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A Review of the Arguments**

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Fiscal Competition versus Fiscal Harmonization: A Review of the Arguments

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A substantial theoretical and empirical literature has developed to address the advantages and perils of tax competition and how far it may be desirable to advance tax harmonization. The basic idea of the early literature was that internationally mobile capital moves from countries with higher rates of corporate taxation to lower rate countries. This limits the ability of the governments to tax capital and tend to reduce tax revenue of the government. Subsequent research has extended the basic model of tax competition by incorporating several important facets and qualifications to better reflect the real world. These studies have reached conclusions which are either starkly different from the early literature or have added important qualification to those. The principle theme of these new conclusions is that tax competition need not be as harmful as portrayed earlier. In the article we survey the extant theoretical literature on tax competition and tax harmonization and try to understand what lessons policy makers can learn from it.

Keywords: European Union, tax competition, tax coordination, tax harmonization, fiscal coordination, corporation taxes, capital taxation, foreign direct investment

JEL Code: E61, E62, F23, H25, H32.

Introduction

Influential voices within the EU are increasingly arguing in favor of better coordination and cooperation between member states in matters of tax policy which go beyond the full harmonization of the VAT.¹ The Fiscal Compact that came into effect in early 2013 is just the most recent of the relatively more conspicuous steps towards fiscal harmonization of a higher order in the EU. The main arguments in favor of fiscal harmonization stem from the need to deal with the mobility of capital across national borders and the concomitant problem of capital being “hard to attract and hard to tax.”

Institutional political pressure for the harmonization of tax policies goes beyond the EU. The OECD launched the “harmful tax competition” initiative in the 1990s, with the OECD’s Center for Tax Policy providing a list of harmful tax practices, and the UN has called for the creation of an International Tax Organization to curtail tax competition in the global arena (Han et al., 2013). In Africa, the West African Economic and Monetary Union has tried to establish a common tax structure with mixed results starting from the early 1990s (Mansour and Rota-Graziosi 2013).

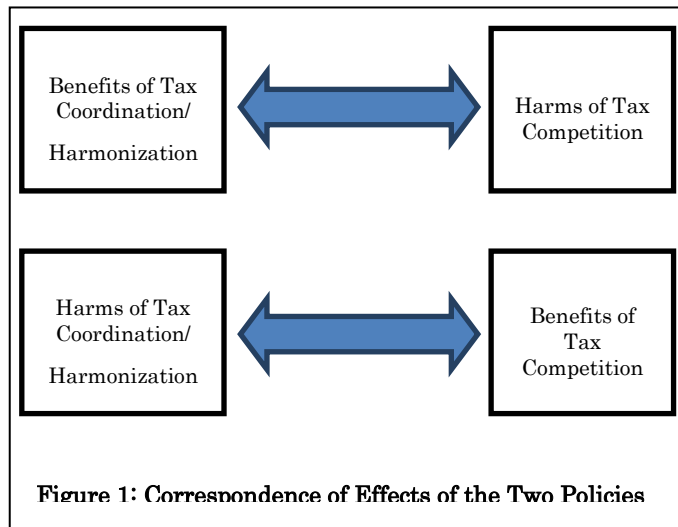
The goal of this paper is to review the theoretical arguments-- pro and against-- that have been developed in the literature regarding tax policy competition versus tax coordination and harmonization.² The economic literatures on tax competition and

¹ As a recent example, Algirdas Semeta, Commissioner of the EU for Taxation, while making the speech “Making Progress on European Tax Policy: Towards More Fairness and Greater Competitiveness” at the Institute of International and European Affairs commented that “The day of isolated tax policy is over”. (dated 01/11/2013, accessed at http://europa.eu/rapid/press-release_SPEECH-13-11_en.htm)

² Although the terms coordination and harmonization are often used interchangeably, harmonization may be considered the strongest term implying the adoption of identical or quasi-identical tax bases and rate structures while coordination may require weaker

harmonization have developed in quite different contexts. The first has firm roots in fiscal federalism issues at the subnational level in the United States and Canada; in contrast, policy interest in tax harmonization issues has gained most prominence at the national level within the EU. However, the arguments for and against tax competition and tax harmonization are relevant at both the subnational and transnational levels.

