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Working Paper

The Political Economy of Corporate Tax Harmonization: Why Do European Politicians (Dis)like Minimum Tax Rates?

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Non-technical summary

Political representatives repeatedly argue that globalization might lead to a destructive competition which would result in a "race to the bottom" of corporate tax rates and an insufficient financial endowment of the public authorities. Setting minimum tax rates is a way of mitigating this pressure from tax competition. In this paper, we explore the factors which shape the support of politicians with respect to corporate tax coordination in the EU. While there exists a vast literature on the controversial issue whether corporate tax coordination is capable of improving welfare or not as compared to unrestricted competition, the positive question on the driving forces of harmonization processes has largely been ignored. This paper contributes to filling this gap.

In a first step, a number of hypotheses are derived mainly from the theoretical tax competition literature and different approaches from political science. Individual factors can be derived from ideological preferences towards the role of the government and national sovereignty as well as from the personal background such as education. Country-specific factors mainly arise from different national preferences as well as from the extent to which a country can benefit from the autonomy to pursue an independent tax policy.

In our empirical approach, we focus on a particularly interesting group, namely the Members of the European Parliament (MEP) and make use of a self-conducted survey among MEP, which included a question which deals directly with the desirability of EU-wide obligatory minimum corporate tax rates. Moreover, this study makes additional use of a similar survey of the Bundestag to analyse differences between the attitudes of national and European representatives. The results confirm an important role of ideology, left-wing and pro-European politicians tend to favour minimum tax rates. But we also demonstrate that both further individual characteristics as well as national interests are important determinants for the politicians' attitudes towards reducing tax competition by means of minimum tax rates. Individual characteristics, such as education and the length of membership in the EP, show the expected effect. National interests play an important role as well, which is most notably the case for the current national level of corporate taxation. Moreover, the citizens' preference for social equality transpires to have an impact on the politicians' attitude towards tax competition, while some other predictions from tax competition models seem to play a minor role. Our EP-Bundestag comparison shows that German politicians on the national level do not show different preferences towards tax rate harmonization.

Das Wichtigste in Kürze

Von Seiten der Politik wird häufig das Argument vorgebracht, dass die Globalisierung zu einem schädlichen Wettbewerb führe, der in einem "Abwärts-Wettlauf" der Unternehmenssteuersätze und einer unzureichenden finanziellen Ausstattung der öffentlichen Haushalte resultieren würde. Die Einführung von Mindeststeuersätzen stellt eine Möglichkeit dar, den vom Steuerwettbewerb ausgehenden Druck abzuschwächen. In diesem Papier untersuchen wir die Faktoren, welche die Einstellung von Politikern gegenüber einer Koordinierung der Unternehmensbesteuerung in der EU determinieren. Während eine umfangreiche Literatur zu der Frage existiert, ob eine Koordinierung der Unternehmensbesteuerung in der Lage ist, eine Wohlfahrtssteigerung gegenüber uneingeschränktem Wettbewerb herbeizuführen, ist die positive Frage nach den Triebkräften von Harmonisierungsprozessen bisher weitestgehend ignoriert worden. Dieses Papier trägt dazu bei, diese Lücke zu schließen.

In einem ersten Schritt werden Hypothesen abgeleitet, welche hauptsächlich auf der theoretischen Steuerwettbewerbsliteratur und verschiedenen Ansätzen aus den Politikwissenschaften basieren. Individuelle Faktoren können hauptsächlich von ideologischen Präferenzen zur Rolle des Staates und der nationalen Souveränität sowie vom persönlichen Hintergrund, wie etwa Bildung, abgeleitet werden. Landesspezifische Faktoren entstammen von unterschiedlichen nationalen Präferenzen sowie von dem Ausmaß, in dem ein Land von einer unabhängigen nationalen Steuerpolitik profitieren kann.

In unserem empirischen Ansatz betrachten wir eine besonders interessante Gruppe, nämlich die Mitglieder des Europäischen Parlamentes (MdEP), und nutzen eine selbstdurchgeführte Umfrage unter MdEPs, in der nach der Wünschbarkeit von EU-weit verpflichtenden Mindeststeuersätzen für Unternehmen gefragt wurde. Zudem nutzt diese Studie eine ähnliche Befragung unter Mitgliedern des Bundestages um Unterschiede zwischen Repräsentanten auf nationaler und europäischer Ebene zu untersuchen. Die empirischen Ergebnisse bestätigen eine wichtige Rolle der Ideologie; linke und pro-europäische Politiker neigen dazu, Mindestbesteuerung zu bevorzugen. Aber wir zeigen, dass auch eine Reihe an individuellen Charakteristika, sowie nationale Interessen, wichtige Determinanten für die Einstellung von Politikern gegenüber einer Einschränkung des Unternehmenssteuerwettbewerbs durch die Einführung einer Mindestbesteuerung darstellen. Die individuellen Charakteristika wie Bildung und Länge der Mitgliedschaft im EP zeigen die erwarteten Ergebnisse. Nationale Interessen spielen ebenfalls eine bedeutende Rolle, was insbeson-

dere für das gegenwärtige nationale Niveau der Unternehmensbesteuerung zutrifft. Weiterhin zeigt sich ein Einfluss der Präferenzen der Bürger für soziale Gerechtigkeit auf die Einstellung der Politiker gegenüber Steuerwettbewerb, während andere Vorhersagen aus Steuerwettbewerbsmodellen nur eine geringe Rolle zu spielen scheinen. Unser EP-Bundestag-Vergleich zeigt, dass deutsche Politiker auf nationaler Ebene keine unterschiedlichen Präferenzen gegenüber Unternehmenssteuerharmonisierung zeigen.

The Political Economy of Corporate Tax Harmonization – Why Do European Politicians (Dis)like Minimum Tax Rates?

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This version: December 2008

Abstract

Setting minimum tax rates is a well discussed way of mitigating pressure from tax competition. This paper investigates which motives shape the support for a minimum corporate tax among politicians. We make use of a unique data base: a survey among members of the European parliament. Our results confirm that the politicians' ideology as well as individual characteristics such as educational background exert a major influence. Moreover, several predictions regarding national interests are derived from various standard tax competition models. These hypotheses are partly supported by the data; in particular, different national preferences for social equality shape the support. A comparison with survey results from the German Bundestag reveals that German politicians on the national level do not show different preferences towards tax rate harmonization.

Classification: D78, H25, H87

Keywords: company taxation, tax harmonization, political economy, European Parliament

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1 Introduction

Corporate tax harmonization is a much discussed subject in politics. Supported by the findings of neoclassical standard tax competition models, political representatives repeatedly argue that globalization might lead to a destructive competition which would result in a "race to the bottom" of tax rates and an insufficient financial endowment of the public authorities. However, an international coordination of corporate tax policies is difficult in practice since individual actors may usually gain from a unilateral deviation of their tax policy.

One existing supranational institution which could ensure a coordinated tax policy of a subgroup of nations is the European Union. In Europe, there are pronounced concerns about the consequences of corporate tax competition, especially since the accession of central and eastern European countries with low corporate taxes to the EU. Although the Ruding Report on Company Taxation (Commission of the European Communities (1992)) already proposed to introduce an EU-wide obligatory corporate tax rate of 30% in the year 1992, European legislators have been remarkably calm regarding advances in this direction in the past years. Nevertheless, both in the political debate and in the economic literature, it is still a debated issue whether the European level should get involved in this area and restrict tax competition by means of an obligatory minimum corporate tax rate.

While there exists a vast theoretical and empirical literature on the controversial issue whether corporate tax coordination is capable of improving welfare or not as compared to unrestricted competition, the positive question on the driving forces of harmonization processes has largely been ignored. Despite the fact that a few authors (e.g., Frey and Eichenberger (1996)) have formulated certain presumptions on the probable view of decision makers in parliaments, rigorous empirical tests on such hypotheses are missing. This paper contributes to filling this gap. We want to explore the preference-shaping factors of policy actors with respect to their position on corporate tax coordination in general and on an EU-wide minimum tax in particular.

There are a number of factors which can be expected to influence preferences in this regard, both on the individual and on the country-specific level. Individual factors can mainly be derived from ideological preferences, as it may be assumed that the attitudes towards the role of the government and national sovereignty have an influence; however,

they can also be derived from personal background such as education. Country-specific factors arise from different preferences towards the size of the national welfare state and national tax autonomy, as well as the extent to which a country can benefit from the autonomy to pursue an independent tax policy.

In our approach to identify possible driving motives behind different positions of politicians towards corporate tax cooperation which are related to national characteristics, we focus on a particularly interesting group, namely the Members of the European Parliament (MEP). Although these politicians do not have a direct say in the corporate tax policies of today, they constitute an interesting subject of research. In contrast to national parliaments, where all parliamentarians share the same national perspective and analyses can only focus on differences in ideology and individual background of the parliamentarians, in the EP perceptions from all 27 EU member states come together. This allows us to disentangle the country interests from the influence of ideology which have a combined effect on the attitude towards tax harmonization. For this purpose, we make use of a unique data base: a self-conducted survey among MEPs, which asked directly for the desirability of EU-wide obligatory minimum corporate tax rates. Moreover, this study makes additional use of a similar survey, which was directed at members of the German parliament, the Bundestag. This integrated use of surveys allows us to identify differences between the attitudes of national and European representatives. Based on these databases our study is the first to shed light on the positive question of how to comprehend the diversity of attitudes of politicians on corporate tax competition in an integrated economic area such as the EU.

