OECD Fiscal Federalism Studies

Institutions of Intergovernmental Fiscal Relations

CHALLENGES AHEAD

Edited by Junghun Kim and Hansjörg Blöchliger

OECD

KOREA INSTITUTE OF PUBLIC FINANCE

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Foreword

The recent economic and financial crisis put intergovernmental fiscal relations into the limelight. Shrinking revenues and rising spending responsibilities forced many countries to reform their fiscal frameworks thoroughly in order to improve the sustainability of fiscal policy at each level of government. Evidence suggests that stable, sustainable, efficient and equitable public finances depend on effective functioning of intergovernmental fiscal and budgetary frameworks. Whereas reforms are still ongoing, seven years after the crisis it is time to take stock. How successful were intergovernmental fiscal institutions in weathering the fiscal crisis; which reforms did they undertake; how did reforms shape outcomes; and which reforms still lie ahead?

This book brings together a collection of papers that deal with the institutional set-up of intergovernmental fiscal relations, both in a cross-country perspective and for individual countries. Several chapters provide evidence on how reforms to fiscal rules and budgeting helped improve fiscal positions at both the central and sub-central level. Other chapters assess sub-central soft budget constraints and reforms to overcome them; co-ordination successes and failures across government levels before and after the crisis; or the role of intergovernmental bodies during a fiscal federalism reform. Although intergovernmental fiscal frameworks are very country-specific, many policy issues are recurrent and similar across countries, suggesting that common ground can be found when assessing a country's institutional architecture and options for reform.

The book and its chapters are based on a conference held in Paris in autumn 2014. I am grateful to the authors who revised their conference presentations to make this publication possible. I am also thankful to the delegates of the OECD Fiscal Network for participating in the conference, and engaging in very lively discussions. Special thanks go to Celia Rutkoski for assistance in editing the conference papers. Financial support from Korea to cover the cost of this publication is gratefully acknowledged.

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Executive summary

Intergovernmental fiscal institutions – seven years after the start of the crisis

The recent economic and financial crisis has put a heavy strain on the public finances in many countries. It has also put intergovernmental relations and sub-central governments' (SCGs) finances under intense pressure. Rapidly shrinking revenues and rising spending responsibilities – partly as a consequence of stimulus programmes – prompted SCG deficits to rise to levels rarely seen before, although central government transfers often protected SCGs from falling into the fiscal abyss. When the stimulus packages ended, SCGs had to bear their share in general governments' consolidation effort, focusing on spending cuts since tax revenues recovered only slowly and intergovernmental transfers were often frozen. Although consolidation is still ongoing, SCG deficits have returned to pre-crisis levels and debt is stabilising.

During the crisis, many countries reformed their institutions to improve the sustainability of fiscal policy and strengthen intergovernmental fiscal relations. Reforms are still ongoing, and the "new normal" of fiscal relations is far from obvious. Yet seven years after the crisis hit, the time has come to see how successful intergovernmental fiscal institutions were in weathering the fiscal crisis; which reforms they underwent; how they affect policy and policy outcomes; and which reforms still lie ahead.

Intergovernmental fiscal institutions are the topic of this book. Fiscal institutions encompass all country-specific rules, regulations and organisations that provide a stable framework for fiscal policy and public finance decision-making over time. Well-designed institutions govern public finance and discourage certain policy patterns, such as running excessive deficits, piling up debt or spending and taxing too much, inefficiently or in an unfair manner. By providing incentives and limiting arbitrariness in policy making, intergovernmental fiscal institutions shape fiscal policy and fiscal outcomes at all government levels.

Institutions, their impact on fiscal outcomes and reform options

This book provides insight into how intergovernmental fiscal institutions function and shape fiscal policy and outcomes, and lays out which reforms they are or should be undergoing. Several chapters provide evidence on the link between institutions, policy and outcomes. Examples include an empirical assessment of how fiscal constitutions – the fundamental set-up of fiscal policy – affect long-term growth or the primary balance in federal and quasi-federal countries. Another chapter assesses to what extent OECD countries co-ordinate fiscal policy across government levels; to what extent fiscal institutions offer the capacity and incentives for such co-ordination, and whether co-ordination improved during and after the crisis. Several country chapters provide evidence on sub-central fiscal rules and how they affect local governments subject to those rules. Although intergovernmental institutions are country-specific, many policy issues are recurrent and similar across countries, suggesting that common ground can be found when assessing a country's institutional architecture and options for reform.

Institutional reform is a core topic of the book. The crisis laid open a number of institutional weaknesses and enhanced the pressure for thorough reform. Fiscal rules are a case in point. In most countries, sub-central fiscal rules had been in place for decades, functioning sufficiently well in a calm fiscal environment, although issues such as reaching the right balance between the rigidity and flexibility of the rules pre-date the crisis. Once the crisis struck deficiencies became apparent: the rules were neither flexible enough to allow for stimulus programmes or the full operation of the automatic stabilisers, nor were they stringent enough to enforce the consolidation programmes necessary to bring public finances back onto a sustainable track. Some rules were never enforced. The crisis and its aftermath have given rise to "second-generation" fiscal rules that are more stringent and easier to enforce, while allowing for more cyclical flexibility and escape clauses for exceptional circumstances. Moreover, they now more often cover sub-central public enterprises and other off-budget operations – a frequent source of uncertainty about the true sustainability of sub-central public finances. The reform vigour is underlined by the fact that fiscal rules are now anchored in the constitutions of several countries.

Fiscal rules were not the only object of reform over the past few years. Countries put in place or strengthened intergovernmental co-ordination mechanisms and bodies. Indeed, evidence suggests that the success of fiscal consolidation greatly depends on how intergovernmental fiscal and budgetary frameworks function. A few countries assigned SCGs more taxing power and reduced the vertical fiscal imbalance – the difference between SCGs' own spending and own revenue – by ceding a share of national income taxes or by strengthening the property tax, although tax decentralisation is one of the thorniest topics in fiscal federalism. Spending responsibilities were shifted to SCGs, especially for local welfare services, prompting proposals for a higher sub-central tax share. Territorial reforms – often in response to unequal service provision across SCGs – became more widespread. Budgeting principles at the central government level were extended to and harmonised with the sub-central level, in an attempt to foster transparency and to better target sub-central fiscal needs. Finally, the system of shared responsibility for designing and managing intergovernmental grants, often scattered across ministries, gave way to top-down budgeting, thereby increasing the power of the finance ministry *vis-à-vis* the line ministries in dealing with SCGs.

Intergovernmental relations are often part of the institutional bedrock of a country and as such are difficult to reform. Some reforms took years to adopt and implement, and they may build on several failed attempts. The reform of intergovernmental fiscal institutions takes time and political clout, and may not succeed at the first shot. Timing, scope and sequencing of reforms are crucial when it comes to adopt and implement sustainable institutional reforms.

A broader and deeper look into intergovernmental fiscal institutions

The book covers both cross-country studies and insights into reforms by individual countries, with chapters often written by officials closely involved in both institutional reform and the day-to-day operation of fiscal relations. Many chapters show how closely institutional reform and changes in policy outcomes interact and how institutions evolve, sometimes in small steps. The book covers a wide range of topics and countries and is a sequel to *Institutional and Financial Relations across Levels of Government* (OECD and KIPF, 2012), broadening and deepening the issues covered there.

Chapter 1

The role of intergovernmental fiscal institutions: The case of tax sharing

Junghun Kim

In the literature on fiscal decentralisation – both the first generation and second generation theories – a critical assumption made is that local governments have taxing power over local taxes. Another assumption is that a clear distinction exists between local taxes and intergovernmental grants. Tax sharing, which is widely adopted in the world except in a few countries such as the United States and Canada, makes such assumptions invalid. Tax sharing links the budgets of the central and local governments in a complicated way and creates conflicts of interest among different levels of government. It also may lead to an inefficient tax mix and higher national debt. Compared with the cases where the assignment of tax and expenditure responsibilities are clear cut, understanding the interrelationship between tax sharing, fiscal institutions, and the political system is critical for the success of fiscal decentralisation.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

1. Introduction

In the traditional literature on fiscal federalism (Tiebout, 1956; Oates, 1972), the roles of central and local governments are clear-cut: The central government collects its own taxes and provides national public goods; local governments collect their own taxes and are responsible for local public services whose benefits accrue within geographical boundaries.[1] In the case where local public services create spillover benefits, the central government may provide matching grants to local governments to internalise those spillover benefits. As Oates (2008, p. 317) puts it, intergovernmental fiscal institutions in the traditional fiscal federalism literature are "neat and tidy."

In the so-called Second Generation Theory (SGT) of the fiscal federalism literature, local governments are not benevolent and the provision of public goods is determined by the political process. According to Oates (2005, 2008), in the first strand of the SGT literature, local governments try to maximise their claim to the "fiscal commons" and accumulate debt with the expectation of bailouts. From the perspective of this theory, the problems of soft budget constraints and transfer dependency created by the strategic behavior of local governments should be controlled by fiscal rules on local budget deficits and debt. Intergovernmental grants, which play a positive role in the First Generation Theory (FGT) of the fiscal federalism literature, only worsen the problems of bailouts and transfer dependency. To avoid this, the size of intergovernmental grants should be reduced and preferably replaced by local taxes. Thus this first strand of the SGT literature, as Oates (2008, p. 318) puts it, focuses on a "dark side" to fiscal decentralisation.

According to Oates (2005, 2008), in the second strand of the SGT literature, the focus is on the trade-off between centralisation and decentralisation. In this type of literature, the emphasis is put on the legislative structure and electoral processes, which generate different kinds of fiscal outcomes under centralised and decentralised systems. Unlike the first strand of the SGT, the second strand considers fiscal decentralisation as a mechanism to efficiently allocate resources across local governments. As Lockwood (2006) discusses, a variety of political economy models in the second strand of the SGT literature show that fiscal decentralisation is more responsive to the preferences of citizens than fiscal centralisation.

Even though the SGT literature departs from the normative stance of the FGT literature, it maintains the assumption that the roles of central and local governments are clearly separated. No less is true of the second strand of the SGT literature. In the first strand of the SGT literature, which emphasises the undesirability of intergovernmental grants, the difference between intergovernmental grants and local taxes is clear cut, and it is argued that intergovernmental grants that create transfer dependency ought to be replaced by local taxes.

In the literature on fiscal decentralisation – both the FGT and the SGT – a key assumption made is that there is a clear distinction between grants and local taxes, which is a necessary condition for the clear separation of central and sub-national responsibility. In many countries, however, the majority of local revenues comes from "shared taxes" rather than own taxes or intergovernmental grants. Moreover, the revenue from shared taxes is often legally regarded as the same as the revenue from own taxes. This begs the following question: If a country follows the advice of the SGT literature and replaces intergovernmental grants with shared taxes, does such a fiscal reform improve the fiscal performance of the public sector?

To answer this question, it is necessary to investigate the nature of tax sharing and its interrelationship with fiscal institutions and the political system. It should also be recognized that tax sharing is a widely adopted fiscal arrangement in many countries, and often it is a source of intergovernmental tensions and conflicts. As will be discussed in this paper, unless there is an effective mechanism of intergovernmental co-operation, it is likely that the composition of a central government's tax revenue will likely become biased towards taxes not shared among different levels of government. In addition, under the system of tax sharing the central government has an incentive to rely on debt financing rather than increase the revenue of shared taxes.

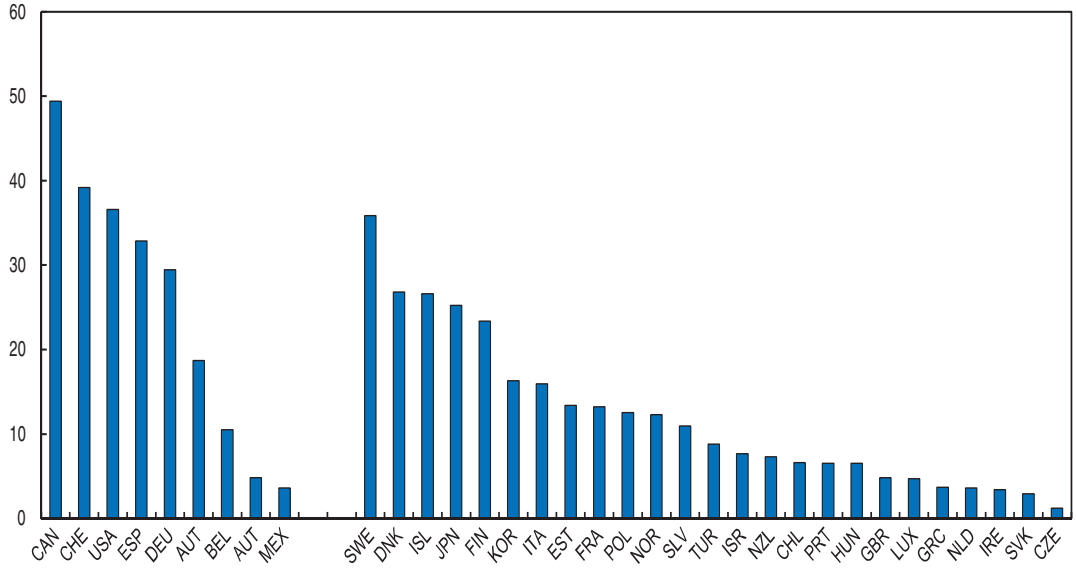
The paper is organised as follows. In Section 2, the structure of sub-national revenues and the importance of tax sharing as a major source of sub-national revenues are discussed. In Section 3, the intergovernmental budget linkage created by tax sharing and the resulting complications of intergovernmental fiscal relations are discussed. In Section 4, the relationship between tax sharing, fiscal institutions, and political systems is discussed. Section 5 concludes.

2. The main sources of sub-national revenue: An international comparison

2.1. An overview

According to OECD Revenue Statistics (2013), the share of sub-national taxes in total tax revenue is among the highest in federal or quasi-federal countries such as the United States, Canada, Spain, and Switzerland, where sub-national taxes account for more than 30% of total tax revenue (including social security contributions). In unitary countries, the share of local taxes is among the highest in the Nordic countries (Sweden, Denmark, and Finland) and Japan, where local taxes account for more than 25% of total tax revenue. In countries such as the United Kingdom, Ireland, and the Netherlands, local taxes account for less than 10% of total tax revenue. Countries such as France, Italy, Korea, Poland, and Norway are mid-level countries, where the local tax share is between 12% and 17%.[2]

Figure 1.1. The share of sub-national tax revenue



Source: OECD Revenue Statistics, 2013.

2.2. The significance of tax sharing

The numbers in Figure 1.1 are based on the OECD Revenue Statistics database, which contains sub-national tax revenues reported by OECD member countries. In interpreting these numbers, it is important to note that the definition of sub-national tax varies widely from country to country. Some countries define sub-national taxes as the taxes whose rates and/or bases sub-national governments have the right to change. Other countries define sub-national taxes regardless of sub-national taxing power. In order to measure the different levels of sub-national taxing power, OECD (1999) and Blöchliger and Nettley (2015) suggest a categorisation of sub-national taxes into five different types.[3] According to this categorization, the sub-national taxes that belong to types "a," "b," and "c" are "autonomous" taxes. The sub-national taxes that belong to type "e" are effectively federal (central) taxes or intergovernmental transfers. The most controversial case is type "d" – a tax sharing arrangement. According to the OECD Revenue Statistics, some countries classify a type "d" tax as a sub-national tax (e.g. Germany), while other countries classify it as a kind of intergovernmental transfer (e.g. Australia). The inconsistency in the definition of sub-national taxes is problematic because, according to Blöchliger and Nettley (2015), a significant amount of sub-national revenue comes from tax sharing in many OECD member countries such as Australia, Austria, the Czech Republic, Belgium, Germany, Italy, Poland, Turkey, and Spain.

In addition to these OECD countries, there are many non-OECD countries in Central and Eastern Europe, Asia, and Latin America, where tax sharing is a major source of sub-national revenue. According to Dabla-Norris (2006), in almost all countries in Central and Eastern Europe, tax sharing is a major source of local revenue. The situation is similar in Asia. As reported by Vo (2008), in China, India, Vietnam, Indonesia, Pakistan, and Thailand, tax sharing is a major source of sub-national revenue. This is also true in Latin American countries such as Brazil, Argentina, and Colombia (see Gomes, 2012). As will be discussed in more detail in the next section, general grants in Korea and Japan are a kind of tax sharing. Moreover, in some countries local taxes are *de facto* shared taxes, as found in Japan (Mochida, 2015), Korea (Kim, 2015), and Norway (Borge, 2015).

Table 1.1. The main source of sub-national revenue

Country	Tax Sharing		Local Tax	Grants
	Constitutional & Legal	*De facto*		
Europe (OECD)	Austria, Germany, Spain, Italy, Belgium, Australia, Estonia, Poland, Hungary, Czech Republic, Turkey	Norway	Finland, Denmark, Sweden, Switzerland	United Kingdom, the Netherlands
North America	Mexico		United States, Canada	
Asia	China, Vietnam, Indonesia, Thailand, Japan (general grants), Korea (general grants), India, Pakistan	Japan (local taxes), Korea (local taxes)		New Zealand, Malaysia
Latin America	Brazil, Argentina, Colombia			Chile
Central and Eastern Europe	Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Georgia, Kazakhstan, Kyrgyz, Latvia, Moldova, Poland, Romania, Russia, Tajikistan, Ukraine, Yugoslavia,			

Source: Blöchliger and Nettley (2015); Dabla-Norris (2006); Kim et al. (2015); Gomes (2012); Vo (2008).