As we will see below the debate on tax competition versus tax harmonization is complex and far from settled and even though the literature on these issues is quite vast, it helps significantly that, as illustrated in Figure 1, the arguments finding tax competition harmful often coincide with the arguments that suggest the benefits from tax harmonization, and conversely. We use these reciprocal correspondences to organize the discussion in the paper.



The rest of the paper is organized as follows. In section two we briefly discuss the definitions of tax competition and cooperation which arise from the literature; in this

arrangements such as the adoption of minimum rates. We will use the term *harmonization* throughout the paper to also include the weaker cases of tax coordination.

section we also provide some historical institutional background for the difficulties facing fiscal harmonization within the EU. In section three we examine the arguments for why tax competition may be harmful, thus making the case for tax harmonization. In section four we examine in turn the arguments about the benefits of tax competition, thus also making the case against tax harmonization. Section five concludes.

Definitions and Setting the Stage

Tax competition takes place between two or more countries (or subnational jurisdictions) that choose their tax policies (most conspicuously tax rates on some mobile tax base) non-cooperatively or independently thus affecting the size of the (mobile) tax bases available to each of them (Wilson, 1999; Wilson & Wildasin 2004; Rohac 2006). Spillover effects are assumed to result from the mobility of inputs (capital) which flow out of the high tax jurisdiction and into the low tax one, everything else remaining the same. As we see below, in the classical literature on tax competition, all countries or jurisdictions are assumed identical, hence all of them set the tax on the mobile capital “too low”. The lower tax rate leads to lower public spending, which in turn is assumed to lower social welfare.

Tax harmonization is the set of rules (e.g., uniform bases, minimum rates, or introducing uniform rates) adopted in a coordinated fashion with the intent of reducing or eliminating the effects of tax competition.³ Beyond the agreement on bases or rates, tax harmonization at the extreme may involve the shedding of separate tax setting powers to a supra-national authority.

³Finer definitions of harmonization have been used. For example, Mansour and Rot-Graziosi (2013) identify tax “coordination” as rules being adopted within a pre-defined set of countries, while tax “cooperation” takes place when the set of competing countries is not pre-defined.

A big difference between tax competition and harmonization lies, of course, in the results each produces, but even a bigger difference is given by the nature of the processes by which they are generated. Competition is the natural state and requires no action while harmonization requires a great deal of cooperation and coordination. This makes the latter considerably harder.

But harmonization is still possible. The processes of monetary and fiscal harmonization in the EU also tell us that there are degrees of difficulty. The idea of harmonization of state policies in the European continent is a centuries-old dream. But it was only in the aftermath of the Second World War that a conflict-ridden Europe gave birth to the European Communities. More recently, the Monetary Union has been taken by some as a prelude to tax harmonization within the EU. But the full harmonization of monetary policy had a clearly compelling rationale that full tax harmonization may lack. In particular, individual national banks under pressure from the national governments could accommodate the fiscal policies of the respective governments which could result in different rates of inflation and unstable exchange rates for the national currencies; so we witnessed the collapse of the Exchange Rate Mechanism of EMS in 1992. The European Monetary Institute founded in 1994 became the European Central Bank in 1999. The creation of the European Central Bank paved the way for harmonization in the Monetary Policy sphere. The Maastricht Treaty gave a clear mandate to the ECB for maintaining price stability creating at the same time an unprecedented demarcation between the monetary and fiscal spheres (Beetsma 1998; Goodhart 1998).

The push for the harmonization of tax policy within the EU has lacked such compelling rationale. While there has been a considerable amount of harmonization over

time in terms of indirect taxes (VAT, excise, and tariffs) through the directives and the European Court of Justice (ECJ) rulings (Genser 2003; Garcia Lopez, et al. 2013), however, on the face of it, there has been little cooperation in terms of direct taxes – especially the corporate income tax. The different corporate tax rates in the member countries of EU have been both the bone of contention and also the driving force behind the arguments for enhanced fiscal harmonization within the EU. At present, there continues to be a wide divergence in corporate tax rates, with countries like France, Germany, and Spain with rates above or around 30%, and countries like Ireland with rates as low as 10-12%. These differences, and specifically the low rates, go against the recommendations of the Ruding Committee which in 1992, among other things, proposed a common minimum tax rate at the level of 30 percent for the entire EU (Keen 2012).