The main results of this paper can be summarised as follows. The important role of ideology can be confirmed, but we also demonstrate that both further individual characteristics as well as national interests proxied by country variables are important determinants for the politicians' attitudes towards limiting corporate tax competition by means of minimum tax rates. It is mainly parliamentarians from countries which exhibit a high corporate tax burden today who express their approval for minimum tax rates. Several predictions of theory derived from tax competition models can be confirmed, while others do not find support. However, no evidence can be found that the attitude of German representatives of the Bundestag differs from that of their counterparts in the European Parliament.

The structure of our paper is as follows: in section 2, the theoretical background for our analysis is presented, which is mainly based on the literature on tax competition and

on several approaches from the political science literature. On this basis, our testable approach to preference formation is developed in section 3. In section 4, the surveys of members of the European Parliament and the German Bundestag are described. Descriptive findings are discussed in section 5. Section 6 presents the empirical analysis and the estimation results. Section 7 concludes.

2 Theoretical Background

The theoretical literature on tax coordination in the European Union, such as Zodrow (2003) or Oates (2001), has until now mainly focussed on the normative question whether coordination of tax policies is welfare-increasing compared to competition. Although we want to switch over to a positive perspective, this normative literature lays some of the foundations for the subsequent hypotheses concerning the politicians' attitudes towards tax coordination. In said literature, tax coordination gets its support from the view which regards corporate tax competition as being detrimental, as it is often described as a "race to the bottom". Following this view, countries underbid each other's corporate tax rates in order to attract capital. An overall loss of welfare occurs where a coordinated approach could yield a better result for all players. The typical result of these standard tax competition models is a suboptimal low level of public expenditures (see, e.g., Zodrow and Mieszkowski (1986)), which puts pressure on the welfare state and endangers its financing base. In its application to EU tax policy, Zodrow (2003: 655) therefore concludes that "the standard tax competition model suggests a potential role for tax rate harmonization in a union".

Compared to these models based on standard welfare theory, a further strand of literature has a much more sceptical view on tax harmonization. In said literature, a standard result is that tax harmonization can imply a reduction of welfare (for an overview, see Wilson and Wildasin (2004)). The most famous argument from this side is the "Leviathan" view of governments introduced by Brennan and Buchanan (1980). This view does not assume benevolent governments as traditional tax models do, but instead governments which are to a certain extent driven by the aim of budget maximization. In these models, tax competition can counteract their tendency to overspend (see, e.g., Edwards and Keen (1996)), thus resulting in positive welfare effects. In this regard, two most recent political-economic approaches are of relevance. Janeba and Schjelderup (forthcoming)

derive conditions under which tax competition can be beneficial, depending on the voting system and the kind of self-interest of the politicians. Eggert and Sørensen (2008) show in a probabilistic voting model that tax competition may be welfare increasing as it reduces wasteful rents to public employees. Finally, a similar result comes from Janeba (1998), who shows that tax competition eliminates wasteful export subsidies, and thus increases welfare.

In contrast to the bulk of the theoretical approaches, some further papers do not abstract from the institutional design of tax harmonization, which is often simply modelled as a coordinated tax increase in all countries. Instead, they consider minimum tax rates as a specific form of tax policy coordination with high policy relevance as discussed above. However, the results regarding the question whether a minimum level for taxation on the supranational level can lead to a welfare improvement are usually ambiguous within the framework of these theoretical tax competition models¹. Moreover, Sørensen (2000) shows with the help of an applied economic equilibrium model that a binding minimum capital income tax rate in Western Europe would implicate an overall social net gain. However, his simulations indicate that this gain will be unequally distributed, leading to a modest, but still positive effect on the median voters' welfare, and a higher gain for the poorest citizens².

In the following section 3, we will discuss some further aspects of seminal tax competition models which are of importance to the derivation of our testable hypotheses, i.e., the implications of asymmetric tax competition and new economic geography models. Overall, the theoretical literature on the welfare effects of tax competition is so extensive that a more comprehensive discussion would go beyond the scope of this paper. For more complete surveys of the overall literature, please refer to Wilson and Wildasin (2004) or Fuest et al. (2005).

The literature surveyed so far has a clearly normative perspective when evaluating the welfare effects of tax competition and tax coordination. It looks at countries and their tax policy decisions in a highly aggregate way and largely abstracts from individual political decision makers and their actual interests and constraints. In this respect, our

¹Examples are Grazzini and van Ypersele (2003), López, Marchand, and Pestieau (1998) and Fuest and Huber (1999).

²Related literature on the welfare effects of minimum tax rates on commodity taxation comes to more positive results (see Kanbur and M. Keen (1993)): in their model, both countries may gain from imposing minimum tax rates compared to unrestricted competition, while full harmonization always leads to a loss for one country.

study follows a distinctly different approach by trying to identify what shapes the tax harmonization preferences of policy makers. In the political-economic literature there are few related works. One notable exception are Frey and Eichenberger (1996), who argue that members of parliament generally have an interest in the harmonization of tax policy, as it enables them to form cartels in order to cement their importance and power.

With regard to parliamentary decision making, some special features of the European Parliament are of interest as the group of MEPs is in the centre of our investigation in order to disclose the role of national interests. The relevant empirical literature from political science offers some first insights. This literature mainly centres on the question whether MEPs vote along a (European) political group rather than along country lines. Recent contributions in this area on past European Parliaments are mainly from Hix and co-authors (see Hix (2002); Hix, Noury, and Roland (2007)). They empirically analyse roll-call votes in the EP for different periods and find that party cohesion of voting behaviour in the EP clearly exceeds national cohesion. The most recent analysis of voting behaviour in the first half of the Sixth European Parliament (2004-2005) shows that this pattern has hardly changed even after the accession of the new member states (see Hix and Noury (forthcoming)). Interestingly enough, the authors find that national cohesion is relatively more important for budgetary votes which is a policy area with pronounced national interests, while Aspinwall (2002) shows that the dominating role of party cohesion does not hold for policy areas with strong and heterogeneously defined national interests such as foreign policy³. This suggests that in policy areas where a strong national interest exists, a lower level of party cohesion in the EP may be expected. This finding is of high relevance to the question at hand: as corporate tax policy is still regarded as an unambiguous national instrument of policy, an intervention by the EU can easily conflict with national interests.

Compared to the roll-call (i.e. recorded) vote literature, our direct survey of MEP preferences has a clear advantage since it enables a direct identification of individual policy preferences, whereas actual voting can be a highly distorted signal for preferences. It is quite customary for parties to impose informal sanctions on their members for defecting votes. Since only non-anonymous votes are open for empirical analysis, the resulting bias should be substantial. In an accompanying paper which focuses directly on individual

³Unfortunately, separate analyses for tax related votes do not exist because the EP has hardly any say in tax issues.

policy preferences in the European Parliament, Heinemann et al. (forthcoming) make use of other items of the same survey as this paper and analyse the EU parliamentarians' attitudes towards the conceivable reform of the EU budget in general, and explicitly examine their attitudes towards the introduction of an EU tax. This analysis shows that for this particular question, not only ideology plays a role, but also country interests. Among these there is the financial net payer position, the new versus old member dimension and a country's tax competitiveness (for corporate taxation). This intrinsic conflict for an MEP between national interest and individual ideological position paves the way for the following analyses.

3 Tax Policy Preference Formation

The literature overview above gives us some first intuitions on the politicians' attitudes towards corporate tax coordination. The political economic perspective indicates that there is a strong incentive to harmonize tax policies because – from that perspective – politicians strive to form cartels in order to increase their room for manoeuvre. However, major differences between representatives from different parliaments can be expected. Specifically, one would expect the European Parliament as an institution to be in favour of steps toward a harmonization of EU corporate taxation and to therefore approve of the idea of introducing EU-wide obligatory minimum corporate tax rates. At the EU level, minimum tax rates already exist for excise taxes and the value added tax, which has been fixed since its introduction in 1992 at a level of 15\%^4. Its level is decided jointly every two years by the Council after proposal of the European Commission and confirmation of the EP. Regardless of how the institutional arrangement for corporate tax coordination would actually look like, it would undoubtedly mean a shift of competencies from the national level to the European level. As it is usually affirmed in the political science literature that the EP tends to be pro-integrationist (see Scully (2005) for an overview), it could be argued that to strive for an increase of tax policy coordination is in general in the interest of the European Parliament. It is even more obvious that for the representatives of the national parliaments the opposite should hold true, as these necessarily

⁴Minimum VAT rates are for two reasons hardly comparable with minimum corporate tax rates and will not be discussed in this paper in further detail: 1. tax competition is of minor importance for consumption goods than for capital due to lower mobility, and 2., the minimum VAT rate is set in the EU at a very low level and many exemptions are granted, so that it is barely restrictive for the member states.

lose power in which way whatsoever the decision-making at the European level will be arranged. Consequently, institutional self-interest suggests that support of EP members should exceed the support of national representatives.

Nevertheless, we also expect a considerable degree of heterogeneity among MEPs on this issue. As the theoretical literature shows, it is a very controversial issue – even among economists – whether a coordination of corporate tax rates would be welfare improving in the EU, or not. However, even in case of a potential overall welfare increase through tax harmonization, this might be difficult to implement in the real world. It would be difficult to create a compensation mechanism favouring those countries which benefit from a unilateral deviation of their tax policy (see Brøchner et al. (2007)). According to the view of many tax competition models, a politician's attitude would then depend on his jurisdiction's median voter preferences. This would imply that he will support harmonization in case the median voter benefits from it compared to the status quo, and reject it otherwise.