2.3. Tax sharing, revenue sharing and grants: Typological issues

Blöchliger and Petzold (2009) observe that part of the reason for the lack of a consistent definition of sub-national taxes is because there is no internationally agreed guideline that distinguishes between tax sharing and intergovernmental transfers, although some harmonisation has been reached with the 2010 revision of the National Accounts database.[4] They propose a set of criteria which determine the characteristics of tax sharing as follows: i) risk sharing;[5] ii) un-conditionality;[6] iii) formula stability;[7] and iv) individual proportionality.[8]

Among these four criteria, the most controversial one is "individual proportionality." The question is whether sub-national revenues that satisfy the first three criteria but not the fourth should be categorised as revenues from tax sharing. In countries such as Germany take this position. The sub-national tax sharing revenues in Germany do not satisfy the condition of individual proportionality, but are reported as the revenues from sub-national taxes in the OECD Revenue Statistics. On the other hand, Australia classifies VAT revenue sharing between federal and state governments as a kind of intergovernmental transfer – the reason why the sub-national tax share in Australia shown in Figure 1.1 is relatively low. The cases of Korea and Japan are noteworthy because, in these countries, a share of revenue from many national taxes is distributed to local governments based on a distribution formula. These local revenues are classified as general grants, but they do satisfy the first three criteria proposed by Blöchliger and Petzold (2009): They are directly linked with national taxes by law, unconditional, and are distributed based on a formula.[9] It may be argued that since their distributional effects are so strong, their nature is quite different from the tax sharing arrangements found in Germany and Australia. However, the challenging question here, as Blöchliger and Petzold (2009) aptly asked, is where we draw the line between tax sharing and grants.

In the literature, many scholars use the term *tax sharing* only to describe the case where the distribution of the revenues from shared taxes does not involve horizontal equalisation. In the case where vertical tax sharing is combined with horizontal equalisation, the term *revenue sharing* is often used. For example, McLure (2001, p. 342) differentiates tax sharing and revenue sharing in this way, noting that Germany and Australia have adopted the system of *revenue sharing*. Weingast (2009) strongly emphasizes the incentive effects of tax sharing in China, which he argues have significantly contributed to that country's economic growth. It is noteworthy that the most important characteristic of tax sharing according to Weingast (2009) is individual proportionality. But the tax sharing arrangement without individual proportionality, such as that found in Germany, makes this argument invalid.

It seems reasonable, then, to use the terms *tax sharing* and *revenue sharing* to imply, respectively, individual proportionality and horizontal equalisation. However, in countries such as Germany and Austria, the shared taxes with the element of horizontal equalisation are officially classified as sub-national taxes rather than intergovernmental transfers, as reflected in the OECD Revenue Statistics. On the other hand, Australia classifies the VAT sharing between federal and state governments as an intergovernmental grant, which is also reflected in the OECD Revenue Statistics. Faced with the diverse interpretations of the term "tax sharing," Blöchliger and Petzold (2009) propose using the term "tax sharing" for cases where shared taxes involve horizontal equalisation and "strict tax sharing" where shared taxes satisfy individual proportionality. However, the terminology of tax sharing remains largely unsettled in the literature. In this paper, an eclectic view is taken and the term *tax sharing* is used in its most broad sense,

encompassing both individual proportionality and horizontal equalisation. Tax sharing with individual proportionality is called *strict tax sharing*. Tax sharing with horizontal equalisation is called *revenue sharing*.

Notably, in discussing the typology of tax sharing, McLure (2001) argues that even *strict tax sharing* is essentially the same as an intergovernmental grant because it does not allow sub-national governments to exercise taxing power.[10] By the same logic, *revenue sharing* is regarded as a kind of intergovernmental grant (e.g. Oates (1999)). In the economic analysis of the local public sector, the interest of researchers tends to focus on local decision-making – such as the decisions on the local tax burden and local spending. From this point of view, there is indeed not much difference between the economic effects of tax sharing and intergovernmental grants because their sizes cannot be changed at the margin by local governments.

However, when the focus of analysis is shifted to fiscal institutions and their effects on budget allocation, a clear difference between tax sharing and intergovernmental grants emerges. In the case of intergovernmental grants, the amount and its distribution across sub-national governments are usually determined in the annual budget process. In contrast, tax sharing is based on constitutions and laws that provide a legal foundation for linking central and sub-national budgets. So the two types of sub-national revenue differ not only in how they are determined, but also in aspects of political economy and incentive structure. In other words, in the case where tax sharing is a dominant source of sub-national revenue, understanding the nature of fiscal institutions and the political system, which is primarily country-specific, is much more important than in the case of intergovernmental grants.

2.4. Literature on tax sharing

Even though tax sharing is the main source of sub-national revenue for the majority of countries around the world, there are relatively few studies that deal with tax sharing. In the few cases where tax sharing is discussed, it is usually treated as the same as intergovernmental grants (e.g. Oates, 1999; McLure, 2001). Wildasin (2004) suggests that this is because much of the academic research on sub-national government finance has focused on the United States and Canada, where tax sharing does not exist or is a small source of sub-national revenue. More importantly, as Wildasin (2004) notes, the issues of tax assignment and expenditure assignment are relatively in the United States and Canada, but this is not the case in many other countries where tax sharing plays an important and sometimes controversial role in the area of tax assignment.

Among the few studies that deal with tax sharing, the studies by OECD (1999), Blöchliger and Nettley (2015) and Blöchliger and Petzold (2009) have contributed to the typology of tax sharing. In particular, these studies have had an important impact on empirical research that investigates the effect of fiscal decentralisation based on international data. Many recent empirical studies that employ the OECD's data on sub-national taxing power have produced results that differ from previous studies. For example, Stegarescu (2005) extends the database of OECD (1999) and shows that the common measures on fiscal decentralisation usually employed – such as those based on the IMF GFS data – overestimate the extent of fiscal decentralisation considerably. Thornton (2007) shows that, when the extent of fiscal decentralisation is measured by the OECD's tax autonomy data (cross-section data of 19 OECD member countries in 1995), its impact on economic growth is not statistically significant. Baskaran and Feld (2013)

construct a panel data set of sub-national taxing power of OECD countries from 1995 to 2008, and find a significant negative statistical relationship between fiscal decentralisation and economic growth. Foremny (2014) also uses tax autonomy data for the years between 1995 and 2008 and shows that for federal countries, higher autonomy over sub-national taxes is a key to preventing large deficits at the sub-national level.[11]

As the discussions in Kim et al. (2013) and Sorens (2010) show, the issue of measuring the extent of fiscal decentralisation is far from settled. Given the unresolved issues and dominant presence of tax sharing in many countries, the correct measurement and understanding of sub-national governments' fiscal power are particularly important. In order to fully understand the nature of tax sharing, then, it is necessary to go beyond the classification of sub-national taxes and investigate the political economy forces behind the determination of tax sharing.

3. Tax sharing and intergovernmental budget linkages

An important characteristic of tax sharing that makes it different from intergovernmental grants is the incentive it creates for the central government to avoid taxes whose tax bases are shared with sub-national governments and to rely instead on other tax bases over which it has exclusive taxing power. This incentive effect of tax sharing, a bias in the tax mix, has been previously noted by Ter-Minassian (2012), Tanzi (2010), and Rao (2007). However, what should be further investigated is that this tax-mix bias is deeply intertwined with the intergovernmental fiscal institutions specific to each country. For example, if tax sharing is based on broad tax bases such as the personal income tax, corporate income tax or VAT, the tax-mix bias can be mitigated, but this is then likely to create an incentive for the central government to rely on debt financing. Therefore, what is critical for the countries where tax sharing is an important source of sub-national revenue is to identify the intergovernmental co-ordination mechanism that resolves the innate conflicting interests of different levels of government over tax sharing. In the sections below, the budget linkage created by tax sharing and its effect on the fiscal structure are discussed in detail.

3.1. A basic framework of government budgets

There are two levels of government: a central government and sub-national governments that are assumed to be identical. The central and sub-national governments share a tax base, denoted TB^S. The central government applies – with the consent of sub-national governments or unilaterally depending on fiscal institutions and the political system of a country – a tax rate τ^S on the shared tax base, collecting the revenue of T^S. The central government takes θ_C of T^S and the sub-national governments take θ_L of T^S. Both central and sub-national governments respectively collect their own taxes, T_C^O and T_L^O, by applying tax rates t_C^O and t_L^O on their own tax bases TB_C^O and TB_L^O. They also issue bonds, b_C and b_L, respectively. Denoting revenues of central and sub-national governments as R_C and R_L, respectively, the budgets of central and sub-national governments are expressed as follows:

$$\text{(Central government)} \qquad R_C = \theta_C \cdot T^S + T_C^O + b_C$$
$$= \theta_C(\tau^S \cdot TB^S) + t_C^O \cdot TB_C^O + b_C. \qquad (1)$$

$$\text{(Sub-national governments)} \qquad R_L = \theta_L \cdot T^S + T_L^O + b_L$$

$$= \theta_L(\tau^S \cdot TB^S) + t_L^O \cdot TB_L^O + b_L. \quad (2)$$

3.2. Incentives of sub-national governments

Taking total differentials of Eq. (2),

$$\Delta R_L = \Delta\theta_L \cdot T^S + \theta_L \cdot \Delta T^S + \Delta T_L^O + \Delta b_L. \quad (3)$$

From Eq. (3), an increase in sub-national spending may be financed in four ways: an increase in the sub-national governments' share in tax sharing revenue ($\Delta\theta_L$), an increase in shared tax bases (ΔT^S), an increase in sub-national governments' own tax revenue (ΔT_L^O), and bond issuance (Δb_L). In principle, among these four ways of raising sub-national revenue, sub-national own tax revenue, T_L^O, is the most desirable fiscal resource from the normative viewpoint of fiscal responsibility. However, politicians of sub-national governments prefer to increase sub-national expenditure without imposing an additional tax burden on their voters. This can be done by increasing the sub-national share of tax sharing revenue. In other words, increasing θ_L (decreasing θ_C) is a more attractive policy choice for sub-national governments than increasing T_L^O. In order to decrease θ_C, sub-national governments face the following central government budget constraint, which is obtained by taking total differentials of Eq. (1):

$$\Delta R_C = \Delta\theta_C \cdot T^S + \theta_C \cdot \Delta T^S + \Delta T_C^O + \Delta b_C. \quad (4)$$

From this, $\Delta\theta_C$ is derived as follows:

$$\Delta\theta_C = \frac{1}{T^S}(\Delta R_C - \theta_C \cdot \Delta T^S - \Delta T_C^O - \Delta b_C).$$

$$= \frac{1}{T^S}(\Delta R_C - \theta_C(\Delta\tau^s \cdot TB^S + \tau^s \cdot \Delta TB^S) - (\Delta t_C^O \cdot TB_C^O + t_C^O \cdot \Delta TB_C^O) - \Delta b_C). \quad (5)$$

Sub-national governments' strategy to increase their revenues with the least political cost is to have θ_C decreased ($\Delta\theta_C < 0$). Assuming that central government's revenue, R_C, is to be maintained at the same level ($\Delta R_C = 0$), this policy objective can be achieved by making the central government do either or all of the following: increase the tax rate of the shared tax ($\Delta\tau^s > 0$), increase the tax rate of its own tax ($\Delta t_C^O > 0$), and increase its debt financing ($\Delta b_C > 0$).

3.3. Incentives of the central government

To raise its revenue, the central government may, like sub-national governments, consider the possibility of transferring fiscal resources from sub-national governments to itself ($\Delta\theta_L < 0$). Eq. (3) shows that when such a transfer is made, either sub-national expenditure should be decreased or sub-national own fiscal resources (sub-national own tax revenue or sub-national debt) should be raised to keep the sub-national budget in balance. However, all these options may not look desirable to the central government, especially when sub-national governments provide not only pure local public goods but also redistributive social services. Under such circumstances, sub-national governments are likely to raise sub-national debt rather than take the fiscal responsibility of raising their own tax revenue (Wildasin, 2004). In other words, unlike sub-national governments, the central government, which bears the ultimate political burden of raising shared tax revenue and maintaining sovereign fiscal sustainability, is likely to regard the transferring of sub-national fiscal resources to itself as an undesirable option for raising its revenue, at least for the long term.

As such, the central government is left with three types of revenue sources at its disposal: shared tax (T^S), own tax (T_C^O), and government bond issuance (b_C). However, as the central government budget constraint Eq. (1) shows, the contributions of each of these different revenue sources to its budget are not the same. Taking partial derivatives of Eq. (1) with respect to the three variables yields the following:

$$\frac{\partial R^C}{\partial T^S} = \theta_C < 1. \qquad (6)$$

$$\frac{\partial R^C}{\partial T_C^O} = \frac{\partial R^C}{\partial b_C} = 1. \quad (7)$$

Clearly, Eq. (6) shows that the marginal contribution of an increase in the shared tax revenue to the central government budget is less than 1 due to the transfer of part of its revenue to sub-national governments. On the other hand, Eq. (7) shows that the marginal contribution of the central government's own tax and bond issuance to its budget is 1 because revenues from these fiscal sources are not directly tied to sub-national revenues. As a result, the central government has an incentive to increase the tax rates of the taxes not subject to tax sharing (tax-mix bias) and debt financing (debt bias).

3.4. Tax sharing and horizontal equalisation

In many countries with a tax sharing system, vertical tax sharing is combined with horizontal equalisation (e.g. Germany). Therefore suppose now that there are n sub-national governments with different levels of regional income and tax bases. Let subscript i denote the ith sub-national government. Let TB_i^S denote the tax base of the shared tax in the ith sub-national government so that $TB^S = \sum_{i=1}^{n} TB_i^S$. Let δ_i denote the share of the shared tax revenue that belongs to sub-national government i. Then the revenue of the ith sub-national government, R_L^i, is written as follows:

$$R_L^i = \delta_i \cdot \theta_L \cdot (\tau^S \cdot \sum_{i=1}^{n} TB_i^S) + T_L^O + b_L. \qquad (8)$$

In Eq. (8), strict tax sharing means that δ_i is the same as the share of TB_i^S in the total shared tax base TB^S. That is, with strict tax sharing, $\delta_i = TB_i^S / \sum TB_i^S$. In this case, Eq. (8) is the same as

$$R_L^i = \theta_L \cdot (\tau^S \cdot TB_i^S) + T_L^O + b_L. \qquad (9)$$

Thus, under the system of strict tax sharing, an increase in sub-national government revenue is proportional to an increase in its tax base – the effect of tax sharing Weingast (2009, 2014) strongly advocates as an incentive for regional development. It can be seen from equation (9) that the richer a sub-national government, the stronger its desire to increase the sub-national share of shared tax revenue (θ_L). On the other hand, under the system of tax sharing combined with horizontal equalisation (revenue sharing), the revenue share of a poorer sub-national government is greater than its tax base share. Under this circumstance, poor sub-national governments have a strong incentive to lobby for its own share of shared tax revenue (δ_i). So compared to strict tax sharing which creates vertical conflicts of interest between central and sub-national governments, revenue sharing adds another dimension of horizontal conflict between richer and poorer sub-national governments.

4. Tax sharing and the role of constitutions and the political system

As seen in the previous section, one of the main characteristics of tax sharing is that it creates conflicting forces among central and sub-national governments. Under a tax sharing system, sub-national governments are able to increase their revenue not just by imposing a higher tax burden on their residents, but also by increasing the sub-national share of tax sharing. This creates an incentive for sub-national governments to put political pressure on the central government to obtain an increase in tax sharing.[12] Similarly, the central government has an incentive to put pressure on sub-national governments for a decrease in the sub-national share of tax sharing or to shift its own expenditure responsibilities to sub-national governments in the form of unfunded or partially funded mandates.

A political economy question that arises with respect to a tax sharing system is how such conflicting political forces among different levels of government affect the outcomes of fiscal decentralisation. In many countries such as Germany, China, Spain, Korea and Japan where tax sharing is a dominant source of sub-national revenue, heated debates over tax sharing often take place especially after economic and fiscal shocks. As discussed in the previous section, the political conflict over the share of tax sharing tends to change the fiscal structure of a country, and, unless the centripetal and centrifugal forces of tax sharing are balanced, it is likely to result in an inefficient tax mix or accumulated of government debt. Moreover, in a country where sub-national governments have strong political power and enjoy a high share of tax sharing, the centrifugal force of tax sharing may result in a further deterioration of fiscal conditions.

So what type of intergovernmental fiscal institutions better manage the conflicting and destabilising forces? Searching for an answer to this question forces on to look beyond fiscal institutions and to investigate the role of constitutions and political systems because the conflicts over tax sharing are inherently constitutional and political. Although not directly addressing the issue of tax sharing, the empirical research into the relationship between political institutions and fiscal decentralisation provides some interesting insights into the political economy question of tax sharing. For example, Enikolopov and Zhuravskaya (2007) empirically test Riker's hypothesis (1964) that the results of fiscal decentralisation depend on the extent to which countries are politically centralized. In their study, they use the data of 75 developing and transition countries to confirm Riker's hypothesis that political centralisation improves the effect of fiscal decentralisation on growth and public goods provision.

The measurement of fiscal decentralisation used by Enikolopov and Zhuravskaya (2007) is the share of sub-national revenue in total government revenue as well as the share of taxes in sub-national revenues. Given that in many developing and transition countries sub-national governments do not have taxing power, it is possible that what Enikolopov and Zhuravskaya capture in their measurement of fiscal decentralisation is the effect of tax sharing (both *de facto* and *de jure*). So, their study indirectly implies that, in the case of developing and transition countries, the centrifugal force created by fiscal decentralisation combined with tax sharing needs to be counterbalanced with the centripetal force of political centralisation. This line of reasoning is also suggested by Blanchard and Shleifer (2001) and Weingast (2014) in their investigations on the economic success of China. These studies argue that the key reason why China, unlike Russia, has succeeded in sustaining strong economic growth since the early 1980s is the combination of fiscal decentralisation (strict tax sharing) and political centralisation (communist party).