An obstacle in the area of fiscal policy harmonization has been the absence of strong enforcing mechanisms. For example, when France and Germany violated the clauses of the Growth and Stability Pact in the early 2000s, the Council of Ministers voted not to impose penalties (the fact that France and Germany are two of the largest economies in EU cannot be brushed aside in this context) and created a bad precedent (Feldstein 2012). There has been no agreement either on substance. Beyond the rather successful harmonization of indirect taxation, further harmonization could take the form of adopting a common corporate income tax base and/or the setting of a minimum tax rate. Harmonization efforts also have been criticized for having large potential for creating adverse incentives. More in particular, the creation of effective supervision mechanisms with democratic legitimacy would require the EU to take an “institutional leap towards a federal state, something like the ‘United States of Europe’” (Fuest and

Peichl 2012). In addition, maintaining fiscal discipline requires strong enough institutions to enforce it (Allard et al. 2013). All these constitute a tall order for the EU.

Harmful Effects of Tax Competition: The Case for Tax Harmonization

The classical case of tax competition

The strongest case for tax harmonization comes from the potential harmful effects of horizontal tax competition. The classical argument (Zodrow and Mieszkowski 1986; Wilson 1986) in the theory of fiscal federalism is that tax competition leads to a “race to the bottom” resulting in inefficiently low tax rates and the under-provision of public services.⁴ Importantly, these results are obtained with relatively strong assumptions: non-cooperative behavior, identical jurisdictions, one single policy variable (tax rates), and one-time decision framework. The basic model has been extended in many directions exploring the consequences of relaxing one or more of those assumptions.

In a global context, it has also been long postulated that small open economies may try to attract capital in a zero sum game scenario (as first informally postulated by Oates 1972). For owners of capital the higher the after-tax return, the more attractive the location becomes for their investments, *ceteris paribus*. In a globalized environment where there is a fixed supply of highly mobile capital, countries may try to create more attractive corporate tax systems by aggressively lowering their tax rates (Persson and

⁴For past surveys of the tax competition literature see Wilson (1999), Wilson and Wildasin (2004), and Zodrow (2003).

Tabelini 1992; Baldwin and Krugman 2004).⁵ These changes in public policy may be welfare enhancing at least temporarily for the adopting country but they create “negative fiscal externalities” which hurt other countries (Wildasin 1989). Eventually, if all jurisdictions are assumed identical, all jurisdictions would tend to adopt similar policies and finally end up with low tax rates and lower revenues and lower than optimal provision of public goods. Again, this makes a strong case for the potential benefits of pursuing tax harmonization.

What form of tax competition?

A considerable share of the tax competition literature has focused on competition for capital via lower tax rates for corporate taxation. Of course, tax competition can also take the form of commodity and other indirect tax competition in countries (subnational jurisdictions) which share borders and where cross-border shopping is feasible. The early work by Mintz and Tulkens (1986) showed that non-harmonized indirect taxes can create artificial distortions. Here, it is important to distinguish between origin based and destination based indirect taxes. Residents of a jurisdiction can evade origin based taxes by purchasing from the neighboring jurisdictions provided transport costs are lower than the differential tax bill. This problem of tax avoidance can be controlled if destination based taxes are used with the deployment of border adjustments (with tax collected from domestic firms but rebated for the goods exported, at the same time a tax is collected on imports). When no border adjustment is possible, two types of externalities can arise (Kanbur and Keen 1993). The first arises when a country raises its tax rates and as a

⁵The influx of additional capital not only creates an enlarged tax base; it also creates employment opportunities in the destination economy (Huang, 1992). Since employment generation is an important goal for any government, this creates a further incentive to try to attract capital.

consequence its residents start engaging in cross border shopping-- reducing tax revenues in the tax imposing country and increasing them for the neighboring country. Second, if the jurisdiction where the citizens of the neighboring jurisdiction shop increases its taxes, then tax payments by the neighboring jurisdiction's residents may increase even though the extent of cross border purchase might actually come down.⁶

Relaxing some assumptions of the classical horizontal tax competition models leads to "less bad" general outcomes

As mentioned above, the conclusions of the "classical" model of horizontal tax competition depend heavily on several assumptions, which have been questioned in the literature.