However, various contributions both from economic and political science analysing legislators' decision-making reject the idea of "purely economic theories of voting" which is explicitly or implicitly made on the basis of most theoretical approaches in tax competition models, which in most cases build up on the assumption that politicians aim at maximizing the utility of a representative household or the median voter. Poole and Rosenthal (1996), who analyse the voting behaviour in the US Senate, term this approach to decision-making the "principal-agent" approach. In this view, the politicians are agents who act on behalf of their principal with the aim to maximize their utility mainly by striving for re-election. In these models, the principal is usually modelled as the median voter of the representative's constituency, but he can also be a particularly well organised interest group, for instance. In addition to that, Poole and Rosenthal (1996) identify a second class of explanations, which can be termed the "ideological" approach. With the "ideological" perspective (which is much more common in political science than in economics), a politician's position is described on a certain ideological continuum. The classical example for such a continuum is the range from left to right; another one which is of high relevance for European politics is the range from pro to contra European integration. Thus, a politician's location along that specific dimension should determine his preferences or voting behaviour.

In addition to the interests of the constituency and the ideological position, individual

characteristics are a further determinant in preference formation. Studies on the formation of economic beliefs (e.g. Caplan (2002); Blendon et al. (1997)) suggest that education or socio-economic characteristics of an individual can play a role, while Heinemann and Janeba (2007) show that this is also relevant for belief formation of members of a parliament. This also implies that a MEP's field of specialisation should matter, because members of the committee responsible for economic affairs ("Committee on Economic and Monetary Affairs" in the EU, ECON) might have a different view on issues such as tax policy.

These different approaches to belief formation imply that the general preference of a politician on the desirability of coordination of EU corporate tax policy in general, and EU-wide obligatory minimum corporate tax rates in particular, should depend on the following factors:

- a) individual characteristics which are related to the individual politician's education, his informative situation linked, e.g., to his field of policy specialisation or socioeconomic characteristics such as age or gender,
- b) his/her ideological position according to the "ideological approach",
- c) member-state characteristics are a proxy for (potential) national benefits from tax harmonization which are relevant to the interests of national voters who are represented by the MEP according to the "principal-agent approach".

In the following, we can formulate several hypotheses on the determinants of the preferences of the MEPs in light of this theory.

3.1 Individual characteristics

Predictions connected to individual characteristics of parliamentarians can predominantly be derived from the political science literature. Of major interest are thereby the special characteristics of members of the European Parliament. As one of the decisive individual characteristics, a socialization effect of MEPs is generally assumed. In many works of political science literature, preferences of MEPs are not regarded to be exogenously determined and stable, but that the affiliation in the EP changes their attitudes in line with the institution's view (see Scully (2005)). As discussed above, it is assumed that it is one of the EP's objectives to extend the centralization of policies at the European level. From this institutional socialization effect, we can derive a first prediction on the MEPs'

attitudes towards EU-wide minimum statutory tax rates:

H1a The support for tax coordination increases with the number of years spent in the EP.

Moreover, as national delegates have to fear a loss of tax autonomy at the expense of the European level which would result from tax coordination at the EU level, we can infer that there are significant differences between MEPs and representatives in the national parliaments:

H1b Representatives from a national parliament should be less supportive of obligatory minimum corporate tax rates than their counterparts from the European Parliament.

Additionally, the effect of expertise in business and economics is interesting. As discussed above, no clear-cut conclusion can be drawn in theory whether harmonization of corporate taxation in the EU would be welfare-improving or welfare-decreasing. However, in the past the welfare-improving view prevailed, so that Frey and Eichenberger (1996) expect that economists tend to have a bias towards harmonization. However, it can be expected that this view has changed since then, especially after the publication of the paper by Edwards and Keen (1996) which was the first to bring together the contrasting views of the benevolent and the non-benevolent decision-maker in a common framework. Moreover, the expectation of a negative attitude of economists towards tax coordination can be justified by the observation that this population group is generally more supportive of competition and deregulation than other groups. This is shown by Caplan (2002) based on survey data for the U.S., as well as by Dreher et al. (2008), who show that, among 500 political leaders from 73 countries, the group of trained economists has significantly introduced more market liberal reforms than the rest. These more recent findings give support to the following expectation:

H1c Representatives who have a final degree in economics or business administration are expected to have a negative attitude towards tax harmonization.

3.2 Ideological position

As discussed above, political science literature puts a lot of effort into the measurement of ideological positions and their implications for decision making and party cohesion. The approaches to measurement of ideological positions are manifold: they are inter alia calculated from roll-call votes, expert surveys and wording of party manifestos. Generally, the left-right scale is found to be of decisive character in the mapping of ideological positions. This dimension is also of high relevance for the matter of tax competition, as the border between left and right positions runs along their attitudes toward the economic role of public policy (see Benoit and Laver (2006)): left-wing representatives show more support for redistribution and a larger welfare state, while right-wing representatives are more inclined to lower taxation and a liberal, "laissez faire" economic policy. From this differentiation in the views towards the role of the state, it can easily be derived that left-wing politicians have to be more worried that tax competition might result in a deterioration of public revenues, as standard tax models suggest, which leads us to the following hypothesis:

H2a Left-wing representatives tend to be more supportive of minimum corporate tax rates than right-wing representatives.

With regard to the European Parliament, a further dimension has been found to be of major importance in political science, which is the attitude towards European integration measured on an anti-/ pro-Europe policies scale (see Hix and Noury (forthcoming)). Politicians defined as anti-Europe refuse the transfer of additional competencies to the European level. Therefore, they have to be worried that minimum corporate tax rates are a first step to a centralization of tax policies, and thus a reduction of national sovereignty. This gives us the following additional hypothesis for the ideology of MEPs:

H2b Representatives who show an anti-Europe attitude tend to have a more opposing view towards obligatory minimum corporate tax rates.

3.3 Country characteristics

As discussed in section 2, the relevant theoretical literature regarding tax competition is mainly of a normative character, discussing the welfare effects of tax competition compared to different kinds of harmonization. Nevertheless, these findings allow us to draw some conclusions for the question at hand, i.e., which national characteristics are important for the national voters' attitudes towards tax competition and thus shape the attitude of politicians who act as their principals.

A first aspect in this regard deals with the voters' perceptions of the likely consequences of unrestricted tax competition as predicted by standard tax competition models. As Sinn (1994) remarks, declining public revenues as a consequence of tax competition especially threaten the sustainability of pure systems of income redistribution. However, the attitude towards income redistribution does not only differ depending on the position at the left-right spectre at the individual level, but also systematically between countries (see, e.g., Corneo and Grüner (2002), or Alesina and Angeletos (2005)), which gives rise to different perceptions of the costs of tax competition. Citizens of countries with high preferences for income redistribution would suffer most from a downwards pressure on national tax revenues, as they would have to fear that this might result in a level of welfare expenditures which is suboptimal low from their perspective. This consideration leads to the following hypothesis on the politicians' attitudes:

H3a Representatives from countries where the citizens have a high preference for social equality tend to be more supportive of minimum corporate tax rates.

Early extensions of the classic Zodrow-Mieszkowski framework gave up their assumption of symmetric countries, but emphasized the importance of asymmetries in population. Seminal models with asymmetries in the population introduced by Bucovetsky (1991) and Wilson (1991) demonstrate the advantages of small regions in situations where tax competition exists.

This led to a literature which disputed the view that tax coordination eventually leads to all countries being better off as implied by the prisoner's dilemma model. As Dehejia and Genschel (1999) show in their model, small countries might gain from tax competition. This is the case because they can attract a large fraction of foreign tax base through a rate cut, while the national revenue loss is rather low due to its small domestic tax base.

Consider the following hypothesis derived from tax competition models with asymmetric country size:

H3b Representatives from small countries should oppose minimum corporate tax rates more strongly than their counterparts from larger countries.

One further more recent view towards tax competition comes from "new economic geography" models, which introduce the "agglomeration" argument (Baldwin and Krugman (2004)). According to this, firms tend to cluster together in higher developed regions or countries ("core countries") due to positive externalities of spatial concentration. This enables these countries to sustain a higher tax burden on companies than the less-developed countries in the periphery, as the former do not have to fear capital outflows due to their agglomeration advantages. This implicates that the core countries would be able to increase their agglomeration tax rents in case tax competition was reduced. In the Baldwin/Krugman model the introduction of a tax floor would benefit the core countries, as these can increase their agglomeration rents through an even higher level of taxation than without any coordination. We propose:

H3c Representatives from countries which exhibit high agglomeration effects tend to be more supportive of obligatory minimum corporate tax rates.

Furthermore, the current level of corporate taxation in a country can be expected to be of importance. Countries which exhibit a high level of corporate taxation even today would not be affected by a minimum tax rate as soon as their current tax rate is higher. They would even benefit from it as it reduces the gap to other countries which exhibit low tax rates today. This would eventually reduce the stress of competition on their economy. Peralta and van Ypersele (2006) show analytically in a tax competition model that minimum tax rates are never unanimously accepted because they would cause an increase in the gross price of capital in the bound countries, thus, making these countries lose from it, although leading to an overall increase of production.