Enikolopov and Zhuravskaya (2007), Blanchard and Shleifer (2001), and Weingast (2014) all explore the interesting hypothesis that a successful model of decentralisation is the combination of fiscal decentralisation and political centralisation, and this has an important implication for understanding the multi-dimensional nature of decentralisation. But it should be noted that they apply this hypothesis mainly to developing and transition countries, such as China and Russia. In contrast to these studies, a recent paper by Filippetti and Sacchi (2014) shows that fiscal decentralisation in OECD countries leads to higher rates of economic growth with institutional complementarities, that is, when fiscal decentralisation is coupled with political decentralisation. Their result based on the sample of OECD countries, therefore, is in direct contrast with the results of Enikolopov and Zhuravaskaya (2007) based on a sample of developing and transition countries.

In the papers discussed above, federalism is not considered as a distinct variable of political institutions. Enikolopov and Zhuravaskaya (2007) use the term federalism interchangeably with fiscal decentralisation. Weingast (2009, 2014) puts much emphasis on the merit of (market-preserving) federalism, but, by treating federalism as almost identical to decentralisation, he does not regard the federal system as a distinct political system.[13] The lack of interest in the public finance literature about federalism as a political system is perhaps due to Oates' definition of fiscal federalism.[14] But, there is a view even in the political science literature that federalism as a political system does not much matter. For example, Riker (1975) famously claimed that "[n]othing happens in a federation because of the federal constitutional arrangements that could not happen otherwise in fundamentally the same way" (as cited in Voigt and Blume, 2012). On the other hand, Voigt and Blume (2012) find that federalism does affect economic performance.

Thus, whether the distinctive properties of federalism as a political system affect the performance of fiscal decentralisation is an unsettled issue and is certainly beyond the scope of this paper. However, when attention is confined to the issue of tax sharing, an interesting pattern is observed: In the majority of federal countries – almost all federal countries except the United States, Canada, and Switzerland – tax sharing is a dominant source of sub-national revenue. In addition, quasi-federal countries such as Spain and Italy also apply tax sharing. Among OECD unitary countries, Korea's and Japan's major sources of local revenue (both local taxes and general grants) derive from tax sharing. Also, as discussed in Section 2, the tax sharing is found in Turkey and Poland. It is notable that the OECD unitary countries that have adopted the tax sharing systems are relatively large with a population greater than 50 million (except Poland which has a population of 35 million).

As discussed previously, there is not yet consensus in the literature on whether there are different relationships between constitutions and fiscal decentralisation. However, given that tax sharing creates conflicting forces among levels of government, and is likely to result in tax-mix bias and debt accumulation, coordination across levels of government is much more important in countries with a tax sharing system than in the countries where tax assignment and expenditure assignment are relatively clear-cut. A hypothesis worth considering in this regard is that the intergovernmental coordination mechanism is better developed in mature federal countries (such as Germany and Austria) than in large unitary countries that rely heavily on tax sharing (such as Italy, Spain, Korea and Japan). It would be interesting to empirically test whether there is a difference between federal and unitary countries in the effectiveness of coordinating conflicting forces of tax sharing.

5. Conclusion

The literature on fiscal federalism – both traditional and new – generally takes the view that sub-national revenues consist of own taxes and intergovernmental grants. When tax sharing is recognized, it is usually regarded as the same as intergovernmental grants. The implication of this view is that the economic effects of tax sharing and grants are similar, and that the intergovernmental fiscal institutions governing tax sharing and grants are similar as well.

In this paper, the characteristics of tax sharing that are distinctly different from own taxes and intergovernmental grants have been examined: tax sharing is a system for assigning sub-national revenues much more widely than recognized in the literature; it is much more deeply rooted in political institutions than intergovernmental grants; and it creates conflicting political interests among levels of government, often creating a tax-mix bias and debt accumulation. Therefore, understanding the institutional characteristics of tax sharing as well as its economic effects is important in analysing the effects of fiscal decentralisation.

Tax sharing is prevalent in almost all federal countries and some quasi-federal countries. Moreover, *de facto* tax sharing is found in many developing and transition countries. However, the fiscal performance of tax sharing system varies across countries. Given that tax sharing creates political conflicts, it is likely to be more effective in mature federations. However the relationship between the political system and tax sharing needs to be further explored. For example, it is not fully accounted for in the theoretical literature on fiscal decentralisation why the system of tax sharing exists in the first place. How tax sharing operates under different political systems and institutions also needs to be investigated.

Notes

1. In this paper, the terms "local" and "sub-national" are used interchangeably.
2. If social security contributions are excluded in the calculation of total tax revenue, sub-national tax shares in high-level, low-level and mid-level countries are, respectively, between 40% to 50%, below 10%, and around 20%.
3. "Type a: The recipient SCG sets the tax rate and any tax relief (without or with consulting a higher level of government); type b: The recipient SCG sets the tax rate (without or with upper and/or lower limits set by a higher level of government); type c: The recipient SCG sets tax relief (tax allowances and/or tax credits); type d.1: A tax-sharing arrangement in which the SCGs determine the revenue split; type d.2: A tax-sharing arrangement in which the revenue split can be changed only with the consent of SCGs (d.2); type d.3: A tax-sharing arrangement in which the revenue split is determined in legislation, and where it may be changed unilaterally by a higher level government, but less frequently than once a year; type d.4: A tax-sharing arrangement in which the revenue split is determined annually by a higher level government; type e: Other cases in which the central government sets the rate and base of the SCG tax" (Blöchliger and Nettley, 2015).

4. The National Accounts (NA), the European System of National and Regional Accounts (ESA), the Government Finance Statistics (GFS), the Revenue Statistics (RS), and the Council of Europe (CE) all provide some guidance on the "tax sharing versus grants" issue. Criteria vary across manuals and there are no specifics on drawing a line between tax sharing and grants (Blöchliger and Petzold, 2009).

5. "The amount of revenue allocated to the sub-central level is strictly related to total tax revenue."

6. "The revenues are unconditional (non-earmarked)."

7. "The revenue share between the central and the sub-central government is predetermined in advance and not changed in the course of a fiscal year."

8. "The revenue share of each sub-central government is strictly related to what it generates on its own territory (no horizontal redistribution or fiscal equalisation across sub-central governments)."

9. Interestingly, the general grants in Korea and Japan are called "Local Allocation Tax."

10. "Since individual lower level governments have no control over any of the four basic questions of tax assignment, tax sharing is essentially a form of grant, and not a method of tax assignment" (McLure, 2001, p. 342).

11. See the papers in Kim, Lotz and Blöchliger (2013) for further detailed discussion on the issues related to the measurement of fiscal decentralisation.

12. This is the case even in relatively "mature" federations such as Austria (see Matzinger, 2014).

13. "Federalism, and decentralisation more generally, encompasses a wide range of different political-economic systems, not one" (Weingast, 2009, p. 280).

14. "This economic use of the term 'federalism' is somewhat different from its standard use in political science, where it refers to a political system with a constitution that guarantees some range of autonomy and power to both central and decentralised levels of government. For an economist, nearly all public sectors are more or less federal in the sense of having different levels of government that provide public services and have some scope for de facto decision-making authority (irrespective of the formal constitution)" (Oates, 1999, p. 1120).

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Chapter 2

Intergovernmental fiscal relations and fiscal coordination during the crisis

Victor Lledó and Joana Pereira[1]

This chapter documents some key facts on the timing, synchronicity, cyclicality, contribution and composition of central and sub-national governments' fiscal responses following the global financial crisis among advanced economies. We find evidence that post-crisis fiscal responses across government levels have become more synchronised, suggesting coordinated efforts across government levels to implement fiscal expansions. We then develop and test some hypotheses on the role that fiscal autonomy, transfer dependency and sub-national fiscal rules may have played to foster fiscal coordination in the post-crisis era. Preliminary econometric results show that fiscal coordination improves with the degree of spending autonomy. There is no evidence, however, that additional revenue autonomy, transfer dependency or a smartening of sub-national fiscal rules contributed to improvements in fiscal coordination in the post-crisis years.

1. Introduction

A growing literature has started to look at intergovernmental fiscal relations following the global financial crisis.[2] This literature has gathered some evidence of a significant contribution of sub-national governments (SCGs) to central government's (CG's) fiscal expansion and consolidation efforts through this period.

This paper contributes to this literature by providing a fresh look at the fiscal responses of CGs and SCGs in the post-crisis years. It will document with recent data some key facts on the timing, synchronicity, cyclicality and composition of these responses. Unlike the previous literature, which often relied on fiscal outcome indicators, the paper will measure fiscal responses by adjusting it for the cycle and by focusing on own balances (net of transfers and shared revenues), thus trying to better capture discretionary fiscal effort at different levels of government.[3] It will also contrast these responses across different groups of countries before and at different stages of the crisis.

The paper finds evidence that fiscal responses across government levels have become more synchronized since the start of the global financial crisis in late 2007. This greater synchronisation seems to suggest coordinated efforts across government levels, mainly to implement fiscal expansions in 2008-09.

The paper then provides an initial discussion and econometric analysis on the role that fiscal institutions and one-off policies may have played to foster fiscal coordination following the crisis. This is an important issue as the credibility and sustainability of on-going fiscal consolidation plans in a number of OECD countries, particularly those in Europe, hinge on timely concerted efforts by different government levels. The discussion focuses on changes in the degree of expenditure and revenue autonomy at the sub-national level – captured by changes in revenue and spending decentralisation ratios – and in the design and enforcement of fiscal rules. Together, these changes are expected to affect SCGs' incentives and capacity to follow CGs fiscal policy orientation. We contrast these changes with temporary increases in CG transfers to SCGs following the crisis, proxied by changes in transfer dependency ratios.

Our prior is that fiscal coordination is more likely to occur when institutions provide SCGs with both the incentives and the capacity to implement discretionary stimulus or consolidation when faced with a common shock (i.e. a shock that affects all SCGs symmetrically). Macroeconomic stabilisation and fiscal sustainability at the national level fall primarily under the mandate of CGs. Thus, CGs are expected to take the lead in responding to common shocks. SCGs can, however, have an important role, following the CGs' lead.[4] For example, during economic contractions, SCGs can be expected to adopt expansionary policies of their own if they dispose of sufficient capacity to do so – have adequate tax and/or spending autonomy, and fiscal rules are sufficiently flexible to implement stimulus at the sub-national level. When fiscal consolidation is pursued at the national level, we expect SCGs to follow CGs' actions if sub-national rules are strongly enforceable (higher incentive to comply with fiscal rules) and, again, if sub-national governments dispose of sufficient fiscal autonomy to adjust own balances (capacity to adjust). SCG transfer dependency may have an ambiguous effect, providing room to expand spending during downturns (capacity), but little incentive to consolidate when needed.

Our econometric results confirm that fiscal synchronisation has improved since the beginning of the crisis, with CGs taking the lead in expansions and consolidations. Regarding the impact of fiscal institutions and policies, we find evidence that fiscal synchronisation increases with expenditure decentralisation, but not with increases in revenue decentralisation. On the other hand, we do not find any evidence that fiscal synchronisation is either significantly) affected by increases in transfer dependency ratios or by a smartening of sub-national rules (i.e. improvements in the flexibility and enforcement of SCG rules).

Our results are consistent with the existing evidence showing that SCGs have usually supported successful fiscal consolidations through spending cuts, not tax hikes (Darby et al., 2005). However, they should be treated as tentative in light of difficulties in directly observing and measuring fiscal coordination and usual endogeneity issues.

The rest of this paper is organised as follows. The next section presents some stylized facts on fiscal responses during the crisis at the central and sub-national level. Section III discusses whether the crisis affected intergovernmental fiscal institutions and how it may have helped improve intergovernmental fiscal coordination. Section IV proposes and develops a simple econometric exercise to test some of the conjectures proposed in Section III. Section V summarises the initial results, draws some preliminary conclusions and outlines the next steps for research.

2. Fiscal responses following the crisis: Some facts

We use consolidated fiscal data from the OECD National Accounts and Eurostat covering the years 1995-2012 to assess the timing, synchronicity, cyclicality, and composition of central and sub-national fiscal policy responses among advanced OECD countries before and following the beginning of the global financial crisis in 2007. In discussing findings, we will make a distinction between EU and non-EU countries as well as federal and unitary countries.[5]

Sub-national governments are defined as all government tiers below the central government level with administrative responsibilities over a geographical portion of a country. In most federations, they would include an intermediate tier (e.g. region, province, state) and a local tier (e.g. local councils, municipalities). Unitary countries are often one-tiered.

The four main findings are as follows:

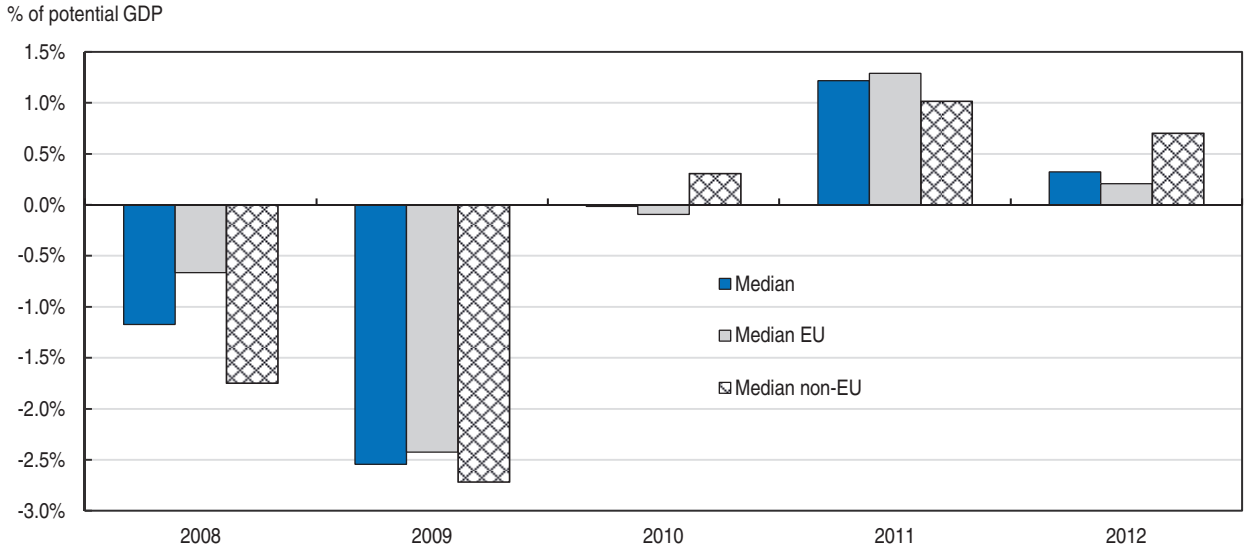
Fact 1. In all countries, an initial expansionary period was followed by widespread fiscal consolidation

The wake of the global financial crisis brought a sharp and widespread deterioration of economic conditions and of resultant fiscal positions across OECD countries. Such a large response of fiscal balances as well as the distinction between an expansionary and contractionary phase have been extensively documented in the related literature (for example, Fedelino and Ter-Minassian (2010), Blöchliger et al. (2010), Vammalle and Hulbert (2013)). We corroborate it here by focusing on cyclically-adjusted outcomes.

In an initial period (2008-09), GG fiscal responses were not only accommodative but largely expansionary, as reflected by the evolution of cyclically-adjusted balances CAB (Figure 2.1 and Box 2.1 on how CABs are calculated). The resulting rise in public debt-to-GDP ratios eventually called for fiscal consolidation efforts, even as the economic recovery had barely started. Most countries started to withdraw stimulus in 2010 and reversed the previous expansion by 2012 (Figure 2.2).

Figure 2.1. Change in the general government cyclically-adjusted balance

2008-12, median across countries

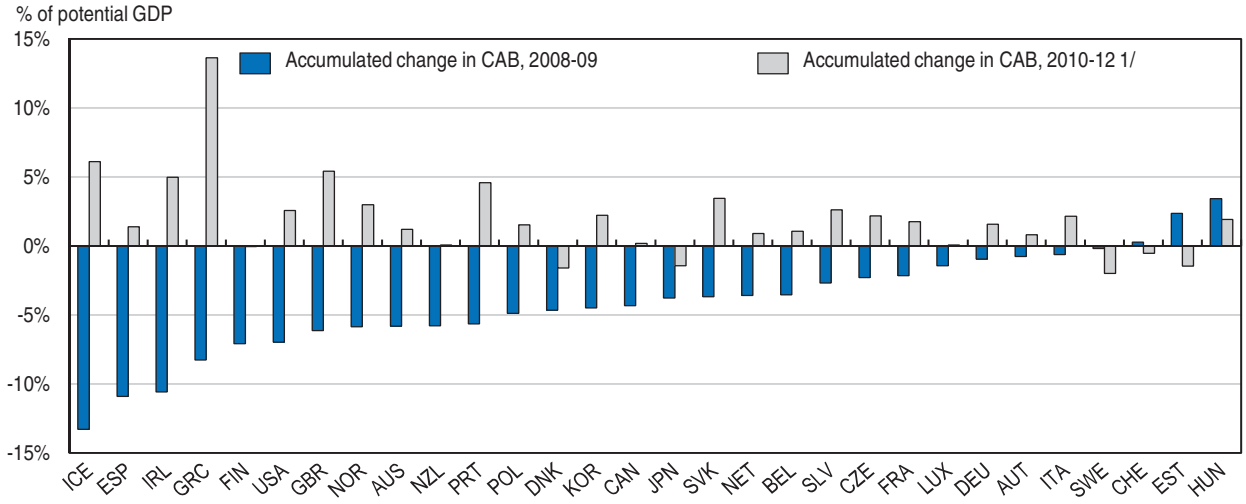


Source: OECD, WEO, and authors' calculations.