First, some authors have challenged the relevance in reality of the non-cooperative competition in a Nash solution setting. Relaxing this assumption and allowing for competition to be conducted in a sequential game framework with some countries acting like leaders and others as followers as in a Stackelberg model results in a much milder downward pressure on tax rates than in the standard tax competition analysis (Wang 1999; Kempf and Rota-Graziosi 2010).⁷

⁶Keen (1987, and 1989) and Lopez-Garcia (1996) have shown that a Pareto improvement can result if the system were to move to some appropriately weighted tax average of the destination and origin based commodity taxes. The "appropriate" weights would be the demand responses of the participating jurisdictions in the case of destination based taxes and the supply responses of the participating jurisdictions in the case of origin based taxes. A different question altogether is who would introduce and manage these rates.

⁷Intuitively, when the competing jurisdictions follow a chain of decisions in setting their tax rates, the second moving jurisdiction ("Stackelberg follower") will increase its tax rate if it observes a higher level of tax rate chosen by the first moving region ("Stackelberg leader"); the leader anticipates this and consequently increases its tax rate. As a result, the selected tax rates in both regions in a Stackelberg equilibrium would be higher than that in the non-cooperative Nash equilibrium assumed in the conventional tax competition models.

Second, governments or jurisdictions are generally not identical but may differ in size, factor endowments, or preferences for public goods. Bucovetsky (1991) and Wilson (1991) show that if jurisdictions just differ in population size (and hence total labor and total capital endowment), the smaller jurisdictions will levy lower taxes and will be better off competing for capital inflows in terms of tax rates than larger regions.⁸ In addition, Cai and Treisman (2003) show that when jurisdictions differ in terms of endowments and institutions, tax competition will improve the performance of the resource rich and institutionally developed jurisdictions while making the condition of the resource poor jurisdictions worse off.⁹ Note, however, that in all these asymmetric models, tax rates will be inefficient (with distorted allocation of capital from the perspective of the integrated economy consisting of all the jurisdictions) and so will be the provision of the public goods. Relaxing the other assumptions similarly leads to conclusions which differ substantially from the conclusions reached in the classical model of horizontal tax competition (Zodrow 2003).

Can tax competition actually evolve into harmonization?

The standard tax competition analysis is also based on the assumption of a single period interaction between different governments. Most papers in the tax competition literature assume that the competing governments – whether competing on tax rates and infrastructure or only on tax rates – set the policy variables once and for all. In terms of game theory the tax game lasts only for one period – irrespective of whether it is played as a Nash game or a Stackelberg game. Therefore this “mainstream” literature fails to

⁸This is sometimes taken as the theoretical argument behind the small size of the tax heaven countries.

⁹These results do not depend on jurisdictions competing only in taxes. Han et al. (2013) extend the models of asymmetric jurisdiction to where jurisdictions compete in both taxes and public infrastructure and reach similar conclusions.

take into account the possibility of repeated interactions between tax setting authorities from different countries (Catenaro and Vidal 2003). Some recent theoretical papers have introduced repeated interaction between governments allowing for the possibility that over a period of time countries may overcome the urge to compete and pursue some form of cooperative tax policy (Fourcans and Warin 2001).¹⁰ Even though this literature is still in its infancy, for example, Cardarelli et al. (2002) find that if countries are more similar than dissimilar and if the governments are patient to let the multi-period tax game play out, then implicit tax cooperation between countries eventually arises. However, if countries are very dissimilar (in size, endowments or preferences) implicit fiscal cooperation cannot be reached or sustained.