The incentive of a majority of highly taxed countries to impose their level of taxation on the minority of low taxed countries in a federation in order to decrease their competitiveness is closely related to the "strategy of raising rivals' costs", which is known from the political economy of industrial organization (see Vaubel (2006)). This leads us to the following hypothesis:

H3d Representatives from countries which currently exhibit a high tax burden on companies tend to be supportive of obligatory minimum corporate tax rates.

One further aspect derived from tax competition models concerns the mobility of capital. Apparently, the degree of competition a country is exposed to, and hence its attitude towards tax harmonization, largely depends on the mobility of its local capital stock. Carlsen, Langset, and Rattsø (2005) formalize this claim and show analytically that low mobility of the local industry alleviates the pressure a jurisdiction faces from tax competition and leads to a higher tax level⁵. As real capital is not as mobile as other investments, countries with a high share of real capital are expected not to be exposed to corporate tax competition to the same degree as other countries, so that they have less to gain from a retrenchment of tax competition through minimum tax rates. The following hypothesis results:

H3e Representatives from countries with a high share of real capital tend to be less supportive of obligatory minimum corporate tax rates.

Apart from these predictions derived from various tax competition models, one further hypothesis regarding national interests, which should have an impact within the principal-agent approach, can be made. This is directly linked to the voters' attitudes towards European integration in general and European tax competencies in particular. Apart from the economic advantages and disadvantages discussed so far, the citizens in the EU member states can also be expected to differ in their attitudes towards tax coordination due to different preferences for European integration or diverging national preferences regarding taxation. According to the principal-agent approach, a politician who is concerned about his re-election will not only incorporate the "economic" national advantages and disadvantages of tax coordination in his decision, but the subjective preferences of his constituency as well. Therefore, we propose:

⁵Empirically, the authors confirm that Norwegian municipalities which experience high firm mobility tend to have a lower level of taxation.

H3f Representatives from countries whose citizens express antipathy towards an increase of competencies of the European level in the area of taxation tend to be less supportive of obligatory minimum corporate tax rates.

It is the objective of the following empirical part to test for the actual relevance of these hypotheses based on our survey results.

4 Survey descriptions

The first survey which we will refer to was conducted by the authors among the members of the European Parliament between March and July 2007. The parliamentarians were addressed with written letters, which were sent out in five different languages: German, French, Polish, Spanish, and English. Where available, MEPs were addressed with letters and questionnaires in their mother tongue or in English otherwise. We received responses from 158 members who filled out their questionnaires. The overall response rate was 20.1 per cent and differed significantly between political groups and countries (see Appendix, Tables 6 and 7). We received responses from all but two small member countries (Estonia and Malta).

The question which we exploit in the next sections is the following:

Question: What is your attitude towards the following statement: "The EU should agree on EU-wide obligatory minimum corporate tax rates"?

The answer scale ranged from -4 ("very negative") to +4 ("very positive").

In addition to this survey, a second survey will be consulted, which was conducted between November 2006 and February 2007 among representatives in the German parliament (Bundestag), and allows us to disclose differences in the attitudes of politicians at the European and the national level⁶. In this survey, a question regarding the desirability of EU-wide obligatory minimum corporate tax rates was included as well. As this question was formulated almost with the identical wording and had the same scale, it is highly comparable to the question at hand. This enables us to analyse two different data sets:

⁶That survey mainly focussed on the politicians' perceptions of restrictions to tax policy due to globalization (for details, see Heinemann and Janeba (2007)).

first, only the responses from the members of the European Parliament in order to uncover the impact of national interests, and second, a pooled sample of responses from German politicians, both from the EP and the Bundestag, to disentangle differences between both parliaments.

5 Descriptive findings

A visual inspection of the survey results from both samples shows a highly polarized attitude towards minimum tax rates (see figure 1). The two prevalent answer categories are the two extremes, either complete rejection or complete approval. This pattern is even more pronounced for the EP sample concerning the negative answer categories. Table 1 presents the corresponding descriptive statistics of our analysis. As can been taken from the total mean value of +0.22, the politicians are altogether in favour of a minimum EU-wide obligatory corporation tax rate but only rather modestly. The large standard deviation points to a substantial heterogeneity of views among the politicians, which puts our analysis on a sound basis (total std. dev.: 3.14).

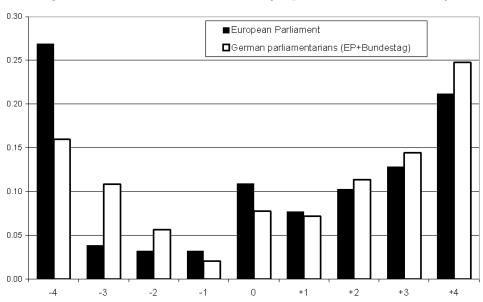


Figure 1: Distribution of answers (in per cent of all answers)

Table 1: Comparisons of means, EP participants

Table 1.	Observations	Mean	Std. Dev.	Min	Max
	Classifie			141111	IVIUA
AT	7	2.57	2.94	-4	4
BE	6	2.07	3.13	-4	4
CZ	5	-2.20	2.68	-4	2
DE	39	0.51	2.89	-4	$\frac{2}{4}$
FR	16	1.25	2.74	-4 -4	4
GB	12	-2.00	3.44	-4 -4	4
HU	5	2.00	0.71	1	3
IT	8	1.75	1.39	0	3
PL	10	-2.60	$\frac{1.39}{2.37}$	-4	$\frac{3}{2}$
PT	7	$\frac{-2.00}{2.86}$	1.46	0	4
Other ¹	41	-0.46	3.19	-4	4
Total	$\frac{41}{156}$	0.22	3.19	-4 -4	4
Total	ANOVA, P-Va			_	4
	Classified b			JO	
ALDE	18	99 pont -0.11	3.43	-4	4
EPP-ED	53	-0.11	3.43 3.10	-4 -4	4
				-4 -1	
GUE-NGL	5 7	1.40	2.41	-1 -4	4
IND/DEM		-3.71	0.76	-4 -4	-2 4
IST	4	1.00	3.83		
NI	3	-4.00	0.00	-4	-4
PES	50	2.02	2.02	-4	4
Greens-EFA	6	3.17	1.17	1	4
UEN	10	-1.80	2.94	-4	3
	ANOVA, P-Va				
	Classified by a		`	,	4
EU-15	120	0.7	3.07	-4	4
new members		-1.36	2.86	-4	4
	ANOVA, P-Val				
	y final degree i				
Yes	40	-0.65	3.25	-4	4
No	115	0.50	3.06	-4	4
	ANOVA, P-Va	lue for F	'-Test: 0.044	19	

¹ only countries with number of observations ≥ 5 are listed individually

Comparing means among different indicators uncovers interesting first insights: the preferences for minimum tax rates differ with high significance across countries as well as political groups. Strong opponents of the country classification come from Poland, the Czech Republic, and the UK. Strong proponents come from Portugal, Austria, and Belgium. Politically speaking, the minimum taxation is mostly refused by politicians belonging to parties that either want to retain the national sovereignty (UEN) or are simply opposed to the EU and to any further integration (IND/DEM)⁷. As expected, the

 $^{^7}$ Indicative ideological positions are stated in table 6 in the appendix. A comprehensive overview of

Table 2: Comparisons of means, EP and Bundestag participants

			Ct l D		_		
	Observations			Min	Max		
Class	ified by polit	ical gro	oup				
FDP (ALDE)	36	-2.31	2.56	-4	4		
CDU/CSU (EPP-ED)	72	-0.54	2.73	-4	4		
Die Linke (GUE/NGL)	29	3.28	1.13	0	4		
SPD (PES)	42	2.67	1.82	-2	4		
Bündnis 90/ Die Grünen							
(The Greens/EFA)	15	2.40	1.12	0	4		
ANOVA, P-Value for F-Test: 0.0000							
Classified by final de	gree in busi	ness ad	min. or eco	onomi	cs		
Yes	40	-0.55	3.26	-4	4		
No	154	0.93	2.91	-4	4		
ANOVA, P-Value for F-Test: 0.0058							
Classified by origin from Eastern Germany							
Yes	38	.61	2.80	-4	4		
No	156	0.38	3.05	-4	4		
ANOVA	, P-Value for I	F-Test: (0.0259				
Classified by n	nember of E	ıropear	n Parliame	nt			
Yes	39	0.51	2.89	-4	4		
No	155	0.65	3.08	-4	4		
ANOVA	, P-Value for I	F-Test: (0.7994				

minimum taxation receives the most support from politicians of left-wing parties, namely Greens-EFA, the socialist PES, and the GUE-NGL (the most far-left party group in the EP). Surprisingly, the mean closest to zero is generated by the liberal ALDE group; the members from the Christian democrat/conservative EPP-ED group are slightly opposed to the idea of minimum corporate tax rates.

Classified by the accession date of the politicians' country of origin (i.e., EU15-member states vs. new members), it is noticeable that new member states politicians clearly oppose the minimum taxation. This might be due to the fact that the new member states today have a low level of corporate taxation, or the lower socialization effect of their MEPs. Politicians with a final degree in economics or business administration slightly oppose the minimum taxation, while those with an other educational background are slightly in favour of it.

