institutionalisation of the reform debate through the 'high-level group on own resources' (HLGOR) established in 2014 can be considered a concession made to the European Parliament and to the Commission for their acceptance of the rather frugal Multiannual Financial Framework 2014-2020 in 2013. A year earlier, in June 2012, the EP had approved by a large majority a kind of 'no budget reform, no deal'-position which explicitly demanded new own resources to better match the EU's 2020 strategic goals (Vincenti, 2012). So unsurprisingly, the political debate on 'own tax resources' is also motivated by the struggle for additional revenues. Rarely, tax discussions on the political level are influenced by the desire to improve nothing but the efficiency *structure* of taxation. Typically, structural discussions go hand in hand with the aim to either increase or lower tax revenues at the same time.

Nevertheless, the revenue-neutrality of the transfer of any tax to the EU-level is important for several reasons: The multiannual financial framework of the Union *is* fixed for good. The perception of a tax increase agenda spurs justified opposition from the Member States. A transfer-cum-tax-increase would intersperse two issues of accountability which should be kept separate: The accountability for the transfer should lie solely with the Member States, i.e. with the Council. The accountability for tax policy *after* the transfer should lie exclusively with the European Parliament. As a consequence, all possible tax transfers to the Union must be discussed in close nexus with the *compensation* for the

[2] Following the usage in the international academic literature, we employ the American term 'gasoline' instead of the British term 'petrol'.

Member States. Without compensation, revenue-neutrality cannot be attained – neither for the European level, nor for the Member States.

The volumes of compensation when the gasoline and diesel fuel taxes are transferred to the EU-level seem to be unambiguous; the figures can be directly taken from the national tax statistics. Yet closer inspection indicates that compensation is challenging if one takes into account that taxes would have to be harmonised for economic reasons. So we choose an excise which cannot be labelled a 'low hanging fruit' when it comes to allocating the tax to the EU.

The normative goal of creating a well-functioning tax system that minimises the inevitable economic distortions from raising revenues is very important for the welfare of all people in the European Union. Still, it is the imperative unanimity necessary for the political that determines our focus: Identifying a 'good' tax for the European level which enhances allocative efficiency and strengthens democratic accountability, is a necessary but not sufficient condition for reform. These characteristics are 'nice to have'; but satisfactory mechanisms to *compensate* the Member States are *essential* for reform. As we will see, designing compensation rules that are fair and efficient is a major challenge in a multi-level system with heterogeneous taxes – i.e. in the European Union as it exists today.

2 Ratio and European added value of a common tax for road traffic and transport

The general arguments in favour of environmental and climate policy in the transport sector, especially for fossil fuels, are well established. Road transport – passenger traffic and freight– contributes around one-fifth of the EU's total emissions of carbon dioxide, the main greenhouse gas. Today, transport is the only major sector in the EU where greenhouse gas emissions are still rising. As a reaction to this development, the Union has set ambitious GHG reduction targets for transport, aiming for a 95 g CO_2/km cap by 2020; and regulations are likely to further tighten beyond 2020.

Environmental taxes and levies, together with tradable emissions permits, are the principal marked-based instruments available. As opposed to feed-in laws and other popular state aid instruments of climate change policy, taxes, levies and tradable permits accord to the 'polluter pays-principle' which is set out in the Treaty on the Functioning of the European Union (Article 191(2) TFEU) as one of the main guidelines of environmental protection in Europe.

Taxing transport fuels appears as a good and efficiency-improving way to produce government revenues. This taxation burdens damaging activities, not beneficial activities like labour, investment and consumption which are subject to 'standard taxation'. The taxation of (mainly fossil) transport fuels follows the rule of thumb "tax bads, not goods" (von Weizsäcker/Ott, 1998).

As with all rules of thumb, this one needs some qualification: Successful environmental taxation slows down or even reduces the activities taxed. This may (but need not) lead to decreasing revenues. Thus, for the steady financing of government tasks, environmental taxes should be accompanied by other, more conventional revenues that can be used to 'buffer' the fiscal side-effects of environmental policy success.

The benefits of using taxes as instruments of environmental regulation are well-established. That, by itself, is no reason to argue in favour of centralising this taxation on the European level. Also, the fact that the European Commission pursues Union-wide policy goals for emissions from road transport is no sufficient justification for transferring transport fuel taxes to the EU. From the German perspective, for example, each governmental level – the municipalities, the states ("*Länder*"), the federal government, and the EU – pursue elements of an own climate protection policy. Obviously, this does not prove that all levels are equally well-equipped to propose an efficient climate protection.

Still, some arguments show a potentially high European value added of transferring fuel taxes for road transport to the central level. First, the free movement of individuals, goods and services is the essence of the unified market and the European Union as a whole. Thus, it would seem almost natural to regulate the final prices of these movements and their 'greening' uniformly for Europe.

More precisely, from the welfare perspective there is a potential added value of European environmental taxes in the transport sector which may not be realised with these taxes determined on the national level. This added value takes two forms: Climate protection as a global common good (where climate change is regarded as a global 'common bad'), and the prevention of tax exporting and inefficient tax competition.

Global 'common bad': According to the theory of fiscal federalism the most efficient government level to fulfil a task (e.g. via an environmental tax) is the level which internalises all spatial spill-over effects. Reducing greenhouse gas emissions produces worldwide benefits – or, strictly speaking, lowers imminent worldwide damages – regardless of the localisation of the climate protection measure. National policies produce benefits not only for constituents, but also benefits that *spill over* to other regions. As almost all policies cause direct or opportunity costs, benefit spillovers generate the economic incentive to freeride on other countries' activities. Benefit spillovers and freeriding depict classic *market failure* since every rational player tends to wait for others to supply the common good. In the theory of fiscal federalism, the same conditions characterise the undersupply of public goods by territorial authorities smaller than the geographical coverage of the benefits pursued. For the use of corrective taxation in environmental and climate protection, this constellation may dissuade countries from using the tax instrument altogether. Even if countries use environmental taxes, they are induced to underestimate global effects of locally generated externalities and, thus to enact corrective taxes that are too low from a global perspective (see Markusen, 1975; Merrifield, 1988). In the case of the global problem of climate change, global governance would be ideal. In the absence of effective global climate policy institutions, the next-best level is the supranational level – in our case the European Union.

Tax exporting and inefficient tax competition: National taxation of transport fuels in Europe is ridden with tax exporting and inefficient tax competition. Tax exporting occurs when non-residents bear a part of a country's tax burden. Within Europe, traveling individuals regularly pay consumption taxes and excises in other countries. Depending on the volume of business and private travel on their respective territories, European countries export a part of their tax burden by selling taxed goods and services to non-constituents. The motive to boost revenues from tax exporting can lead to inefficiently high taxes on the goods and services concerned (Gerking/Mutti, 1981). A government's opportunity to export taxes decreases with the ability of the non-residents to avoid taxation, for example by importing the concerned goods from their home country or a third country. The more mobile the tax bases of commodity taxes become, the stronger eventual tax competition becomes (see Mintz/

Tulkens, 1986; Kanbur/Keen, 1993). International travel and transport implies that the tax base of transport services is to a large extent mobile between countries.[3] Tax competition in these cases is associated with inefficiently *low* tax rates as governments try to attract cross-border shoppers from abroad or to keep their own residents from cross-border shopping.

For transport fuel taxes in Europe, both phenomena most likely coexist. The Union and its continental neighbours consist of large and small countries, of central and peripheral countries. The bigger and more outlying a country is, the lower its exposition to tax competition should be expected. The more central it is, the stronger the influence of fuel tax competition on its policy should become. With the integration of Europe in the past twenty years (Schengen, Euro) and with increased fuel efficiency – i.e. increased spatial coverage of a car's or a truck's tankful – the element of tax competition has become progressively dominant. Against the background of a broad literature on diesel and gasoline tax competition,[4] we restrict ourselves to illustrate the European case with the 'notorious' example of Luxembourg's fuel taxation.

Today, Luxembourg taxes gasoline and diesel barely above the (weak) minimum levels of the Energy Directive of 2003. Starting in the early 1990s, Luxembourg took up a determined policy of very low tax rates on fuels which lead to massively increasing shares of total regional fuel consumption. Currently, pump prices of diesel oil in Luxembourg on the whole are 20 Eurocent per litre below the EU average; gasoline pump prices are 23 Eurocent below the EU average.[5] Revenue from taxing fuels accounts for 2.1 % of GDP (2013) in Luxembourg as opposed to 1 to 1.2% in the neighbouring countries (BE, FR, DE).[6] This policy of low tax rates draws a sizeable share of the consumption of these fuels from the neighbouring countries – but not only from them. Today, cross-border 'tankering' is not only a question of fuel tourism in the vicinity of national borders. Especially for commercial road freight, with truck tanks exceeding 1,000 litres, tax competition has become a truly European phenomenon. **Fehler! Verweisquelle konnte nicht gefunden werden.** gives an illustration of the spatial range of cheap Luxembourg fuels. It also illustrates why the truck diesel fuel is a stronger object of tax competition than gasoline.

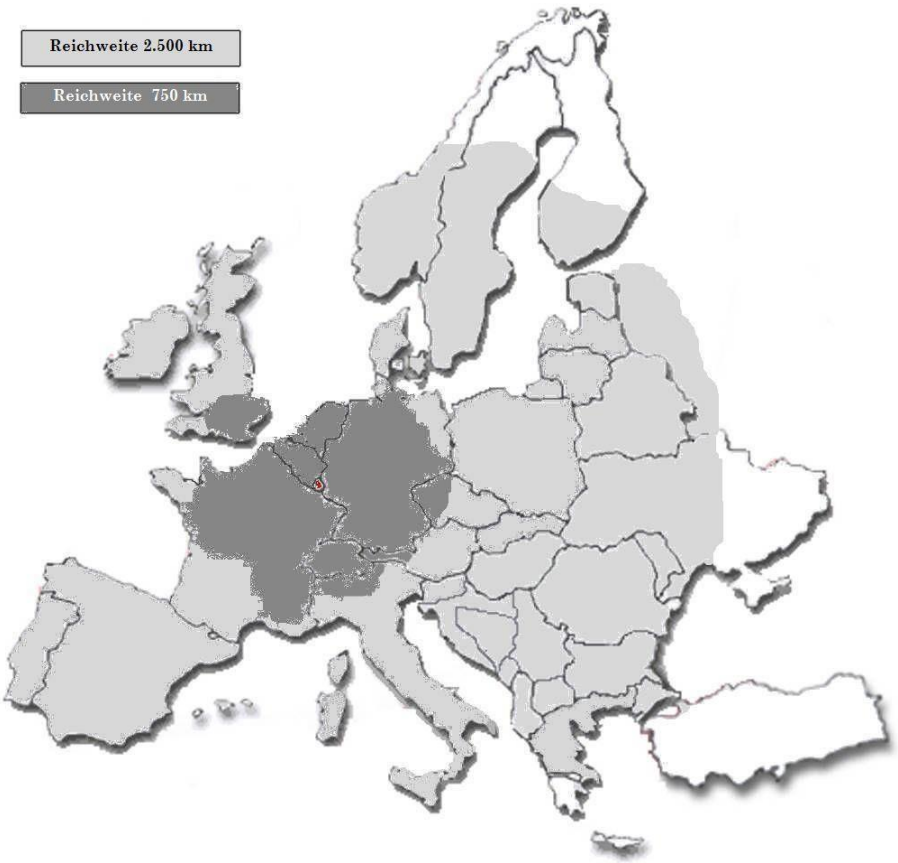
[3] The choice and mix of instruments for pricing transport externalities may influence the dominance of tax competition or tax exporting, as de Borger and Proost (2012, 37) point out: "If a country uses fuel taxes as one of the main pricing instruments, tax competition may largely dominate tax exporting, especially in small open economies. However, tax exporting may become much more relevant if road tolls are used in large countries.".

[4] See e.g. Evers, de Mooji, Vollebergh (2004), Thöne (2008), Lin/Prince(2013), Mathä/Porpiglia/Ziegelmeyer (2014), and the articles in Schipper/Schipper/Lewis (2013).

[5] Source: Own calculations (2015) based on the EU Commission's Oil-Bulletin-Database.

[6] Source: Own calculations (2015) based on OECD Revenue Statistics.

Figure 1: Spatial coverage of one tankful with 'Luxembourg fuel' for passenger cars (gasline) and freight trucks (diesel).



Source: Thöne (2008).

Luxembourg makes for a very ostensive example; the almost all-European coverage of one truck tankful makes it difficult to dismiss it as 'just one small country'. But the overview of tax rate levels and dynamics in Figure 2 (below) for gasoline and Figure 3 (below) for diesel in the EU 28 show an extremely heterogeneous picture that corroborates a failure of harmonisation and clearly signals the effects of tax competition and tax exporting.[7]

A more uniform taxation of gasoline and diesel in the EU would not abolish tax competition for the European continent, but competition would be significantly reduced. Today, within the European Union and between the EU and its non-EU-neighbours, 71 borders exist where different fuel tax regimes meet and potentially generate tax competition. With fully harmonised or unified EU fuel taxes, the number of these borders would fall to 33.

We have seen that – *in general* – good arguments speak in favour of European fuel taxation in the road transport sector. But, as stated above, these characteristics are 'nice to have'; but not essential.

[7] A comparable story of inefficient competition can be told for national and European taxation of air transport, namely the taxation of kerosene. Here, the competition between airports as national 'hubs' is often held responsible for the reluctance of national governments to take a more proactive stand in the development of kerosene taxation. Yet in this paper, we do not address these levies. We deem kerosene taxation a potentially valuable instrument of climate protection. Yet the questions of interest in our paper are better and more clearly addressed with the example of existing diesel and gasoline taxation on road transport.

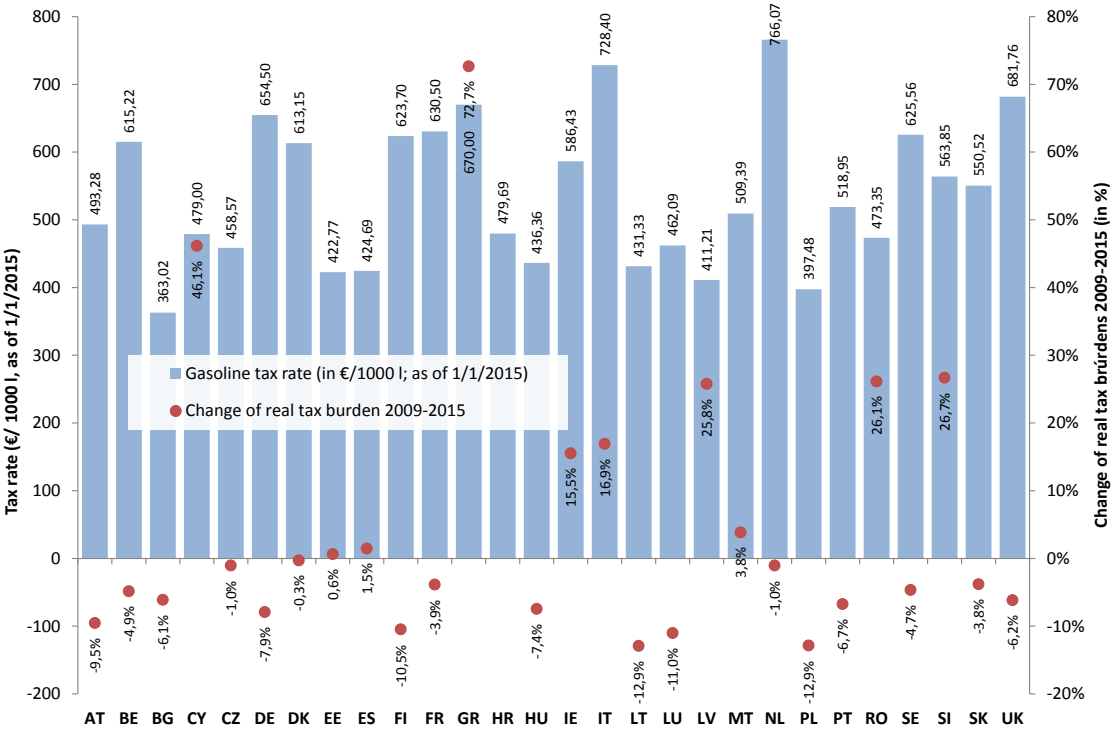
In the following sections we ask whether and how the preconditions for transferring the necessary tax rights from the Member States to the EU can be met.