Box 2.1. Calculating cyclically-adjusted balances for sub-national governments

Both the OECD National Accounts and the IMF Government Finance Statistics provide cyclically-adjusted balances (CAB) for general government only, while CABs are not available for individual government levels such as the central, state or local level. In order to obtain CABs for each government level, actual balance data – which are available in both databases – have to be transformed using assumptions about changes in the government budget with respect to changes in the cyclical position of the economy. CABs for all levels of government were computed using a standard assumption of a unitary elasticity of tax revenue (including shared taxes) to the output gap, and zero elasticity of spending, non-tax revenue and intergovernmental transfers. The uniform methodology is adopted to avoid statistical discrepancies created by differentiated assumptions across countries.

Figure 2.2. Expansionary and contractionary periods during the global crisis



1. For Australia, Korea, the Netherlands and Poland, the accumulated change is up to 2011.

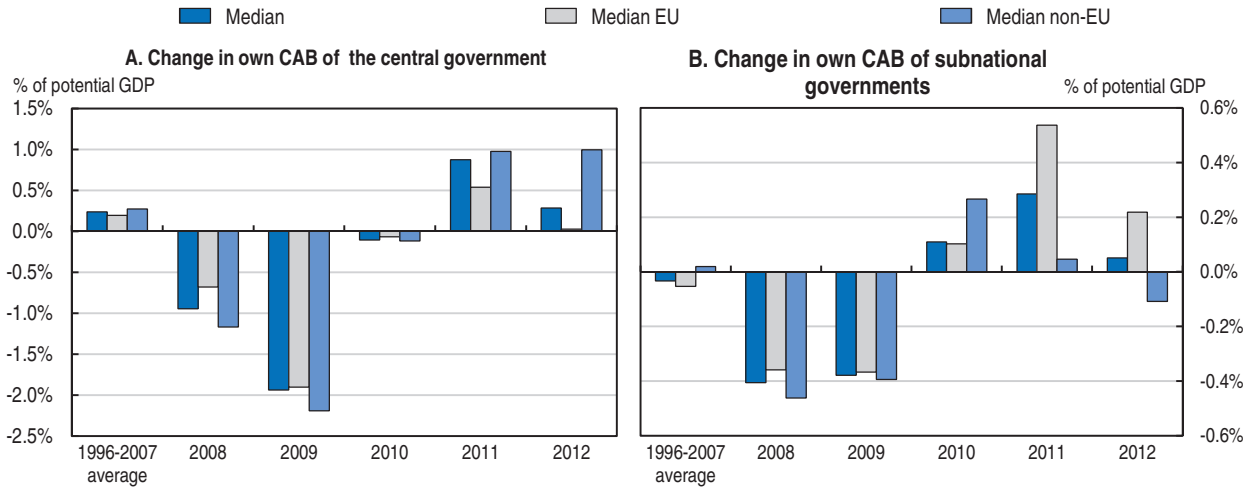
Source: OECD, WEO, and authors' calculations.

Fact 2. Fiscal policy synchronisation improved following the crisis

Fiscal responses at different government levels followed similar patterns to that of the GG (Figure 2.3). At the height of the crisis (2008-09) expansionary policies were adopted at both levels of government. Withdrawal then started in 2010, and there is some evidence that SCGs took the lead in doing so in 2010. By 2011, fiscal consolidation was ongoing in most countries at all levels of government. This was particularly the case among EU countries in light of the confidence effects triggered following the 2010 Greek sovereign debt crisis. In 2012, however, the picture was more mixed, with a number of countries (particularly non-EU federations) relaxing policies at the SCG level and with discretionary fiscal consolidation partially undone by the effect of automatic stabilizers in the case of CGs.

Figure 2.3. Fiscal stance by level of government

1995-2012, median across countries



Source: OECD, WEO and authors' calculations.

Fiscal policy synchronisation seems to have improved following the crisis, particularly among unitary countries (Table 2.1). Prior to the crisis, there is little evidence that policy efforts were synched. In fact, fiscal responses on average seem to have moved in different directions. Generally, SCGs took an expansionary (own) stance, while central governments (CGs) tended to consolidate. Synchronisation appears to have improved in the post-crisis years, mainly during the fiscal expansionary period. Furthermore, SCGs' fiscal response generally explained a larger share of the general government fiscal effort in the immediate aftermath of the crisis than in the past (Figure 2.4): the median SCG contribution to the general government CAB changes was about 10% before the crisis and increased to more than 30% through 2009-10, but seems to have returned to pre-crisis levels already during the consolidation phase by 2011. The only exceptions to this pattern are federations. Fiscal policy synchronisation across government levels does not seem to have improved for the average federation in the post-crisis years and, in fact, has shown some signs of deterioration during the post-crisis fiscal consolidation period (Table 2.1 and Figure 2.4).

Table 2.1. Correlation between changes in CG and SCG own cyclically adjusted balances[1]

	All countries	Federations	Unitary countries	EU	Non-EU	Crisis countries	Non-crisis countries
1996-2012	-0.08***	0.17	-0.09***	-0.09***	-0.07***	-0.05	-0.1***
1996-2007	-0.22***	-0.002	-0.25***	-0.22***	-0.22***	-0.37***	-0.21***
2007-12	0.04*	0.09	0.03*	0.02	0.06	0.15	0.05**
2007-09	0.82**	0.03	0.83**	0.13**	0.06***	0.19	0.08**
2010-12	-0.03	-0.34***	-0.01	-0.25	-0.07	-0.18	-0.1

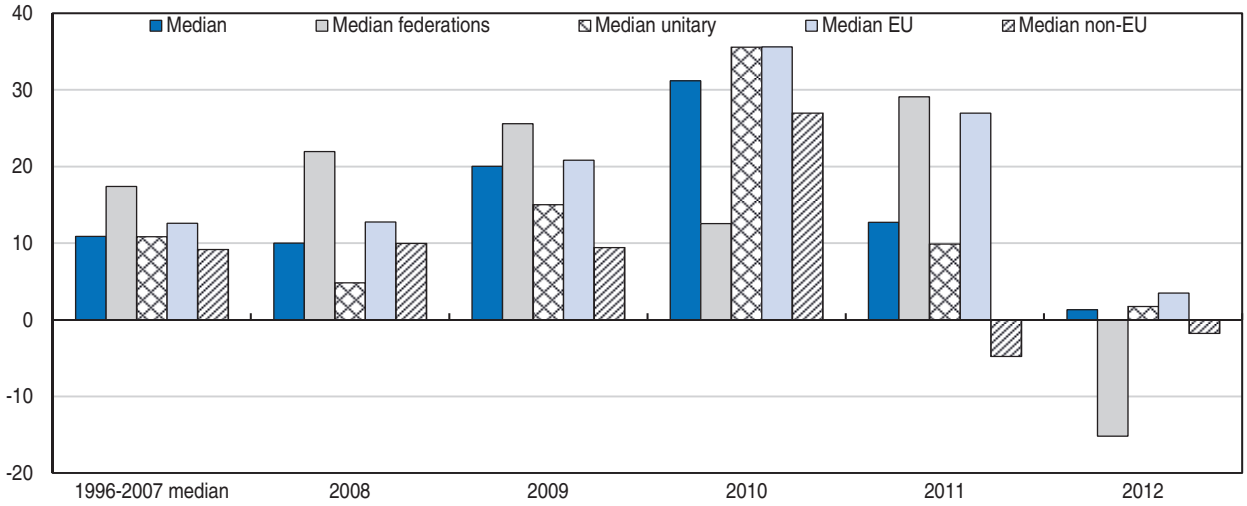
1. Fixed-effect regression estimates; (***), (**), (*) denote 90%, 95%, and 99% significance levels, respectively.
2. Crisis countries group includes Greece, Ireland, Portugal, and Spain.

Source: OECD, WEO and authors' calculations.

Figure 2.4. Contribution of SCGs to the general government fiscal response

Ratio of the change in SCGs own CAB to the change in the general government CAB

Median across countries



Source: OECD, WEO, and authors' calculations.

Fact 3. All government levels broadly observed counter-cyclical policies

Central governments have typically pursued a counter-cyclical fiscal response both before and since the global crisis (Figure 2.5). Changes in their own cyclically-adjusted balance move closely with changes in the output gap (counter-cyclicality at the margin) and less so with the output gap level itself (average counter-cyclicality).

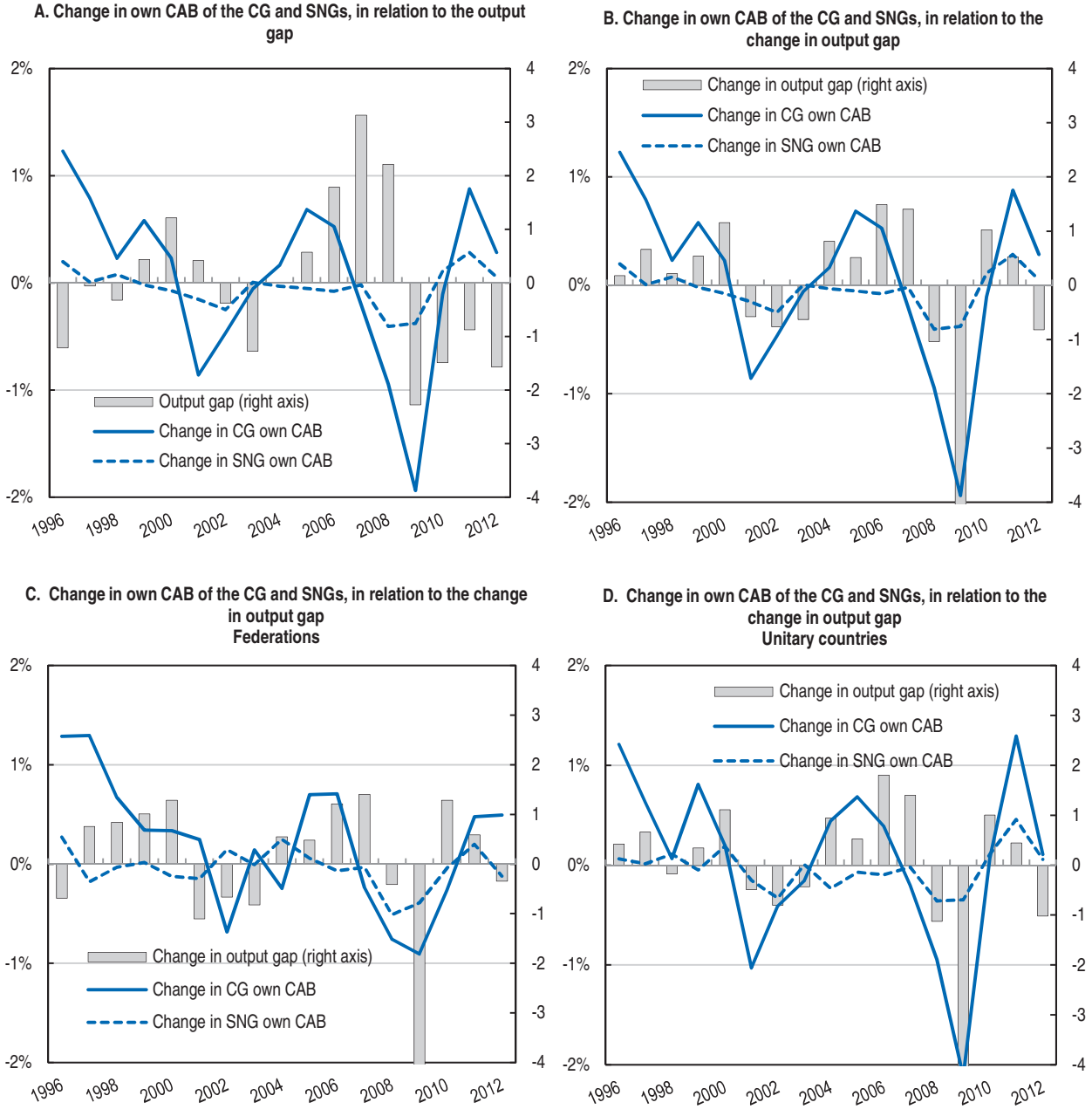
SCGs, on the other hand, have run broadly a-cyclical policies prior to 2008, but seem to have shifted to a more counter-cyclical stance ever since. Differences across federations and unitary countries are not systematic, although own cyclically-adjusted balances of CGs have fluctuated much more with changes in the cycle in unitary countries (possibly because policies are more centralised) than in federations, particularly since the global crisis.

There is some evidence of discretionary counter-cyclical adjustment during the early 2000s recession as well, but otherwise SCGs' fiscal stance has remained broadly unrelated to the change in output gaps before 2008.

Figure 2.5. Counter-cyclicality of fiscal policy by level of government

All series in per cent of potential GDP

Median across countries



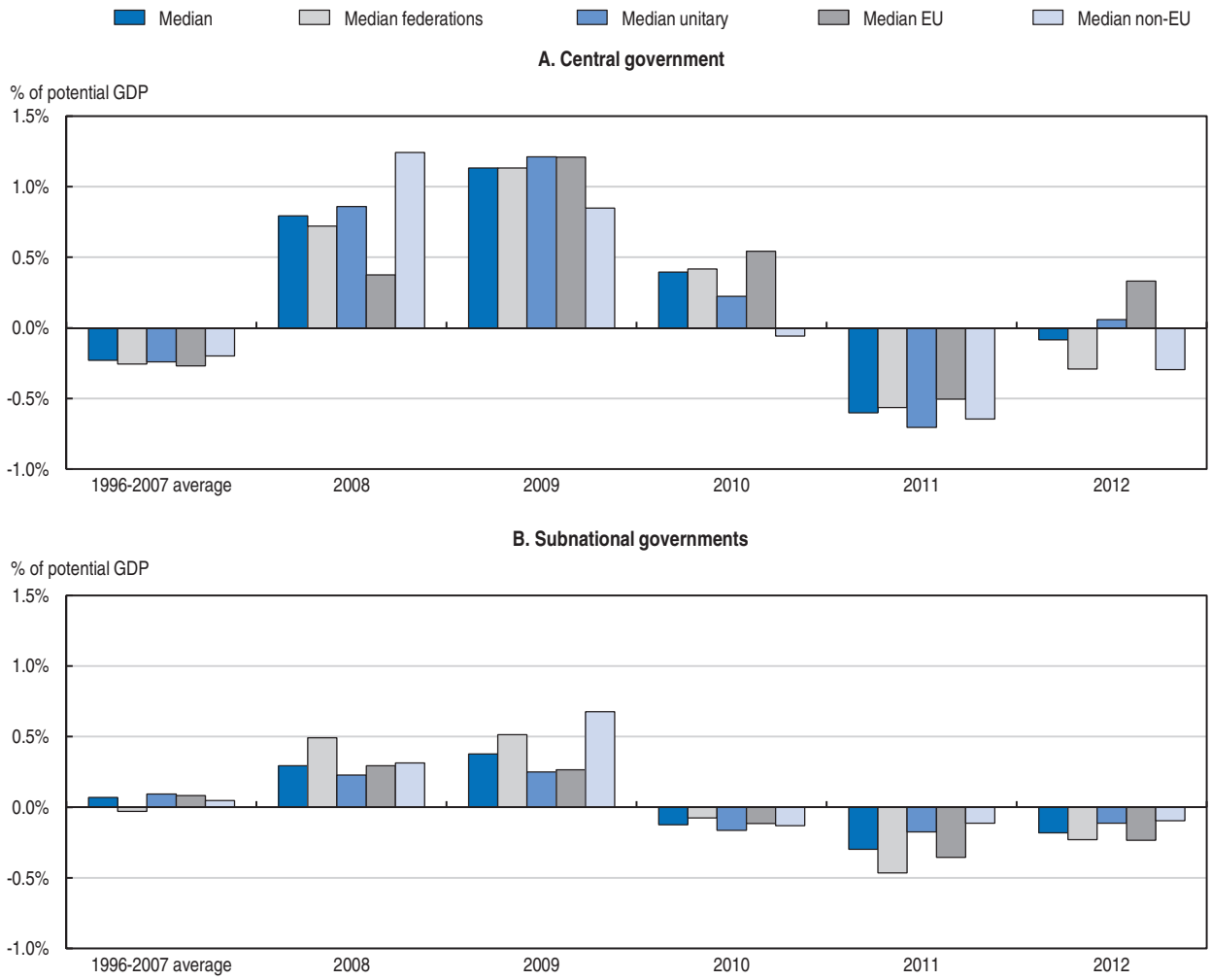
Source: OECD, WEO and authors' calculations.

Fact 4. Spending was the main discretionary policy instrument for both levels of government

Expenditure policy was the primary discretionary stabilisation instrument in 2008-10 for both levels of government (Figure 2.6). Among non-EU countries, however, structural revenue also dropped considerably at the CG level, as a result of supportive tax policy measures. Later on, through the consolidation phase, a discretionary tax increase was the first adjustment tool at the CG level (starting already in 2010), while expenditure-led consolidations became widespread only in 2011.