The presence of vertical tax competition may also dampen—or even reverse-- the effects of horizontal competition on tax rates

When tax setting powers are distributed at different “vertical” levels of government, tax bases may be co-occupied or exclusive. The former types of arrangements generally give rise to vertical tax externalities-- what one level of government decides affects the taxes collected by the other levels (Keen and Kotsogiannis 2004). In contrast to the standard result of “horizontal” tax competition, the literature on vertical tax competition generally predicts that tax rates will be inefficiently high at all levels of government (Keen and Kotsogiannis 2002, 2003 and 2004; Brulhart and Jametti 2006).¹¹ The result is that the common tax bases suffer from over

¹⁰The first paper that partially addressed repeated interaction in the field of tax competition, involving property taxes, was by Coates (1993).

¹¹ This result holds regardless of whether governments are seen as benevolent welfare maximizers or revenue maximizing Leviathans. As we discuss below, this assumption is critical in assessing whether horizontal tax competition is desirable or not.

exploitation, the common pool problem (Dahlby and Wilson 2003). Thus when we take into account both horizontal and vertical tax competition in the presence of co-habitation of tax bases, the combined result is that tax rates may be lower or higher than optimal. Of course, these considerations would only be relevant to the EU if, for example, harmonization were to involve the adoption of an EU-level fiscal committee with some power to determine taxes.

The net balance between the two opposing (horizontal and vertical) forces on the level of tax rates would be determined by the elasticity of the area-wide tax base relative to the consolidated area-wide tax rate and the elasticity of the state(regional) tax base relative to the state (regional) tax rate.¹² Theoretically the combined sign of these two forces is ambiguous (Besley and Rosen 1998; Keen and Kotsogiannis 2002). Empirically, Brulhart and Jametti (2006), using Swiss Canton data, found that vertical externalities are more likely to dominate.

Note also that the overall effect of the vertical externalities will depend on how state (regional) governments respond to tax changes at the federal level and vice versa. Most of the empirical research has focused exclusively on the responses of state (regional) governments to federal (central) government changes and the findings are mixed. Besley and Rosen (1998) for excise taxes, and Esteller-Moré and Solé-Ollé (2001 and 2002) for personal income taxes and general sales taxes have found that in the USA and Canada, state (provincial) governments have responded positively—raising their own taxes—in response to federal increases. However, Goodspeed (2000) for a panel of

¹²Equalization transfer schemes from a benevolent government can reduce the elasticity of the state/regional tax bases (Baker et al. 1999; Koethenbueger 2002; and Bucovetsky and Smart 2006). However, a Leviathan government may extract revenues from lower level governments by manipulating the equalization transfers (Buettner, Hauptmeier, and Schwager 2006).

OECD countries, and Hayashi and Boadway (2001) for Canada found that some taxes at the subnational level respond negatively to central/federal tax rates.

Is there evidence of tax competition? How mobile is capital anyway?

If horizontal tax competition among countries is to be of policy significance, especially in terms of corporate income taxes, there are two relevant questions to ask: First, is there evidence of a “race to the bottom” or milder forms of tax competition? Second, to what extent is capital mobile across countries?

With respect to the first question, in reality, no evidence has been found strongly supporting the presence of a “race to the bottom” (Hallerberg and Basinger 1998; Fuest et al. 2005; and Albi 2011). On the other hand, indeed there appears to have been in the last two decades some degree of corporate tax rate competition within the EU and more broadly within the OECD countries (Crabbe, 2008; Mendoza and Tesar 2005; Devereux, Griffith, and Klemm 2002). However, because tax bases have been significantly broadened by reducing exemptions and deductions at the same time the statutory rates were reduced, the result has been that the effective (marginal and average) tax rates have not in fact declined so much (Devereux et al. 2002); this has been the main reason why corporate tax revenues have not suffered much from the reduction in the statutory rates (Devereux 2008). So there is a question of relevance: whether the declines in statutory corporate tax rates can be actually taken as evidence of harmful tax competition within the EU. In fact, rather than competition, the lowering of the statutory tax rates and the broadening of the tax base may have been fully driven by tax reform efforts pursuing the

reduction of distortions and efficiency losses long associated with the corporate income tax (Zodrow 2003).