3 Status quo of transport fuel taxation

In a recent study, the OECD finds that governments are under-utilising taxes as a tool to curb pollution and emissions. Even taxation levels at the top end of the scale are considered "very low" relative to the harmful effects of fuel use and are therefore having limited impact on efforts to reduce energy use, improve energy efficiency and drive a shift towards less harmful forms of energy. Inter alia, the OECD noted that 39 countries tax diesel for transport use at lower rates than gasoline, despite the air pollution resulting from diesel leading to greater levels of environmental damage (OECD, 2015).

The status quo of gasoline and diesel taxation in all 28 EU Member States is depicted in Figure 2 and Figure 3. The figures show the nominal rates of the excise taxes applicable as of 1/1/2015. The percentage changes of effective real tax burdens per litre between 2009 and 2015 are depicted for all countries with exception of Croatia.[8] Real tax burdens decrease over time when nominal tax rates are not indexed for inflation.

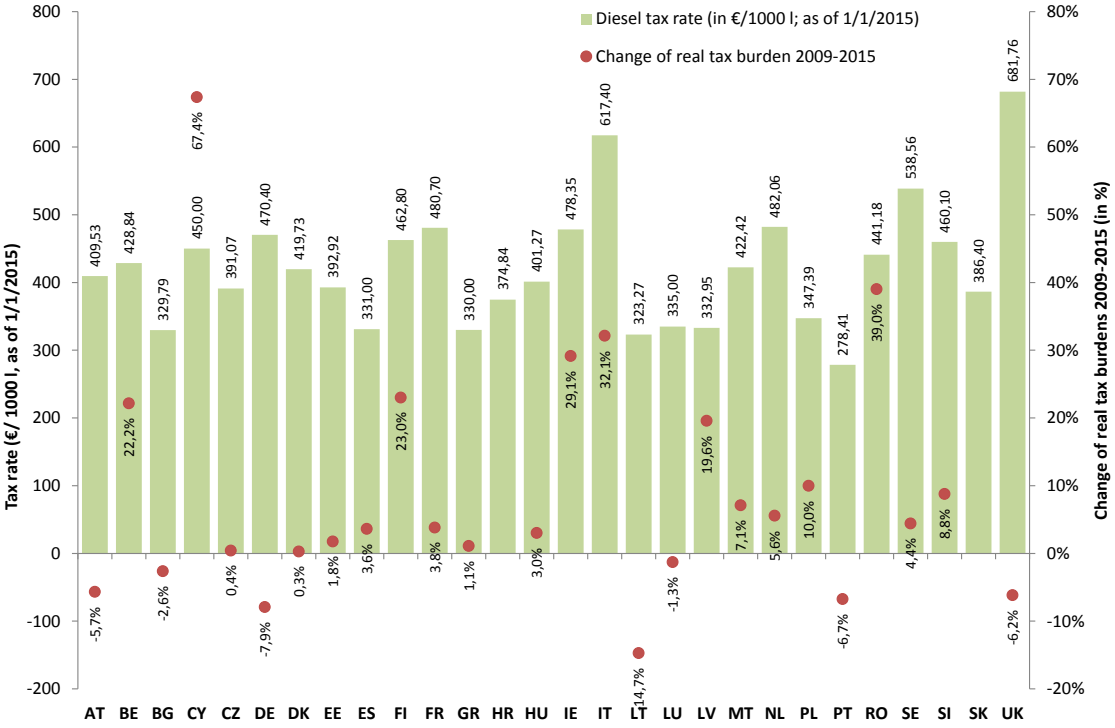
Figure 2: Gasoline tax rates - level and dynamics



Sources: Own calculations based on Eurostat and Commission-data (Oil Bulletin).

[8] Real tax burdens were computed by deflating the nominal tax rate of 1 January with the corresponding national Harmonised Index of Consumer Prices (HICP). Figure 2 and Figure 3 do not cover VAT and smaller additional excise duties on mineral oils which some Member States use. The latter are usually less than 10 per cent of the excise duties. Croatian data were available for 2014 and 2015 only.

Figure 3: Diesel tax rates - level and dynamics



Sources: Own calculations based on Eurostat and Commission-data (Oil Bulletin).

For both taxes, we see a high degree of heterogeneity in current tax rates and in the development over the last six years. We characterise road fuel taxation in Europe by stating a few stylised facts

- In general, diesel tax rates are lower than gasoline tax rates. Only the United Kingdom employs tax rates that are high and uniform at the same time. (This may be called an 'island effect'; but it does not hold for other islands).
- With exceptions, poorer Member States employ lower tax rates.
- With exceptions, tax rates are lower in Member States more exposed to tax competition from eastern and south eastern European non-members.
- In the crisis and post-crisis years 2009 to 2015, active increases of fuel taxation can mainly be observed in Member States with sovereign debt crises (GR, CP, IE, IT).
- A few countries have actively decreased tax rates, mainly as temporary measures in the years of the economic crisis.
- Real decreases of tax rates in many other Member States are due to inflation in combination with no automatic or discretionary indexation. In some countries nominal tax rates have not been raised for a much longer time than the depicted six years, e.g. in Germany since 2003.

To a certain degree, the figures and tax rates depicted in Figure 2 and Figure 3 reflect tax policy in years of economic turmoil. But the economic crisis cannot serve as justification for all countries and all years. The observations also shed some light on the weakness of energy tax harmonisation in the EU. This weakness is epitomised by the sheer fact that the energy tax directive 2003/96/EC is still in force. When this directive was devised at the turn of the millennium, energy taxation was not universally acknowledged as a legitimate instrument of environmental and climate policy. Also, fuels from renewable sources and e-mobility were no issues of practical concern at that time. Finally, the muddled nature of exceptions, the lack of a coherent relation between diesel and gasoline tax rates, and

the outdated minimum tax rates not indexed for inflation add up to a good case for modernising the energy tax directive. Against this background, the European Commission presented a first draft of a new directive in April 2011. In many aspects, the proposal would have brought significant improvements for consistent fuel taxation in EU Member States. Still, the proposal failed to win the approval of the Council and the European Parliament. After almost four years of discussion, the Commission withdrew its proposal in early 2015.[9]

For the foreseeable future, directive 2003/96/EC remains in force. Judging from the current situation of gasoline and diesel taxation, the jumbled character of road transport taxation in Europe will probably intensify in the upcoming years with some Member States continuing their prolonged inactivity with regards to nominal tax rates, while both Belgium and France announced plans in October 2015 to align diesel and petrol taxes by 2018 and 2020 respectively.

With the pervasive heterogeneity of fuel taxes it becomes progressively evident that harmonisation of Member States' environmental and tax policy fails. The diagnosis of actual harmonisation failure in a policy field exposed to harmful tax competition certainly adds to the arguments in favour of centralising fuel taxes on the European level. Yet the deepening heterogeneity of taxation illustrates both the superior motivation for such a transfer – and the great difficulty of this undertaking.

4 Transferring the excise duty on gasoline and diesel fuel

In the remainder of this paper, we simulate the transfer of national gasoline and diesel taxes to the European level as a new own resources. For this, we assume that the Member States consider transferring the gasoline and diesel excise to the European Union and that they look for the conditions which have to be met so that they can agree. Our model is straightforward insofar as it presumes the simple transfer of the complete taxes – the full legislative authority and the full revenue of the fuel taxes. Many conceivable and less 'radical' models of tax centralisation – for example tax sharing arrangements or an additional EU rate on the established fuel tax bases – are not treated *explicitly*. Implicitly, they are: Conceivable in-between models bring about structurally equivalent but weaker effects. By analysing the full model, we also cover the standard compromise models without going into the details of their – sometimes complicated – depiction.

Two straightforward assumptions describe our 'what if' model of a full tax transfer: Firstly, all calculations are based on a reference date. Figure 2 and Figure 3 show that the precise situation on any given day is a snap-shot, dependent on discretionary decisions of single Member States. As we have seen, any such situation is highly heterogeneous and distorted. Nevertheless, one particular point in time must serve as the reference year to estimate the effects of transferring the tax rights to the Union and to calculate the necessary compensation via 'customary' own resources.[10] Secondly, the transfer of a tax right to the European Union is not meant to increase the EU budget. The EU budget is and will be fixed for good on the expenditure side. The necessary revenues are financed by customary

[9] See Fouquet and Nysten (2015) for an overview of the process.

[10] We introduce the term 'customary' own resources for the total of all own resources used as of today, i.e. for traditional own resources (TOR), VAT-based own resources, BNI-based own resources (and the correction mechanism). For simplicity, we treat a Member State's customary OR as a uniform sum, i.e. we do not discuss how the composition of OR might be affected by the compensation.

own resources. Thus, the discussion on reforms of the revenue side relates to purely *structural* arguments.

In practice, the transfer of the tax right to the EU must be compensated by parallel reductions of customary own resources or, if necessary, by refunds to Member States. Theoretically, these compensations (including possible refunds) could be designed in four different ways:

1. For each Member State a fixed amount of money in national currency, e.g. based on the national fuel tax revenue in the reference year, is determined. This sum is deducted from the 'customary' own resources due for the first and all future years of the transfer.
2. Identical to solution 1; but the compensation to be deducted from own resources in future years is indexed for inflation.
3. Here, the compensation to be deducted from own resources measured in national currency for the reference year and transformed to the respective percentage of own resources in the same year. Customary own resources due for the first and all future years are reduced by this individual quota in each Member State.
4. Compensation payments are not based on a specific reference year, but on every future year's current revenue from diesel and gasoline raised by the EU in the respective Member State.

Of these theoretical models only solutions 2 and 3 offer plausible designs. Solution 1 would not be acceptable to Member States as it is not indexed for inflation and loses value over time. Solution 4, on first sight, looks like the most dynamic and individual compensation rule presented. Indeed, it would warrant revenue-neutrality of the tax transfer for each Member State for the start and all future years. In fact, this method of compensation would *neutralise* the tax transfer to the Union fiscally. The EU would receive the formal right to determine the taxation of gasoline and diesel, but on the revenue side nothing would change for the Union and each of its 28 members. Thus, solution 4 might be discussed as an alternative way to harmonise *national* fuel taxes, but not as an element of the transfer of tax to the EU as a new own resource.

Solutions 2 and 3 generate different kinds of dynamisation. Solution 2 only accounts for effect of inflation while solution 3 accounts for inflation and real economic growth. Thus, the choice of one of these compensation designs would affect the way the EU dynamises diesel and gasoline tax rates in the future.

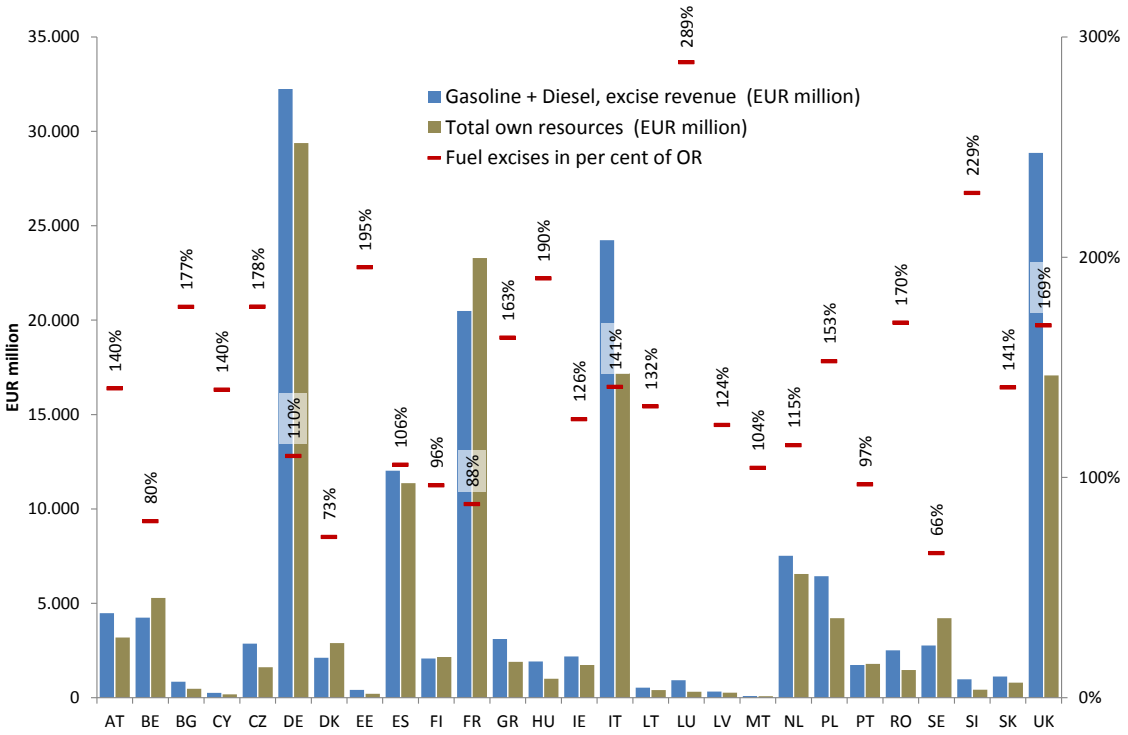
In the model calculation, this perspective is implemented with a simplified approach: According to the *ceteris paribus* rule applied, all changes to mineral oil taxation are modelled in a revenue-neutral mode, i.e. as purely *structural* improvements. This may not present the only perspective possible, but permits calculating pure reallocation effects without any income effects.

The calculation of excise revenues is based on a small tax model calibrated with EU Oil Bulletin data. Revenues for diesel and EU95-gasoline are calculated separately with 2013 national consumption of these fuels and the tax rates applicable. The model gives a fairly good, but not strict picture of *actual* revenues.[11]

[11] Available EU or OECD tax revenue data do not offer specified information on transport fuel consumption and resulting excise revenues, let alone for gasoline and diesel separately. Croatia cannot be modelled at the moment.

Total own resources amounted to EUR 139.7 billion in 2013. Tax revenues from transport fuel excises – according to our calculation – amounted to EUR 167.4 billion in the same year. Thus, the excises would have been more than enough to fully replace today's own resources.