The results for the pooled data set consisting of the German members of the Bundestag and the EP are shown in table 2. Here, the German members of the liberal ALDE group, the FDP, show by far the strongest opposition towards minimum tax rates. Again, the left parties (SPD, Bündnis 90/Die Grünen, Die Linke) offer much support for tax coordination. An interesting conclusion can be drawn from the standard deviations: these are the political groups in the EP can be found in Corbett, Jacobs, and Shackleton (2007)

in all cases lower than in the EP, which indicates that the cohesion of preferences within the groups of the EP is smaller than that within the German parties.

Parliamentarians with a final degree in business administration or economics again offer less support for minimum tax rates, which confirms the results for the EP. Politicians from Eastern Germany are more supportive; this, however, can also be due to the fact that the overwhelming majority of politicians of the left-wing party Die Linke come from this part of the country. Finally, judged from the very high p-Value for the F-Test for equal attitudes, there is no significant difference between the preferences of members of the EP and members of the Bundestag observable from descriptive statistics.

6 Econometric testing

In the following, multivariate testing aims at identifying the relevant drivers of the EU parliamentarians' preferences towards corporate tax coordination by means of EU-wide obligatory minimum rates, and at disentangling the attitudes of politicians of the EU level and politicians at a national level in this regard.

Method

In the following empirical analyses, an ordered probit approach will be applied. This approach is appropriate, as the answers on the question under investigation were made on a scale from -4 to +4 ("very negative" to "very positive").

An apparent problem of our econometric procedure, which is generally connected to survey data, is the selection bias. In empirical political science literature, the problem of missing data in expert surveys has received much attention. However, as King et al. (2001) point out, these concerns mainly relate to "item non-response", i.e., respondents answer some of the questions and not others. In this case, missing data can cause serious biases. However, our missing data problem is exclusively due to "unit non-response", which means that some of the chosen sample individuals refuse to be interviewed (in our survey, practically all respondents answered the tax minimum tax question). King et al. (2001) specify that unlike item non-response, unit non-responses usually do not introduce much bias into analyses.

Nevertheless, we have to take this issue seriously as our data set may not be representative

of the underlying population, which may be inferred from the response rates which differ both between member states as well as between party groups. However, since we are interested in conditional effects (such as the impact of national characteristics or ideology), the use of regression techniques takes account of these inconveniences. Biased results may only emerge in the special case of an unobservable variable driving the response rate and of this variable being correlated with an included explanatory variable. However, similar to most other empirical research designs, we cannot exclude this problem, but we do not see any theoretical indication why this should be the case in our empirical design. Moreover, our set of explanatory variables covers a wide spectrum of aspects, so that this risk should be limited.

Nevertheless, in the analysis for the EP we apply a weighted estimator where weights correct for the sample's selection bias with respect to both country and political group representation. This means that underrepresented observations receive a larger weight than overrepresented cases. Furthermore, we allow for clustering of error terms among MEPs from one political group to cope with problems from the possible omission of nonobservable determinants.

Variable Definition

According to our hypotheses formulated above, we make use of variables along three dimensions, which comprise political group membership (according to the "ideological approach"), individual characteristics (which quantify experience, education, or political specialization) and country characteristics (which depict specific national interests according to the "principal-agent approach"). Moreover, in addition to those variables which are under investigation, several control variables are introduced which mainly capture individual characteristics for which no clear relation to theory can be found.

In our testing, we make use of the following variables⁸:

Ideology:

The variables concerning ideology dimensions are taken from the political science literature on the measurement of ideology. They provide a more straightforward analysis of the hypotheses on ideology than a simple use of party dummies. The individual scores for the members of the EP are taken from Hix and Noury (forthcoming), who analyse the

⁸The sources can be found in tables 8 and 9 in the appendix.

roll call votes from the first half of the sixth European Parliament and apply a scaling technique to the individual voting behaviour⁹. These enable us to test the hypotheses regarding the politicians' ideologies directly¹⁰. The two variables assess each MEP's ideology concerning the two dimensions left/right and anti-/pro-Europe based on his voting behaviour (recorded roll-call votes) in the first half of the sixth European Parliament: left/right measures the general left-right dimension, ranging from -1 (left) to +1 (right); anti-/pro-Europe reflects the attitude towards European integration with the same scale (-1: anti-Europe; +1: pro-Europe).

Moreover, a measure of national party group positions from Benoit and Laver (2006) is used in the empirical analysis. For the Bundestag, no individual data on the ideological positions of the representatives is available, so for the sample of all German representatives only this measure can be used. Compared to the Hix/Noury measure presented above, this measure is different in its composition: it is based on expert interviews and not on the purely technical analysis of roll-call votes. However, this data has the advantage that it offers more dimensions than the two dimensions of the Hix/Noury data set. In addition to the general left-right definition (left/right (party)) focusing not only on economic but also on social grounds (such as abortion or homosexuality), a more specific series asks for the location of each party on an economic policy dimension. This dimension (taxes vs. spending (party)) refers to the substantive extremes of "promoting raising taxes to increase public services" and "promoting cutting public services to cut taxes", which exactly conforms to our expected main ideological driver for tax harmonization preferences¹¹. In addition, the party groups' views towards European integration (anti-/pro-Europe (party)) are included as well in the Benoit/Laver data set, in which one dimension (denoted as "EU authority" in their book) focuses on the attitude towards an increase of the range of areas in which the EU can set the policy agenda. All dimensions are measured on a scale ranging from zero (left and anti-EU, respectively) to twenty (right and integration friendly, respectively) 12 .

⁹The values for ten 10 MEPs are missing in the Hix/Noury-dataset. Instead, the values for the average of the respective country's party group members were inserted.

¹⁰In addition, it was experimented with party group dummies as a proxy for ideology. The results regarding the effects of membership in different party groups confirm the descriptive findings; the overall results for the other variables remain constant.

¹¹Few missing values had to be replaced by the values for the respective party group in the EP from McElroy and Benoit (2007) which applies the same methodology.

¹²The anti-/pro-Europe (party) variable had to be rescaled to be comparable with the EP dataset, as in the original contribution a high value indicates an anti-EU attitude.

Individual characteristics, education and information:

Apparently, the socialization effect can best be captured by the length of membership in parliament (Years in EP). In addition, Member of ECON committee, the EP committee on economic and monetary affairs, has been added; this dummy points at the specialization of MEPs in the domain of tax policy and can also be seen as a proxy for socialization. Members of this committee are expected to show more involvement in the ambition of the European level to obtain additional competencies in the area of tax policy. For the members of the Bundestag, the dummy takes the value of one for members of its pendant to ECON, the "Finanzausschuss".

The dummy Business/Economic studies takes the value of one for MEPs who declare in their CVs (available on the website of the EP) to have studied business administration or economics. This can be regarded as an expert effect, as these MEPs should have informative advantages with respect to the scientific debate concerning tax competition as well as with respect to economics in general.

Age and gender of the parliamentarians are added as control variables; with respect to these personal characteristics we do not have particular expectations about the sign of the effects.

Country characteristics:

The hypotheses formulated with regard to the principal-agent approach are tested by means of several national characteristics. National preference for redistribution and social equality is proxied by representative survey results from Eurobarometer (European Commission (2007b)). The variable *Preference for social equality* reflects the share of citizens who answered in the survey that "social equality and solidarity" is a value to be preserved and reinforced the most, above other values, such as peace, cultural diversity or entrepreneurship, for instance. Hence, the point of reference of this indicator is not the current level of social equality in the society (Then, the question would be "Do you want more or less equality than today?"), but it is rather an abstract preferential comparison with other positive societal values.

For the corporate tax burden, we employ statutory corporate income tax rates (CITR). We also experimented with effective average tax rates (EATR) which are calculated by the ZEW Mannheim for a profitable investment project (see Overesch (2005)). These take account of both statutory tax rates and the detailed provisions of the tax law such

as depreciation provisions according to the model of Devereux and Griffith (1999). While the latter is a more accurate measure for the tax burden, the former is probably more familiar to politicians and can be expected to have a higher impact on their perceptions. However, due to the high correlation between these two measures, the results do not vary significantly. Moreover, the measure *Other revenues* is added, which reflects the amount that indirect taxes, social contributions and further revenues contribute to the national budget as a share of GDP. This variable reflects the national dependency on the revenues from corporate taxation, as it can be expected that a country which covers a bigger part of its public expenditure through indirect taxes does not have to worry about corporate tax competition to the same degree.

The agglomeration argument is analyzed by means of a self-constructed national accessibility measure. This is defined as the population-weighted average of potential accessibility by road of the regions within the respective country. The underlying indicator from the European Spatial Planning Observation Network (ESPON (2007)) can be regarded as a proxy for the size of the market area which the local producers within a certain region are faced with¹³. To account for differences in the stock of real capital, the gross value added (GVA) of industry as share of the total GVA (whose lion's share is the contribution of the services sector) is used (GVA industry). The size of the countries is captured by the number of inhabitants (Size)¹⁴.

The variable national support for EU tax responsibility is measured by means of a survey conducted by Eurobarometer, which asked citizens in the member states whether decisions in the area of taxation should be made by the national governments, or jointly within the European Union (European Commission (2007a)). The variable reflects the national share of responses in favour of decisions being made jointly within the European Union. As a further control variable, a dummy for EU-15 (EU-15 member) was introduced. The twelve new member states, mainly from Central and Eastern Europe, have common properties related to their relatively short historical experience of political autonomy, which is probably also relevant for their view on tax competition. It might be expected that

¹³In particular, the value of the indicator is calculated by summing up the population of all European regions weighted by the time needed to travel there by car in the basis year 2006. This value is then standardized by dividing it by the European average, which is set at 100; see Vickerman, Spiekermann, and Wegener (1999) for an overview of accessibility indicators. The regional values vary from 1.3 for Dodecanese (a peripheric Greek archipelago) to 235.4 for the city of Leverkusen in North Rhine-Westphalia, Germany.