With respect to the mobility of capital, Zodrow (2010) notes that there is clear evidence that over the last thirty years the barriers to capital flows across countries (within the EU, within OECD countries and across the world) have been reduced. This has been accompanied by increased volumes of capital flows – both portfolio and physical capital. Most of the empirical evidence suggests that international capital is quite mobile and in particular that it is sensitive to tax factors (Altshuler, Grubert and Newlon 2002; Grubert and Mutti 2000; de Mooij and Ederveen 2008). However, effective tax burdens are not the only decision input for making locational decisions by firms (Benassy-Quere et al. 2007; Liu and Martinez-Vazquez 2011, Goodspeed et al. 2011). In addition, higher effective marginal tax rates may be accepted by investors if they are offset by location specific economic rents (Zodrow 2010).¹³

At the same time, there is evidence suggesting that the sensitivity of FDI flows to taxes may be reduced by the fact that firms can use a variety of tools to reduce tax burdens, including transfer pricing (inflating the cost of units operating in high tax countries and inflating the profits units in low tax countries), relocation costs, or restructuring the financial structure of the units including thin capitalization (making units operating in high tax countries debt financed rather than equity financed) (Hines 1999; Overesch 2009; Altshuler and Grubert 2002, 2004, 2006; Bartelman and Beetsma

¹³ These rents can conspicuously come from agglomeration economies as emphasized by Baldwin and Krugman (2004). These same authors point out that any attempt for tax coordination is harmful to these countries and this is the reason that real world examples of tax coordination are so hard to come by.

2003; and Albi 2011). Reductions in capital mobility may also be caused by other reasons, for example the “home country bias” (French and Poterba 1991).

In summary, even though there is considerable capital mobility, the role of tax policy is somewhat muted by the available avoidance techniques investors can use and other factors. In addition the evidence is weak that the observed tax policy changes are being driven by competition as opposed to other factors.

Other forms of competition for mobile capital reduce the importance of tax competition

One reason for the observed lack of strong evidence of tax competition is that governments have tools other than tax rates to compete for mobile capital. A particular form of competition that has received considerable attention in the literature is competition through the provision of “production public good inputs.” These public inputs in production work as complements with the firms’ own production capital¹⁴ (Fuest, 1995; Keen and Marchand, 1997; Bayindir-Upmann, 1998; Liu and Martinez-Vazquez, 2011; Albi, 2011; Zissimos and Wooders, 2008; Justman et al, 2002; Peretti and Zanaj, 2011). Interestingly, when inter-jurisdictional competition is conducted through the use of public inputs enhancing the productivity of private capital, an excessive inefficient overprovision is commonly expected to emerge (Keen and Marchand 1997; Bayindir-Upmann 1998; Bucovetsky 2005).¹⁵ This clearly contrasts with the predictions of the classical horizontal tax competition model eventually leading to the under-provision of public goods. However, the underlying commonality that emerges is

¹⁴The production public goods need not be limited to physical capital infrastructure. They can be intangible public services like the rule of law, friendly regulations providing a conducive environment for business, protection of property rights, accurate and fast arbitration of disputes, and so on.

¹⁵Numerous subsequent works have extended and refined the arguments. See more recently Dembour (2008) for a survey of literature on competitive location policies.

that the jurisdictions vie with each other to attract available capital by competing at least on one of the available policy instruments.

Very significant or less significant, the presence of harmful tax competition calls for some form of tax harmonization

The general implication of most studies on horizontal tax competition is that its harmful effects call for corrective action involving some form of tax coordination or harmonization and even the creation of a central fiscal authority with the ability to provide corrective measures (Wildasin 1989). Even when jurisdiction specific asymmetries are allowed, this literature predicts that smaller jurisdictions will create tax havens. In such scenarios tax harmonization is welfare improving.

However, there is considerable discussion on the difficulties of doing tax harmonization and on the possible unwanted consequences of it. In particular, whether fiscal coordination mechanisms are sustainable significantly depends on the ability to punish deviant governments (Brangewitz and Brockoff 2012). In addition, there may be informational issues. Cremer and Gahvari (2000) present an interesting twist on the difficulties of enforcing tax harmonization agreements by introducing audit strategies together with tax rates as the two policy variables to be selected by governments: while coordination on the legislated tax rate is relatively easier to enforce, audit efforts are basically unobservable and so more difficult to enforce. This means that harmonization may require a supra national enforcement agency of the type discussed by Wildasin (1989). Nevertheless, this type of agency is still likely to suffer from serious informational problems (Bucovetsky, Marchand, and Pestieau 1998). The more specific

the agreement about fiscal coordination, the more difficult it is likely to be to negotiate and enforce them (Issing, 2001).