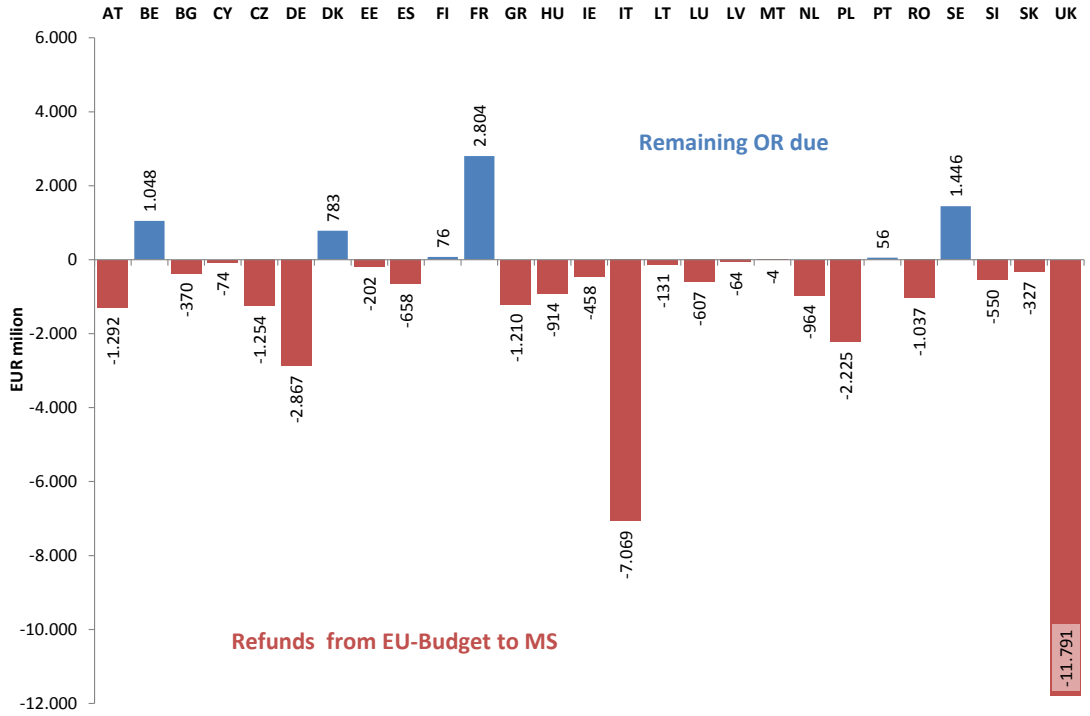
Figure 4: Starting point: Excise tax revenues 2013 vs. total own resources (2013)



Sources: Own calculations based on OECD, Eurostat and Commission-data.

Figure 4 compares customary own resources and fuel excises from a country-to-country perspective. The ratio of total fuel excise revenues to total own resources is 120 percent in the weighted average. But diversity is remarkable: It ranges from 66 percent in Sweden to 289 per cent in Luxembourg. The square of Pearson's correlation coefficient between these two revenues lies at R^2 = 92,6 %; i.e. the correlation is, at best, moderate.

Figure 5: Calculation 1 – Simple compensation of status quo



Sources: Own calculations based on OECD, Eurostat and Commission-data.

Figure 5 presents the most straightforward method of transferring the tax right and the fuel tax revenues to the EU with a compensation via the customary own resources: Each country is compensated on the basis of this static comparison of both revenues.[12] As a result, the transfer of the tax right to the EU budget does not produce an automatic revenue increase for anyone. The full compensation via customary own resources is meant to warrant budget neutrality for all participants – every Member State and the European Union – at the start. Because total revenues from fuel excises in our calculation are 20 per cent higher than the sum of all customary own resources, most of the Member States receive an additional refund from the EU budget.[13]

In this example, Italy and the UK would receive the highest refunds in absolute terms. Both countries use rather high tax rates, especially for diesel. The British example is also influenced by low OR-contribution due to the 'UK correction'. In *relative* terms, the countries with the highest refunds can be identified in Figure 4 above. Luxembourg would especially receive a big compensation for giving up the revenues from its vigorous and fiscally successful tax competition. Only six countries would still have to pay (minor) sums of customary own resources as their fuel tax revenues would not suffice for the full compensation.

For the reasons discussed above, this starting point reflects the heterogeneous status quo of European fuel taxation including the influence of tax competition, tax exporting and harmonisation failure. This reference situation lacks economic efficiency and probably, in the eyes of many European gov-

[12] The dynamisation of the compensation would follow solutions 2 or 3 described above.

[13] It should be noted, that these refunds from the EU-budget are irrelevant for the economic rationing. Obviously, this concept of initial total budget neutrality does not only work for taxes this big. For smaller taxes, more or all countries would continue to pay customary own resources and less to no countries would receive refunds.

ernments, fundamental fairness regarding the national distribution of revenues from diesel and gasoline taxes. The motivation for transferring the tax rights of the EU-level definitely does *not* lie in keeping fuel taxation unchanged; if the current constellation was to be preserved, the justification for the tax transferring to the European level would collapse. Still, as a point of reference it carries one outstanding quality: When starting at this point, no party loses. If all parties restricted themselves to this crooked and inefficient perspective,[14] the transfer of the power to tax could receive unanimous consent. Therefore, this allocation serves as our benchmark.

However, as improvements to the tax structure are the core justification for the transfer to the Union, the expected structural changes will be taken into account by each Member State when calculating the minimum compensation deemed necessary to approve the reform. Each player will calculate not only his current revenue loss from the tax transfer but also the opportunity costs of giving up potential revenues of more rigorously harmonised fuel taxes. For these other allocations, we assume an *asymmetric* approach of the Member States on gains and losses:

- If a new tax structure would lead to *losses* of national tax revenues, then the historic revenue rather than this new revenue serves as the benchmark for the compensation claim. Here, the argument would be: "We are not accepting any losses compared to the status quo ante."
- If a new tax structure would lead to *gains* of tax revenues raised within a Member State, this new revenue, not the historic revenue would serve as the benchmark for compensation. Here, the argument would be: "The new revenue is the 'true' revenue we should have received all along if we had not been impeded by tax competition, harmonisation failure et cetera."

At first sight, this assumption of asymmetric compensation claims may give the impression of an ad-hoc hypothesis mixing loss-aversion and selective perception. But it does reflect *real* bargaining behaviour in comparable fiscal equalization negotiations, to be witnessed in many countries across the world.[15] But asymmetric claims for compensation may not only reflect revenue maximisation, as national governments also act as agents of their domestic population. In our calculation, the tax transfer to the EU and an ensuing improvement of the tax structure is revenue-neutral *on the EU-level*. But it cannot be revenue-neutral in every single Member State. So, a government acting as the agent of its populace *must* seek higher compensations in the case of expected revenue increases because it may be compelled to compensate national tax payers by reducing the burden of other taxes (and thus producing a 'second dividend'). In the other case of benchmarking against the historic revenue, the government and/or national population could (and would strive to) realise windfall profits.

We model two very elementary improvements to the tax structure. As a first step, we separately even the tax rates on diesel and on gasoline across Europe in a revenue-neutral manner (Calculation 2). Within the Eurozone, this would produce identical Euro-tax rates for diesel oil in all countries, and identical – yet different – tax rates for gasoline. For Member States outside the Eurozone, the respective rates in the EU tax code would be fixed in national currencies. To uphold economically identical tax rates across *all* Member States the tax code would have to include provisions for exchange-rate variations. To avoid frequent changes of the rates applicable, taxes should remain unchanged as long

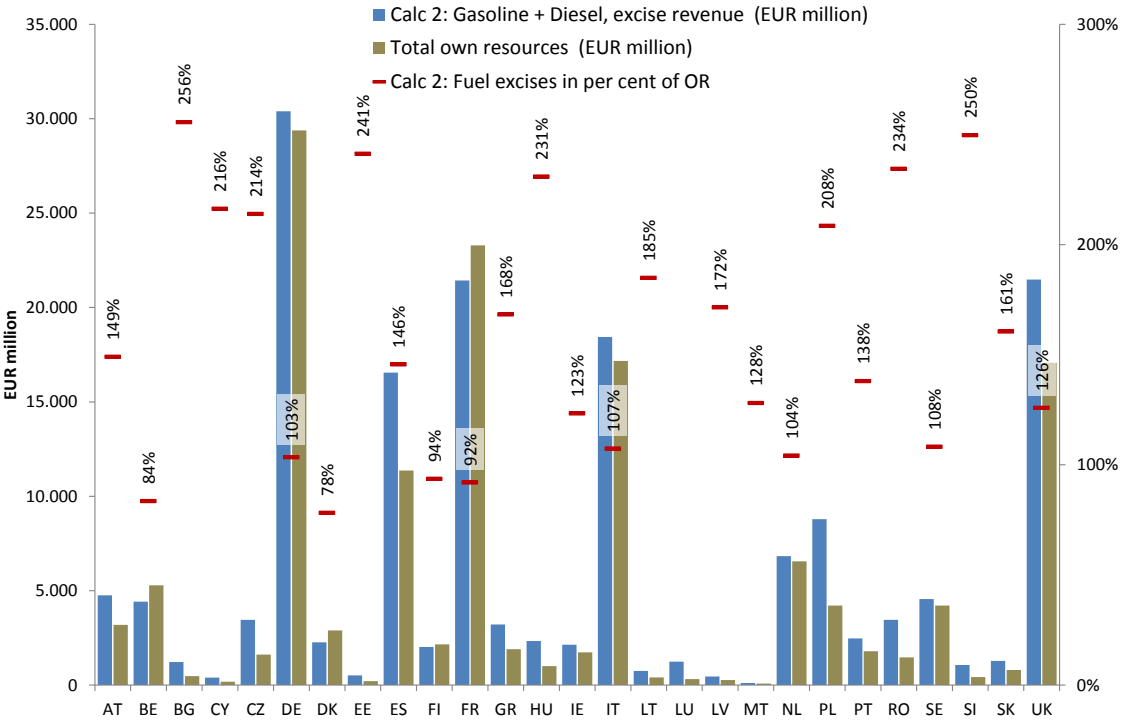
[14] As a reminder: The "crooked and inefficient perspective" is the current reality.

[15] For an example, the current negotiations on Germany's future fiscal equalisation conform *exactly* to this asymmetric behaviour.

as the relevant exchange rates fluctuate within a predetermined bandwidth. Our simplified calculations are comparative static analyses, as they assume static exchanges rates.

The simple model does not allow demand reactions to the incurred price changes. In this case, the common European gasoline excise rate would amount to 595.43 Euro per 1,000 litres fuel. The common European diesel excise rate would amount to 453.35 Euro per 1,000 litres fuel. Figure 6 offers the comparison to the benchmark-situation in Figure 4.

Figure 6: Calculation 2: Excise tax revenues 2013 vs. total own resources (2013) with separate smoothing of gasoline and diesel tax rates

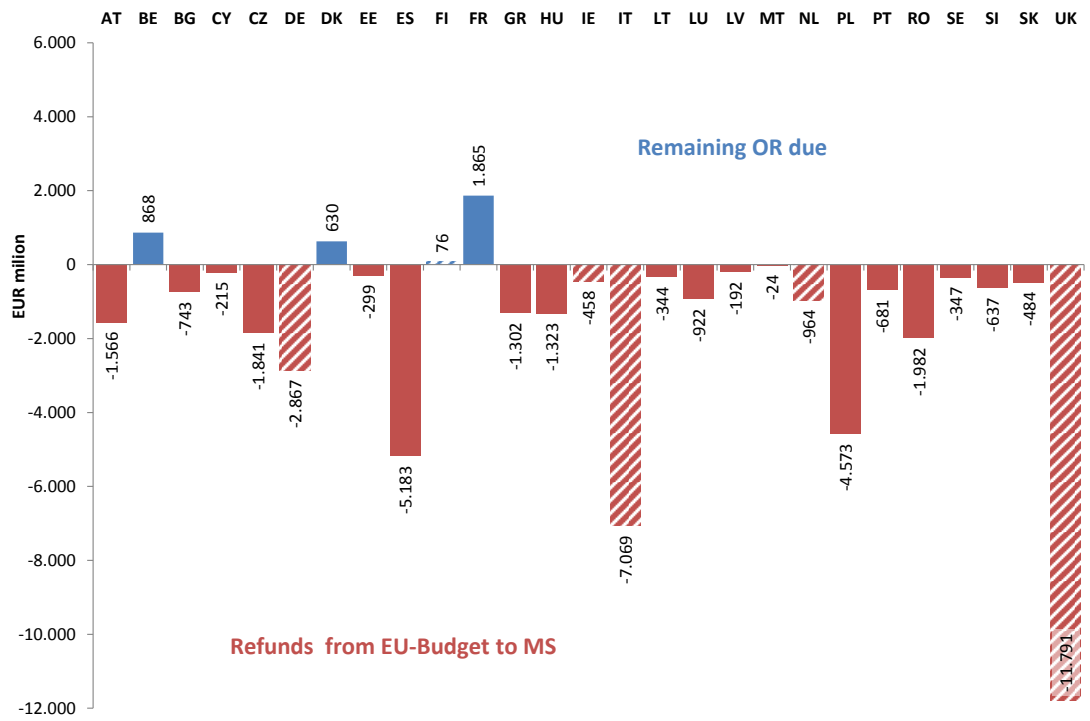


Sources: Own calculations based on OECD, Eurostat and Commission-data.

Here, the square of Pearson's correlation coefficient between the two revenues lies at R^2 = 96,3 %. The correlation improved considerably, indicating that a more uniform taxation of fuels also improves its suitability as own resources.

Still, transferring these taxes to the central level becomes more difficult. Figure 7 below illustrates the minimum, now *asymmetric* compensation necessary to induce Member States to agree to the transfer of the tax right to the EU level unanimously.

Figure 7: Calculation 2 – Asymmetric compensation

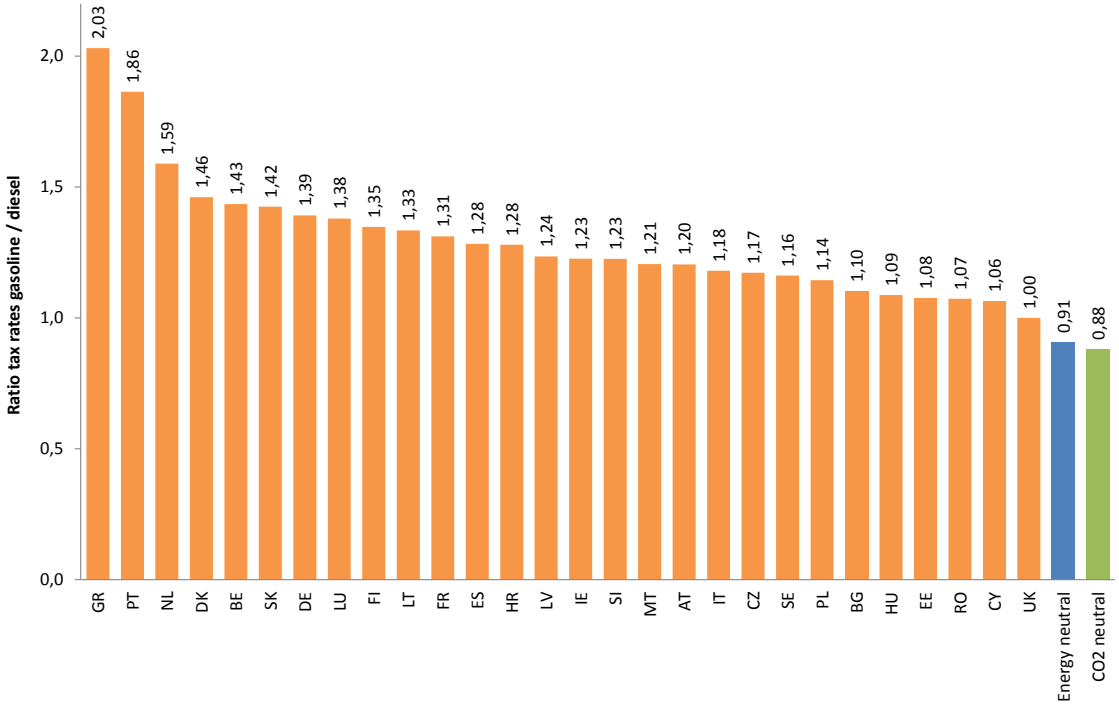


Sources: Own calculations based on OECD, Eurostat and Commission-data.

