

THREE WORLDS OF FISCAL FEDERALISM

**SOLVING THE TRILEMMA OF MULTI-LAYERED FISCAL FRAMEWORKS IN
INDUSTRIALIZED COUNTRIES**

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Introduction

The international variety of different types of multi-layered fiscal frameworks is high. Almost all nation-states delegate at least some expenditure and/or tax-raising powers to sub-national entities, yet there are fundamental differences in the scope and nature of such delegation. In some countries, the amount spent by sub-national layers of government outweighs the amount spent at the central level (e.g. in Canada, where roughly two-thirds of government outlays are spent under the authority of the Provinces), whereas it stays at very low levels in other countries (e.g. in Belgium, which is constitutionally a federation, with only 12%). Also, the nature of delegation widely differs across countries with some sub-national units enjoying extensive tax-raising and borrowing autonomy even if they have fairly little political powers (e.g. municipalities in the constitutionally unitary Scandinavian countries), while other politically strong regions in federations have almost no tax autonomy and operate under fairly tight borrowing restrictions (e.g. in Austria).

While recent progress in the description of, and data collection on, this variety of fiscal federalisms has greatly facilitated the classification of different regime types (OECD 1999; Rodden 2004) and has improved research on the impact of different degrees of fiscal decentralization on economic output variables, accounts of the reasons underlying this variety of fiscal federalisms are much less developed. There certainly is an extremely rich literature on the broader relationship between political decentralization and redistributive politics that will be addressed in this article. Yet this literature does not put sufficient emphasis on the differences in the actual set-up of fiscally federal regimes, related to (i) the allocation of taxing and spending authorities between the federal state and its constituent members, (ii) the constitutionally anchored requirements to rebalance economic inequality within the federal

system, and (iii) the power-sharing modalities between the centre and the sub-national units on the distribution of national income.

This paper aims at providing a rather simple institutional explanation of three different ideal-types of multi-layered fiscal regimes. It does so by looking at the trade-offs involved in designing decentralized fiscal institutions and argues that out of three main goals of a decentralized fiscal framework, it is possible to reach only two. The design of decentralized fiscal institutions is thus confronted with a three-way choice, or trilemma, and logically results into three possible answers to solve this trilemma, or three worlds of fiscal federalism.

The three desirable elements of the trilemma are (1) the principle of fiscal equivalence, (2) the principle of power-sharing between the federal level, and the sub-national entities in decisions on fiscal issues and (3) the principle of equality of living conditions across the sub-national entities. I will argue that all of those three features constitute fundamental goals of any multi-layered fiscal framework. Yet they cannot be reached simultaneously, thus putting constraints on the fiscal design, to pursue two of these three goals at the expense of the third.

The paper defines fiscally federal states as states that are either constitutionally set-up as federations, or states that are no federations in the legal sense but delegate a significant share of at least one of the two main components of fiscal policy (tax-raising autonomy or expenditure autonomy) to sub-national entities. The latter group has been discussed under the heading of “fiscal federalism in unitary states”(Molander 2004). Jonathan Rodden has noted that constitutional indicators of federalism and indicators of fiscal decentralization are generally not correlated (Rodden 2004: 487). This is a puzzle, since it raises the question of the linkages between legal structures of federalism and fiscal decentralization. Moreover, taking into account the now rapidly emerging literature that seeks to explain the type of

federalism adopted in a federal bargain on the basis of the expected redistributive implications, the question of the compatibility and trade-offs in different types of federal regimes has become of considerable theoretical importance.

The approach taken in this paper also sheds light on actual policy issues and the trade-offs involved in reforming fiscal federal institutions (e.g. in Germany, Switzerland, Canada where such discussions presently figure prominently on the policy agenda) or in thinking about the emergence of a possible fiscally federal framework at the European level (e.g. Beramendi 2007b; Börzel and Hosli 2003; Hix 2005; McKay 2005; see also the more fundamental discussions on fiscal redistribution in Europe: Scharpf 1999; Siedentop 2001).

The paper is organized into four sections. Section one sets out the political and economic explanation of the trilemma. Section two presents comparative data and outlines the clustering into three worlds of fiscal federalism. Section three discusses specific country cases. Section four concludes.

The trilemma of fiscal federalism

Scholarship in political science on the origins of federal regimes and the considerations by actors involved in striking a deal on the type of federal system has been blooming for decades (see overviews by Beramendi 2007a; also Rodden 2007). Interregional redistributive implications of the federal bargain have received increasing attention since the literature has shifted from Riker's seminal account of the federal bargain under the shadow of military intervention (also Lemco 1991; Riker 1964) to the impact of different federal arrangements on allocative efficiency and market preservation (Buchanan 1995; Oates 1999; Oates 2005;

Weingast 1995), and finally to the relationship between fiscal decentralization and inequality. That latter part of the literature is obviously of most relevance to the approach adopted here.

Within that literature, two strands of existing research can be isolated. First, several contributions have detected a positive correlation between fiscal decentralization and inequality, and/or have pointed to the difficulty of decentralized fiscal frameworks to ensure appropriate compensation mechanisms within the federation (Linz and Stepan 2000; Peterson 1995; Prud'homme 1995). This finding is also confirmed in the field of welfare state research, showing a lower degree of welfare state activity in federal countries (Huber, Ragin, and Stephens 1993). A second wave of research is now putting strong emphasis on the emergence of certain types of decentralized fiscal structures in anticipation of such redistributive implications. This literature inverts the causal claim brought forward in the literature on the impact of federalism on inequality, linking the adoption of a certain regime type to a maximization strategies on the basis of redistribution in the federal system by the actors involved in the federal bargain (see Beramendi 2007a for an overview). This literature has isolated two main causal mechanisms. First, larger and economically and/or ethnically more heterogeneous societies will result in a more decentralized and less redistributive scheme (Beramendi 2007b; also Bolton and Roland 1997). Second, redistributive implications of the federal bargain will trigger demand for compensatory mechanisms by the center (Casella and Weingast 1995; also Mattli 1999).