Figure 2.6. Change in own expenditure by level of government

Median across countries

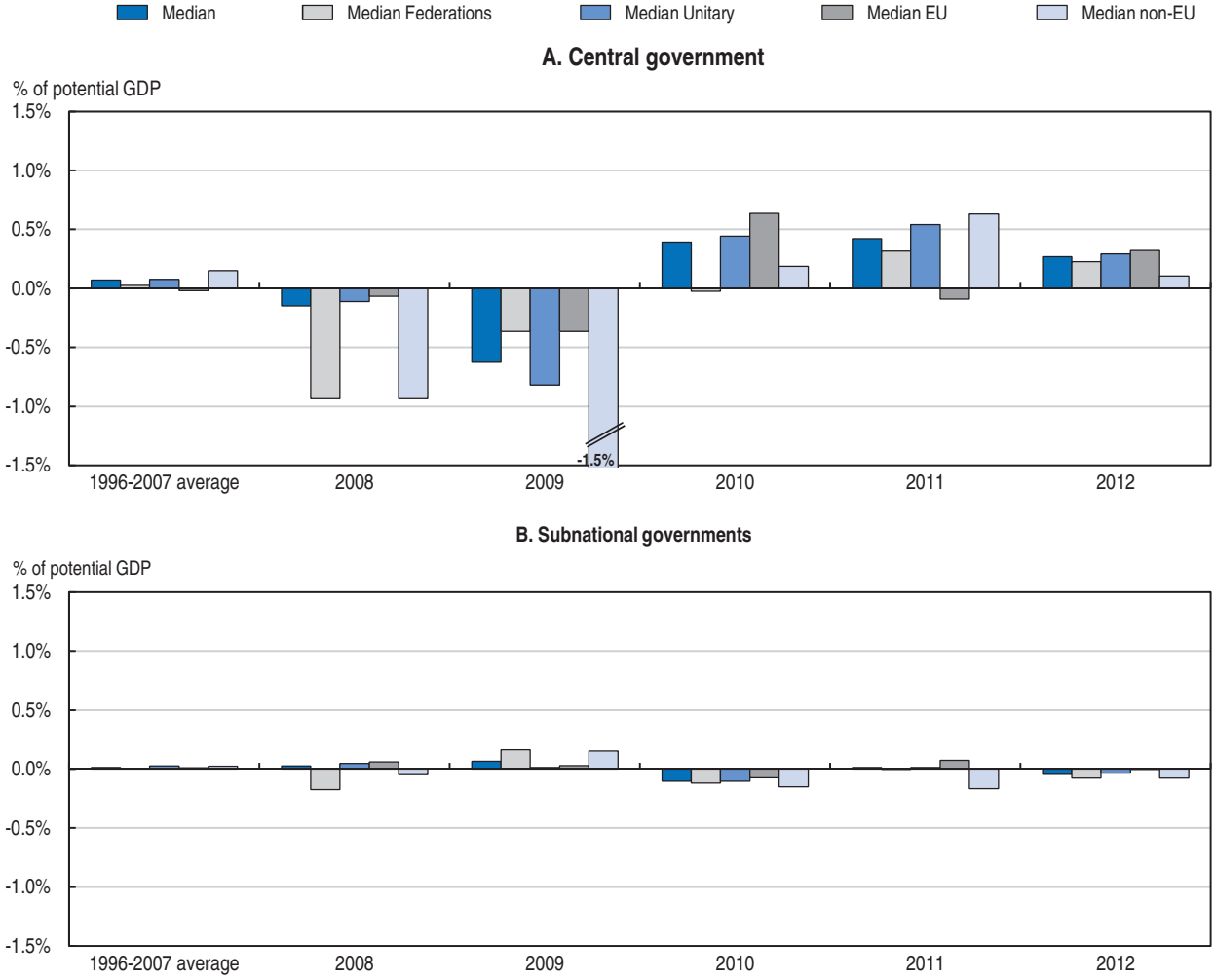


Source: OECD, WEO and authors' calculations.

The use of discretionary revenue policies was very limited at the sub-national level throughout the whole crisis period, even in federations (Figure 2.7). Both in their expansionary and contractionary phases, changes in own balances reflected mostly the evolution of expenditure, with a strong increase in 2008-09 and a retrenchment since 2010. However, as discussed below, these chances were to a great extent financed by transfers from the centre, particularly in unitary countries (Figure 2.9 and 2.10).

Figure 2.7. Change in own cyclically-adjusted revenue by level of government

Median across countries



Source: OECD, WEO and authors' calculations.

3. Fiscal coordination after the crisis: Institutions and policies

Initial evidence presented in the previous section suggests improvements in the synchronicity of policy responses across government levels since the beginning of the crisis. This synchronicity appears to have been driven mainly by well-documented coordinated efforts across government levels to implement fiscal expansions (OECD, 2011). Greater fiscal coordination of the fiscal expansion following the trough of the crisis has led SCGs to behave counter-cyclically, breaking away from their broadly a-cyclical stance in the pre-crisis period. In order to better inform the subsequent econometric analysis, this section develops some testable hypotheses and explore some institutional and policy trends.

We focus on the role played by fiscal institutions against that of one-off policies. Under their mandate to pursue macroeconomic stabilisation and fiscal sustainability, CGs are expected to take the lead following a common shock (i.e. a shock simultaneously affecting all SCGs) in implementing and subsequently withdrawing fiscal expansions. SCGs can choose to follow the CG's lead if endowed with the proper incentives and capacity. Our two key priors are that i) fiscal synchronisation is a good proxy for fiscal coordination, given the common-shock nature of the crisis and ii) that SCGs' incentives and capacities can be moulded and locked-in with the adoption of proper fiscal institutions.

Our overarching hypothesis is that intergovernmental fiscal institutions have changed following the crisis, in a way to permanently increase SCG's capacity and incentives to synchronise fiscal responses with that of the central government when confronted with a common shock. Rejecting this hypothesis implies that post-crisis fiscal synchronisation may have been driven by one-off policies and that more should be done to improve fiscal coordination among government levels.

We will look, in particular, at reforms in the distribution of revenue and expenditure assignments across government levels – captured by changes in revenue and expenditure autonomy as proxied by revenue and expenditure decentralization ratios[6] – and those changing the design and enforcement of fiscal rules. Together, they are expected to affect SCGs incentives and capacities to follow CG's fiscal policy orientation. Their impact may vary depending on whether the objective is to promote a fiscal expansion or a fiscal consolidation. Partly motivated by the findings in Section I, and as documented elsewhere (Foremny and Von Hagen, 2012), we also assess the role of temporary increases in transfers in promoting fiscal coordination, proxied by the share of own spending financed by transfers (transfer dependency ratio).

3.1. Coordinating a fiscal expansion

SCGs are expected to follow CGs' lead in adopting an expansionary response, the greater the revenue and expenditure autonomy and the less strict are borrowing constraints – i.e. higher capacity owing to greater revenue and spending autonomy and more flexible rules (Rodden, 2002). Increasing expenditure (revenue) decentralisation may also act as a commitment device by increasing SCG incentives to adopt mutually agreed stabilisation policies (Schaltegger and Feld, 2007).[7]

CGs are also expected to induce a SCG fiscal expansion the more dependent SCGs are on transfers from the centre. Growing transfer dependency ratios would imply a declining (increasing) share of SCG own spending financed by SCG own revenues (central government transfers), thus increasing their incentives (capacity) to implement fiscal expansions in tandem with CGs (Foremny and Von Hagen, 2012).

3.2. Coordinating a fiscal consolidation

SCGs are expected to follow CGs' actions in withdrawing a fiscal stimulus and initiating fiscal consolidations the more enforceable sub-national rules are (incentives to not comply with fiscal rules are reduced) and, as in the case of fiscal expansions, the greater the availability of tax and spending instruments are at their disposal, i.e. the higher is their capacity and incentives to adjust.

Lowering transfer dependency undermines the coordination of fiscal consolidations, while it may increase fiscal discipline and leads SCGs to internalise an increasing share

of the costs of the provision of goods and services it provides (Rodden, 2002; Eyraud and Lusinyan, 2013). As a result, fiscal consolidations at the CG level that include reductions in central government transfers have been shown to induce SCGs to initiate fiscal consolidations of their own, particularly on the expenditure side, and have a positive impact on the duration of consolidation attempts (Darby et al., 2005).

3.3. Spending and revenue decentralisation

Spending and revenue decentralisation trends observed in the pre-crisis period have been interrupted for the median OECD country following the crisis (Figure 2.8). Particularly among unitary states, some post-2007 decline both in expenditure and revenue decentralisation is observed. In federations, however, the median country still saw some further fiscal decentralisation through 2007-09. In the case of EU countries, as previously documented (Eyraud and Moreno Badia, 2013), the crisis interrupted the decentralisation trend observed since the mid-1990s in most countries, except in Ireland.

CG stimulus packages may be part of the reason. At least part of the observed decline in spending decentralisation following the crisis seems to have been driven by the relatively greater use of public spending as a stabilization tool by central governments, rather than a systematic attempt to reverse the devolution of spending responsibilities to SCGs. Spending growth rates observed among CGs were higher than those observed at the sub-national level during the post-crisis expansionary period. Similarly, the average decline of revenue decentralisation seems to partly reflect the greater tax effort exerted by CGs to support fiscal consolidation, relative to SCGs. More recently, the decline in fiscal decentralisation may reflect an apparently stronger pace of consolidation by SCGs, as suggested by the stronger decline in spending relative to CGs.

Available evidence, therefore, does not suggest any trend increase for the average SCG spending and revenue decentralisation ratio following the crisis. Instead, average changes in revenue and spending decentralisation seem to reflect differential fiscal efforts across different levels at different stages of the crisis. This may suggest that differences on how SCGs reacted to CG fiscal policies could have more to do with differences in fiscal autonomy observed in the pre-crisis period.

3.4. One-off policies: The role of transfers

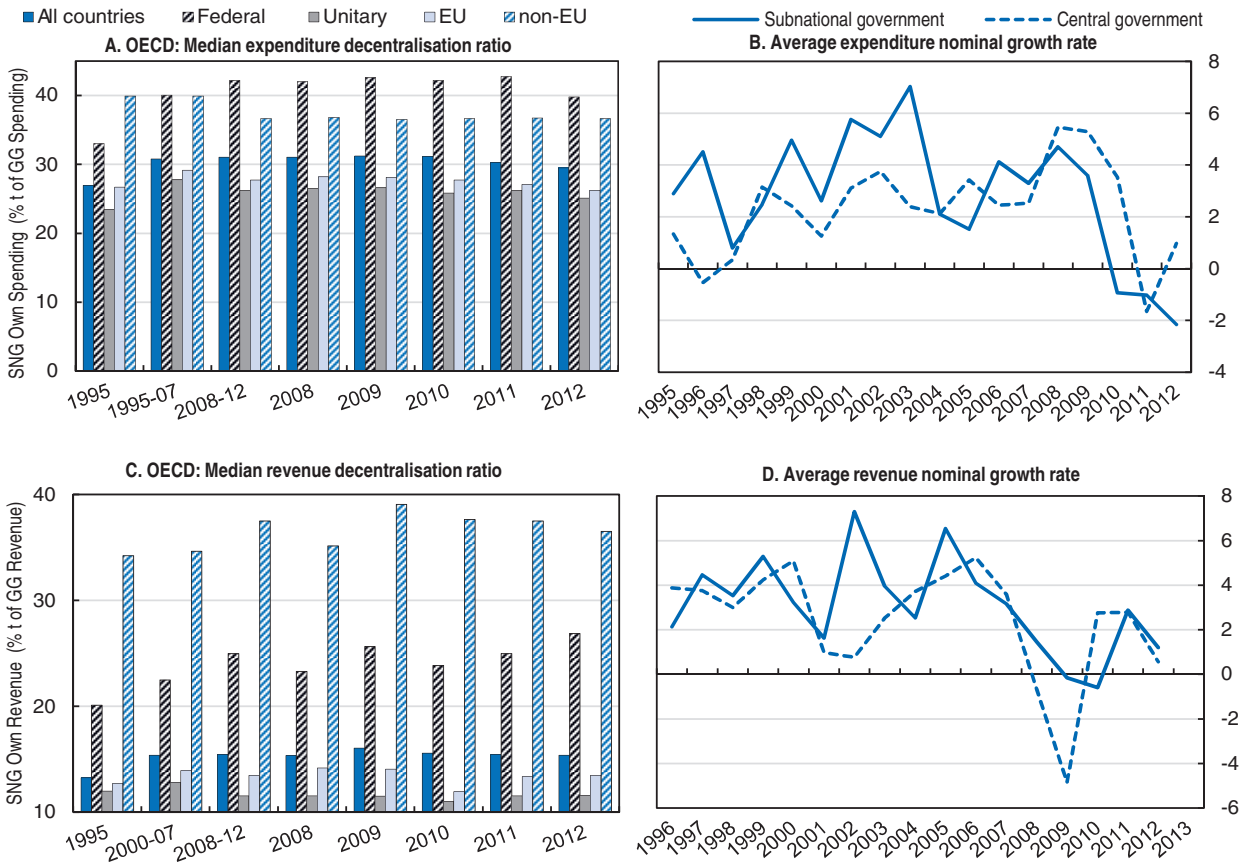
Transfer dependency declined only among federations in the post-crisis expansionary period. (Figure 2.9). As previously documented (Foremny and Von Hagen, 2012), transfer dependency in federal and unitary countries followed very different paths following the crisis. Central governments in unitary countries continued to use transfers to shield sub-national governments against the impact of the crisis. This has led to an increase in transfer dependency as transfers were increased to compensate for losses in SCGs' own revenues as a result of the severe economic slump in the immediate post-crisis years, as well as to finance SCGs' spending stimulus. Transfers were also the main driver of the observed increase in vertical fiscal imbalances – the share of own spending not financed by own revenues – among unitary countries during that period. On the other hand, transfer dependency declined in federations during the post-crisis expansionary period, reflecting the much greater role played by net borrowing in the financing of SCG spending stimulus. Net borrowing thus explains the increase in vertical fiscal imbalances in 2008-09 within federations.

Changes in transfer dependency ratios appear to be reverting in both federal and unitary countries since fiscal consolidation started. Transfer dependency started to increase among federations, as SCGs in this group started to scale back debt-financed own spending, and to decline among unitary countries reflecting discretionary cuts in central government transfers (Figure 2.10).

In sum, post-crisis trends in transfer dependency may have played a role in explaining post-crisis changes in fiscal coordination. However, its overall impact during the post-crisis period is likely to be ambiguous, given that changes were not permanent and varied both across crisis stages and among unitary and federal countries.

Figure 2.8. Expenditure and revenue decentralisation

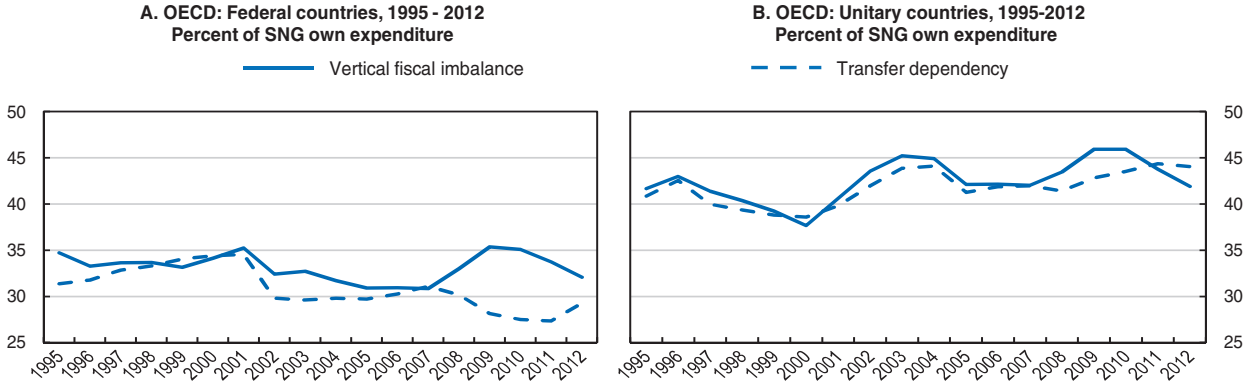
1995-2012



Source: OECD and authors' calculations.

Figure 2.9. Vertical fiscal imbalances and transfer dependency

1995-2012, median across countries

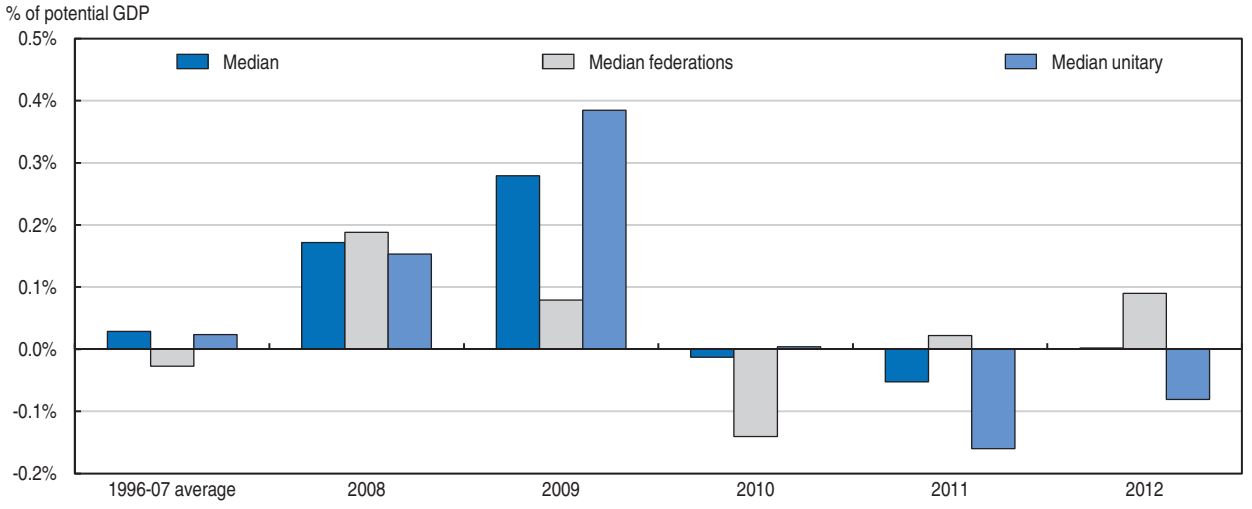


Note: Transfer dependency is defined as the ratio of net transfers to own expenditure. Vertical fiscal imbalances are defined as the ratio of the sum of net transfers and borrowing to own expenditure.