In Calculation 2, only six Member States stay with the benchmark compensation, illustrated by the hatch marks in Figure 7. All other states choose the new allocation as their minimum claim for giving up their tax right. The increase of necessary compensation payments amounts to EUR 15.8 billion. In our model, this additional sum would have to be paid out of the EU budget to 'buy' the tax right from the Member States. EUR 15.8 billion account for more than 11 per cent of the EU budget in the modelled year (2013).

Calculation 3 describes an even more systematic approach. Here we align tax rates across Europe and establish a CO_2-neutral tax rate ratio between gasoline and diesel. Figure 8 gives an impression of the current distance to go in this realm.

Figure 8: Tax rate ratios gasoline / diesel (2015)



Sources: Own calculations based on Eurostat and Commission-data (Oil Bulletin).

Purely fossil diesel produces 2.64 kilograms of carbon dioxide per litre; gasoline on average produces 2.33 kilograms CO_2 per litre. Thus, the ratio of the excise tax rates between gasoline and diesel which is neutral in respect to climate change is 0.88. A comparable tax rate ratio which is neutral in respect to energy content of both fuels is 0.91 (again for purely fossil fuels).

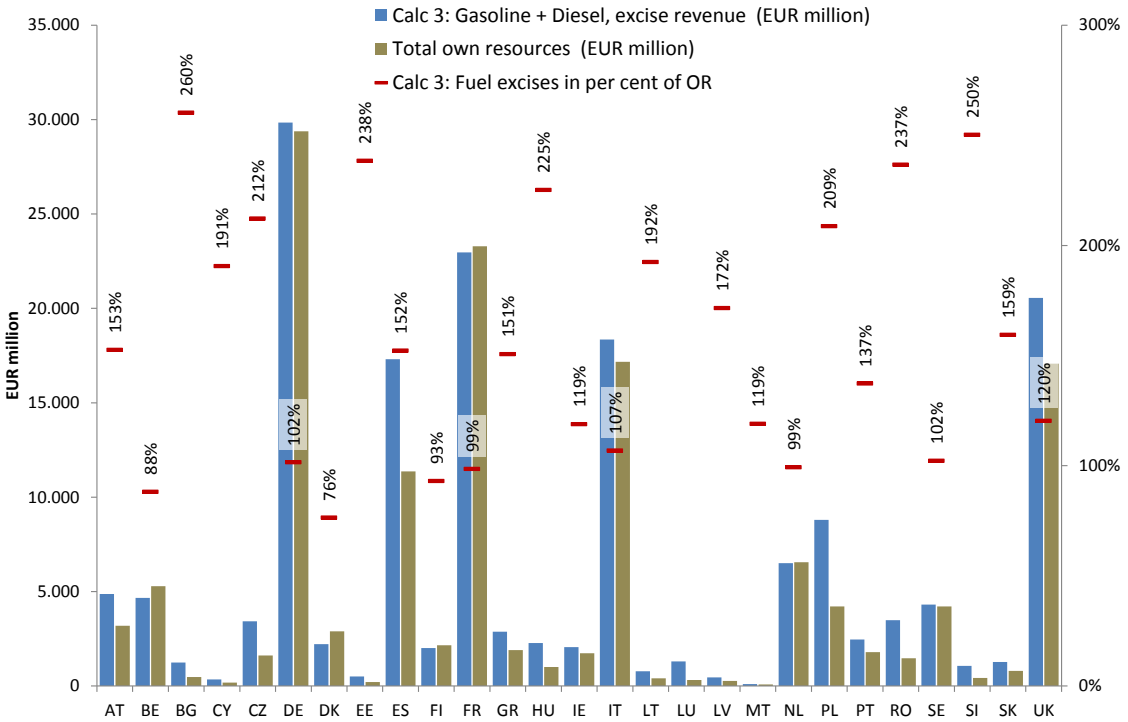
Compared to the CO_2-benchmark, current taxation is distorted in favour of diesel in all Member States of the European Union. The UK fuel taxation with its equal tax rates per litre of diesel and gasoline comes closest to this kind of neutrality. Historically, the taxation of diesel mainly affected professional transport services and the production sphere. Compared with that, gasoline traditionally counted as part of the consumption sphere well into the 1970s with the withering air of a luxury good (Hansmeyer, 1980). From the beginning, the distinction was not very accurate. Still, with the different roles as production tax on the one hand and consumption tax on the other hand, differences between diesel and gasoline tax rates could be easily justified. Today, this justification has become fragile for two reasons. Firstly, environmental and climate change concerns play a much more important role in the assessment of the appropriateness of these tax rates. Secondly, technological improvements spurred the massive 'dieselisation' of private cars in the last few decades blurring the association of diesel use with the production sphere.

The persistence of – very large in parts – differences between diesel and gasoline tax rates in the EU can be attributed to several factors which cannot be easily entangled for all Member States: Diesel's role as a production factor has decreased, but certainly not disappeared. Also, producer interests are always easier to organise than consumer interest; so better lobbying for low diesel rates may play a role. And, the 'greening' of fuel taxation has not progressed equally in the Member States. Finally, tax competition is much more prevalent for diesel (see above **Fehler! Verweisquelle konnte nicht gefunden werden.**). The relatively low excises also reflect this fact.

Against this background, the model of CO_2-neutral taxation of transport fuels (Calculation 3) presents itself as far-reaching and, in a sense, one-dimensional. It exclusively follows the logic of an environmental 'provision primarily of a fiscal nature' as foreseen by Art 192 TFEU. By that, it demarcates the outer boundary of 'greening' the relation between diesel and gasoline taxation.

In Calculation 3, the European excise rate on gasoline would amount to 447.72 Euro per 1,000 litres fuel. The common European diesel excise rate would amount to 508.77 Euro per 1,000 litres fuel.[16] Figure 9 allows comparisons to the benchmark-situation (Calculation 1) in Figure 4 and to Calculation 2 (Figure 6). In Calculation 3, the r-square of the correlation coefficient lies at R^2 = 96,6 %. The correlation improves against Calculation 2, yet only slightly.

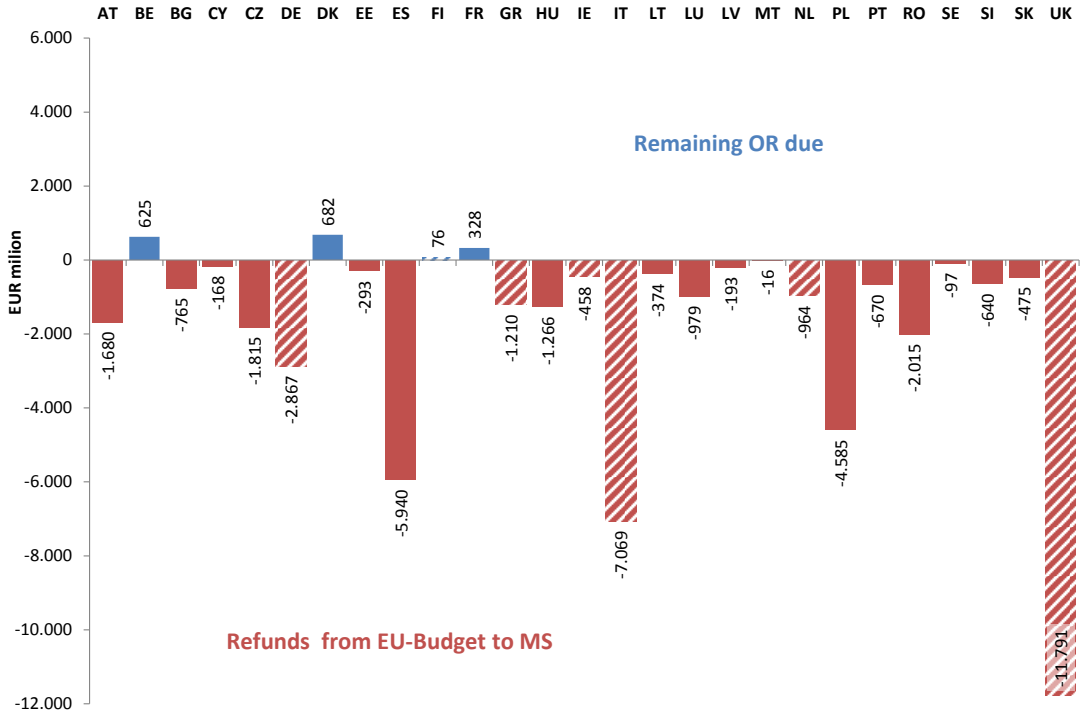
Figure 9: Calculation 3: Excise tax revenues 2013 vs. total own resources (2013) with CO2-neutral gasoline and diesel tax rates-ratio



Sources: Own calculations based on OECD, Eurostat and Commission-data.

[16] Again, for non-Eurozone members the tax code would have to include provisions for exchange-rate variations. Our simple calculations are based on the assumption of static exchanges rates.

Figure 10: Calculation 3 – Asymmetric compensation



Sources: Own calculations based on OECD, Eurostat and Commission-data.

Figure 10 illustrates the asymmetric compensation necessary in calculation 3 to convince Member States to agree to the transfer of the tax right to the EU level unanimously. Now, seven Member States stay with the benchmark compensation, illustrated by the hatch marks in Figure 10. All other states choose the new allocation as their minimum claim. In this case, the increase of the demanded compensation amounts to EUR 18.1 billion (compared to the benchmark-scenario). This sum would account for more than 13 per cent of the EU budget.

The simple calculations 2 and 3 already represent the major improvements to be expected from the centralisation of diesel and gasoline taxes on the EU-level: uniform tax rates across Europe and an end to the privilege for diesel fuel. Still, these simple calculations can only serve as a first blueprint for further and more sophisticated calculations.[17]

With a view to further conceivable calculations, we should point out that compensations do not necessarily grow from calculation to calculation as they do from calculation 1 to 3. Yet other concerns might give rise to an increase in the required compensation:

- Changes in national VAT revenues due to changes in gasoline and diesel taxation.
- Aligning excise tax rates across Europe would probably give rise to distribution concerns in the poorer Member States. With increasing fuel excises these Member States might feel obliged to compensate their citizens for losses of purchasing power by use of income taxation or household transfers.

[17] Including more calculations *with* demand reactions.

These and other possible concerns could be used by the Member State to demand further compensations. With asymmetric claims, a bigger range of possible justifications may result in further upward pressures on the sum of total demands for compensation.

For all calculations of a reformed and improved fuel taxation, the most imminent question yet has to be answered: Where does the money to satisfy the demands for compensation exceeding 100 percent of the customary own resources come from? We analysed the conditions of a resource transfer which was meant to be revenue-neutral. As the midterm EU budget is fixed on the expenditure side, the legal means to satisfy 'additional' claims for compensation are missing too.

5 Conclusions

Within the multi-level governance structure of the European Union, its Member States and their regional and local governments, the upper level is financed via the fairly unique 'own resources' system consisting of Member States' transfers. On the lower levels, governmental functions are financed by transfers, taxes and debt. It is currently being discussed whether the European Union should also receive the right to tax European citizens and enterprises, and which taxes might be most appropriate for this purpose.

In our paper, we addressed an aspect of this discussion that has not received much attention; we casted a view on the *possibility for* such a tax. For this purpose, we analysed the conditions of transferring "provisions primarily of a fiscal nature" in environmental policy (art 192 TFEU) from the Member States to the EU level. Our example was transfer of the transport related excise duties on diesel and gasoline.

For economic reasons, these taxes might indeed be transferred to the central level. The evident harmonisation failure and the prevalent inefficient tax exporting mark diesel and gasoline taxes as candidates for centralisation in order to improve the allocative quality of this taxation in Europe.

Yet transferring these taxes from the Member States can only be initiated by unanimous vote. The veto power of each Member State does not only follow from the Treaties. It also follows from the status quo because each country would have to actively *forego* a tax right previously held. Thus, identifying taxes that potentially improve welfare and efficiency following a transfer to the central level[18] is a necessary, but not a sufficient condition for a revenue reform.

Adequate compensation for the transfer of the tax by reductions of customary own resources are necessary to reimburse the Member States for the tax revenues foregone and to hedge against revenue increases on the EU-level. Based on the notion of rational asymmetric compensation demands from the Member States, the transfer of taxes leads into an incongruity – if not a paradox – of centralisation:

a. The taxes which should be centralised on the EU-level are those ridden with tax exporting, inefficient tax competition and harmonisation failure.

[18] In this paper, we concentrated on efficiency aspects of central taxes. For a broader discussion of the other criteria for a European tax see the paper by Kai A. Konrad and the first assessment report of the HLGOR. It should be noted that diesel and gasoline taxation should also appear a fairly promising EU tax when viewed in the light of other criteria such as transparency and accountability.

b. In the case of road fuel taxes, these conditions have produced a jumbled and very heterogeneous 'tax landscape'.
c. High heterogeneity of taxes rates and revenues in the reference period for the transfer leads to asymmetric compensation. The more heterogeneous the starting situation, the higher the 'mark-up price' demanded from the Union.
d. The higher the mark-up price demanded from the EU budget, the less attractive the transfer of the tax right becomes.

In short: The taxes which most urgently call for their transfer to the central level are exceptionally difficult to transfer. The fixed medium-term budget of the European Union does not allow anything else than a revenue-neutral reform of the own resources. But with revenue-neutrality, such a reform cannot be attained.

When envisioning a European tax as an own resource, one of the crucial questions to answer is 'Old tax or new tax?' With our discussion of transferring existing and 'old' taxes from the Member States to the EU-level, we seemingly followed Nicolas-François Canard's famous *truth* of 1801: – "cette grande vérité, *que tout vieil impôt est bon, et tout nouvel impôt est mauvais*." Often, Canard's statement is misunderstood as a conservative value judgement. It is not; it is an empirical description of the gravitational force of existing systems. More than 200 years ago, the French mathematician, philosopher and economist knew that status quo bias – to use the modern term – is not only a behavioural feature of an individual. It also characterises complex social arrangements such as, among others, tax systems.

But are old taxes indeed good taxes when introducing EU taxes? On first sight, the old tax fails. Does a new tax promise a much smoother entry into the new financing the EU. If we understand a 'new tax' as a levy on something previously untaxed in the EU Member States, it would not interfere with taxation in the Member States – at least not directly.[19] Fiscal non-interference with Member States' budgets could only be attained by an *additional* EU tax which leaves both the level of established own resources of the Union and taxation in all Member States untouched. But compensation was also important for the most prominent idea for a 'new' EU tax brought forward so far, the proposal of a financial transaction tax (FTT). The European Commission (2012) made a case for the new tax by arguing that the FTT would reduce Member States' GNI contributions to the EU budget by fifty percent. The FTT currently is no longer a viable political option. Still, its example shows that the difference between the introduction of a 'new tax' and the transfer of an 'old tax' does not lie in the initial revenue additionality or neutrality. Member States must be compensated for both - for revenue losses in the case of an existing tax, or for the opportunity costs of revenue foregone in the case of a newly established tax. Here, a newly established tax is no different from the established tax on diesel and gasoline in Calculations 2 and 3.