Taken together, this body of research has detected patterns of interregional or intra-regional inequality being correlated with fiscal decentralization. The main research challenge is now on detecting the right direction of the causal argument through solving the underlying problems of endogeneity.

This article addresses that literature but adopts a slightly different research strategy. It does not aim at solving the problem of causality, but rather suggests thinking about the design of decentralized fiscal frameworks in terms of institutional incompatibilities and on the basis of ideal-typical institutional arrangements, seeking to solve a tri-dimensional trade-off. The organizational patterns of a multi-layered fiscal framework derive from the attempts to balance between three desirable but not fully compatible features; they institutionalize a sacrifice made in one area to obtain benefits in two others. In this sense, my typology of different fiscal federalisms differs from the functionalist accounts focused on redistributive consequences of any specific regime-type as discussed above. It adopts a stronger historical-institutionalist perspective, in which the choice of a specific institutional framework derives from a trade-off situation that pushes actors involved in the initial bargain to sacrifice one of the desired goals. Once the bargain is struck, institutional inertia (often constitutionally anchored in a unanimity requirement on changing the terms of the trade-off) and the excessive amount of switching costs keeps the regime static and produces the three worlds of fiscal federalism discussed below (on switching costs and the implications for historical institutionalism see Lindner and Rittberger 2003).

The three desirable features which constitute the elements of the trilemma are (1) the principle of fiscal equivalence, (2) the principle of power-sharing between the federal level, and the sub-national entities in decisions on fiscal issues, and (3) the principle of equality of living conditions across the subnational entities. I will briefly describe each of those features before discussing their incompatibilities.

The principle of fiscal equivalence

The principle of fiscal equivalence refers to the congruence between the geographical scopes of government actions and their financing (Olson 1969). Theoretically, each function of government should be financed at the level at which it is consumed (put simply: “pay your own bills from your own income”). The main theoretical argument underlying the principle of fiscal equivalence relates to the avoidance of free-riding. If fiscal equivalence is not present, there is an incentive for beneficiaries of government actions not to contribute to their financing. Also: disequilibrium between taxing and spending power may create peculiar incentive structures, with elected representatives having spending powers but no corresponding responsibility for raising the necessary funds through taxes. One could invert the famous dictum and argue that there should be “no representation without taxation”.

Without entering into the rich discussion on the “tax assignment problem” evoked by McLure (1994; 2000) that focuses on the optimal allocation of different taxes to different levels of government, one can derive from economic scholarship on multi-layered fiscal frameworks that the mobility of economic units requires that they should “pay for the benefits that they receive from the public services that local governments provide to them” (Oates 1999, p. 1125). In other words, government revenue from own taxes at the sub-national level should match sub-national government expenditures. Fiscal equivalence can be reached at different levels of sub-national fiscal activity: low shares of expenditure, if matched by low shares of own tax-income, fulfil the criterion as much as high shares of expenditure matched by high shares of tax-income at the same level of government. That said, there needs to be some tax- and expenditure autonomy in the sub-national entities for the principle to be reached (the principle is void of sense in fully centralized fiscal frameworks). In sum, it should be clear that the principle fiscal equivalence constitutes one of the core goals in the design of a multi-

layered fiscal system. Dropping that principle amounts to establishing an asymmetric fiscal framework with some free-riding implications.

Representational equivalence - The principle of power-sharing between sub-national entities and the federation

One of the most basic features of any federation is some kind power-sharing mechanism between the federal and sub-national levels of government. For a multitude of reasons that most often derive from the historical context in which the federation was established, there is the aim to give the smaller entities constituting the federation some co-competence in decisions in with direct relevance to their constituents. While the degree and scope of co-decision varies across federations, a few general theoretical statements can be formulated on the nature of this principle.

If the basis of federalism is the constitutional division of sovereignty between the central governing authority and its constitutive units, then the division of power in the legislative process (mainly through a second chamber) is its direct translation into the actual political function of the federation. The core component of this principle thus relates to the sources of legitimate government action. In analogy to the principle of fiscal equivalence one could formulate a principle of “representational equivalence” requiring that each function of government should be legitimated at the level at which it is consumed. This implies that decisions at the federal level that translate into a differentiating treatment of different sub-national entities, or that have a direct impact on legal prerogatives of sub-national entities, have to be adopted with input from the representatives of the sub-national entities to be considered as legitimate.

It almost goes without saying that the principle of representational equivalence, which is mostly achieved through the existence of territorial chambers (but can also take other forms, as in the case of Canada), is a second core goal in the design of multi-layered fiscal systems. Dropping that principle amounts to questioning the very nature of the federal set-up, with implications for the legitimacy of decision-taking at the central level, in particular if redistributive consequences derive from it.