Source: OECD, WEO and authors' calculations.

Figure 2.10. Change in net transfers to sub-national governments

1995-2012, median across countries



Source: OECD, WEO and authors' calculations.

3.5. Sub-national fiscal rules

In the aftermath of the crisis, a number of countries reformed their fiscal rules to allow for the implementation of expansionary fiscal policies (OECD, 2014). Fiscal rules at that time, including those at the sub-national level, were seen as rigid by constraining the full operation of automatic stabilisers, let alone the implementation of discretionary fiscal efforts at the GG level. As such, some of these rules have been deliberately not enforced. However, issues with both the rigidity and flexibility of the rules pre-date the crisis. Lack of compliance with rules, including at the sub-national level, was observed in the pre-crises years, and rules were not capable of commanding an adequate level of savings in good times in many countries.

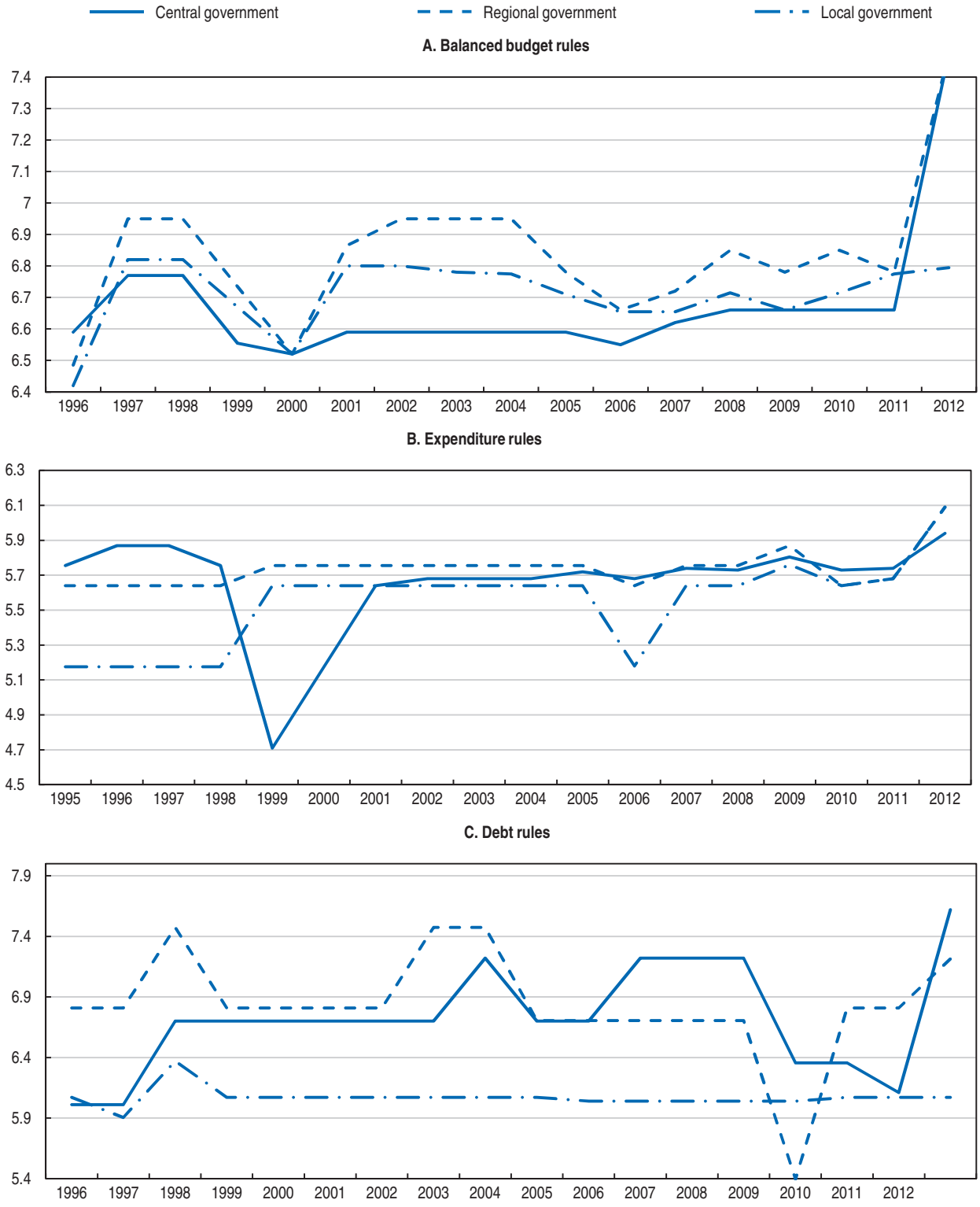
To strengthen the credibility of rule-based frameworks, particularly in the European Union (EU) with the adoption of the Fiscal Compact, there has been an effort to increase the flexibility of fiscal rules, in the sense of at least letting the automatic stabilisers work, while at the same time improving enforceability. Measures to increase flexibility included the adoption of structural balance-based objectives, escape clauses and ex-post corrective measures. Rule enforcement was strengthened through the adoption of prevention mechanisms to warn against impending deviations, automatic corrective adjustment programmes and coercive (financial or administrative penalties) mechanisms, to be imposed at the different government levels. Independent fiscal councils were created to monitor the implementation of these mechanisms. At the SCG level, such new design features were supported by improvements of public financial management procedures, notably to improve the transparency of sub-national fiscal accounts and the timeliness of their reports.

Reforms in the aftermath of the crisis have indeed led to stronger sub-national fiscal rules as measured by an index constructed by the European Commission.[8] We use data provided by the European Commission (2012b) to create for each country an index of the strength of balanced budget, debt and expenditure rules imposed at the sub-national level (local and regional governments).[9] Rule strength takes into account both the flexibility and enforcement attributes described above.[10] Indexes are aggregated using as weights the share of the general government item (deficit, debt, spending) which is covered by that rule.

Sub-national fiscal rules, at least among EU countries, have strengthened since 2011 (Figure 2.11). Improvements have cut across different rule types and were particularly marked among federations (Figure 2.12). Stronger and more flexible rules hold greater promise of promoting greater fiscal coordination in the future.

Figure 2.11. Sub-national fiscal rules strictness index

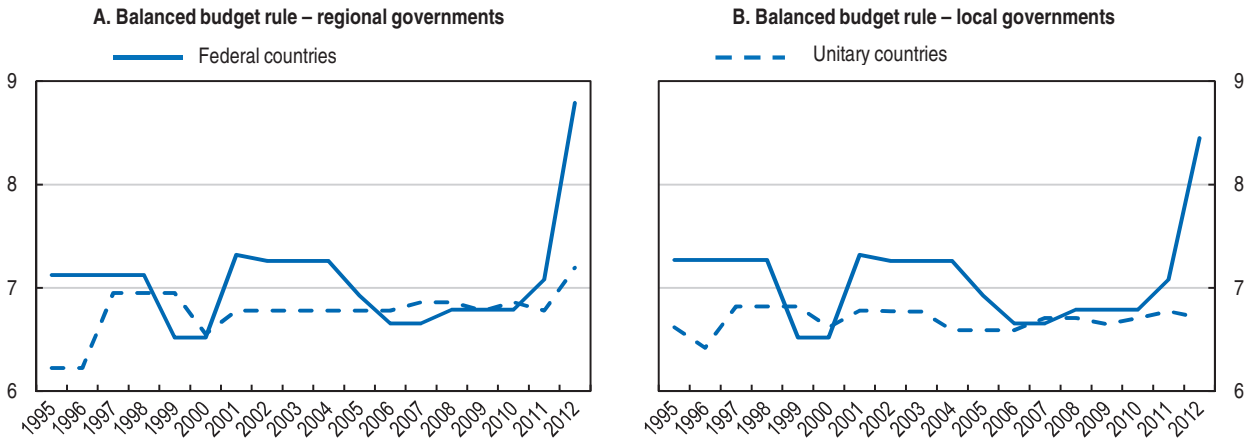
1995-2012, median across countries



Source: European Commission and authors' calculations.

Figure 2.12. Balanced budget rules: Federations and unitary countries

1995-2012, median across countries



Source: European Commission and authors' calculations.

4. Testing for intergovernmental fiscal coordination

This section proposes a simple econometric exercise to test the conjectures regarding the institutional determinants of intergovernmental fiscal coordination discussed in the previous section, as well as the evolution of such coordination over time.

4.1. Empirical model and testable hypotheses

The model consists of a standard ex-post reaction function of SCGs' discretionary fiscal response to CG's fiscal response, controlling for key macroeconomic determinants of SCGs' fiscal responses such as cyclical conditions and long-term solvency, as summarized in (1).

$$\Delta f_{it}=\alpha +\lambda_{it}\, \Delta f'_{it-j} + \theta f_{it-1} + \beta gap_{it} +\gamma debt_{it} + \psi Z_{it} + \varepsilon_t +\eta_i \qquad (1)$$

f_{it} and f'_{it} indicate, respectively, the SCG's and the CG's cyclically-adjusted own balance in country *i* and year *t* (as percent of potential GDP), 'gap' is the output gap, and 'debt' is the sub-national debt to GDP ratio. Δf – the fiscal impulse of SCGs, as measured by the change in their cyclically-adjusted own balance – is expected to react to $\Delta f'$, potentially with a lag of *j* years. Z is a vector of control variables which can influence SCGs' fiscal responses. Time and fixed effects (ε_t and η_i) are also taken into account. The panel covers annual data between 1995 and 2012. It is limited to EU countries given the absence of comparable time-varying indicators of SCG fiscal rule strength for the broader OECD sample.

The existence and magnitude of intergovernmental fiscal synchronisation is measured by the potentially time-country varying coefficient λ_{it}. A positive and statistically significant λ provides evidence of fiscal coordination, once the effect of common shocks – as described in the previous section – is taken into account, meaning that CG and SCGs fiscal policies will have an unambiguous impact on the fiscal stance of the GG. A negative value instead indicates that fiscal policies at each level of government counteract each other.

Fiscal institutions and policies are expected to affect fiscal coordination at the margin. They will do so by amplifying or constraining how SCGs' fiscal responses react to that of central governments, i.e. by affecting the time-state varying coefficient λ, as described in (2). Building on the discussion in Section 3, we test if λ is influenced by a set of variables capturing i) revenue and spending decentralisation ratios ('rdecent' and 'gdecent'); ii) transfer dependency ('td'); and iii) the flexibility and enforcement of sub-national fiscal rules measured by the sub-national rule indexes previously described ('rule').[11] We also look at whether λ differs before and after the crisis independently of the institutional context, by including in (2) a dummy that equals 1 for the post-2007 period ('crisis').

$$\lambda_{it} = \lambda_0 + \lambda_1 crisis + \lambda_2 rdecent_{it} + \lambda_3 gdecent_{it} + \lambda_4\, td_{it} + \lambda_5 rule_{it} \quad (2)$$

Against this background, we test the following hypotheses:[12]

H1: Coordination increases during the crisis ($\lambda^*_{07\text{-}12} - \lambda^*_{95\text{-}07} > 0$); where λ^* is the sample mean;

H2: Coordination increases independently of institutional changes ($\lambda_1 > 0$);

H3: Coordination increases with spending decentralisation ($\lambda_2 > 0$);

H4: Coordination increases with revenue decentralisation ($\lambda_3 > 0$);

H5: Coordination increases with the flexibility and enforcement of SCG fiscal rules ($\lambda_5 > 0$);

Given the potentially ambiguous effect of transfer dependency, as discussed above, we do not spell out a prior on how it should relate with fiscal coordination.

4.2. Empirical results

We first run equation (1) assuming a time/country invariant λ_{it} in a standard panel OLS regression with fixed effects. The results of this exercise are summarised in Table 2.2. On average, discretionary policies of central and sub-national governments have not been synchronised. On the contrary, the estimated coefficient on changes of the CGs' own CAB is negative and statistically significant across all specifications, except within EU federations (column 5), where there is significant evidence of coordination. The same distinction is visible in the reaction of SCGs' own CABs to the output gap. Although there is (weak) evidence of pro-cyclicality in the whole sample, the opposite happens in federations. This corroborates the findings in Section 2 and is unsurprising in light of the wider availability of adjustment instruments by SCGs within federations.

The effect of control variables is generally as expected. SCGs tend to consolidate more when faced with higher debt burdens and when transfer dependency is lower.[13] Greater spending decentralisation in turn is associated with a deterioration of SCGs' own balances. This could be explained by a lag between expenditure and revenue decentralisation observed during the pre-crisis years (Escolano et al., 2012). Finally, the overall strength of SCGs fiscal rules is more conducive to fiscal consolidation at the sub-national level.

The specifications above may be subject to an endogeneity problem. In particular, the fiscal stance at each level of government may be jointly determined, and results in Table 2.2 not necessarily portray causality from Δf' to Δf (equation 1). Although our main interest is on synchronicity (rather than causality), we consider alternative specifications in an attempt to address this issue. We consider first how the coefficient

changes if the change in CGs' own CAB is lagged one period (column 3). The coefficient in this case changes considerably, presenting (weak) evidence of (lagged) coordination across levels of government. Given however that we use annual data, the time lag is too large to interpret this result as evidence of fiscal coordination. Second, by including spending decentralisation and transfer dependency as controls, we account for some of the main reasons why CGs' and SCGs' own CABs may change jointly. Despite these variables having a significant impact on SCGs' fiscal stance, the negative relation between the latter and CGs' fiscal stance is still evident (in fact it is stronger; column 4).

Table 2.2. Determinants of changes in SCGs' own CAB (% of potential GDP) in the EU[1]

	(1)	(2)	(3)	(4)	(5) Federations
SNG Own CAB, % Potential GDP	-0.16***	-0.16***	-0.14***	-0.50***	-0.11
(Lagged 1 year)	(0.03)	(0.03)	(0.04)	(0.04)	(0.10)
Δ CG own CAB, % of Potential GDP	-0.12***	-0.12***		-0.04**	0.09**
	(0.02)	(0.02)		(0.02)	(0.04)
Δ CG own CAB, % of Potential GDP			0.02		
(Lagged 1 year)			(0.02)		
Output Gap, % of Potential GDP		-0.04*	-0.01	-0.02	0.03
		(0.03)	(0.03)	(0.02)	(0.10)
SNG Debt, % of Own Revenue		0.01***	0.01***	0.002*	0.00
(Lagged 1 year)		(0.00)	(0.00)	(0.00)	(0.00)
Transfer Dependency				-0.06***	-0.09***
				(0.01)	(0.02)
Spending Decentralization				-0.10***	-0.26***
				(0.01)	(0.06)
SNG fiscal rules; overall strength				0.03**	0.02
index				(0.01)	(0.03)
R^2	0.25	0.31	0.2	0.57	0.77
N	327	308	290	308	63

Note: * p<0.1; ** p<0.05; *** p<0.01.

1. Fixed effects OLS panel estimates; standard errors are in parenthesis. Constant and both country and time effects included in all regressions, although coefficients are not reported.

Source: Authors' calculations.

The empirical results generally support hypothesis H1, H2, and H3, but not H4 and H5. Table 2.3 shows the panel estimations for the EU countries:[14]

- As discussed, we find a negative correlation between central and sub-national fiscal responses over the whole sample period, but Table 2.3 highlights a robust positive change in the aftermath of the crisis. Column (1) shows results confirming the average increase in intergovernmental coordination (H1). In all the remaining columns, H2 is corroborated, as the coefficient to the interaction term between CGs' fiscal stance and the post-crisis dummy remains positive and significant, conditional on the evolution of the other institutional features affecting coordination incentives and capacity.

- The decentralisation of expenditure mandates also seem to improve fiscal coordination (H3), as measured by λ_3, which is generally positive and significant. SCGs with wider expenditure responsibilities would in principle dispose of more instruments to smooth the effects of the business cycle, as opposed to those with very limited mandates. We do not find, however, a strong statistical relation between revenue decentralisation and coordination (H4).

- Transfer dependency reduces the fiscal coordination coefficient, as suggested by a negative estimated λ_4. The coefficient is, however, not significant, which can be associated with the potentially ambiguous implications of transfer dependency on fiscal coordination, as argued above.

- We do not find evidence of a strong association between SCGs' fiscal rules and coordination across levels of government. The change in synchronisation in the aftermath of the crisis therefore does not seem to be explained by changes in rules. The finding does not preclude, however, an important potential role for fiscal rules in enhancing coordination. As shown in Section 3, fiscal rules at the SCG level changed most prominently among federal countries, while the EU sample is overwhelmingly composed of unitary countries. More importantly, the change in rule strength occurred towards the end of the post-crisis years only (2011-12), while in Table 2.3 the pre/post-2008 responses were analysed.

- Table 2.3 presents evidence of pro-cyclical fiscal policy over the whole sample period at the sub-national level. Although the result is apparent also in Table 2.2, it was not statistically significant under the reduced specification therein (equation 1).