In the end, Canard's *grande vérité* remains true: With pre-existing tax-systems, political economy considerations, and a little human status quo bias, the old revenue arrangement is indeed the 'good' tax that is hard to change. Purely structural changes to the established multi-level European tax system in order to improve on the welfare effects are impossible. Either they are not purely structural, or they are no improvements.

[19] Indirectly, new taxes introduce distortions into existing tax systems not only when levied on a base already taxed See Bovenberg and de Mooij (1994).

That also means any efficiency-improving tax transfer must go along with an initial *increase* of total tax revenues and tax burden in Europe. This notion changes the framework of the current discussion. Whether all Member States would be willing to proceed with their consideration under this new heading is an open question. If they were, at least, taxes on gasoline and diesel would be desirable - possibly the best option available.

6 References

Bovenberg, A. L. and R. A. de Mooij (1994), Environmental Levies and Distortionary Taxation. American Economic Review 84, p. 1085-1089

Canard, N. F. (1801), Principes d'economie politique: revu, corrige et augmente par l'auteur. Paris.

De Borger, B. and S. Proost (2012), Transport policy competition between governments: A selective survey of the literature, Economics of Transportation 1, p. 35–48

European Commission (2012), The financial transaction tax will reduce Member States' GNI contributions to the EU budget by 50%, IP/12/300 of 23.03.2012, Brussels.

Evers, M., R. de Mooij and H.R.J. Vollebergh (2004), Tax Competition under Minimum Rates: The Case of European Diesel Excises, CESifo Working Paper No. 1221, München.

Fouquet, D. and J.V. Nysten (2015), The Legal Helpdesk: Energy Taxation in the EU. Becker/Buettner/Held, Brussels [www.keepontrack.eu].

Gerking, S.D. and J ,H. Mutti (1981), Possibilities for the exportation of production taxes. Journal of Public Economics 16, 233-252.

Hansmeyer, K.H. et al. (1980), Steuern auf spezielle Güter. Handbuch der Finanzwissenschaft Bd. II, Tübingen, p. 709-885.

High Level Group on Own Resources [HLGOR] (2014), First Assessment Report, Brussels, 17 December 2014.

Kanbur, R. and M.J. Keen (1993), Jeux sans frontieres: Tax competition and tax coordination when countries differ in size. American Economic Review 83, p. 877-892.

Lin, C.-Y. C. and L. Prince (2013), Gasoline price volatility and the elasticity of demand for gasoline, in: Energy Economics, Vol. 38, p. 111–117.

Markusen, J. (1975), International externalities and optimal tax structures. Journal of International Economics, p. 15– 30.

Mathä, T.Y., A. Porpiglia and M. Ziegelmeyer (2014), Cross-border commuting and consuming: An empirical investigation, BCL working papers No. 89, Luxembourg.

Merrifield, P. (1988), The impact of selected abatement strategies on transnational pollution, the terms of trade and factor rewards: a general equilibrium approach. Journal of Environmental Economics and Management 15, p. 259–284.

Mintz, J., and H. Tulkens (1986), Commodity tax competition between member states of a federation: Equilibrium and efficiency, Journal of Public Economics 29, p. 133-172.

OECD (2015), Taxing Energy Use 2015: OECD and Selected Partner Economies, OECD Publishing, Paris.

Schipper, L.S, L.F. Schipper and M. Lewis (ed.) (2013), Decades of Diesel. Energy Policy (special issue), Volume 54, p. 1-404.

Thöne, M. (2008), Laffer in Luxemburg. Tankverkehr und Steueraufkommen im Großherzogtum. FiFo Discussion Paper 08-1, Köln.

Vincenti, D. (2012), Lawmakers warn EU leaders: No budget reform, no deal. EurActiv.com of 14 June 2012.

Von Weizsäcker, E.U. and H.E. Ott (1998), Tax Bads, not Goods, Our Planet, Vol. 9., No. 6, p. 17-18.

Light for Europe - An Electricity Tax for the European Union Budget

Kai A. Konrad[1]

Abstract:

This report takes the First Assessment Report of the High Level Group on Own Resources (HILGOR) as the starting point for an economic analysis of a possible tax on electricity use within the EU. It first characterizes implementation options and offers some estimates on its economic effects and properties. It considers the likely performance of a tax on electricity along the list of desirable characteristics mentioned in the HILGOR report by comparing it with the financial transaction tax. We suggest that the electricity tax performs well along characteristics such as equity/fairness, efficiency, sufficiency/stability, transparency, and democratic accountability. We are not arguing for the introduction of this tax. The analysis merely suggests that this tax would be superior compared to some of its alternatives.

[1] Max Planck Institute for Tax Law and Public Finance, Address: Department of Public Economics, Max Planck Institute for Tax Law and Public Finance, Marstallplatz 1, 80539 Munich, Germany. E-mail: kai.konrad@tax.mpg.de.

Table of Contents

List of Tables

List of Figures

1 Motivation

On 17th December 2014, the High Level Group on Own Resources (HLGOR 2014) presented its first and preliminary assessment report about the future funding of the European Union (EU). This report gives a brief overview about the present system of financing the EU budget, a diagnosis about what is wrong with the current system, and offers lessons from latest developments, and offers assessment criteria for reform of the current system. The diagnosis comes to a number of conclusions about strengths and weaknesses of the current system. GNI-based balancing helps stabilizing resource flows and making them sufficient. The current system operates well in terms of timeliness by which resources arrive at the European level. However, some political actors also stress the following possible weaknesses: (1) Calculations that lead to the payments are complex and lack transparency. (2) Own resources are not 'genuine' resources. They are national contributions. This may cause an antagonistic debate about winners and losers among the member states. (3) The principle of annual budgets that is rigorously applied can cause problems with open bills at the year-end. (4) Unanimity requirements on budget matters make budget negotiations difficult. Accordingly, the HLGOR (2014) summarizes what is considered the four of the most salient shortcomings of the present system: "...the lack of simplicity, of transparency, of fairness and of democratic accountability."

Any proposal for an improvement of the system of own resources of the EU must hence be assessed in the light of these four dimensions. In what follows, we will offer a proposal for a new financing system for the European Union that is based on electricity consumption in the various member states. We will characterize how this tax could be implemented, what would be a possible size of the tax, the revenue consequences etc. The second part of this report offers an assessment of the proposal following the criteria established by the HLGOR. The final part compares the proposal in relation to other proposed new own resources, with particular focus on the financial transaction tax (FTT).

2 The general constitutional framework

Before presenting the details of the proposal, one should consider how such a tax may square with the current fiscal constitution of the EU. The two overarching aspects of the EU budget revenue decision making are (1) who decides about total size of the EU budget, and (2) what are the different types of sources of revenue that constitute this budget. Budget size and composition of the revenue side of the budget are two conceptually different and independent issues. The current paper is not concerned with issue (1), but considers only issue (2). The electricity tax may be applied if the European Council continues to decide about the size of the EU budget.

The current contractual framework of the EU gives strong decision rights about the overall size of the EU budget to the member states, and unanimity on the side of the member states is required for this decision. A new tax, including a tax on electricity use, as part of the own resources of the European Union, need not alter this rule. That is, much like revenues from import duties, the tax could fill in on the overall, exogenously given budget, and crowd out GNI contributions accordingly. If the sum of

such own resources and the revenues from current import taxes and duties fall short of the exogenously established budget, GNI contributions by member states fill in for the difference. Even if the new own resource should generate a revenue that exceeds the overall budget frame, this need not be in conflict with the current rules about the determination of the budget size. Should these revenues exceed the budget frame, this would simply cause negative GNI contributions to the countries. Much like the profits of the European Central Bank that are distributed between the member states, a similar mechanism could apply for these excess revenues. Such a redistribution rule would have to be determined on political grounds.

One could think about a fundamentally different fiscal arrangement that allocates rights as regarding the determination of the overall budget to the European Commission / European Parliament. Such an arrangement is seemingly incompatible with the Lisbon treaty as it is, and would constitute a fundamental change of the fiscal constitution of the European Union. In its current format, the EU is the outcome of an intergovernmental contract. Accordingly, the overall resources given to the institutions of the European Institution need to pass national parliamentary hurdles. Eliminating these hurdles and endowing the European Parliament with a right to choose its own budget size would require a change of "primary law" within the EU and would require changes in the constitutions of some of the member states as well. It is important to emphasize that the introduction of a new own resource is independent on whether this – indeed - drastic change in the constitution of the European Union is considered or not. However, the proposal here is fitted to a situation in which the size of the EU budget is chosen by a procedure similar to the current procedure, and in which the electricity tax contributes to this budget, thereby crowding out other revenue sources on a one-to-one basis.

3 The proposal

The tax schedule: The proposed tax is very simple: a unit tax on the use of electricity by all consumers, including households, small businesses, companies and the public sector.

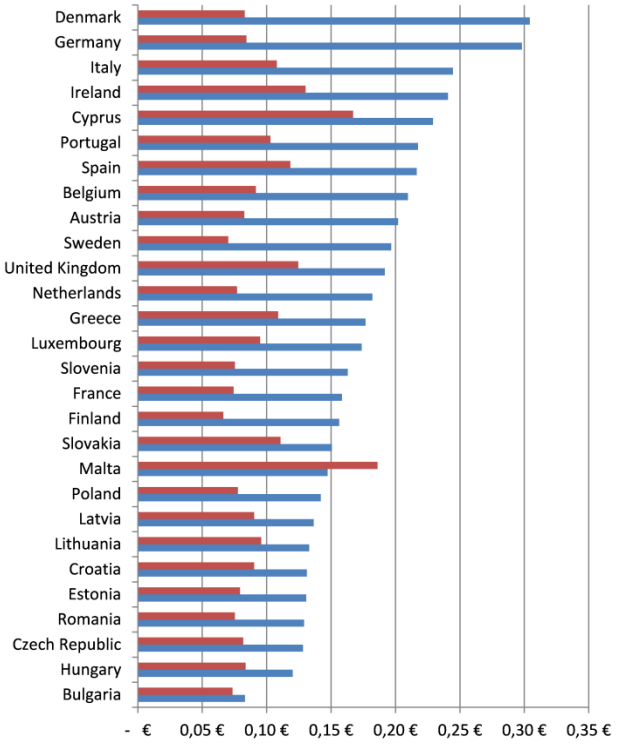
To give a rough idea about the size of a unit tax that funds a fundamental share of the EU budget, consider total electricity production in 2012 in Europe which amounted to about 3.13 million GWh (Eurostat, data code nrg_105a). That implies that a unit tax of 1 cent per KWh generates tax revenue of about 31.3 billion Euro. To arrive at the amount needed to close the gap between current budget size and the amount of import taxes and duties, a tax of approximately 3-4 cent per KWh would be required. This back-of-the envelope calculation makes a number of simplifying assumptions. The tax base used for this calculation is the electricity produced in Europe, but this may differ mildly from the electricity used in Europe. It ignores net imports of electricity between the EU and non-EU countries. It also ignores that not all electricity produced is necessarily paid for by a user, due to pass-through losses on the way from production to consumption.

The size of the tax can be compared with the current electricity prices in Europe to see what this tax implies for the electricity market. Eurostat (2014, p. 28) gives some overview. It shows that the current electricity prices for households in 2013 ranged from about 9 cent/KWh in Bulgaria at the low end to 29.2 cent in Germany and 29.4 cent in Denmark at the high end, with an EU-28 average of

20.1 cent per KWh in the second half of 2013 for households. For industry, the average rate was 11.9 cent per KWh in EU-28. Accordingly, a 4 cent per KWh would amount to an increase of the price of electricity of between less than thirteen percent for the countries with the highest household electricity prices to almost 50 percent for the countries with the lowest electricity prices in Europe.

The increase in the electricity prices caused by such a tax is lower than the current surcharge on electricity, which is 6.17 cent/KWh in 2015,[2] and is due to the Energieeinspeisegesetz (EEG) in Germany, and at current prices, it is also lower than the VAT tax on electricity use for households in Germany.

Figure 1: Electricity prices charged to final consumers (blue) and for industry (red)



Source: Data from Eurostat. Electricity prices by type of user, medium size households (red) and medium size industries for 2014 in EUR per KWh.
Note: Electricity prices for industrial consumers are defined as follows: Average national price in Euro per kWh without taxes applicable for the first semester of 2014 for medium size industrial consumers (Consumption Band Ic with annual consumption between 500 and 2000 MWh). Electricity prices for household consumers are defined as follows: Average national price in Euro per kWh including taxes and levies applicable for the first semester of 2014 for medium size household consumers (Consumption Band Dc with annual consumption between 2500 and 5000 kWh).

Who should pay the tax? The electricity tax should be a tax on the actual electricity use inside the EU, not a tax on electricity production. The tax could be collected directly from the users of electricity, making the users pay for each KWh used. This would offer maximum transparency. However, monitoring cost and the enforcement cost would be high if measured and collected decentrally and independently. A second option is not to install an independent revenue collection mechanism, but

[2] http://de.statista.com/statistik/daten/studie/152973/umfrage/eeg-umlage- entwicklung-der-strompreise-in-deutschland-seit-2000/

to make the collectors of electricity bills collect the tax. As the users of electricity need to be billed in any case, and as the bills typically state the amount of electricity purchased, it would be straightforward to make the collectors of electricity bills responsible for the collection of this tax. The electricity bill could and, for establishing transparency, should include a detailed statement that shows which part of the amount paid goes to the electricity provider, which amount is the EU electricity tax, and which amount is other taxes and charges. Some users may produce their electricity themselves, such as large manufacturers or industrial plants running their own power plant. This production needs to be taxed too, in order to avoid distortions that favour own production.

A third alternative is to collect the electricity tax directly where it is actually produced inside Europe, or where electricity enters into the European Union. As the activities of all electricity producers are typically monitored in any case, this would also be a cost-effective way to collect the electricity tax. This third alternative has less appeal, however, because the actual tax paid by an individual user becomes less transparent for the user.

For the reasons of transparency, the alternative which makes the electricity bill collector responsible for collecting the tax is seemingly superior in terms of balancing the desire for transparency and the desire for collection cost effectiveness.

Economic Incidence: The proposal defines the formal incidence of the tax, meaning which subject is liable for paying the tax to the tax office. As is well-known in the theory of taxation, but typically less salient in the policy debate about taxes, the formal incidence of a tax can be very different from its economic incidence, i.e., from the question who bears the economic burden of a tax. Economic incidence is notoriously difficult to determine, as one has to take general equilibrium repercussions into account.[3] Assuming that the electricity market is, or increasingly develops towards a market in which multiple producers compete for customers, under conditions of perfect competition, and, in the medium/long run the marginal production cost of electricity is constant, the full economic burden of an electricity tax should fall on the users/consumers of electricity. This economic incidence outcome is independent of the choice of formal incidence.

The correspondence principle: An electricity tax would be a tax with a broad base, as regards the set of taxpayers. Virtually all citizens of the European Union would be affected and would assume their share in this tax. The citizens (and the corporations) residing in the union are the main beneficiaries of the EU. From a contract theory based political economy perspective, they are also the principals who, via the governance institutions of the EU determine the allocation of the budget of the EU. An electricity tax would make them also the ones who pay for these benefits. The tax would bring the fiscal architecture of the EU remarkably well in line with the correspondence principle. This principle suggests that three sets of agents should coincide: The set of agents who benefit from public expenditure, the set of agents who finance this expenditure, and the set of agents who make the decisions on this budgetary process.