Equal living conditions across sub-national entities

Achieving a certain degree of equal living conditions across sub-national entities is a principle that directly derives from the goal of a common national sense of belonging in multi-tiered systems of governance. The principle constitutes a normative basis for horizontal or vertical transfers within a federation. Yet the actual effect of equalization or compensation schemes clearly varies, with some schemes succeeding in balancing living conditions across sub-national entities and others providing some payments but without reaching the desired goal. The main difference in approaches to horizontal and/or vertical transfer payments is between discretionary and automatic equalization schemes. An automatic framework is generally based on a legally binding formula that identifies differences in fiscal capacity across regions and foresees a horizontal or vertical compensation payment. A more discretionary approach is based on an overall assessment of the taxing and spending behaviour of the sub-national regions, taking into account various other factors if deemed appropriate.

It is important to note that within the automatic schemes there is a further difference between systems based on inter-regional differences in the tax base and transfers based on inter-regional differences in the actual tax income (irrespective of the base). This point is central for what follows. Transfer calculations deriving from the tax-base usually apply a standard or

average tax-rate to determine the sub-national government's revenue had the tax-base been comparable to other sub-national units. This calculation thus puts very little or no emphasis on the actual tax-rate applied by the sub-national unit. Or, to refer to a widely used conceptual distinction, this type of equalization does not take into account the fiscal needs of the sub-national government (i.e. whether enough money is available to provide certain services), but rather whether enough money could in theory and on the basis of some assumptions be raised. Equalization payments only compensate for the difference in potential fiscal capacity, rather than actual fiscal capacity. The system seeks to equalize the per-capita tax-burden (equal fiscal treatment of equal fiscal subjects) and does not take into account the resulting expenditure needs of a sub-national government (Bucovetsky and Smart 2006; Courchene 1994; Shah 1996a; Shah 1996b; Smart 1998).

An equalization grant is a particular system of federal revenue sharing that is already employed in a number of countries. In its idealized form, an equalization system sets the (per capita) transfer to each government equal to the difference between its tax capacity and the average capacity of all regions, multiplied by some "standard" tax rate, usually equal to the average of all regions' tax rates. Tax capacity is measured in turn by the observed per capita tax base of each jurisdiction. Thus, the program aims to equalize differences in tax revenue, but implements transfers through an indirect formula, based on differences in observed tax bases. (Bucovetsky and Smart, 2006, p. 120)

Transfer calculations deriving from actual sub-national government revenues, on the other hand, provide compensation irrespective of the actual fiscal stance adopted by the sub-national government. Here, the expenditure need of the sub-national government is directly looked at and the actual fiscal capacity is taken into account. In its idealized form, this system sets the transfer to each sub-national government equal to the difference between its per capita income on a certain tax and the average per capita income on that same tax in the federation.

Obviously, this system can only function if there is a certain degree of tax-harmonization across regions, otherwise a race to the bottom would in all likelihood be inevitable.

It is straightforward to see why a transfer system focused on differences in the per capita tax-base should tend to create less inter-regional equality than a system seeking to compensate for differences in actual per capita fiscal revenue. The former system only corrects for the unequal distribution of citizens, whereas the latter also corrects for the unequal distribution of wealth, production or income.

This notwithstanding, it should be highlighted that horizontal or vertical compensatory transfers supplement the other equalizing functions carried out by the central government, such as tax collection for the financing of centrally provided public goods (the equalizing function here derives from lower tax contributions from low-income areas to the financing of a centrally provided public good – such as defence policy), unemployment benefit distribution, and other social security services.

While many federations have attributed constitutional value to the principle of equal living conditions across the sub-national units (e.g. Canada, Germany), others derive it indirectly from constitutional provisions on the equality of citizens. In most unitary systems, some of which have established extensive fiscally federal elements (such as the Scandinavian countries, see below), it indirectly derives from the constitutional requirements of non-discrimination. It is important however, not to stick too narrowly to the constitutional provisions but rather to distinguish between the differences in implementation, as outlined above. When discussing the logic of the trilemma, the differences in type and implementation will thus be given more emphasis than the differences in constitutional goals.

The argumentative core behind that principle of equal living conditions relates to the aim of fostering social and national cohesiveness. It thus constitutes a third fundamental goal of a fiscal federation.

Trade-offs and incompatibilities

This paper argues that only two of those three principles can be combined in any fiscal federation, or that one of the three has to be sacrificed to allow the realization of the two others. This “trilemma” of fiscal federalism constitutes the analytical basis for the emergence of three ideal-types of fiscally federal regimes. The first type will be labelled “competitive fiscal federalism” and refers to those regimes abandoning the principle of equal living conditions. The second type will be labelled “solidaristic fiscal federalism” and refers to those regimes abandoning the principle of fiscal equivalence. The third type will be labelled “unitary fiscal federalism” (this oxymoron seeks to capture the contradictory nature of the regime type) and refers to those regimes abandoning the principle of representational equivalence.

[Figure 1]

Why are those three principles not fully compatible? The main explanation derives from the incentive structures faced by sub-national actors in the fiscally federal regime.

First, a system of competitive fiscal federalism cannot guarantee the principle of equal living conditions. Based on a constitutionally anchored system of shared powers between the federation and its sub-national components in areas pertaining to the matters with direct relevance to the units, this regime-type also achieves fiscal equivalence, i.e. the attribution of a balanced share of tax-autonomy and expenditure-autonomy to the sub-national units. It is

quite obvious that the establishment of an automatic balancing scheme, geared towards the equalization of living conditions and calculated on the basis of per capita fiscal revenue, would seriously hamper the principle of fiscal equivalence: Under a guaranteed scheme of redistribution, sub-national units would face strong incentives to lower their tax-rates thus triggering a race to the bottom. Since the principle of the equality of living conditions implicitly or explicitly contains a guarantee that the basic functions of sub-national governments are going to be maintained through possible supportive intervention of the central government, sub-national units might be inclined to lower their own financial efforts in those areas.