Tax harmonization may be generally desirable (Haufler and Wooton 2003), but in specific situations may not produce the desired effects, that is, be welfare improving. For example, Bucovetsky (1991) and Wilson (1991) show that if there is tax rate coordination (same tax rate agreed upon by all regions which is higher than the tax rate of the smaller jurisdiction) then as a whole the entire region benefits. But if the larger jurisdiction is too large then the residents of the smaller jurisdiction are worse off with harmonized tax rates as their consumption of both the private and the public good is reduced. Han et al. (2013) and Han (2013) consider the possibility of countries competing in the provision of infrastructure while coordinating their tax rates. They find that tax cooperation is beneficial and welfare improving if the only policy tool with which the countries compete is the tax rate. However, if countries compete (or cooperate) on tax rate and infrastructure provision, then tax coordination is actually not welfare improving. This negative result for tax coordination holds even for weak cases of tax coordination, such as minimum tax rates.

Tax harmonization under certain conditions can also be desirable in the case of competition via indirect taxes (Delipalla 1997; Kotsogiannis and Lopez-Garcia 2004; Kotsogiannis, Lopez-Garcia and Myles 2005; Keen, Lahiri, and Raimondos-Moller 2002; Karakosta, Kotsogianis and Lopez-Garcia 2009). Overall, the current received wisdom here is that if countries are using destination based taxes then harmonization is always Pareto improving. However, if the countries are using origin based taxes then

harmonization may not be so beneficial and, in fact, may actually be undesirable (Keen, Lahiri, and Raimondos-Moller 2002).

Is there a case for tax policy cooperation on the basis of economic stabilization objectives?

Quite separately from the inefficiency issues caused by harmful tax competition, a weak case has been made in the literature for the desirability of tax harmonization—as in the form of a supra-national arrangement— or more generally fiscal policy coordination in terms of economic stabilization. Krogstrup and Wyplosz (2006) argue that in monetary unions like EU, supra-national institutions for determining fiscal policy can provide better responses for both short and long term stabilization objectives. National governments tend to adopt fiscal policies in isolation to counter country specific shocks but these policies tend to always have spillover effects (externalities) which individual national governments fail to account for. In such conditions fiscal policy coordination would be expected to help in the face of demand and supply shocks and increase the effectiveness of the fiscal policy policies adopted by the national governments. The more symmetric the shocks to all member countries of EU are the more scope there would be for coordinated fiscal policy. On the other hand, Beetsma et al. (2001) show, still for the case of EU, that in case of asymmetric demand shocks fiscal policy coordination seems to be most effective and it is also less likely to elicit an adverse reaction from ECB. In a model that very closely resembles the current institutional set up in EU, Lambertini and Rovelli (2003) find that a fiscal authority or at least a supra-national delegation of fiscal policy makers would be better for macroeconomic stabilization. Some of the arguments

in those papers echo the Delors Report (1989) which had proposed a fiscal transfer mechanism for risk sharing-- insurance against asymmetric shocks-- among EU members.¹⁶

The downside of the arguments above is that fiscal policy coordination is not costless and governments may not be eager to pursue it whenever the chance arises. For example, different governments are likely to have different economic models behind their policy thinking. In addition, fiscal policy instruments are more complex than monetary policy instruments and hence more difficult to observe and monitor, and some, like across-country transfer mechanisms, may face enormous popular resistance (Beetsma, et al. 2001; von Hagen and Wyplosz, 2008).