Table 2.3. Determinants of changes in SCGs' own CAB and intergovernmental fiscal coordination in the EU[1]

	(1)	(2)	(3)	(4)	(5)
SNG Own CAB, % Potential GDP	-0.49***	-0.29***	-0.29***	-0.49***	-0.49***
(Lagged 1 year)	-0.04	-0.04	-0.04	-0.04	-0.04
Δ CG own CAB, % Potential GDP	-0.08***	-0.24***	-0.27***	-0.16**	-0.19**
	-0.03	-0.05	-0.06	-0.07	-0.08
(Δ CG own CAB, % Potential GDP)	0.11***	0.22***	0.22***	0.14***	0.15***
x (Post Crisis Period Dummy)	-0.03	-0.04	-0.05	-0.04	-0.04
(Δ CG own CAB, % Potential GDP)		0.00	0.00		
x (Revenue Decentralization)		(0.00)	(0.00)		
(Δ CG own CAB, % Potential GDP)				0.003***	0.004***
x (Spending Decentralization)				(0.00)	(0.00)
(Δ CG own CAB, % Potential GDP)				-0.0003	-0.0001
x (Transfer Dependency)				(0.00)	(0.00)
(Δ CG own CAB, % Potential GDP)		0.00		-0.00	
x (SNG Rules, Overall Strength Index)		(0.00)		(0.00)	
(Δ CG own CAB, % Potential GDP)			0.03		0.03
x (SNG Rules, Monitoring Strength)			-0.05		-0.04
(Δ CG own CAB, % Potential GDP)			-0.04		-0.03
x(SNG Rules, Alert Mechanism Str.)			-0.04		-0.04
(Δ CG own CAB, % Potential GDP)			0.04		-0.00
x (SNG Rules, Enforcement Str.)			-0.05		-0.04
(Δ CG own CAB, % Potential GDP)			-0.06*		-0.02
x (SNG Rules, Adjustment Margin Str.)			-0.03		-0.03
(Δ CG own CAB, % Potential GDP)			0.02		0.02
x (SNG Rules, Escape Clause Str.)			-0.04		-0.03
Output Gap, % Potential GDP	-0.03*	-0.03*	-0.04**	-0.03**	-0.04**
	-0.01	-0.02	-0.02	-0.01	-0.02
SNG Debt, % Own Revenue	0.003**	0.003**	0.003*	0.003**	0.002**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Revenue Decentralization		-0.10***	-0.10***		
		-0.02	-0.02		
Transfer Dependency	-0.06***			-0.06***	-0.06***
	-0.01			-0.01	-0.01
Spending Decentralization	-0.10***			-0.10***	-0.10***
	-0.01			-0.01	-0.01
SNG Rules, Overall Strength Index	0.01	0.00	0.00	0.01	0.01
	-0.01	-0.02	-0.02	-0.01	-0.01
R^2	0.53	0.39	0.40	0.55	0.55
N	308	308	308	308	308

Note: * $p<0.1$; ** $p<0.05$; *** $p<0.01$.

1. Fixed effects OLS panel estimates; standard errors in parenthesis. A constant included in all regressions, as well as the post-crisis period dummy (same dummy used in the first interaction term presented above), although coefficients are not reported.

Source: Authors' calculations. Calculations are based on a fixed effects OLS panel estimates; standard errors are in parenthesis. A constant is included in all regressions, as well as the post-crisis period dummy (same dummy used in the first interaction term presented above), although coefficients are not reported. * p<0.1; ** p<0.05; *** p<0.01.

5. Conclusions

This paper documented some key facts on the timing, synchronicity, cyclicality and composition of central and sub-national governments' fiscal responses in the post-crisis years. The paper found evidence that fiscal responses across government levels have become more synchronised, suggesting coordinated efforts across government levels to implement and withdraw fiscal expansions in the crisis aftermath. It then provided an initial discussion of the role that changes in fiscal institutions and one-off policies may have played to foster the fiscal coordination improvements observed during the crisis vis-a-vis the pre-crisis period.

Tentative empirical results show that fiscal synchronisation has improved during the crisis partly as a result of greater spending autonomy. We could not find any evidence that additional revenue autonomy or a smartening of sub-national rules contributed to the observed improvement in fiscal coordination in the post-crisis years. Transfers, on the other hand, were found to negatively impact fiscal coordination, though the statistical relation is not significant.

Our results are consistent with existing evidence showing that SCGs have usually supported successful fiscal consolidations through spending cuts, not tax hikes (Darby et al., 2005 or Blöchliger, 2013). The absence of a statistically significant impact from transfer dependency could be the result of counteracting effects of this variable on SCGs' fiscal stance during fiscal expansions by central governments and consolidation phases during the crisis. In the first years after the global crisis, when CGs were providing stimulus to the economy, SCGs benefitted also from higher transfers, allowing them to spend more, complementing CG-led stimulus. Subsequently, as transfers were being phased-off, SCGs' spending mandates could only be met by preserving (or increasing) their fiscal deficits, undermining adjustment at the central government level (OECD, 2013). The absence of an impact from fiscal rules could reflect the lack of within-time variation in the sample, as most of the rule smartening took place at the end of the sample period.

In addition to revisiting some of the facts and trends econometrically and supporting them more through individual country examples, an immediate extension would be to assess whether greater synchronisation of fiscal policies across different levels of government does indeed constitute evidence of concerted fiscal efforts. This would require a closer look at the process of budget formulation, approval, and execution to directly identify both intentions of and actions by different government levels to complement each other's efforts to facilitate general government consolidation. A possible starting point would be to tackle that qualitatively by looking at meeting minutes of intergovernmental fiscal body. The econometric exercise may also be strengthened by the use of instrumental variables to address potential endogeneity issues, which prevent us from establishing a direct causal relationship from CG to SCG policies.

Notes

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2. Ter-Minassian and Fedelino (2010); Blöchliger et al. (2010, 2012, 2013) and Foremny and von Hagen (2012) to name a few.

3. A number of the previous studies have relied on fiscal indicators such as the overall balance that are not cyclically adjusted or do not exclude intergovernmental transfers, thus not truly capturing the level of discretionary effort by different levels of government, SCGs in particular. Those that did, have included revenues shared with CGs as own revenues, therefore overestimating tax effort at the sub-national level.

4. We think of central government (CG) taking the lead in fiscal expansions and consolidations in the sense of having more instruments – thus, capacity – and the political mandate – thus, incentives – to do so, particularly in unitary countries. This does not necessarily imply that CGs' fiscal responses always lead SCG's in time; that is, the fiscal responses of CGs and SCGs can still coincide in time (on an yearly basis).

5. Our sample of includes Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States. For the purpose of our analysis, the group of federal countries includes: Australia, Austria, Belgium, Canada, Germany, Spain, Switzerland and the United States.

6. Admittedly, spending and revenue decentralisation ratios are an imperfect proxy for spending and revenue autonomy as they may change independently of changes of tax and spending assignments across government levels. We rely on these indicators given the absence of alternative fiscal autonomy indicators covering the post-crisis years.

7. By not adopting an expansionary stance, each SCG imposes a cost on others. Such costs increase with fiscal decentralisation because the scope of CGs to pursue macro stabilisation becomes more limited. As this becomes common knowledge, coordination incentives would be reinforced by increased political pressure from peer SCGs as well as from SCG officials own constituencies.

8. A similar index constructed by the OECD for its members is only available for 2005 and 2011.

9. Revenue rules are excluded from the analysis. Their constructed strength index is expected to capture attributes related to tax harmonisation, without a direct bearing on the credibility of sub-national fiscal expansions and consolidations.

10. The rule strength index can be decomposed into seven attributes: legal coverage, statutory strength, the existence of an adjustment margin, the existence of escape clauses, the existence of monitoring bodies, the existence of enforcement bodies, the existence of alert mechanisms, the presence of non-compliance actions and media visibility.

11. We have calculated an overall strength index for each country by aggregating the strength index across all SCG fiscal rules in that country. Similarly, flexibility and enforcement indexes were created by aggregating the specific attribute strength index for all SCG fiscal rules in that country. Flexibility was proxied by the following attributes: adjustment margin and escape clause. Enforcement was proxied by the following attributes: monitoring, enforcement and alert mechanism.

12. Given the strong correlation between revenue decentralisation and, individually, spending decentralisation and transfer dependency, we do not test for H3 and H4 holding simultaneously (Table 3). Spending decentralisation and transfer dependency are not strongly correlated.

13. The positive effect of SCG debt on changes in their own CAB is also found when the former is measured as per cent of GDP.

14. Lack of time-varying fiscal rules prevented us from testing all hypotheses for the entire OECD sample. A table in the Appendix summarises the results for the entire sample, but excluding sub-national fiscal rules from the specifications. Our findings remain the same.

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Chapter 3

Fiscal constitutions: The fundamental drivers of intergovernmental fiscal policy

Hansjörg Blöchliger and Jaroslaw Kantorowicz

Fiscal constitutions contain a set of rules and frameworks, which are usually enshrined in a country's fundamental laws. Fiscal constitutions guide fiscal policy and hence shape fiscal outcomes. This chapter describes the empirical approach to assessing the fiscal constitutions of 15 federal countries in a comparative way and provides an overview on the most salient results. The chapter first goes more into the details of what is understood by the term "fiscal constitutions". The following section then describes the building blocks of fiscal constitutions and assesses them empirically using a common coding framework. Section 4 goes on to combine and link the building blocks to characterise specific types of fiscal constitutions, i.e. to what extent they are decentralised or integrated. Section 5 then traces the development of the fiscal constitutions over time, identifies main trends, and explains the major reforms and their driving forces. Lastly, Section 6 provides basic evidence on the association between types of fiscal constitutions and fiscal outcomes.

1. Fiscal constitutions: Definition and scope

Fiscal constitutions contain a country-specific set of fundamental rules and regulations, which guide decision making in the area of fiscal policy. Fiscal constitutions cover constitutional law as well as selected post-constitutional legislation like basic fiscal and financial laws or rulings of the constitutional court. As such, the fiscal constitution encompasses all legislation that is subject to harsher amendment rules – usually qualified majorities – and hence provides a (relatively) stable institutional framework for fiscal policy over time. Fiscal constitutions set the rules of the public finance game, thereby providing a framework for policy makers and driving or discouraging certain policy patterns (Brennan and Buchanan, 1980). By shaping incentives and limiting arbitrariness, the fiscal constitution determines the course of fiscal policy and fiscal outcomes in the long term (Qian and Weingast, 1997).

Fiscal constitutions comprise rules on taxation and spending, intergovernmental relations, budget rules and frameworks, or the political settings like the division of power between the executive, legislative and judiciary or the role of bicameralism. Different fiscal constitutions are likely to imply different outcomes. There is a rich literature on the relationship between certain elements of the institutional setup of a country and fiscal outcomes. Yet the interaction between the various elements of a fiscal constitution is rarely analysed comprehensively, thereby neglecting that the manner in which various arrangements fit together is crucial for outcomes. Indeed, certain combinations of arrangements might be more conducive to achieving policy objectives such as sustainable fiscal outcomes or crisis prevention (Voigt 2011a, 2011b). For that reasons, much weight is put on analysing how arrangements are interlinked and identifying *coherent* (or *aligned*) fiscal constitutions.

This study focuses on the fiscal constitution of *federal countries,* and it does so for two reasons. *First*, federal fiscal constitutions are far more complex than those of unitary countries. In federal countries, a great deal of the fiscal constitution relates to intergovernmental relations, thereby establishing rules on the power-sharing between the federal level and the states.[1] In other words, the fiscal constitution of federal countries is mainly concerned with specifying the conduct of fiscal policy across government levels and the separation of fiscal authority between them. *Second*, federal countries may inspire institutional reforms in emerging "federations", either individual countries that are on a secular path towards decentralisation, or supra-national entities such as the European Union that are about to build their constitutional framework. In both cases, almost any potential fiscal policy question has a "who should do what" or "federal" dimension, and this paper may shed some light on the options for constitutional reform.

2. The building blocks of a fiscal constitution

2.1. Measuring arrangements: Institutional arrangements

Fiscal constitutions consist of a set of building blocks (or arrangements), and in turn each building block comprises a series of constituting elements (Table 3.1). Five building blocks are distinguished, which together reflect the institutional background of fiscal policy-making across government levels. A constituting element represents a constitutional rule on a specific item, while the building blocks combine several items. For instance, "tax autonomy" of the states is a constituting element, while "autonomy" is the building block encompassing tax, spending, borrowing and budgeting autonomy. And while numerical fiscal rules are a single constituting element of the budget framework, the latter also includes procedural rules and the functioning of fiscal councils.

Table 3.1. The building blocks of fiscal constitutions

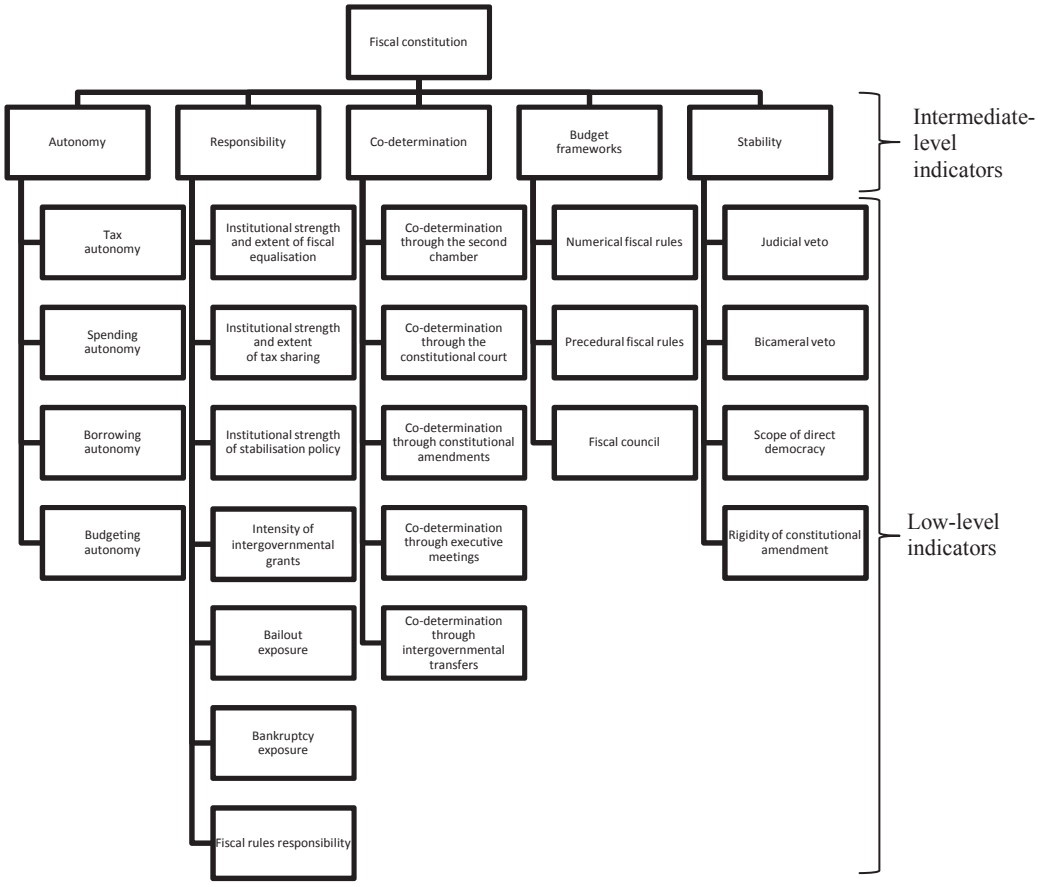
Building block or arrangement	Description	Constituting elements
Autonomy	The extent to which sub-federal governments can conduct their own fiscal policy.	Tax autonomy; spending autonomy in various policy areas; autonomy to borrow; autonomy over setting budget frameworks.
Responsibility	The degree to which sub-federal governments are exposed to budget constraints and must assume responsibility for their own fiscal policy.	Bankruptcy exposure; bailout expectations; responsibility for setting fiscal rules; state revenue mix; dependence on revenue from federal transfers.
Co-determination	The extent to which sub-federal governments can shape fiscal policy at the federal level.	The various channels through which states can co-determine fiscal policy at the federal level: bicameralism; review by constitutional courts; intergovernmental executive bodies and meetings; federal transfers.
Budget frameworks	The degree to which fiscal rules and budgetary frameworks constrain discretionary fiscal policymaking at all governmental levels.	Various elements shaping the strength of fiscal frameworks: numerical fiscal rules; procedural fiscal rules; fiscal councils and other independent or arms-length bodies
Stability	Ease at which constitutional rules affecting fiscal policy can be amended.	Elements include the strength of the second chamber; the power of constitutional courts; majorities needed to amend the constitution; scope of direct democracy/popular veto.

Source: OECD Secretariat.

Fiscal constitutions, their building blocks and their elements are assessed by means of *institutional indicators*, which together form an indicator tree (Figure 3.1). Each element of the fiscal constitution is represented by a low-level indicator (LLI). These are then aggregated to intermediate-level indicators (ILIs) reflecting the building blocks. ILIs are again aggregated to form a summary indicator, which reflects the overall characteristics of the fiscal constitution. Indicator values depict whether the fiscal constitution features "more" or "less" of a certain element or building block and range from 0 to 1. Finally, central bank independence and the political system are briefly assessed, which helps, among others, comparing institutions of fiscal policy against those of monetary policy.