The economic literature sees two opposite effects from tax competition, with the “Tiebout Hypothesis” stressing the welfare gains from competition for mobile firms and households and Oates’ famous argument on the result of tax competition as “less than efficient levels of output of social services” (Oates 1972, p. 143). One of the key summaries of this debate states in its conclusion that “the original insight that tax competition can lead to inefficiently low taxes and public good levels has been shown to hold in more general settings than originally investigated” (Wilson 1999, p. 298).

The general incompatibility between a solidaristic approach to federalism and a competitive fiscal framework has received some scholarly attention in recent years (Linz and Stepan 2000), yet the implications of a power-sharing mechanism between the federation and the sub-national units for this incompatibility are less well understood. It is important to recognize that the central government has very little room for manoeuvre to counter free-riding behaviour by sub-national units (this feature distinguishes the “competitive” regime from the “unitary” regime, see below). Since the attribution of central money to the regional entities usually requires some kind of input from the territorial chamber (at least through an

implicit bargain, I will discuss this point in more detail below), the central government cannot engage in a financial distribution scheme that distinguishes between a lowering of living-standards through voluntary free-riding and involuntary “bad luck”. There is a quite rational and generalized tendency for sub-national units to seek and obtain financial attributions from central governments that are in line with their relative shares of voting power in the territorial chamber (Atlas 1995; Lee 2000a; Lee 2000b; Mattila 2006; Rodden 2002b). A solidarity clause through horizontal or vertical money transfers would therefore have to treat all sub-national units equally and guarantee the compensation for a decline in living standards, no matter the underlying reasons of this decline. It is interesting to note that many “competitive” regimes are based on redistribution schemes that seek to reward good performance rather than to compensate for bad performance. The considerable importance of “matching funds” in the grant-based system of the United States is an illustration of this.

Second, a system of “unitary” fiscal federalism cannot implement the principle of representational equivalence, i.e. a system of power-sharing at the federal level between the central government and the sub-national units. Based on a strong degree of attribution of fiscal autonomy to the regions or municipalities, this regime implements the principle of fiscal equivalence through the attribution of considerable tax-raising-autonomy and expenditure-autonomy to the sub-national units. At the same time, this regime type can successfully guarantee the equality of living conditions without running the risk of generating a race to the bottom. Why is this? The reason lies in the extensive discretionary powers of the central level of government. The central layer of government can distinguish between free-riding behaviour and a non-intentional decline in living conditions in the sub-national entities and can adjust its equalizing money transfers accordingly. Sub-national units in this regime operate under the shadow of hierarchy. The central government has the capacity to withdraw taxing or spending powers from the sub-national units without requiring their formal consent.

The central government can also introduce specific aid packages or investments to help certain sub-national entities under the conditions of actual need and against the background of responsible fiscal behaviour. It is quite self-explanatory that this degree of discretion is contingent upon the central government's autonomy from sub-national co-decision in the key areas of the fiscal framework. For this reason, there is an incompatibility between this "unitary" approach to fiscal federalism and the principle of representational equivalence.

Third, a system of "solidaristic" fiscal federalism cannot realize the principle of fiscal equivalence. Based on the combination of the equality of living conditions and an extensive degree of power-sharing between the federation and its constitutive units, this regime type attributes a high degree of spending power to the sub-national entities but considerably limits tax-raising autonomy. The reason for giving up fiscal equivalence lies in the necessity to prevent tax-free-riding under the equalization scheme guaranteeing equal living conditions. As in the "competitive" regime, sub-national units are considerably involved in decision-taking procedures at the federal level, thus providing them with access to the common pool of government finances. Since this co-decision translates into a quasi automatic equal treatment of the sub-national units in federal spending decisions it would create the incentive for a race to the bottom outlined above. The only way to prevent this dilemma is to provide sub-national units with a large degree of spending authority, without however matching that spending autonomy with the same degree of tax-raising autonomy. In fact, the ideal type of this regime would probably not attribute any autonomous taxation power to sub-national units but associate them closely to federal decision-taking on federal taxes that would then partly be redistributed to the sub-national units through an automated revenue sharing scheme. So sub-national units do not raise their revenues through own taxes and can thus not seek to free-ride on their peers. As will be discussed in further detail below, the prevention of free-riding is only fully workable if sub-national units are not even allowed to run deficits. In the two main

cases of “solidaristic” fiscal federalism, which are Germany and Austria, this clause is violated and those two regimes actually provide incentive for some sub-national units to free-ride on the clause of equal living standards. Data confirms that they actually do free-ride (Rodden 2006). Yet the ideal-type of the “solidaristic” regime would probably have to include a balanced budget requirement to allow the system to function properly.

Some evidence: three worlds of fiscal federalism

If this trilemma of fiscal federalism holds true, then it should give rise to three ideal types of fiscally federal regimes, which should also be at least to some extent reflected in three clusters of multi-layered fiscal regimes in the international comparison. This section seeks to demonstrate that such a clustering actually does emerge on the basis of the trilemma.

I will first describe each of the three worlds of fiscal federalism, then look at some indicators, before discussing some of the concrete cases at the individual country-level.