Beneficial Effects of Tax Competition: The Case against Tax Harmonization

Enter Leviathan

To a large extent the final assessment of tax competition crucially depends on the philosophical view we adopt about the role and objectives of government (Cavlovic and Jackson 2009; Baskaran& Fonseca 2013). The classical horizontal tax competition analysis (Zodrow and Mieszkowski 1986; Wilson 1986) is based on the primary assumption that policy is implemented by benevolent governments. This means that governments use the revenue they collect to provide public goods. Therefore the

¹⁶ In this regard, it has been estimated that in Canada and the U.S. the transfer system at the federal level absorbs around 10 to 30 percent of the state level economic shocks (Melitz and Zumer, 2002; Sala-i-Martin and Sachs 1991).

reduction in taxes through tax competition is welfare reducing and hence inefficient (Rohac 2006). A totally different view of government is given from the public choice perspective (Brennan and Buchanan 1980). Here the aim of government is to maximize revenues in order to be able to maximize public officials' own rents. In this setting, government tax competition serves to control the size of the Leviathan, as introduced in the seminal work by Brennan and Buchanan (1980) and further developed by others (Edwards and Keen 1996; Rauscher 1996 and 1998; Cai and Treisman 2003; Brulhart and Jametti 2007). In this kind of world, horizontal tax competition actually will be welfare enhancing. The fact that governments have to compete, serves to deliver outcomes that are closer to what individuals want. This links back with Tiebout's (1956) hypothesis of sorting individuals across jurisdictions which compete in offering tax-expenditure packages most wanted by those individuals. In the Tiebout hypothesis, governments are not explicitly assumed to be benevolent, but even if they were own rent maximizers, it is the process of competition that would tame their intentions and force them to deliver what is good for taxpayers; the argument is thus similar to that in a perfectly competitive market in the private sector, where competition is a desirable process and a good word.

Conclusion

The discussion in this paper makes it quite clear that tax competition has its potential harmful effects but it can also deliver benefits. Similarly, the alternative tax coordination and tax harmonization also has its benefits but it is not free either from producing potential negative effects. The seminal theoretical works in the area of tax

competition painstakingly underlined the harmful effects of tax competition and hence implicitly or explicitly argued in favor of some form of tax coordination and cooperation. However, further research using more complex models and less restrictive assumptions have pointed out that the pessimism about tax competition as expressed in the earlier literature may actually be a bit exaggerated. Empirically it is true that capital has become highly mobile in a global sense. It is also true that in the EU statutory tax rates have declined over the last couple of decades, but not so much in terms of effective rates, taking into account the broadening of the tax bases. However, it is not yet very clear how much capital is actually lost by countries due to adverse tax rates. Tax systems neither consist of only a few tax rates alone nor do they operate in a vacuum, independent of other government policies, such as infrastructure investments, general public services and governance institutions. As a consequence the investment decisions of firms and international capital flows take into account other factors besides the rates for particular taxes. All this leaves us in a state where it is uncertain how much actual harm tax competition does and therefore how much tax harmonization should be called for. National objectives and eventually sovereignty also make it politically costly to go for uniformity in national tax systems. Some degree of competition may have desirable disciplining effects on government expenditure policies.

However, in reality, the political pressure for further reducing differences in tax structures across countries in the EU reinforced by ECJ verdicts (Mintz, 2004) continues to build the case for creating some forced de facto harmonization. But even if competition for capital flows is not a real threat, there is considerable room for the simplification of the tax systems. A relevant alternative to tax rate harmonization will be

to focus instead on the harmonization of tax bases across jurisdictions with the objective of reducing compliance and enforcement costs. It is important to note that the tax competition literature and much of the political discourse assume that the instrument of policy choice is limited to tax rates (mostly corporate income tax rates) and in very few cases the definition of the tax base, which recent reforms have shown can be a more important aspect of tax policy improvement. As a matter of fact in recent times some proposals for corporate tax policy harmonization in Europe have revolved around creating a unified tax base for the member countries – termed the Common Consolidated Corporate Tax Base or CCCTB (Hellerstein and McLure, 2004), formally proposed by the European Commission in March 2011 and still pending members’ discussions. The advantage of this form of harmonization would be to make the administration of the corporate taxes much simpler for taxpaying firms and also for the tax authorities. With it, member states would still be able to maintain their own tax setting sovereign authority, thus enabling the accommodation of other policy decisions on the tax and expenditure sides of the budget, yet reap the benefits from simplifying their entire tax systems.

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