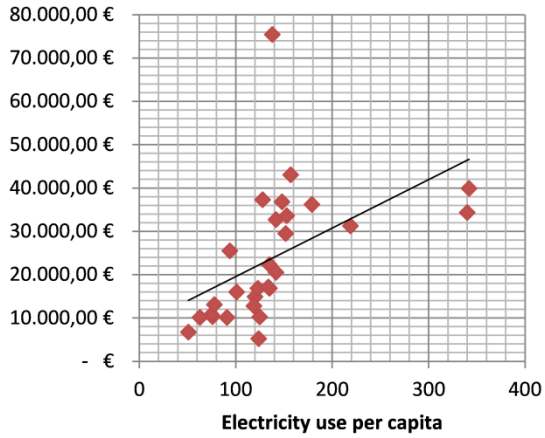
[3] For theory on tax incidence effects and market structure see Bishop (1968), Fullerton and Metcalf (2002) and Stern (1987). Experimental results on the incidence effects of a unit tax see Konrad, Morath and Müller (2014).

Conformity with the ability-to-pay principle: A further question to be discussed is whether an electricity tax is equitable and to see whether, and to what extent the tax would be in line with the ability-to-pay principle. This question can be addressed both on the level of individuals and at the level of countries.

On the individual taxpayer level, the electricity tax is proportional to the amount of electricity used. The relationship between electricity demand and income or income related measures is not easy to measure. Analyses often measure income elasticities controlling for a number of income related characteristics, such as measures of the size of the home or the number of rooms. Evidently, apartment size or living space is typically significantly positively correlated with energy consumption or electricity consumption. The residual effect of income, controlling for these income-related measures, is typically fairly small or insignificant. For an assessment of the correlation between tax burden and ability to pay, the relevant correlation is not between energy consumption and this residual effect of income, but the partial correlation between income and electricity consumption.[4]

If we look at country variation, a positive correlation between per-capita GDP and per-capita consumption of electricity by households is found in Figure 2. The observations to the far east of the diagram are Scandinavian countries, the observation in the very north is Luxemburg. The latter is special for many reasons, but in particular for its extremely high GDP per capita. The especially high energy consumption in Sweden and Finland may be due to geographic/climate reasons, but also due to the availability of electricity from hydro power plants.

Figure 2: The correlation between electricity consumption by household



Source: Author's own transformations from various tables from Eurostat.
Note: The correlation between electricity consumption by household (in 1000 tonnes of oil equivalent, horizontal axis) and GDP per capita (in euro, vertical axis) for 2013 and using population size 2013 (except for Greece: population size 2012)

Yoo and Lee (2010) offer an estimation of price and income elasticities of electricity demand for households, based on a cross-country analysis for 1975-2004 that allows for a quadratic relationship

[4] One of the studies not controlling for housing space etc. is Narayana et al. (2007). They find very different long-run income elasticities of electricity demand across the G7, some of which are fairly high. They conclude, however, that electricity consumption reacts inelastically to income also in the long run.

between per-capita electricity consumption and per-capita income. They find an income-demand relationship that follows an inverted U-shape, but with an increase in per- capita electricity consumption for per-capita incomes lower than 61,379 dollars, measured in year-2000 constant international dollars. This suggests that, effectively, for almost all countries in the sample, a positive relationship between electricity consumption and GDP per capita exists given the current numbers of GDP and is not unlikely to persist for a long time. There are evidently further factors that shape the per-capita electricity demand of countries other than GDP. Electricity prices, governmental regulatory policy and climate conditions are obvious examples.

It may be interesting to note that the amount of electricity has been used to measure economic activity and as a measure of economic prosperity. Kaufman and Kaliberda (1996), for instance, report evidence by Dobozi and Pohl (1995), according to which, the elasticity between electricity use and output is close to 1. Such measures are not unquestioned, particularly when countries change their economic and industrial structure,[5] but the results suggest a strongly positive correlation between economic activity and electricity consumption. Accordingly, richer regions are inclined to expend more on electric energy, and the same relationship applies on the household level as well. Similarly, some researchers have used satellite maps showing regions at night to measure and approximate economic activity and its change (see, for an empirical assessment, Chen and Nordhaus 2011, Henderson, Storeygard and Weil 2012).

Using electricity consumption as the tax base implies that richer households pay more to the EU budget, as well as richer regions do. Regions in this sense are typically not identical with national territories, as nations may consist of rich and poor regions. Accordingly, such a tax reduces the salience of "national" contributions and shifts the focus of burden sharing to the level of regions. These are desirable properties for an own resource of the EU budget, as they are in line with the ability-to-pay principle.

[5] See, e.g., Hanousek and Palda (2006).

Figure 3: Satelite map of Europe at night, illustrating light as an indicator for economic activity

Source: https://commons.wikimedia.org/wiki/File:Europa-bei-nacht_1-1024x768.jpg?uselang=de.
Data courtesy Marc Imhoff of NASA GSFC and Christopher Elvidge of NOAA NGDC. Image by Craig Mayhew and Robert Simmon, NASA GSFC.

Avoidance, evasion and special interest groups: Tax avoidance and tax evasion is a major problem not only in developing countries, but also inside the European Union. Estimates about the size of the shadow economy differ across Europe. Interestingly, electricity consumption is one of the measures used to trace and estimate discrepancies between true and reported economic activity. This suggests that a tax on electricity consumption might be more difficult to evade than other taxes on economic activity. Electricity consumption is tightly related to economic output, including the share of output that emerges in the shadow economy. So, an electricity consumption based funding mechanism for the EU implicitly accounts for the economic output that is not part of the official GDP measures, but nevertheless contributes to countries' ability to pay.

Interest group activities: One of the disadvantages of electricity taxation might be that it could be prone to the activities of special interest groups. Many industries in Germany have been successful in lobbying for exemptions from the EEG surcharge, which essentially is a tax on electricity consumption (which is ear-marked for the funding of subsidies for the production of "green" electricity). This suggests that similar attempts may be made with respect to an EU tax on electricity use.[6] One difference is, however, that the EEG surcharge is limited to producers within Germany, whereas the EU electricity tax applies all over the EU. The main argument of German producers was that a surcharge paid by them is a competition disadvantage when competing with other (predominantly European) produc-

[6] As shown by Martin et al. (2014) in a related context, the exceptions and subsidies to specific industries applied may differ substantially from an efficient allocation of a given size of exceptions/subsidies.

ers. This argument is no longer applicable if all producers within the EU have to pay this tax, thereby equalling their level playing field.

EU-budget composition: The electricity tax is compatible with the current decision procedures on the EU budget and could be treated much like the revenue from import taxes and duties. Much like these, the regional or geographical breakdown of the revenue accruing is likely to be uneven.

As the consumption differences are, to a large extent, related to, or an outcome of differences in per-capita income or per-capita GDP, this heterogeneity of consumption is a desirable property. It causes a higher tax burden for persons or regions that have a higher ability to pay.

Of course, there are further reasons why electricity consumption is unevenly distributed within Europe. One reason is that electricity is often used for energy-intensive production such as the production of aluminum, and this industry often locates next to where electricity is produced. Some of these geographic differences are efficiency-driven, such as differences in the local availability of electricity (for example hydro power plants) and the cost of transport of electricity. Some reasons reflect national energy policy in the different countries (such as the countries' stance with regard to nuclear power plants). Some of the differences can be traced to differences in national policies causing surcharges or subsidies on electricity consumption.

Figure 1 already illustrated the price differences between countries and between the types of users. Some of these differences could be policy driven. A more common market on electricity may therefore contribute to a reduction of some of the existing differences. Some differences will remain, for instance, due to climate differences between north and south that may cause regional differences in the demands for electricity.

Notwithstanding these differences, it would be possible to continue to apply a GNI-related ability-to-pay principle as in the current system. For instance, suppose m_i is the overall contribution of country i to the EU budget, t_i the import taxes and duties collected by i and e_i the amount of electricity tax that is collected in this country. Then the GNI-contribution could be the residual $y_i = m_i - t_i(1-\alpha_t) - e_i(1-\alpha_e)$, where α_t and α_e are the retention shares of the revenue collection that is attributed to the collecting country in order to cover collection costs.

4 A comparative summary assessment

We are now ready for a first assessment of the electricity tax following the criteria put forward by the HLGOR. A good own revenue source should be simple, transparent, fair and strengthen democratic accountability.

We may compare the electricity tax with other taxes that are discussed in this context. Particularly prominent among these is a financial transaction tax, and we shall pursue this comparison in particular. A financial transaction tax (FTT) is a tax that is levied on the monetary volume of trade of all financial assets or of a subset of them. The European Commission made a design proposal in 2013 (EC 2013), suggesting that the tax should be a transaction tax that applies widely, but with some excep-

tions (such as transactions on primary markets, currency trade), and that it should concern mostly financial institutions.[7]

Table 1: The table surveys the comparison of an electricity tax with a financial transactions tax using the criteria equity/fairness, efficiency, sufficiency/stability, transparency/simplicity and democratic accountability

List of criteria	ET	FTT
Equity/Fairness	+	-
Efficiency/Simplicity	+	-
Sufficiency/Stability	+	-
Transparency	++	-
Democratic Accountability	++	-

Efficiency and simplicity: Electricity tax revenue collection is as easy as the collection of electricity bills. Almost no additional administrative cost of collecting the tax is required. The compliance cost is also low, because the tax simply adds and piggy-backs on an existing revenue collection mechanism. The incidence of electricity can be assessed as well as the expected amount of tax revenue, given the sound evidence on price and income elasticities in the area of energy economics.

The FTT is a transaction tax. This makes it less attractive from an efficiency point of view. The transactions are carried out by internationally operating firms. Financial markets are typically mobile internationally as well, and the financial sector may react with innovations trying to avoid the financial transaction tax. All this suggests that the tax may have poor efficiency properties and that its implementation may be costly and difficult.

Stability and Sufficiency: Use of electricity reacts to fluctuations of income and to the business cycle, but these reactions should be similar to the fluctuations of GDP or VAT. An FTT may show higher volatility, and financial innovations and international avoidance strategies potentially make the tax less reliable as a revenue source.

Transparency: The electricity tax scores very well along this dimension. The way of payment is transparent both for tax payers within a country as well as across borders. The economic burden of this tax is also comparatively straightforward to assess and easy to understand.

In comparison, a financial transaction tax has less clear economic incidence effects, due to the multi-layered ownership structure of financial assets. It is likely that a large share of the economic burden

[7] Of course, insurance companies, pension funds, and other financial intermediaries trade directly or more indirectly on behalf of citizens and business, either because they pursue transaction orders on behalf of their customers, or because they independently manage asset funds on behalf of the capital owners. They may also pursue financial transactions with their own financial resources, but these financial intermediaries are directly or indirectly owned by individual investors.

of a financial transaction tax is borne by consumers who hold financial assets via life insurance contracts and other forms of pension savings, but the precise breakdown of the cost shares is not very transparent.

Equity/Fairness: An electricity tax imposes the tax burden to the demand side, and in the aggregate to countries with high electricity consumption. As electricity consumption is a proxy for economic activity more generally and is correlated with income, the tax has desirable properties with respect to the ability-to-pay principle.

The financial transaction tax is a transaction tax. The volume of transactions may also be linked to economic activity and income, but the relationship is much less straightforward. This is due to the different purposes for financial transactions (high frequency traders compared to a buy-and-hold strategy). Strategies to avoid the FTT have high set-up costs. That suggests that only players with high transaction volumes invest in such strategies. This effect blurs the relationship between tax burden and economic activity in the case of the Financial Transaction Tax.

Democratic accountability: The electricity tax makes the set of tax payers, the set of beneficiaries of the European Union and the set of democratic decision makers almost perfectly congruent. The electricity tax is in high conformity with the correspondence principle. It ties together the decision rights with economic responsibility in the democratic process. The electricity tax is seemingly the ideal tax to strengthen democratic accountability. Citizens of Europe are the main beneficiaries of the expenditure of the European Union. These benefits are – or should be – transparent to the citizens of the EU. If they are not, the institutions of the European Union have to work hard on this to improve along this dimension. The electricity tax makes the citizens the players who pay for the budget that is used for these expenditures. The tax has a broad tax base and encompasses the beneficiaries. It is salient, or at least it can be made salient to the citizens, which is a highly desirable property of a tax. It is difficult to avoid or evade the tax, which is also an advantageous feature of the tax'.

In comparison, the FTT would be a tax levied on transactions that, from the European citizens' perspective, would be remote from their own economic doing. It appears as, and may be mistakenly seen as, a tax on financial institutions. This implies that the correspondence principle is strictly violated for this tax. The beneficiaries of the EU budget are, indirectly, the voting principals who decide about the size of this budget. If they are not the ones who pay for this budget, they have wrong incentives with regards to the choice of the adequate budget size.

5 Conclusions

The current discussion of a possible reform of the own resources of the European Union emphasized a number of criteria for what would be characteristics of a good new own revenue source of the European Union. We described basic aspects of an EU tax on electricity use and discussed that this tax fulfills these criteria very well. It is in conformity with the ability-to-pay-principle, it has nice efficiency properties, the tax revenue is fairly predictable, and is likely to have a low volatility. Moreover, the tax is a transparent tax for the tax payers, and the set of tax payers mostly overlaps with the set of

beneficiaries of EU expenditures and with the set of voters in the European Union. These properties of transparency and accountability make such a tax a particularly attractive candidate.

6 References

Bishop, Robert L. (1968): The effects of specific and ad valorem taxes, Quarterly Journal of Economics 82 (2), 198-218.

Chen, Xi, and William D. Nordhaus (2011): Using luminosity data as a proxy for economic statistics, Proceedings of the National Academy of Sciences 108(21), 8589-8594.

Dobozi, Istvan, and Gerhard Pohl (1995): Real output decline in transition economies - forget GDP, try power consumption data, Transition 6 (1-2), 17-18.

Eurostat (2014): Pocketbook, Energy, Transport and Environment Indicators, 2014 edition.

EC (2013): European Commission Proposal for a Council Directive implementing enhanced cooperation in the area of financial transaction tax, COM (2013) 71 final, 2013/0045 (CNS)

Fullerton, Don, and Gilbert E. Metcalf (2002): Tax incidence, in: Alan J. Auerbach and Martin Feldstein (eds.), Handbook of Public Economics, Vol. 4, Amsterdam: Elsevier, 1787-1872.

Hanousek, Jan and Filip Palda (2006): Problems measuring the underground economy in transition, Economics of Transition, 14(4), 707-718.

Henderson, J. Vernon, Adam Storeygard and David N. Weil (2012): Measuring economic growth from Outer Space, American Economic Review 102(2), 994-1028.

Kaufman, Daniel and Aleksander Kaliberda (1996): Integrating the unofficial economy into the dynamics of post-socialist economies: A framework of analysis and evidence, Policy Research Working Paper 1691, World Bank.

Konrad, Kai A., Florian Morath, and Wieland Mueller (2014): Taxation and market power, Canadian Journal of Economics 47(1), 173-202.

Martin, Ralf, Mirabelle Muûls, Laure B. de Preux and Ulrich J.Wagner (2014): Industry compensation under reallocation risk: a firm-level analysis of the EU emissions trading scheme, American Economic Review 104(8), 2482-2508.

Narayan, Paresh Kumar, Russel Smyth and Arti Prasad (2007): Electricity consumption in G7 countries: A panel cointegration analysis of residential demand elasticities, Energy Policy 35(9), 4485-4494.

Stern, Nicholas (1987): The effects of taxation, price control and government contracts in oligopoly and monopolistic competition, Journal of Public Economics 32 (2), 133-158.