¹⁴It has also been experimented with the total national GDP as an indicator for a country's size; the results do not differ much due to the high correlation between the two variables.

these countries are particularly keen on retaining their tax autonomy, so that the sign of the dummy for the old member states is expected to be positive. Finally, national wealth is added as a control variable; it is proxied by the GDP per capita in purchasing power (GDP per capita) in 2006.

Results

In tables 3 to 4, the results for the dataset containing the members from the EP are depicted. The dependent variable are the answers to the question concerning the desirability of EU-wide obligatory minimum corporate tax rates as presented in section 4. Specifications (1) to (5) differ with respect to the included country variables: in regression (1), no country variables are included. In regression (2), all country variables are included, and in (3), country variables of (2) which turn out to be insignificant at the 10% level are excluded. As some of the hypotheses presented above suggest that the CITR is affected by several of the other exogenous country variables, the problem of multicollinearity might appear. Therefore, this variable is excluded in specification (4) due to the possibility of multicollinearity. In (5), the non-significant variables from (4) are excluded. Finally, specification (6) uses different data to measure ideologies as will be explained below. A highly significant impact of ideology on preferences for EU tax coordination can be found as a robust result of all specifications. The results confirm our assumptions: In all specifications, the *left/right* dimension is highly significant, indicating that MEPs with a left-wing ideology are more supportive of tax harmonization than those with a right-wing ideology. However, one has to bear in mind that this rough measure of the left/right-dimension (which is more of a technical nature as discussed above) does not only incorporate the politician's view towards the role of the state in the area of economics (economic policy left/right dimension), but also his view towards social policy, so that these two dimensions partly interfere with each other on the general left/right dimension. To disentangle these effects, in specification (6) the survey-based values for the ideological positions of the national parties from Benoit and Laver (2006) are used 15. The two measures for the left-right dimension are jointly different from zero with a very high significance (p-value: 0.000). However, only the measure concerning the economic policy position taxes vs. spending appears individually significant in the regression.

 $^{^{15}}$ Unfortunately, data for the positions towards European integration is not consistently available from the Benoit and Laver (2006) data set for most countries.

Table 3: Regression results for European Parliament

	(1)		(2)		(3)	
Variable	Coefficient	Marg. effect	Coefficient	Marg. effect	Coefficient	Marg. effect
Variable	Coefficient	Ideolo		Marg. effect	Coefficient	marg. effect
left/right	-1.873***	-0.450	-2.200***	-0.400	-2.121***	-0.413
iert/right	(0.529)	-0.450	(0.680)	-0.400	(0.650)	-0.413
anti-/pro-Europe	0.683***	0.164	0.424*	0.079	0.454*	0.088
anti-/pro-Europe		0.164	I -	0.079		0.088
left/right (party)	(0.166)		(0.219)	_	(0.238)	_
leit/right (party)	-	-	-	-	_	-
Taxes vs. spending (party)	_					
raxes vs. spending (party)	-	-	-	_	_	-
	Funt	 her individua	 characteris	ties		
Age	0.013*	0.003	0.004	0.001	0.006	0.001
Age	(0.007)	0.003	(0.010)	0.001	(0.011)	0.001
Gender (male)	-0.624*	-0.174	-0.463	-0.100	-0.455	-0.102
Gender (maie)	(0.358)	-0.174	(0.383)	-0.100	(0.313)	-0.102
Years in EP	0.064**	0.015	0.071***	0.013	0.058***	0.011
rears in EF	(0.025)	0.015	(0.021)	0.015		0.011
Member of ECON committee	0.589***	0.165	0.587***	0.133	(0.020) 0.606***	0.144
Member of ECON committee		0.105		0.133		0.144
Business / Economic studies	(0.131)	-0.117	(0.144)	-0.080	(0.170)	-0.078
Business / Economic studies	(0.185)	-0.117	(0.194)	-0.080		-0.078
	(0.183)	Country char			(0.223)	
CITR	_	Country char	8.209***	1.525	4.985**	0.971
CIIR	-	-		1.525		0.971
Preference for social equality	_		(3.143) 6.156***	1.143	(1.950) 5.067**	0.987
Freierence for social equality	-	-	(1.428)	1.145	(2.389)	0.967
Size	_		-0.369***	-0.068	-0.298*	-0.058
Size	-	-	(0.138)	-0.008	(0.156)	-0.058
GDP per capita	_	_	-0.006	-0.001	(0.156)	_
GDF per capita	-	-	(0.007)	-0.001	_	-
Accessibility	_		0.001	0.000	_	
Accessionity	_	_	(0.004)	0.000	_	_
GVA industry	_	_	-0.084***	-0.015	-0.066***	-0.013
G VA muustry	_	_	(0.017)	-0.015	(0.015)	-0.013
EU-15 member	_	_	-0.534	-0.118	(0.013)	_
E0-13 member	_	_	(0.410)	-0.116	<u>-</u>	_
other revenues	_	_	-4.910	-0.912	-3.866*	-0.753
other revenues			(3.859)	-0.312	(2.166)	-0.100
National support of EU tax	_	_	0.972	0.181	(2.100)	_
responsibilities			(1.515)	0.101		
F	I	Regression D		I .	1	I
Observations	1	.56		156	1	156
$Prob chi^2$		0000		0000		0000
$PseudoR^2$		1442				
1 0000010	L		0.2202		0.2087	

Marginal effects are calculated for answer class +4 (strongest support for an obligatory minimum tax rate).

The anti-/pro-Europe dimension is in line with expectations as well: politicians with a more pro-Europe attitude are more in favour of minimum tax rates than opponents of European integration. Interestingly enough, the marginal effects of the two ideology variables show pronounced quantitative differences. In most specifications, the marginal effect of the left/right dimension is more than 4 times higher than the marginal effect of the pro-/anti-EU dimension, which suggests that the former is of decisive importance for the MEP's attitude. The marginal effects can be interpreted as follows: a shift of 1 point on the left-right axis (which is approximately the gap between the German post-

Table 4: Regression results for European Parliament (continued)

Coefficient -2.223*** (0.651) 0.372* (0.215) Furtl 0.004	Marg. effect Ideold -0.423 0.071 - her individual	Coefficient Pgy -1.986*** (0.562) 0.419** (0.186) -	-0.409 0.086	- Coefficient	Marg. effec
(0.651) 0.372* (0.215) - - Furt	-0.423 0.071 -	-1.986*** (0.562) 0.419** (0.186)	0.086	-0.057	-0.011
(0.651) 0.372* (0.215) - - Furt		(0.562) 0.419** (0.186)	0.086	-0.057	-0.011
0.372* (0.215) - - Furt	-	0.419** (0.186)		-0.057	-0.011
(0.215) - - Furt	-	(0.186)		-0.057	-0.011
- Furt	-	/	-		-0.011
- Furt	-	-	-		-0.011
	- her individual	-		(0.051)	0.011
	- her individual	-			
	her individual		-	-0.071*	-0.014
	her individual			(0.043)	
0.004					
()	0.001	0.005	0.001	-0.003	-0.001
		_ \ /			
	-0.115		-0.138		-0.126
	0.014		0.013		0.016
(0.024)	0.1.1		0.151		0.110
	0.141		0.154		0.119
	0.000		0.004		0.0
	-0.083		-0.094		-0.079
(0.179)				(0.153)	
	Country char	racteristics	T		1.000
-	-	-	-		1.933
0.00=444	1.000	7 0 40**	1 100		1.00
	1.263		1.102		1.687
(/	0.000	(2.312)			0.055
	-0.039	-	-		-0.075
(/	0.000				0.000
	-0.002	-	-		-0.000
	0.001	0.001	0.000		-0.000
	0.001		-0.000		-0.000
	0.014		0.012		-0.016
	-0.014		-0.015		-0.010
(/	0.077	(0.016)			-0.185
	0.077	-	-		-0.165
	0.001				-0.872
	-0.901	_	_		-0.612
	0.352	_	_		0.319
	0.002				0.013
(1.001)	Regression D	l Jagnostics	I.	(1.000)	
1			156	1	.53
					0000
					2100
	(0.009) -0.513 (0.396) 0.071*** (0.024) 0.604*** (0.153) -0.483*** (0.179)		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

 $Marginal\ effects\ are\ calculated\ for\ answer\ class\ +4\ (strongest\ support\ for\ an\ obligatory\ minimum\ tax\ rate).$

communist PDS and the British Conservatives) to the left increases the probability by around 40% of stating a high support for minimum tax rates. Correspondingly, a shift of 1 point upwards on the anti-/pro-Europe axis (which is about the difference between the EU-skeptic UEN group and the Social Democrats) increases the probability by around 8%.

Regarding the hypotheses on the individual characteristics, a robust finding can again be made: MEPs with an academic background in economics/business administration show less sympathy towards minimum tax rates. This indicates that among parliamentarians from these professions a more positive view towards tax competition prevails than among parliamentarians with other professions. Out of the other individual characteristics, there

are two which deliver significant results: MEPs who have been longer in the EP and those who are members of the Committee on Economic and Monetary Affairs are more supportive of tax coordination. This indicates that those politicians with a longer individual history of political socialization and assimilation in the European Parliament, as well as those who – as members of the ECON – are more exposed to a European perspective on economic policy have a supportive position¹⁶. This supports our assumption of a socialization effect in the EP, which suggests that the length of membership in the Parliament and the membership in the ECON play a role in moving individual views away from national interests towards a European perspective. Interestingly enough, this result contrasts with Scully (2005) who doesn't find an impact of the length of membership in the EP on the general support for integration of a MEP.