Competitive fiscal federalism

The first ideal-type is the one combining representational equivalence and fiscal equivalence. It encompasses federally organized countries that give up the goal of equal living conditions. Discussing the institutional provisions and dynamics underlying this regime-type further, we can identify a few core features characterizing the organization of fiscal federalism in such “competitive” regimes.

The main characteristic of this regime type is sub-national political and financial autonomy. The share of government expenditure spent at the sub-national level is generally high, but it is matched by an almost similarly elevated degree of tax-autonomy that allows the sub-national

units to raise most of the money required for those expenditures themselves. The principle of fiscal equivalence is thus largely met, ensuring that the allocation of responsibilities between the centre and the sub-units is matched by a similarly structured allocation of resources. In principle, the centre does not provide the resources to the sub-national units to finance the policies for which they have full responsibility, but the money for the implementation of those tasks is fully raised in the sub-units themselves. Extending that logic of a parallel alignment of political and financial autonomy, one might argue that in such system of competitive fiscal federalism the sub-national units need to enjoy a significant degree of borrowing autonomy from the centre. They may still decide to “tie their own hands” and put legal or political restraints on their own borrowing possibilities, yet the origin of decisions on borrowing remains with the constituents of the sub-national unit.

Pushed to its extremes, this competitive type of fiscal federalism could amount to a coexistence of “small sovereign states” within a federation. The area, in which the degree of de-facto sovereignty of the sub-national units can best be observed is the perception by financial market participants on whether the centre would bail out the sub-national unit in case of a regional default. Although in the real world examples of this type of fiscal federalism there still is a fair degree of implicit protection against default in the sub-national units by their federal government, there is nonetheless a relatively high degree of sanctioning mechanisms by sovereign bond markets, charging a premium for sub-national default risk.

Further extending the logic of a parallel alignment of political and financial autonomy between the centre and the sub-units, the nature of the tax-raising competencies with the sub-units would have to embody both the autonomy on setting the tax-rate but also the ability to alter or chose the tax-base. The principal theoretical argument here is that the federal government does not interfere with the sub-units’ decisions where and how to raise money to

be able to implement a certain policy. The central government merely has to ensure that a high degree of mobility in the factors of production allows firms and citizens to react to changing incentive structures across the federation.

For obvious reasons, this type of fiscal federalism is particularly prone to the emergence of regional inequalities and, following the logic of the trilemma, there is no straightforward way for the central government to alleviate such disparities. To preserve the incentives within the system, vertical and horizontal transfers cannot follow an automated scheme. Yet the competitive fiscal federal approach does not fully exclude compensatory transfers either. Such transfers can be put into place if they derive from a bargained agreement giving both the federal authorities as well as the sub-national units themselves a possibility to compensate specific sub-units for “bad luck”, while sanctioning others for “bad fiscal behaviour”. It is important to note that the federation has almost no legal or political possibility to constrain political choices at the sub-national level with the aim of consolidating the finances in a specific region (this is a key difference with regard to the “unitary” type discussed below).

If the central government systematically supported economically challenged sub-national entities, it would create a context of moral hazard with regard to the fiscal autonomy of the sub-national units. Transfers thus have to be discretionary and in practice tend to follow a grant-system. It is interesting to note that an almost inevitable side-effect of the grant-system is its likelihood to be skewed in line with the degree of over- or under-representation of the sub-national units within the federal bargain over those grants (Atlas 1995; Lee 2000a; Lee 2000b).

In reality, even in those countries that come close to this ideal-type there are some automatic redistribution mechanisms, deriving mainly from the social security functions administered at

the federal level (such as unemployment benefits or decreases/increases in tax income as a consequence of boom or bust cycles in certain sub-national units). However, today's European Union with a budget of 1% of EU-GDP and the United States prior to the New Deal are examples of pure types of competitive fiscal federalism lacking even that compensatory component through the social security system.

The main countries that can be described as competitive fiscal federations are the U.S., Canada, and to a large extent Australia. Switzerland meets many of the features discussed here, yet clearly is a special case in so far as it has established an automatic compensation mechanism involving both horizontal and vertical elements (see below). Outside the world of highly industrialized countries, India and Mexico are examples of this type. It is interesting to note that this type of fiscal federalism is mainly present in systems of so-called "coming together" federalism (Stepan 1999).

Unitarian Fiscal Federalism

The second world of fiscal federalism describes an ideal-type of states that are unitary in their constitutional character but federal in their fiscal system. Real world examples of this type (mainly the four Scandinavian countries) have often been described in the literature as exceptions, yet to my knowledge rarely been explained conceptually. The ideal-type is based on a delegation of a large degree of fiscal autonomy to sub-national units or municipalities, granting them a similar degree of both spending- and taxing-rights, thus meeting the principle of fiscal equivalence. On the other hand, the sub-national units are constitutionally and practically kept at bay from the main redistributive bargains at the central level.

The main characteristic of this system is the delegation of political and financial authority to sub-national units. Yet in contrast to the competitive system, this delegation does not imply

full autonomy. Sub-national units operate under a “shadow of hierarchy” with the central government detaining the right to make transfers of authority or resources conditional upon the implementation of certain policies at the sub-national level. This shadow of hierarchy is paid at the price of a lack of representation of the sub-national units at the central level: to use the language of legitimacy theory: actions at the lower tiers of governance are based on output legitimacy (i.e. they are legitimated by the results they achieve), whereas actions at the higher tiers are more closely linked to input legitimacy (Scharpf 1999, based on Easton 1965 and 1979).