Yoo, Seung-Hoon and Joo-Suk Lee (2010): Electricity consumption and economic growth: A cross-country analysis, Energy Policy 38(1), 622-625.

Legal Restrictions and Possibilities for Greater Revenue Autonomy of the EU

Christian Waldhoff[1]

[1] Christian Waldhoff is Professor for Public Law and Financial Law at the Humboldt University of Berlin.
E-Mail: christian.waldhoff<at>rewi.hu-berlin.de.

Table of Contents

1 Problem and question

The EU's current funding system is designed asymmetrically: some autonomy with regard to expenditures, though incomplete, stands against very little revenue autonomy. In times of Europeanization and Globalization, national budget sovereignty is critically dependent on how it is interrelated to EU funding. The EU budget with a volume of 132.8 bn. € (2013) is rather limited when compared for instance to the German Federal budget (311.6 bn. € in 2013). Numerous sovereignty reservations concerning financial issues,[2] such as an especially strict unanimity requirement, indirectly protect the budget autonomy of the Member States' parliaments. On the other hand, the EU is urging for greater financial autonomy, particularly for its own rights to tax. This may seem reasonable to the extent that it avoids the exasperating and mistaken net payment discussion ("juste retour"); however it poses its own problems if it implies a fundamental reconstruction of the integration architecture. From a legal perspective, this problem has to be examined on multiple levels:[3] Which measures of promoting revenue autonomy are feasible without changing primary Union law (i.e. TEU and TFEU)? If changing primary Union law is discussed, this raises – from a German perspective at least – the follow-up question which limitations the Member States' constitutional orders draw to such a redesign of European law.

2 The problem between law and integration policy

The question of whether the EU should raise its own tax(es) is primarily a matter of integration policy and thus a political question.[4] Which steps of integration are to be taken in future for Europe is an issue of integration policy, which is embedded in a legal framework.[5] In a national context it is largely undisputed that beyond the largely irrelevant Art. 79 para. 3 of the German Basic Law, the question of what to include in a constitution is a political one, as there is and can be no legal order superior to the constitution (barring very few selective exceptions). A difference persists here, however, because of the limitations that the national constitutions draw and which for Germany have been defined particularly in the Maastricht and Lisbon decisions of the Federal Constitutional Court.[6] The aim of this contribution is to point out evaluation criteria, which, although they cannot answer this question of integration policy on their own, nevertheless show that legal criteria are still able to influence and enrich the debate. The point of the matter is, as I will show, that legal conditions when designing further integration are relevant in a way that is different to an exclusively national context. Further-

[2] Waldhoff, in: Calliess/Ruffert (eds.), EUV/AEUV, 4th edition. 2011, Art. 113 mn. 1, Art. 311 mn. 7 and more; id., Steuern, in: Hatje/Müller-Graff/Wegener (eds.), Enzyklopädie Europarecht, vol. 8, 2014, § 10 mn. 3.

[3] See e.g. Häde, Die Finanzordnung der Europäischen Union, in: Hatje/Müller-Graff (eds.), Enzyklopädie Europarecht, vol. 1, 2014, § 14 mn. 57 ff., 63 ff.

[4] The following explications are an advancement to e.g. Waldhoff, Finanzautonomie und Finanzverflechtung in gestuften Rechtsordnungen, VVDStRL 66 (2007), pp. 216 ff.; id., Eigene Steuern als Problem des Verfassungs- und Europarechts, in: Konrad/Lohse (eds.), Einnahmen- und Steuerpolitik in Europa, 2009, pp. 47 ff.

[5] The most extensive according analysis to date, Traub, Einkommensteuerhoheit für die Europäische Union?, 2005, relates its arguments to the idea of a European federal state from the beginning. Exclusively integration policy-related arguments are also found e.g. in Esser, Die Dänen und die Bananen – zur Notwendigkeit einer EG-Verfassung, DStZ 1992, 725 (728).

[6] BVerfGE 89, 155; 123, 267.

more, something that I will denote "coherence" or "harmonisation" with the present integration architecture is needed in such a context. From my point of view, the deeper purpose of such considerations – apart from the more specific question whether to endow the EU with its own rights to tax – lies in showing first that explicite legal arguments enrich the political discussion, and second that multidisciplinarity that includes legal contributions can only work if the necessary translation efforts are made.

For terminological clarity, it shall be clarified in advance what is meant by an "own EU tax": In the narrow definition employed here, the term is meant to only include taxes over which the EU exerts both legislative and revenue authority. Administrative authority is not critical, as can be seen in the analogous case of federal national-states. In my opinion, it is also of very limited use to define national taxes that are subject to harmonization as EU taxes, as parts of legislative and revenue authority remain with the Member States. The harmonized value added tax thus does not fall under the definition: The Member States retain full legislative authority, despite the numerous VAT directives;[7] of course, the VAT is related to of EU funding as it is the base of one of four own resources,[8] but this is not to be confused with true revenue authority as defined by financial constitutional law. By the same token, a mere harmonisation of the assessment basis of corporate taxes would neither be included in the definition. The question of whether the EU may use harmonisation as a basis to force its Member States to raise a tax (e.g. a CO^2 tax or a financial transaction tax) is not explored either.[9] Finally, all predominantly cosmetic or pedagogical suggestions, such as explicitly marking the share of national taxes that is used to fund European institutions on the tax bill, can be excluded regardless of their possible transparency advantages.

3 Options within the present own resources system

The EU is funded by a so-called own resources system (art. 311 TFEU). In difference to a label such as contribution-based funding system, this is meant to emphasize that supranational integration is independent of Member State contributions and supply the Union with its "own" funds.[10] Agricultural levies, tariffs raised by the fully harmonised customs union (both constitute the so-called traditional own resources), shares of the VAT revenue and an own resource reflecting the Member States' economic capacities (the so-called GNI-based resource) are the most important sources of revenue.[11] Nonetheless, the degree of financial autonomy of the Union is still low, despite the transition to the own resources funding system. The final say on legislation on own resources does not lie with the Union's institutions (not even with the Council), but with the Member States and their respective

[7] For a survey see Waldhoff, in: Calliess/Ruffert (eds.), EUV/AEUV, 4th edition 2011, Art. 113 AEUV Rdnr. 13 with additional references.

[8] Survey: Waldhoff, in: Calliess/Ruffert (Hrsg.), EUV/AEUV, 4th edition 2011, Art. 311 AEUV Rdnr. 10; more specific Meermagen, Beitrags- und Eigenmittelsystem, 2002, pp. 152 ff.

[9] For a survey see Birk, Steuern der Mitgliedstaaten nach Gemeinschaftsrecht, in: id. (ed.), Handbuch des Europäischen Steuer- und Abgabenrechts, 1995, § 11; concerning the example of the Commission's proposal of a financial transaction tax: Wernsmann/Zirkl, Die Regelungskompetenz der EU für eine Finanztransaktionssteuer, EuZW 2014, 167.

[10] Häde, Finanzausgleich, 1996, pp. 427 ff.; Meermagen, Beitrags- und Eigenmittelsystem, 2002.

[11] See Waldhoff, in: Calliess/Ruffert (Hrsg.), EUV/AEUV, 4th edition. 2011, Art. 311 AEUV mn. 8 ff.

constitutional orders. In this sense, too, they remain "guardians of the Treaties".[12] The whole procedure emphasises the Member States' sovereignty reservations.[13] Lastly, the GNI-based own resources have turned out to be sugar-coated Member State contributions.[14]

The EU has its own rights to tax – in the above sense – regarding the tariff revenues generated by the customs union established in Art. 28 ff. TFEU. The sole legislative authority on tariffs, as well as their revenue, lies with the Union. Beyond that, rights to tax for the union can only be found in relatively insignificant areas: Until its incorporation into the EC after 50 years, the so-called Montane Levy (ECSC levy) was raised on the basis of Art. 49, 50 ECSCT;[15] the Communities have always taxed their employees themselves. Yet this tax was never designed to fund the Union, but serves as a substitute for the exemption of EU officials from Member States' taxes, which was established for completely different reasons.

The question of whether the prevailing primary law can be interpreted in a way that justifies the Union's right to collect own taxes calls for further differentiation. First, one should ask if Art. 311 TFEU can serve as a basis for introducing EU taxes; then the term of "other revenue" in para. 2 of the same rule requires closer attention, and finally other, special competence bases have to be considered.

The first question, which has been rarely discussed to date, is basically if EU taxes or similar fees could be imposed to strengthen the Union's revenue autonomy within the legal framework of an unchanged Art. 311 TFEU. Apart from the aforementioned cases, this is not the case to date. Art. 311 TFEU does not in itself constitute a competence base for the introduction of an EU tax via secondary legislation.[16] This should be undisputed. The German Federal Constitutional Court, too, has asserted that Art. 311 para. 1 TFEU does not grant the EU the *kompetenz-kompetenz* (the right to define its own competences). The question is simply whether a new own resources decision might introduce such taxes as a new own resource. Art. 311 para. 3, Sentence 2 states that in an own resources decision it is possible to introduce new own resources, or abolish existing ones. Thus the question is narrowed down to whether this also includes EU taxes with full legislative and revenue authority. In principle, this is imaginable.[17] There is no inherent *numerus clausus* on the possible nature of own resources.[18] At its core, the term "own resources" has to be understood in a formal rather than a material sense.[19] Yet Art. 311, para. 3, Sentence 3 imposes a restriction by stating that every own resources decision requires the unanimous approval of all Member States to enter into force. This

[12] Oppermann/Classen/Nettesheim, Europarecht, 6th edition. 2014, § 8 mn. 2.

[13] Schmidhuber, Die Notwendigkeit einer neuen Finanzverfassung der EG, EuR 1991, 329 (337); Götz, Beitragsgerechtigkeit im EU-Finanzierungssystem, in: FS für Peter Selmer zum 70. Geb., 2004, p. 641.

[14] Waldhoff, in: Calliess/Ruffert (Hrsg.), EUV/AEUV, 4th edition 2011, Art. 311 AEUV mn. 11.

[15] Näher Meermagen, Beitrags- und Eigenmittelsystem, 2002, pp. 122 ff.

[16] Frenz, Handbuch Europarecht, vol. 6, 2011, mn. 1542, 3317.

[17] Frenz, Handbuch Europarecht, vol. 6, 2011, mn. 3319; Bieber, in: von der Groeben/Schwarze/Hatje (eds.), Europäisches Unionsrecht, vol. 4, 7th edition 2015, Art. 311 AEUV mn. 8, 9, which presumes that the term "own resources" does not incorporate a qualification with regard to content.

[18] Häde, in: Hatje/Müller-Graff (eds.), Enzyklopädie Europarecht, vol. 1, 2014, § 14 mn. 42.

[19] Häde, Die Finanzordnung der Europäischen Union, in: Hatje/Müller-Graff (eds.), Enzyklopädie Europarecht, vol. 1, 2014, § 14 mn. 56; limiting: ibid., mn. 61.

makes it a form of primary Union law that the Member States remain guardians of the Treaties. The periodical own resources decisions do not fundamentally change anything about that. Put differently: if a real EU tax in the above sense were to be introduced in an own resources decision, it would still be subject to a unanimity vote by the Member States and thus would not yield any serious financial autonomy to the EU.[20] Conversely, a complete reorientation towards funding through own taxes would not be possible on the basis of the established treaties, as this would bypass the explicitly expressed funding concept of Art. 311 TFEU: "Besides Art. 311 TFEU, there is no rule in primary law that serves exclusively to generate resources." [21]

The question regarding what magnitude the "other revenue" in Art. 311 para. 2 TFEU may have in relation to the own resources has been discussed more extensively in the literature. It would be conceivable to introduce an EU tax based on a competence in a specific subject area or through changing primary law – in each case with the purpose of generating income to fund the budget. In this context, the clear preference of the Treaties for a funding through own resources has rightfully been pointed out. Other revenue is possible exclusively on the basis of explicit subject-area competences in the Treaties and is then also allowed to enter the budget. Quantification – as always – is difficult here. This also means that the objective purpose and not the financial effects need to be dominant.[22]

This does not affect the introduction of EU taxes for the pursuit of specific policy purposes, as stipulated e.g. in Art. 192 para. 2 lit. a TFEU for environmental policy. Fees of this kind may in my view even be raised to fund the EU; yet the primary motivation would have to remain environmental policy. The revenues of such steering taxes might be integrated into the EU budget but would not serve as the principle source of funding.

4 Legitimatory restrictions of own EU rights to tax

The question remains what the fact that the EU still presents itself as an (at least partially) derivatively legitimated political body means to its own rights to tax in the above sense. The reconstruction of democratic responsibility and accountability may help to argue for an own right to tax as well as pose arguments to restrict it. Applied to the German *Länder*, this view delivers various reasons for a stronger financial autonomy on the revenue side.[23] Applied to the EU, this view suggests to limit rather than extend autonomy.[24] The Federal Constitutional Court has worked out the EU's dual legitimation structure, which is at least partially derived from the Member States' legitimation, in the Maastricht decision and the subsequent case-law; this was implemented almost authentically in Art. 23 of the Basic Law:[25] The main strand of democratic legitimation proceeds indirectly through the

[20] Frenz, Handbuch Europarecht, vol. 6, 2011, mn. 3320.

[21] Häde, Die Finanzordnung der Europäischen Union, in: Hatje/Müller-Graff (eds.), Enzyklopädie Europarecht, vol. 1, 2014, § 14 mn. 55.

[22] Häde, Die Finanzordnung der Europäischen Union, in: Hatje/Müller-Graff (eds.), Enzyklopädie Europarecht, vol. 1, 2014, § 14 mn. 53 ff.

[23] See e.g. respectively Waldhoff, Verfassungsrechtliche Vorgaben für die Steuergesetzgebung im Vergleich Deutschland-Schweiz, 1997, pp. 99 f.; id., Reformperspektiven der bundesstaatlichen Finanzverfassung im gestuften Verfahren, ZG 2000, 193 ff.

[24] Quite similar for the current state of integration: Traub, Einkommensteuerhoheit der EU? 2005, pp. 84 ff.

[25] BVerfGE 89, 155 (185 f.).

Union's main legislative institution, the Council. The government representatives unified in the Council are in turn indirectly legitimated by their respective parliaments or directly elected presidents who appoint and control them. The independent democratic legitimation through the European Parliament works, at the current state of integration, (only) as a complementary, albeit steadily strengthening, legitimation.[26]

The EU's financial autonomy concerning its revenues is even further restricted than the autonomy of municipal governments in Germany.[27] The own resources system (Art. 311 TFEU in conjunction with the respective own resources decision currently in effect) presents itself consisten with this view: Through functionally primary Union law outside of the Treaties, a budget framework limited in absolute terms is provided, while on the expense side, the Union, despite the fact that the European Parliament does not enjoy budget autonomy comparable to the Member States' parliaments, still decides over its expenses largely autonomously.[28] Income completely predetermines expenses. To be sure, this results in a considerable and potentially problematic asymmetry in the EU public finance system;[29] yet this asymmetry mirrors the current state of European integration in a significantly more precise way than integration policy programs could.[30] The Member States, not their citizens, are the central reference points. This view is even shared by fairly pro-European authors: "Revenue autonomy may not be communitized as long as the political differences about the extent and the content of transfer flows continue to be considerable. A communitization of the decision in such a situation is neither effective nor legitimate or compatible with the German constitution. For the foreseeable future, the competence to determine the funding instruments needs to remain on the Member State level."[31]

As the communities' legal acts still do not hold the same degree of democratic legitimation as Member States' tax laws do,[32] the demand for an EU tax frequently voiced in an integration policy

---

[26] Drawing similar conclusions as this paper: Klein, Zur Frage der zukünftigen Steuerhoheit der Europäischen Gemeinschaft, in: FS für Günter Wöhe zum 65. Geb., 1989, p. 189 (199); slightly different accentuation in Kirsch, Demokratie und Legitimation in der Europäischen Union, 2008.