With respect to the country characteristics, a robust significant impact of several variables can be found. In all specifications, the national corporate tax rate (measured as CITR) has a highly significant positive impact. This confirms our assumption that mainly representatives from high tax countries strive for mandatory minimum tax rates in order to protect themselves against competition with their European neighbours.

One of the main predictions from standard tax competition models, i.e., that national attitudes towards redistribution have an impact on the politicians' attitudes towards tax competition, can be confirmed. A positive significant impact can be observed for the national preferences for social equality, which is in line with our assumption that tax competition is feared in these countries because it puts pressure on the national welfare state.

However, some further assumptions derived from tax competition models cannot be confirmed, namely that smaller countries are more resistant against limiting tax competition, as well as the hypothesis that countries which benefit from agglomeration effects express more support for minimum tax rates. Size even shows a significant negative impact in many specifications. This might indicate that tax competition is not consistently regarded as beneficial in countries which are – following theoretical tax competition models – assumed to gain from it. For the agglomeration effects, measured by the *accessibility* variable which indicates potential market access, only in one case the expected positive

¹⁶Note that this effect is converse to the effect of economic expertise proxied by a final degree in economics or business administration and that the coefficients are even similar in size. This might give rise to concerns about multicollinearity in case that committee membership was highly correlated with economic expertise. However, this correlation is only 13.9%, so that this concern is of minor importance.

sign appears significantly; this effect turns out to be insignificant in all other specifications.

Finally, the hypothesis that parliamentarians from countries which do not have to fear corporate tax competition to a high degree because of their higher share in real capital are less supportive of minimum tax rates can be affirmed; as expected, the impact is negative and significant for all specifications. The share of indirect taxes and other public revenues turns out to have a negative effect on the support for minimum tax rates as expected, but this is often not significant. Further national characteristics do not disclose a significant effect for almost all specifications. This holds true for the national support of assigning tax responsibilities to the EU level as well. Attempting to replace this variable with the results of a Eurobarometer survey asking for the general attitude towards the EU did not have a significant impact on the results, either.

In table 5, the results for the regressions of pooled answers from both German members of the EP and the Bundestag are presented. In addition to the individual characteristics introduced above, a further control variable is added: the origin of a parliamentarian from the Eastern (formerly communist) part of Germany is captured by a dummy. This is a standard procedure for analyses of German politicians' preferences (see, e.g., Heinemann and Janeba (2007)), since differences in preferences regarding the economic policy are still notable between Western and Eastern Germany as shown by Alesina and Fuchs-Schündeln (2007). However, this dummy turns out to be insignificant for all specifications. In contrast to the findings above for the EP data, the educational background shows the same sign, but slightly misses significance. The further individual characteristics display insignificant results as well. Interestingly enough, the sign for the committee membership becomes negative when the membership in the Bundestag's committee on financial affairs is regarded in addition to membership in the ECON. This supports the conjecture that the positive effect found in the EP regression is indeed due to a socialization effect.

The results for the ideology characteristics are broadly in line with the previous findings. Again, members of party groups with a more positive attitude towards European integration tend to support minimum tax rates. However, the inclusion of the economic policy dimension renders the effect of the general left/right dimension insignificant. The taxes vs. spending dimension itself is highly significant in all specifications. This offers further support to the assumption that – among the many different aspects of the left/right dimension – it is primarily the politician's attitude towards public spending that shapes the

support for tax harmonization. Moreover, in specification (3) party dummies are used with the German social democratic SPD chosen as reference category. The results confirm our expectation, with the economic liberal FDP and the Christian Democrats (CDU) showing significantly less support. The strongest support for minimum tax rates comes from the former East German communist party (Die Linke), which holds the furthest left position in the German party spectrum; however, their coefficient does not differ significantly from that of the SPD.

Regarding the question whether preferences differ between the EP and the Bundestag representatives, two approaches are applied: the number of years of membership in the EP (plus a quadratic term in order to capture a possible nonlinear relationship, specification (1)) as well as a dummy, which has the value of one for an MEP and zero for a member of the Bundestag (specification (2)), are tested in order to investigate whether German politicians on the European level have different preferences. In order to allow for differences between the political groups, interaction terms of party dummies and an EP dummy are introduced in specifications (3) and (4).

The results of all approaches show no significant results indicating different preferences of the EP and the Bundestag representatives. Moreover, the inclusion of interaction terms (party dummies * EP dummy) does not provide significant results for any of the political groups, either. Therefore, the hypothesis formulated above, namely that European parliamentarians should be more supportive of EU-wide obligatory corporate tax rates than representatives at the national level, cannot be confirmed by the data on German politicians¹⁷.

¹⁷These results are similar to those of Scully (2005) who doesn't find pronounced differences in the attitudes towards European integration between MEPs and national delegates, either.

Variable left/right (party)						9		(4)
	Coefficient	Marginal effect	Coefficient	Marginal effect	Coefficient	Marginal effect	Coefficient	Marginal effect
	0800	0.019		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1		0.116	8600
	(0.073)	0.019	(0.073)	610.0	ı	ı	(0.079)	0.00
taxes vs. spending (party)	-0.235*** (0.052)	-0.057	-0.232*** (0.051)	-0.057	1		-0.068***	-0.064
anti-/pro-Europe (party)	0.190** (0.079)	0.046	0.188**	0.046	ı	,	0.221***	0.053
ALDE/FDP	1	1	1	1	-2.385*** (0.301)	-0.286	1	1
EPP-ED/CDU	1	1	1	1	-1.406*** (0.260)	-0.285	1	1
GUE-NGL/Linke.	1		1		0.514 (0.329)	0.146	1	
Greens-EFA/Die Grünen	1	-	1	1	-0.416 (0.362)	-0.083	1	1
		Furthe	Further individual	l characteristics				
Age	0.009	0.002	0.010 (0.008)	0.002	0.012	0.003	0.012	0.003
Gender (male)	-0.052	-0.013	-0.061	-0.015	-0.057	-0.014	-0.058	-0.014
Business / Economic studies	-0.337	-0.074	-0.303	-0.068	-0.311	-0.068	-0.314	690.0-
	(0.205)		(0.202)		(0.204)		(0.203)	
Member of ECON committee / Finanzausschuss	-0.226 (0.203)	-0.051	-0.243 (0.202)	-0.055	-0.274 (0.205)	-0.060	-0.276 (0.205)	-0.061
Eastern Germany	-0.257 (0.228)	-0.058	-0.259 (0.228)	-0.058	-0.262 (0.232)	-0.058	-0.262 (0.232)	-0.058
EP years	-0.044 (0.045)	-0.011	1	1	1	ı	ı	1
EP years ²	0.002	0.001	1	1	1		1	
EP Dummy	1	1	-0.068 (0.197)	-0.016	1	1	1	1
EP Dummy* (ALDE / FDP)	1	1	ı	1	0.875	0.288	0.889 (0.584)	0.293
EP Dummy* (EPP-ED / CDU)	1	-	1	1	-0.092 (0.276)	-0.021	-0.099 (0.273)	-0.023
EP Dummy* (GUE-NGL / Linke)	1	1	1	1	-0.189 (0.716)	-0.041	-0.190 (0.716)	-0.042
EP Dummy* (Greens-EFA / Grüne)	1	1	ı	1	0.140 (0.700)	0.036	0.103 (0.663)	0.026
EP Dummy* (PES / SPD)	1	1	1	1	-0.500 (0.412)	-0.094	-0.484 (0.400)	-0.092
		H	Regression Diagnostics	Diagnostics		-		
Observations		194		194		194		194
$Prob chi^2$	0	0.0000		0.0000		0.0000	0	0.0000
$PseudoR^2$	0	0.1548		0.1538		0.1585		0.1585

Marginal effects are calculated for answer class +4 (strongest support for an obligatory minimum tax rate); *PES / SPD set as reference category.

7 Conclusions

This paper contributes to filling a serious gap in the tax competition literature. Instead of treating tax policy decision-making as a black box conducted by monolithic "countries", we focus on important individual policy actors in the Parliaments and their preferences. Through this political-economic approach we are able to answer the positive question which personal characteristics and interests are the relevant drivers of harmonization processes.

We find that ideology is indeed important, as it was anticipated: our hypotheses of the driving motives being connected with ideology can be confirmed by the available data. Politicians on the left side of the political spectrum offer the strongest support for the introduction of minimum tax rates, whereas members from the right – and especially those with a market liberal position – as well as EU-sceptical politicians tend to oppose a harmonization. The analysis based on the measures of individual ideology positions reveals that particularly the left-right dimension shapes the attitude towards tax harmonization. Furthermore, a major influence on preferences can be ascribed to individual characteristics, referring to the experience of the parliamentarians. It turns out that parliamentarians with an academic background in economics or business administration tend to have a more positive attitude towards tax competition. Politicians with a longer membership in the EP or those who belong to the committee which deals with economic affairs are more supportive of harmonization, which confirms our expectation of a socialization effect.