The absence of direct sub-national influence on central-government decisions allows this ideal-type to establish equal living conditions across the system, while preserving the principle of fiscal equivalence. While there are very strong direct or implicit constitutional provisions requiring the central government to alleviate disparities in living standards across the country, the sub-national units do not face a strong incentive to abandon responsible fiscal policies since both their fiscal and political autonomy can be heavily restrained by the central government in circumstances of isolated misbehaviour in a certain region or municipality. The units are therefore granted high taxing and spending powers, allowing them to execute the functions delegated upon them by the central government in their own ways and at the level of costs that the constituents in the sub-national unit deem appropriate. This system thus allows reaping full benefit from the key advantages of decentralization (taking into account local preferences, benefiting from the information advantages at the lower tiers of government, increasing accountability) and even of some of the advantages of competition (benchmarking, efficient use of resources), while avoiding the possibility of a race to the bottom and increasing inequalities.

The discretionary part in the devolution of financial autonomy also extends to the borrowing autonomy of the sub-national entities. There seems to be no clear reason why borrowing should be systematically restrained or systematically allowed. The underlying logic of this ideal type would nonetheless still suggest that borrowing autonomy could be high, allowing sub-national units to engage in long-term investment projects and autonomously deciding on the financing of those projects. However, the implicit degree of the central government's responsibility for the financial soundness in the regions should be higher than in the competitive regime type and we should thus see a lower risk premium for sub-national borrowing. On the other hand, the central government could also make it very clear to both financial market participants and sub-national authorities that defaults on certain projects or under certain circumstances would not be prevented.

The main countries that fall under this ideal-type of fiscal federalism are the Scandinavian countries. They are all organized as unitary states yet they have had a very high degree of fiscal autonomy both in the spending and tax-raising dimensions. The trilemma approach allows treating those examples of fiscal federalism under a unitary constitutional structure as logically sound responses to a trade-off situation, rather than an exception or paradox (Molander 2004).

Solidaristic fiscal federalism

The third world of fiscal-federalism refers to an ideal-type that combines the principle of equal living conditions with a strong degree of representation and influence of the sub-national units in federal policy-making. Organized as a federation with a strong territorial chamber, this regime typically requires the central government to ensure equal living conditions across the sub-national entities – either explicitly through direct references in primary legislation (as in Germany) or indirectly on the basis of a historically grown practice

that has gained quasi-constitutional status (as in Austria). Yet the transfers are organized on an automatic basis thus restricting the discretionary power of the central governments or the sub-national units themselves to adjust redistribution to specific circumstances.

The main political choice underlying this system is the refusal of a strong horizontal competition across the units. The price is the abandonment of fiscal equivalence. Sub-national entities enjoy a high degree of spending autonomy but do not set their own tax rates. They receive their financing on the basis of a pre-agreed and automatic allocation mechanism. This mechanism to some extent rewards “good” policies in sub-national units with a higher volume, but obviously not with a higher relative share in the overall allocation or – even more importantly – with the possibility to lower taxes accordingly.

All taxes are determined at the central level, yet with a direct contribution from (or veto right of) the sub-national units through the territorial chamber. The pro-rata allocation system of the federal taxation receipts is hard to change, typically requiring a larger than simple majority to alter the allocation.

This system thus strikes an interesting balance between representation, legitimacy, and efficiency. In contrast to the unitary system, it allows for an effective system of direct representation at the sub-national level, allowing policy-actions at that level to be fully autonomous and based on input legitimacy. Citizens can autonomously decide over alternative policy options, without fearing the involvement of the central government. The degree of equality across the system is jointly determined by the federation and its constitutive units at the outset of the federal bargain. There are good reasons to believe that that degree would tend to be very high, the Rawlsian “veil of ignorance” describing the

probability of falling under the need to benefit from the system might provide a conceptual explanation.

On the basis of its functional logic, the system would require limiting the borrowing autonomy of the sub-national units, so that the free-riding behaviour which the system seeks to prevent through the preservation of tax-setting at the central level cannot be brought in “through the back door” on the basis of deficit and debt policies.

As will be discussed below, the reasons for this may reside in difficulties of implementation: many of the American States have introduced balanced budget requirements (deriving from State-level legislation, not from the federal level), yet many of those States run extensive deficits. Central governments in Germany and Austria have very little vertical powers over the finances in the regions. Only under tightly defined legal circumstances is there a possibility to put some conditionality on the horizontal and/or vertical transfers to individual regions.

Some comparative indicators

This article does not aim at providing an encompassing data analysis on the three worlds of fiscal federalism. The three ideal-types should be understood as such. While the following comparative indicators do provide support for the approach, national specificities should not be overlooked and will be addressed at the end of this section. Table 1 presents some overview indicators for each of the three features of the trilemma.

The table only looks at countries that are either constitutionally organized as federations or have decentralized a significant share of public financial authority (taxing and/or spending autonomy) to the sub-national level. Also, due to data availability and for the sake of

assembling comparable data, only OECD countries are included. The purpose of the table is not to provide a narrowly defined quantitative confirmation of the trilemma, but rather an illustration that the three-worlds-approach goes into the right direction. The low number of countries for which reliable data is available is limited and given that institutions show very little change over time, a pooled time-series cross-section approach would not have made much sense.