[27] Häde, Finanzausgleich, 1996, pp. 375 f., 457; Lienemeyer, Finanzverfassung der Europäischen Union, 2002, p. 256 f.; the direct taxation of EU officials as well as income from civil penalties etc.; also there are no significant methods of taking debt; see Seidel, Ausgestaltung und rechtliche Begrenzung der Anleihebefugnis der Europäischen Wirtschaftsgemeinschaft, RIW 1977, 665 ff.; Selmer, Die Anleihekompetenzen der Europäischen Gemeinschaften, in: Böckstiegel u.a. (eds.), Finanzverfassung der Europäischen Gemeinschaften, 1984, S. 21 ff.; Scheibe, Die Anleihekompetenz der Gemeinschaftsorgane nach dem EWG-Vertrag, 1988; Münch, Die Verschuldungstätigkeit der Europäischen Gemeinschaft, 1989; Gesmann-Nuissl, Die Verschuldungsbefugnis der Europäischen Union, 1999.

[28] See e.g. Rossi, Europäisches Parlament und Haushaltsverfassungsrecht, 1997.

[29] See Rossi, Europäisches Parlament und Haushaltsverfassungsrecht, 1997, pp. 246 ff.; Lienemeyer, Finanzverfassung der Europäischen Union, 2002, pp. 258 ff.

[30] See also von Bogdandy, Europäische Prinzipienlehre, in: id. (ed.), Europäisches Verfassungsrecht, 1st edition 2003, p. 149 (175 with footnote 106), which interprets the EU financial constitution as the culmination of the dual legitimation model of the communities; ibid., p. 183, the financial constitution is identified as every federal order's "actual achilles heel".

[31] Oppermann/Classen/Nettesheim, Europarecht, 6. Aufl. 2014, § 8 Rdnr. 22.

[32] The never-ending discourse about true or perceived democracy deficits of the Union can and shall not be revised extensively here; with some narrowing down two directions can be distinguished: differentiation from and integration into the Federal Constitutional Court's understanding of democracy, particularly following the Maastricht decision BVerfGE 89, 155; in this tradition e.g. Kaufmann, Europäische Integration und Demokratieprinzip, 1997; Di Fabio, Demokratie im System des Grundgesetzes, in: FS für Peter Badura zum 70. Geb., 2004, p. 77 (93 ff.); concerning financial competences Rossi, Europäisches Parlament und Haushaltsverfassungsrecht, 1997, pp. 259 ff.; Traub, Einkommensteuerhoheit der EU? 2005, p. 84 ff.; for more "open" models see e.g. von Bogdandy, Europäische Prinzipienlehre, in: id. (ed.), Europäisches Verfassungsrecht, 1st edition 2003, p. 149 (171 ff.); id., Demokratie, Globalisierung, Zukunft des Völkerrechts, in: Bauer/Huber/Sommermann (eds.), Demokratie in Europa, 2005, pp. 225 ff.

context[33] can not be fulfilled. In fields sensitive to sovereignty and thus also to democracy, such as taxation, affirmative and functional-technocratic compensation mechanisms which might be useful for other integration issues are bound to fail.[34]

At the current state of integration, there is also no need for directly involving Union citizens in funding the Union. The Member States remain the addressees for the so-called own resources and the EU citizens are mediatized from a financial law perspective.[35] For a redistributive fiscal equalisation scheme that would go beyond specific structural policies, the integration prerequisites are not met anyway.[36] In the Maastricht decision, the Federal Constitutional Court interpreted the openly, or ambiguously, worded Art. 311 para. 1 TEU for Germany in a more binding way. The paragraph has the following wording:

> *"The Union shall provide itself with the means necessary to attain its objectives and carry through its policies."*

The Second Senate explicated thereto in 1993:

> *"The requirement of sufficient legal clarity regarding the conceded sovereign rights, and thus the parliamentary accountability of this concession of rights, were […] violated if Art. F para. 3 TEU [today: Art. 311 para. 1 TFEU] constituted a kompetenz-kompetenz of the EU as a community of sovereign states. Art. F para. 3 does not, however, empower the Union to single-handedly procure financial or other resources it deems necessary to fulfil its purposes; rather, in Art. F para. 3 TEU the political-programmatic intent is evinced that the Member States constituting the Union aim to supply the Union with sufficient means. Should European institutions interpret and administer Art. F para. 3 TEU contrary to this Treaty content that has become part of the German approval law, such action would not be covered by the approval law and thus not be legally binding within the German Member State."*[37]

The revisions of the Treaties undertaken since 1993 did not change anything about this, nor did they intend to. The explicit wording of Art. 6 para. 4 TEU was already supposed to be abolished by the Constitutional Treaty, and has now been abolished by the Lisbon Treaty and replaced by a less ambiguous version[38] – Art. 311 para. 1 TFEU –; the legitimatory architecture of the Union that is so crucial to our question has remained unchanged. This was confirmed and substantiated by the

---

[33] See e.g. Weber-Grellet, Europäisches Steuerrecht, 2005, p. 24, wielding the argument of improved transparency of the revenue structure, but subject to the "elimination of the current democracy deficits"; with the premise of the EU inevitably developing further into a federal state Traub, Einkommensteuerhoheit der EU? 2005.

[34] Different assertions from a strictly economic perspective: Schick/Märkt, Braucht die EU eine eigene Steuer?, DStZ 2002, 27; Wieland, Erweitern und Teilen, ZRP 2002, 503 (507 f.), which recommends using EU taxes as a vehicle to strengthen the democracy principle in the European integration.

[35] i.e. also Traub, Einkommensteuerhoheit (Fn. 77), p. 88.

[36] Birk, Diskussionsbeitrag, VVDStRL 52 (1993), p. 169; differentiating Lammers, Braucht die EU einen Finanzausgleich?, in: Probleme des Finanzausgleichs in nationaler und internationaler Sicht, 1993, pp. 189 ff.; on the solidarity principle in Union law Calliess, Subsidiaritäts- und Solidaritätsprinzip in der Europäischen Union, 1999, esp. 187 ff.

[37] BVerfGE 89, 155 (194 f.).

[38] Art. I-3 para. 5 EU Constitutional Treaty: "The Union shall pursue its objectives by appropriate means commensurate with the competences which are conferred upon it in the Constitution." In this context: Calliess, in: id./Ruffert (eds.), Verfassung der Europäischen Union. Kommentar der Grundlagenbestimmungen, 2006, Art. I-3 mn. 42; Art. 3 para. 6 Treaty of Lisbon: "The Union shall pursue its objectives by appropriate means commensurate with the competences which are conferred upon it in the Treaties."

Federal Constitutional Court in its decision on the Lisbon Treaty. According to this decision, the German Bundestag is obligated to account to the people for the sum of the levies on the citizens. This accountability cannot be relinqished to supranational entities. At the same time, the central coordination of revenues and expenditures in the budget is reserved to the Member States via the principle of budget responsibility.[39] However, this is not meant to include, according to the Court, each and every transfer of financial sovereignty, but only losses "of significant extent". Limited taxation rights for the EU in the sense developed above thus certainly remain possible.

In contrast, the legislative and revenue authority of the Community concerning the customs union are a special case, which can be explained by the inherent structure of the customs union, and is by no means generalizable. The special case of the Community taxing its own officials is unproblematic as its volume is insignificant, as it rests on completely different premises and as it does not have the purpose to fund the Union, but to preserve the officials' equity and independence in conjunction with according tax immunities granted by the Member States. The ECSC levy – which has run out anyway – differed from the currently discussed taxation rights of the EU in terms of its limited funding purpose and additionally had an impeccable legal basis in primary law. In cases where primary law provides explicit legal bases anyway, such as for environmental steering fees, there are no serious concerns, as already explained above. Of course, the steering effects, and not funding, must remain the main purpose. Additionally, there is a "primary law reservation", i.e. it would become necessary to change the Treaties.

The legitimatory, democracy-related approach has the advantage of not having to rely on categories as contested as sovereignty or statehood. Since internal sovereignty can only mean sovereignty of the people anyway, which makes it synonymous with the democratic principle, the so-called sovereignty reservation of the Member States regarding taxation turns out to be a democracy and thus a legitimation reservation. According to prevailing law, without changing primary law the Communities cannot claim rights to tax.[40] Art. 311 TFEU as a basis for own resources decisions can, according to the opinion outlined here, only be partially relied upon, as it stipulates an own resources system, not a tax-based funding system.[41] It is at least doubtful if the own resources could be more or less transformed into EU taxes, given the procedural prerequisites laid down in the rule. Furthermore, the question of whether the legitimatory approach excludes a delegation through Treaty changes remains open.[42] Punctual rights to tax are not recommendable from a legal point of view, yet they would not by implication break the constitutional and union law architecture between the Union and its Member States, particularly if they have other main purposes beyond funding the Union.[43] We also have to keep in mind that own EU taxes – in the definition outlined above – would include elements of a new fiscal regime or even fiscal constitution, as drawing boundaries vis-à-vis

[39] BVerfGE 123, 267 (358 ff.).

[40] Förster, in: Bleckmann, Europarecht, 6th edition 1997, mn. 1441; Hölscheidt, ibid., mn. 1263; E. Klein, Der Einfluß des Europarechts auf das deutsche Steuerrecht, in: Lehner (ed.), Steuerrecht im Europäischen Binnenmarkt, 1996, p. 7 (27).

[41] See also Traub, Einkommensteuerhoheit der EU? 2005, pp. 63 ff.

[42] Quite permissive: Ohler, Mehr Mut zur Steuerpolitik in Europa, EuZW 1997, 370 (373).

[43] Meermagen, Beitrags- und Eigenmittelsystem, 2002, pp. 175 ff.; more generous Bleckmann/Hölscheidt, Gedanken zur Finanzierung der EU, DÖV 1990, 853 (857); Magiera, Zur Finanzverfassung der Europäischen Union, in: GS für Eberhard Grabitz, 1995, p. 409 (412 f.); Weber-Grellet, Europäisches Steuerrecht, 2005, § 5 mn. 6: Eigene Europasteuer als ergänzendes Finanzierungsinstrument.

the Member States' financial sovereignty would create new problems. A complete reorganisation of the funding mechanism from an own resources system to a tax-based funding system would break the integration model and lift it to another level.[44] According to the "Maastricht restrictions" laid down by the Federal Constitutional Court, this would not be possible under the current legal regime.

Another approach aims to turn the situation on its head: The very act of introducing EU taxes is meant to eliminate democracy deficits – including within the European Parliament. "No taxation without representation" was a slogan of the North American struggle for independence.[45] Following this approach, it would have to be rephrased into "No representation without taxation". Similar to the constitutional state, the Union as a legal community can only move in one direction: First the legitimatory prerequisites have to be created, then further competences can be transferred. Neither the *Rechtsstaat* nor the Union as a legal community can use illegitimate constellations – not even as a kind of political "catalyst" - to rectify a lack of legitimation elsewhere. Where insufficient democratic legitimation in taxation issues sparked a revolution in 18th century North America (and created a novel legal order that is exemplary to the present day), a state of "improved" legitimation cannot be forced through a quasi-revolutionary act (that is, introducing rights to tax without the prerequisites for competences and legitimation being met).

5 Conclusion

Own EU taxes with full legislative and revenue authority of the Union beyond tariffs and the taxation of EU officials are only possible within narrow limits under the current Treaties: particularly as fees that are not primarily fiscally motivated, and provided that the respective policy issue permits this course of action. These fees must not be introduced with the main motivation of funding the EU's budget. A new own resources decision could also be used to introduce EU taxes. However, these taxes would not substantially improve the revenue autonomy of the Union, as they would stay within the framework and system of the own resources decisions, which require unanimous adoption by all Member States. From a legitimatory point of view, there are limits to own rights to tax that stem from the dual legitimation structure of the Union and that are spelled out in particular in the jurisprudence of the Federal Constitutional Court on the topic.

6 References

Calliess, Christian/Ruffert, Matthias (eds.), EUV/AEUV. Kommentar, 4th edition. München 2011

Frenz, Walter, Handbuch Europarecht, vol. 6, Heidelberg 2011

[44] Förster, in: Bleckmann, Europarecht, 6. Aufl. 1997, mn. 1441; Wieland, Erweitern und Teilen, ZRP 2002, 503 (507 f.).

[45] Manifested e.g. in the New York colonial Parliament's petition against the Sugar Act from October 18th, 1764, printed in Adams/Adams (eds.), Die amerikanische Revolution und ihre Verfassungen 1754-1791, 1987, p. 27; more about the historical and socioeconomic context in Adams, Die Vereinigten Staaten von Amerika, 1977, p. 31; Dippel, Die Amerikanische Revolution 1763-1787, 1985, pp. 43 ff. For the great picture see also Waldhoff, Geschichte von Besteuerung, StuW 2014, pp. 19 ff.

Götz, Volkmar, Beitragsgerechtigkeit im EU-Finanzierungssystem, in: Festschrift für Peter Selmer zum 70. Geburtstag, 2004, pp. 641 ff.

von der Groeben, Hans/Schwarze, Jürgen/Hatje, Armin (eds.), Europäisches Unionsrecht, 4 vol., 7th edition. Baden-Baden 2015

Häde, Ulrich, Finanzausgleich, Tübingen 1996

id., Die Finanzordnung der Europäischen Union, in: Häde/Müller-Graff (eds.), Enzyklopädie Europarecht, vol. 1, Baden-Baden 2014, § 14

Klein, Franz, Zur Frage der zukünftigen Steuerhoheit der Europäischen Gemeinschaft, in: Festschrift für Günter Wöhe zum 65. Geburtstag, 1989, pp. 189 ff.

Lienemeyer, Finanzverfassung der Europäischen Union, 2002

Meermagen, Bettina, Beitrags- und Eigenmittelsystem, München 2002

Oppermann, Thomas/Classen, Claus Dieter/Nettesheim, Martin, Europarecht, 6th edition. München 2014

Schick/Märkt, Braucht die EU eine eigene Steuer? DStZ 2002, p. 27

Schmidthuber, Peter M., Die Notwendigkeit einer neuen Finanzverfassung der EG, EuR 1991, pp. 329ff.

Traub, Stefan, Einkommensteuerhoheit für die Europäische Union? Baden-Baden 2005

Waldhoff, Christian, Reformperspektiven der bundesstaatlichen Finanzverfassung im gestuften Verfahren, ZG 2000, pp. 193 ff.

id., Finanzautonomie und Finanzverflechtung in gestuften Rechtsordnungen, VVDStRL 66 (2007), pp. 216 ff.

id., Eigene Steuern als Problem des Verfassungs- und Europarechts, in: Konrad/Lohse (eds.), Einnahmen- und Steuerpolitik in Europa, 2009, pp. 47 ff.

id., Steuern, in: Hatje/Müller-Graff/Wegener (eds.), Enzyklopädie Europarecht, vol. 8, Baden-Baden 2014, § 10

Weber-Grellet, Heinrich, Europäisches Steuerrecht, München 2005

Wernsmann, Rainer/Zirkl, Die Regelungskompetenz der EU für eine Finanztransaktions-steuer, EuZW 2014, pp. 167 ff.

Wieland, Joachim, Erweitern und Teilen, ZRP 2002, pp. 503 ff.