However, in addition to individual characteristics, national interests proxied by country indicators play an important role, as well. This is most notably the case for the current national level of corporate taxation, which has a widespread influence. Politicians from countries with high corporate tax burdens are highly supportive of minimum tax rates, as this protects them against competition with other EU member states. Moreover, one important prediction of tax competition models transpires to have an impact on the politicians' attitude towards tax competition, which is the citizens' preference for social equality. This reflects the fear of politicians from countries with a strong support for social equality of tax competition indeed leading to a "race to the bottom" and putting pressure on the welfare state. However, some other predictions from tax competition models seem to play a minor role in the opinion formation process of politicians.

Regardless of this, our EP-Bundestag comparison reveals that the relevance of institutional self-interest, related to the expectation that national parliamentarians should be afraid of losing their competencies, is not acknowledged at least for German politicians. It is not possible to detect divergent preferences, neither on the aggregate level, nor for any of the German parties.

Overall, our results add an important aspect to the tax competition literature which is largely dominated by normative approaches based on welfare theory. We have been able to show that tax harmonization preferences of real life policy makers are shaped by a much wider spectrum of factors than theory would suggest, ranging from ideology and individual characteristics to specific national interests. This could help explain why the actual tax policy in Europe and elsewhere regularly follows very different avenues than what is recommended in the public finance literature.

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Appendix

Table 6: Response rate by political group

Group	Indicative ideology	Number	Responses	Response
		of seats		rate
ALDE	Liberal	104	18	17.31%
EPP-ED	Conservative, Chris-	278	55	19.78%
	tian democracy			
GUE-NGL	Socialism, commu-	41	5	12.20%
	nism			
IND/DEM	Euroscepticism	24	7	29.17%
ITS	Right-wing, nation-	23	4	17.39%
	alist; dissolved in			
	November 2007			
NI	Non-attached mem-	13	3	23.08%
	bers			
PES	Social democracy	216	50	23.15%
Greens-EFA	Green, regionalism	42	6	14.29%
UEN	National conser-	44	10	22.73%
	vatism			
Total		785	158	20.13%

Table 7: Response rate by country

	Table 7. Itespons		
Country	Number of seats	Responses	Response rate
AT	18	7	38.89%
BE	24	6	25.00%
BG	18	1	5.56%
CY	6	1	16.67%
CZ	24	5	20.83%
DE	99	40	40.40%
DK	14	4	28.57%
EE	6	0	0.00%
ES	54	4	7.41%
FI	14	4	28.57%
FR	78	16	20.51%
GB	78	13	16.67%
GR	24	1	4.17%
HU	24	5	$\boldsymbol{20.83\%}$
IE	13	3	$\boldsymbol{23.08\%}$
IT	78	8	10.26%
LT	13	3	$\boldsymbol{23.08\%}$
LU	6	2	33.33%
LV	9	2	22.22%
MT	5	0	0.00%
NL	27	3	11.11%
PL	54	10	18.52%
PT	24	7	29.17%
RO	35	4	11.43%
SE	19	4	21.05%
SI	7	1	14.29%
SK	14	4	28.57%
Total	785	158	20.13%

 $\label{thm:conditional} \begin{tabular}{ll} \textbf{Table 8: Descriptive Statistics for European Parliament dataset} \end{tabular}$

Variable	Mean	Min	Max	Std.	Explanations
				Dev.	
		I	Ideol		
left/right	0.09	-0.80	0.99	0.32	"left-right" dimension measured by
					Hix and Noury (forthcoming) for
					individual MEPs; ranging from -1
	0.05		0.00	0.45	(left) to +1 (right)
anti-/pro-Europe	0.35	-0.72	0.99	0.47	"anti-/pro-Europe policy prefer-
					ences" dimension measured by
					Hix and Noury (forthcoming) for
					individual MEPs; ranging from -1
			1	<u> </u>	(anti-Europe) to $+1$ (pro-Europe)
Α .	F0 F		sonal in		
Age	52.5	30	76	10.2	Calculated as 2007 minus year of
Q 1	0.74	0	-	0.44	birth
Gender	0.74	0	1	0.44	Male set at 1
Years in EP	6.82	0	28	5.86	Calculated as 2007 minus year of
					first EP entry, source: official state-
M 1 C DOOM	0.10	0	1	0.90	ment on the EP homepage
Member of ECON	0.18	0	1	0.39	Set at 1 if member of committee
committee					on Economic and Monetary Affairs
					which deals with economic and mon-
					etary policies in the Union, as well
					as tax provisions; source: official
D : / D :	0.05	0	1	0.44	statements on the EP homepage
Business/ Economic	0.25	0	1	0.44	Tertiary education in business ad-
studies			, 1		ministration or economics
CIMD	0.00		try cha		
CITR	0.29	0.10	0.39	0.08	2006 statutory corporate income tax
					rate, source: IBFD European Tax Handbook 2006 (IBFD, 2006)
National professors	0.37	0.23	0.54	0.07	, ,
National preference	0.57	0.25	0.34	0.07	Share of answers "Social equality and golidavity" as value which
for social equality					ity and solidarity" as value which
					should be preserved and reinforced the most in our current society,
					5 7
					source: Special Eurobarometer 278 (European Commission (2007d))
Size	2.97	-0.92	4.41	1.42	Natural logarithm of number of in-
Size	2.91	-0.92	4.41	1.42	habitants in million, source: Euro-
					stat database
CDP por appita	94.71	35.70	267.80	20.87	In PPS with EU25=100 for the year
GDP per capita	94.71	35.70	207.80	30.87	
Accessibility	91.61	4.1	203.7	55.33	2006, source: Eurostat database Indicator calculated as the
Accessionity	91.01	4.1	203.7	00.00	Indicator calculated as the population-weighted average of
					the potential accessibility by road
					of all regions within a country in
					2006, EU27=100, source: ESPON
					(2007)
					(2001)

GVA industry	22.81	10.79	38.08	5.65	Gross value added of industry as
					share of all branches in 2006 (2000
					prices), source: AMECO database
EU-15 member	0.73	0	1	0.45	Old members of EU (EU15) set at
					1, others at 0
Other revenues	0.31	0.22	0.38	0.04	Total current revenue minus current
					taxes on income and wealth, share
					of GDP for 2006, source: European
					Commission (2007c)
National preference	0.28	0.09	0.45	0.08	Share of answers who think that
for taxation					decisions in the area of taxation
					should be made jointly within the
					European Union, Source: Euro-
					barometer 67 European Commis-
					sion (2007a))

Number of observations: 156

Source: European Parliament if no other source is named.

 $\begin{array}{lll} {\rm Table} & 9{\rm :} & {\bf Descriptive} & {\bf Statistics} & {\bf for} & {\bf combined} \\ {\bf dataset} & & & \end{array}$

Variable	Mean	Min	Max	Std.	Explanations
Variable	Wiedli	14111	111011	Dev.	2. pranavioris
			Ideol	Ogv	
left/right (party)	10.42	3.6	13.6	3.78	"left-right" dimension measured by
/8 (P3))		0.0			Benoit and Laver (2006) for national
					parties; ranging from -20 (left) to
					+20 (right)
anti-/pro-Europe	9.74	6.9	10.8	1.36	"anti-/pro-Europe policy prefer-
(party)					ences" dimension measured by
					Benoit and Laver (2006) for na-
					tional parties; ranging from -20
TD 1:	10.00	0.00	10.70	4.05	(anti-Europe) to +20 (pro-Europe)
Taxes vs. spending	12.09	3.00	18.70	4.95	"taxes vs. spending" dimension;
(party)					measured by Benoit and Laver (2006) for national parties ranging
					from 0 (high spending) to 20 (low
					taxes).
ALDE/FDP	0.18	0	1	0.39	Affiliation with ALDE or FDP set
1					at 1, all other set at 0
EPP-ED/CDU	0.37	0	1	0.49	Affiliation with EPP-ED or
					CDU/CSU set at 1, all other
					set at 0
GUE-NGL/Linke	0.15	0	1	0.36	Affiliation with GUE-NGL or Die
					Linke set at 1, all other set at 0
Greens-EFA/Die	0.08	0	1	0.27	Affiliation with Greens-EFA or
Grünen					Bündnis 90/Die Grünen set at 1, all
		Don	$\frac{\parallel}{\text{sonal in}}$	formati	other set at 0
Age	49.7	23	69	9.8	Calculated as 2007 minus year of
Age	49.1	20	09	9.0	birth
Gender	0.68	0	1	0.47	Male set at 1
Business/ Economic	0.20	0	1	0.40	Tertiary education in business ad-
studies					ministration or economics
Member of ECON	0.19	0	1	0.40	Set at 1 if MEP and member of com-
committee / Finan-					mittee on Economic and Monetary
zausschuss					Affairs which deals with economic
					and monetary policies in the Union,
					as well as tax provisions, or if mem-
					ber of the Bundestag and member of
					the Finanzausschuss; source: official
Eastern Germany	0.20	0	1	0.40	statements on the EP homepage Set at 1 if elected in an eastern ger-
Lastern Germany	0.20		1	0.40	man constituency
Years in EP	1.73	0	28	4.42	Calculated as 2007 minus year of
Louis III LI	1.10		-	1.12	first EP entry, source: official state-
					ment on the EP homepage
EP Dummy	0.20	0	1	0.40	Set at 1 if MEP

Number of observations: 194; Source: European Parliament or Bundestag if no other source is named.