[Table 1]

Column 1 reports Lijphart's classification on the degree of federalism (ranging from 0 to 5), column 2 reports the federalism indicator from Huber Ragin Stephens (ranging from 0 to 2). Both indicators are taken from Armingeon's Comparative Political Data Set (Armingeon et al. 2006). It is important to stress that those indicators were chosen because they are purely based on constitutional, legal or political considerations, without taking into account fiscal decentralization. As Rodden has shown, the correlation between institutional indicators of federalism and indicators of fiscal decentralization is very low, or even inexistent (Rodden 2004, p. 491). In fact, the trilemma provides an explanation for that missing link, pointing out why some fiscally decentralized countries chose to adopt a unitary constitutional framework.

Columns 3-5 report indicators for equal living conditions. Finding an appropriate measure is difficult. The key question is whether to measure the process or the outcome. Focusing at the procedure and classifying countries by the presence or absence of compensatory fiscal transfers would have the advantage of capturing the incentive side (sub-national entities know that they are elective for compensatory transfers if their standard of living decreases), yet such an approach would not capture compensatory transfers that are put into place without an explicit legal basis (such as in the unitary Scandinavian countries and to some extent also in

Austria). Looking at the outcome of the equalization scheme has the clear advantage of solving this problem, yet it faces the difficulty of having to assume that the level of inter-regional inequalities is mono-causally linked to compensatory transfers: Any other reason underlying possible regional disparities (e.g. geographical factors, difference in size of sub-national entities, in particular “city-states”, social security system) would be treated as conceptually absent. Controlling for those other factors would raise various other statistical problems and be an endeavour in itself.

I therefore look at coefficients of variation for regional unemployment data in column 3 (OECD 2000) and present an indicator of regional disparities by the OECD, the “Adjusted Territorial Gini Coefficient”, which is reported in column 4. This indicator is an inter-regional Gini-coefficient, yet is adjusted to control for regional disparities in terms of population and size (OECD 2003). Finally, I also report individual-level Gini coefficients in column 5. It is interesting to note that the correlation between the individual Gini and the inter-regional Gini within this sample is rather high (0.7), although there is no clear-cut conceptual reason why this should be the case.

Measuring the degree of fiscal equivalence has become much easier since the path-breaking data work by the OECD (1999) and Jonathan Rodden (various years). Those data sources provide standardized and thus comparable indicators not only for the level of sub-national spending but also for the level of own sub-national tax-income. Column 6 presents an indicator of fiscal equivalence. It is calculated as the difference between the share of sub-national expenditure of total government expenditure and the share of own sub-national revenue of total government revenue. Note that this indicator considers own sub-national revenue as the amount raised through setting own taxes, even if the base cannot be affected, as in the Scandinavian countries. Column 7 finally reports the degree of borrowing autonomy of the sub-national units as coded by Rodden (Rodden 2002a).

While the indicators broadly confirm the trilemma-approach, a few additional remarks pertaining to the individual country-cases are warranted.

In the “competitive” group, there is a high degree of power sharing between the federation and the sub-national units. Adjusted Territorial Gini Coefficients (henceforth: ATGC) in the US and Canada are the highest and third-highest in the whole sample (with Germany, based on a calculation including the *Neue Länder*, falling in between – see below). The Australian case is somewhat puzzling. Australia’s unweighted territorial Gini is the second highest of the whole sample (here represented with the disparity of unemployment indicator), the weighing puts Australia at the third-lowest level of the whole sample. The OECD does not provide the ATGC for Switzerland, but the disparity of unemployment indicator is the highest of the whole sample. Quite strikingly, the four competitive fiscal federal countries show consistently higher individual level Gini coefficients than the rest of the sample, with the exception of Spain. Relative fiscal equivalence is significantly lower than in the solidaristic countries and at broadly similar levels as in the unitary countries. The borrowing autonomy is high for all four countries.

In the “solidaristic” group, the degree of power sharing is high. All three countries are federations. ATGCs are relatively high compared to the unitary countries but the coefficients of variation of inter-regional unemployment rates are significantly lower on average than in the competitive group. Austria comes closest to the ideal type. It should be noted that the German case cannot be analyzed very easily, since inter-regional disparities massively increased with German unification (the GDP per capita in the *Neue Länder* was 70% lower than in the Western part in 1990). The disparity of unemployment indicator only refers to former West-Germany. Individual level Gini coefficients are lower than in the competitive

countries, with the notable exception of Spain. It is striking that the degree of fiscal equivalence in this group is very low. Borrowing autonomy is low in Austria only. Both the German and the Spanish systems are facing asymmetric incentive structures, with a strong disproportion between own sub-national income and sub-national expenditure on the one hand, and a relatively high degree of borrowing autonomy on the other. It seems that the current discussions on a reform of fiscal federalism in Germany would have to put primary emphasis on this point (see also Rodden 2006).

The “unitary” fiscal federal countries are not based on any system of explicit power-sharing between the center and the units. The four countries have by far the lowest degrees of inter-regional inequality on all three indicators. There is some variation on fiscal equivalence.

While all three countries have lower indicators than the three solidaristic countries, the levels are particularly low in Sweden and Finland, but much higher in Denmark and Norway.

Interestingly, the two latter countries also restrain the borrowing autonomy of the municipalities to a larger extent, whereas Sweden and Finland come closer to the ideal type by granting almost unlimited borrowing autonomy to the municipalities.

Conclusion

This article has developed an analytically based classification of different types of fiscally federal regimes. It has demonstrated that every fiscal federal regime has to abandon one of the three key objectives, which are (i) power-sharing between the center and the sub-national units, (ii) fiscal equivalence, and (iii) equal living conditions across the sub-national units.

The argument is primarily analytical and tries to describe ideal types. The interpretation of the country cases is therefore explicitly exploratory, not aiming at providing hard evidence to prove the point. Given the low number of countries, the difficulty to find solid data that can

actually be compared across countries, and finally the almost inexistent degree of institutional variance over time, a quantitative confirmation of the analytical argument looks very difficult. I submit, however, that the anecdotal evidence from the countries surveyed in this article as well as the indicators presented provide a fairly solid reason not to reject the analytical argument on the trilemma and the resulting three worlds of fiscal federalism.

The article calls for further work in at least two key areas.

First, this article has not made the attempt to include a discussion or theoretical assessment of the reasons underlying the initial regime choice. As discussed in the introduction, the approach taken here simply assumes that a certain type of fiscal federalism was chosen under specific historical circumstances and then stayed unchanged given the institutional lock-in it produced. It would be interesting to study the actual bargains underlying the adoption and evolution of fiscally federal regimes, taking into account the trade-off presented here. That said, it is striking that some of the comparative sociological and constitutional approaches that have presented typologies of federal regimes, mainly based on differences in formation, differences in modalities of representation, and differences in institutionally anchored power allocation show some similarities to the classification presented here. Stepan's suggestive typology between different federalisms labelled "coming-together vs. "holding-together", "demos-constraining vs. demos enabling", and "constitutionally symmetrical vs. asymmetrical" shows significant overlap with the three worlds presented here (Stepan 1999).

Secondly, the focus of the paper is on OECD countries only. Although there are good reasons to believe that the conceptual part of the paper discussing the incompatibilities within the trilemma and the resulting three ideal-types of fiscal federalisms could also be applied to the developing world, difficulties in collecting appropriate data and the consideration that the

degree of inter-regional redistribution requires a very high level of industrialization explain that choice. It could prove worthwhile to extend the approach taken here to the developing world, thus providing a broader and better understanding of the trade-off and the three worlds of fiscal federalism.

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Figure 1: The trilemma of fiscal federalism

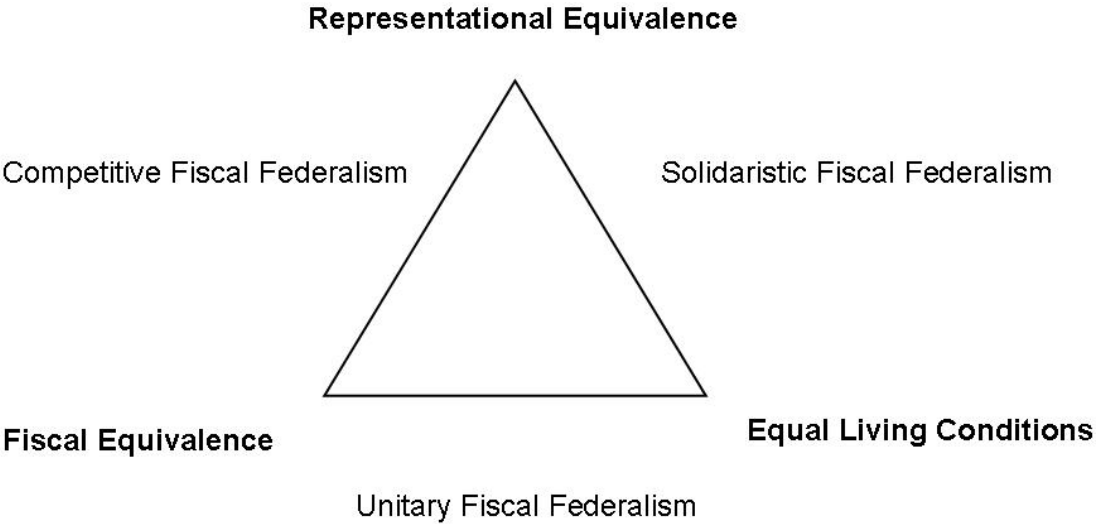


Table 1: Three worlds of Fiscal Federalism (sources, see main text)

	Representational Equivalence		Equal Living Conditions			Fiscal Equivalence	
	Lijphart	Huber/Ragin/Stephens	Disparity of Unemployment	Adjusted interregional Gini (OECD)	Individual Level Gini	Relative Fiscal Equivalence	Borrowing Autonomy (Rodden)
"Competitive"							
USA	5	2	28.7	0.178	0.355	-0.26	3
Canada	5	2	29.8	0.136	0.291	-0.28	2.7
Australia	5	1	33.8	0.054	0.308	-0.34	2.5
Switzerland	5	2	43.6	-	0.307	-0.18	3
Average	5.00	2	34.0	0.123	0.315	-0.27	2.8
"Solidaristic"							
Germany	5	2	25.9 ^a	0.145	0.272	-0.71	2.5
Austria	4.5	1	26.1	0.129	0.277	-0.53	1.6
Spain	3	-	26.5	0.124	0.353	-0.53	2.5
Average	4.17	2	26.2	0.133	0.301	-0.59	2.2
"Unitary"							
Finland	2	0	18.7	0.07	0.217	-0.24	3
Denmark	2	0	-	0.057	0.236	-0.41	1.5
Norway	2	0	16.9	0.046	0.238	-0.37	1.6
Sweden	2	0	18.2	0.034	0.221	-0.14	3
Average	2.00	0	17.9	0.052	0.228	-0.29	2.3

^a Only former West German *Länder*, excluding also Berlin