Figure 3.1. Fiscal constitutions: Indicator tree

Low-level indicators for the assessment of building blocks (intermediate-level indicators)



2.2. Measuring the coherence of arrangements: The random weights technique

Particular attention is given to *coherence* (or *alignment*) of the fiscal constitution. A coherent fiscal constitution combines institutional arrangements in a balanced manner. In a coherent fiscal arrangement indicator values across elements (LLIs) or building blocks (ILIs) are similar. For instance, a coherent fiscal constitution provides similar degrees of autonomy for various budget items (taxation, spending, borrowing, etc.); or it aligns a certain level of autonomy with a similar level of responsibility. Conversely, a less coherent fiscal constitution combines elements and building blocks in an unbalanced manner, for example by combining large fiscal autonomy with a strict fiscal rules framework. Unlike indicator values which have no normative connotation, "coherence" contains a value judgment insofar as "more" coherence is considered better than "less" coherence.

Coherence is the variance around indicator values as measured by a technique called *random weights*. This method allows calculating both the level of indicator values and the variance around them. As applied here, the technique uses 1 000 sets of randomly generated weights applied to LLIs to calculate 1 000 overall ILIs. The weights are drawn from a uniform distribution between zero and one and are normalised so as to sum to one.

Accordingly, the resulting distribution of indicators for each element (LLI) reflects the possible range of values of the building blocks (ILIs). Confidence intervals are calculated from these distributions and they are centered on the mean of each country's 1 000 indicator values. The more similar the values of the LLIs that form one ILI, the smaller the confidence interval. The variance can be interpreted as the *degree of* coherence of an arrangement (Blöchliger, 2008). The smaller the variance, the lower coherence. If each LLI has the same value, no variance around the average would emerge since whatever weight is given to the LLIs, the resulting average ILI would always be the same.

3. Indicator results for the five building blocks

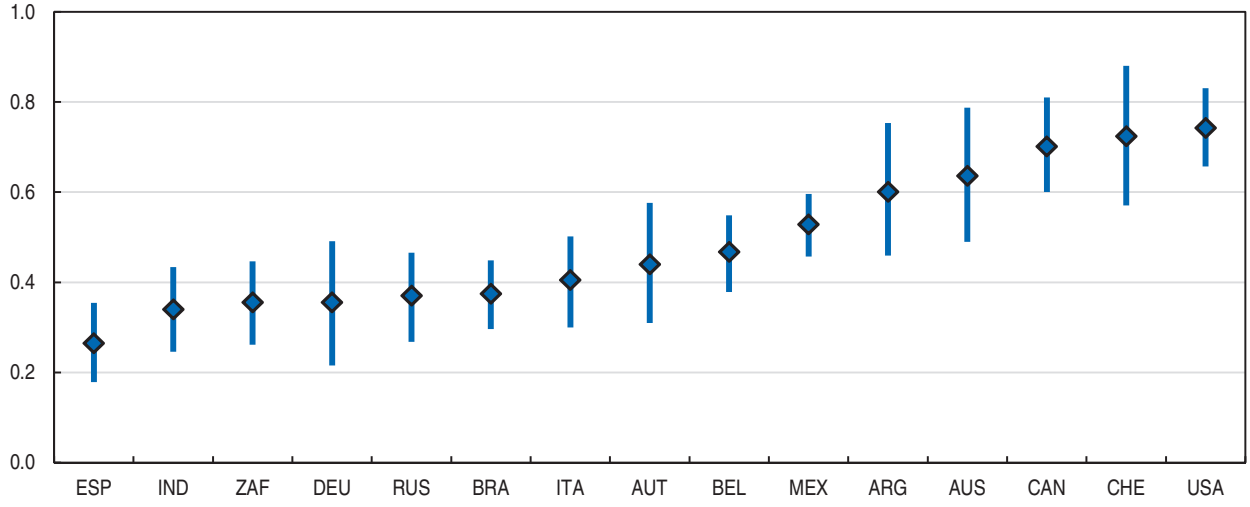
3.1. Autonomy

The autonomy indicator captures the assignment of fiscal power across government levels and the extent to which sub-federal governments can conduct policy in the area of taxation, spending, borrowing and budgeting. Fiscal constitutions provide very different degrees of autonomy to sub-national governments. In some federations the state level is a *de facto* branch of the federal level, while in others states enjoy large fiscal autonomy and little interference from the federal level. Coherence also varies: while some countries feature similar degrees of autonomy for all budget areas, some others combine large spending and borrowing autonomy with little tax autonomy.

Intermediate level indicators (ILI) representing autonomy are presented in Figure 3.2. High values of the indicator, i.e. large fiscal autonomy of the state level, are observed in the United States, Canada and Switzerland. Moderate levels of autonomy are found in Australia, Argentina and Mexico. The other countries – with a measure of fiscal autonomy below 0.5 – could be classified as countries with low sub-federal fiscal autonomy, with Spain, India and South Africa showing the lowest scores. Alignment or coherence of autonomy levels, as shown by confidence intervals – the vertical bars – varies considerably across countries. Mexico's autonomy setting is relatively coherent – the states enjoy moderate autonomy in all fiscal policy areas – while the autonomy arrangements in Argentina, Australia, Austria and Germany look less coherent. In particular, the Australian and Argentinian fiscal constitutions are less coherent combining low tax autonomy with relatively moderate spending autonomy and high budgeting and borrowing autonomy.

Figure 3.2. Fiscal autonomy of the state level

Intermediate level indicator representing building block 1



In some countries tax, spending and borrowing capacity of the state level is strongly limited by the federal level, while others leave much scope for spending and borrowing and simultaneously provide for wide-ranging tax autonomy. Both institutional settings can provide for effective long-term fiscal sustainability. Yet an uneven distribution of autonomy may result in incoherent fiscal policy. In Argentina and Germany low sub-national tax autonomy combined with large borrowing autonomy led the states to behave opportunistically and failed to meet budget targets despite deficit rules (Tommasi et al., 2011; Kirchgässner, 2013).

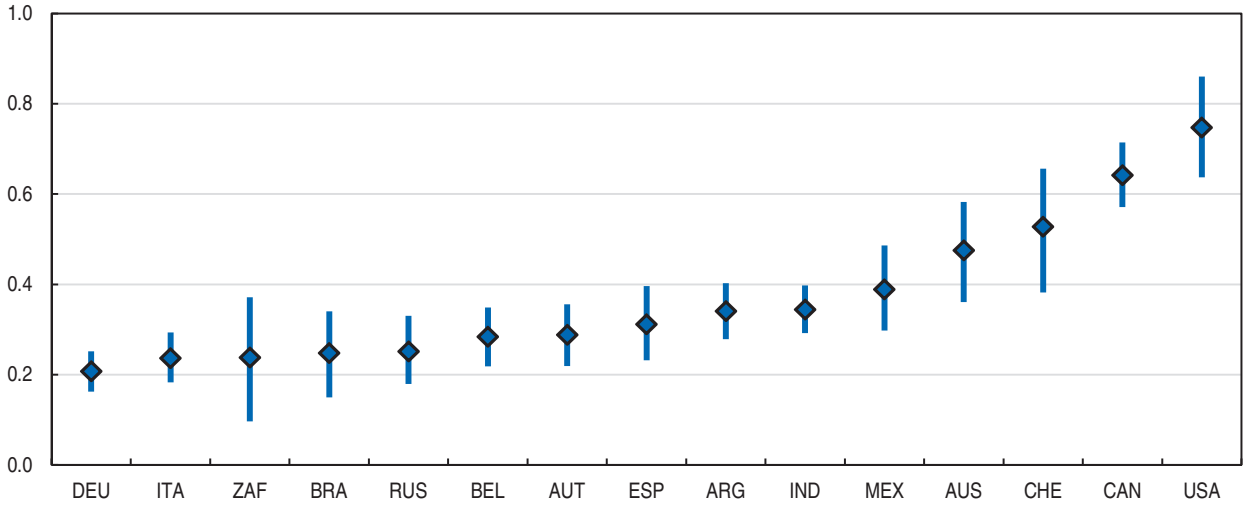
3.2. Responsibility

Responsibility refers to extent to which states have to bear the consequences of their fiscal actions. While autonomy means the extent of states' freedom to conduct their policies, responsibility measures whether states internalise the costs of these policies. Responsibility is a central feature of federal constitutions as it defines the extent to which states can derail the fiscal position of general government and make fiscal outcomes unsustainable. As such, responsibility is analogous to the strength of the sub-national budget constraint in federal countries (Goodspeed, 2002). State responsibility is assessed by measuring the likelihood of bankruptcy or a bailout, the status (imposed or self-imposed) of fiscal rules as well as the strength and size of transfer mechanisms such as grants and equalisation payments. Coherent responsibility arrangements point at similar levels of constraints on state fiscal policy for all elements.

Numerical results for the intermediate responsibility indicator are presented in Figure 3.3. The values of the indicator suggest that the states in Australia, Canada, Switzerland and the United States are highly responsible for their own fiscal policy, while responsibility is low in Germany, Italy, South Africa and Belgium. Responsibility is assigned in a relatively coherent way in Germany, India and Italy, all countries with relatively low responsibility. Incoherent fiscal arrangements are found in South Africa, Australia, Switzerland and the United States. The root cause of the misalignment in Switzerland is that the likelihood of a bailout is low but the grant system to help out governments in distress is extensive.

Figure 3.3. Fiscal responsibility of the state level

Intermediate level indicator representing building block 2



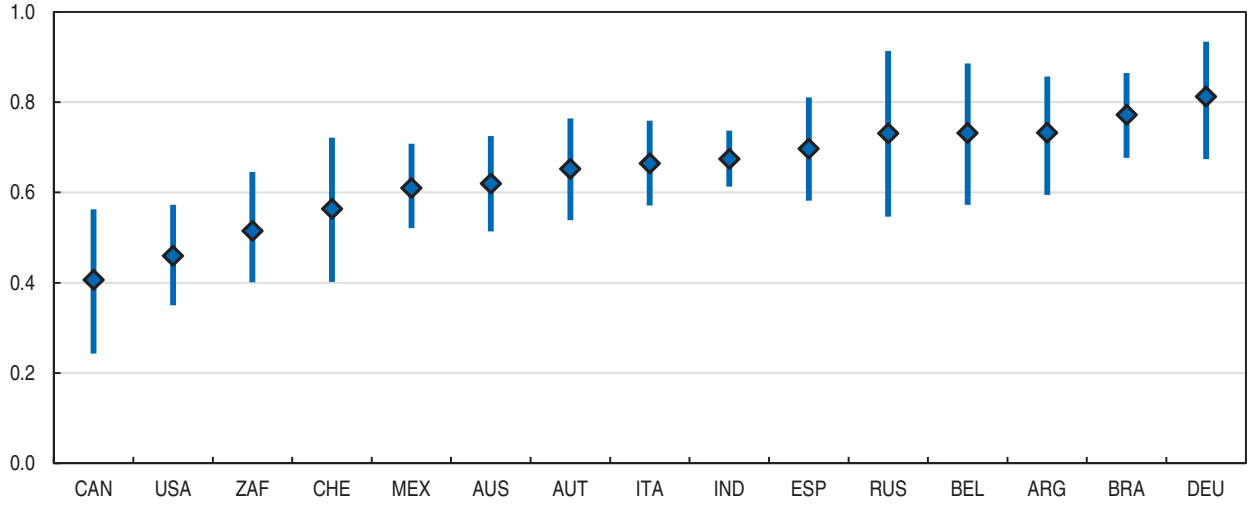
3.3. Co-determination

Co-determination is the extent to which states can shape fiscal policy-making at the federal level. While state autonomy refers to a state's power to legislate for its own jurisdiction, co-determination refers to the scope of a state or a group of states to influence fiscal policy of the whole country (Hooghe et al., 2008). States can influence overall fiscal policy through different channels, of which the most important is likely to be the second chamber of the federal parliament. Coherence of co-determination reflects the extent to which certain channels are complements rather than substitutes. A coherent co-determination framework suggests that all channels are used concomitantly, while in an incoherent setting some channels are often used while others are barely available.

The numerical results for the intermediate level indicator "co-determination" are shown in Figure 3.4. High values, meaning extensive co-determination, are observed in Russia, Germany and Brazil. On the other hand, little co-determination is found in Canada, the United States and South Africa. The most coherent institutional environment within this building block is observed in India. In India, states influence national policy moderately through all channels. Large incoherence can be found in Canada, Switzerland and Belgium. For instance, low coherence in Belgium is due to the presence of a strong executive, on the one hand, and a relatively weak second chamber, on the other hand. The combination of a weak Federal Court – which is not allowed to review federal laws – with strong influence of the second chamber is responsible for less coherent co-determination in Switzerland.

Figure 3.4. Co-determination of national policy by the state level

Intermediate level indicator representing building block 3



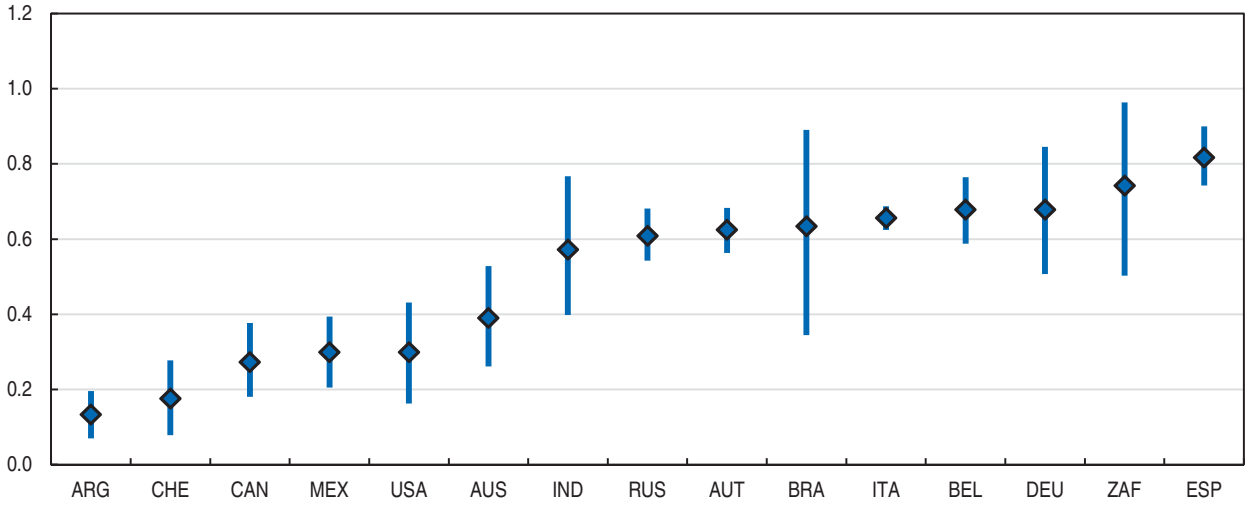
3.4. Budget frameworks

Budget frameworks govern the budget process and aim at restraining discretionary fiscal policy. The framework is defined by three elements, i.e. numerical fiscal rules, procedural fiscal rules and fiscal councils. Tight fiscal frameworks (1) impose a set of well-defined numerical fiscal rules, (2) imply top-bottom (hierarchical) and transparent procedural and budgeting rules, and (3) feature fiscal councils or other arms-length agencies. Coherent budget frameworks are those where the three elements have similar strength. Incoherent frameworks are those where instruments are not uniform, e.g. where tight numerical fiscal rules go together with weak procedural rules.

The numerical results for the intermediate indicator are shown in Figure 3.5. High values are observed in Spain, South Africa and Germany, which appear to be endowed with strong and integrated budget frameworks. Argentina, Switzerland and Canada, on the other hand, have relatively weak budget institutions. Budget frameworks are coherent in Austria and Italy and less coherent in Brazil, South Africa and India. Brazil's budget framework is likely incoherent because numerical and procedural fiscal rules are strong but there is no fiscal council.

Figure 3.5. Strength of budget frameworks

Intermediate level indicator representing building block 4



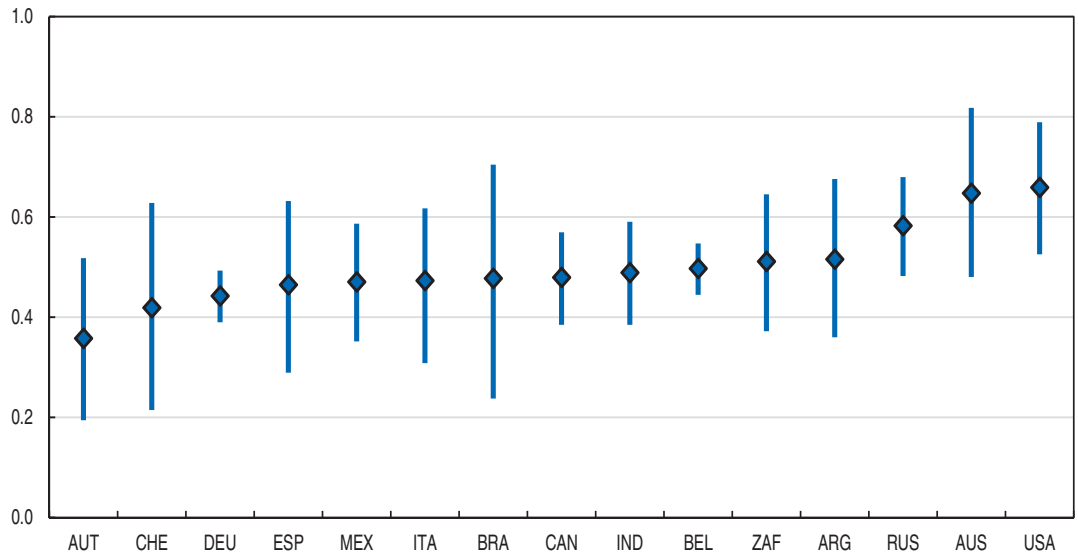
3.5. Stability

The stability of fiscal constitutions depends largely on the number and strength of actors and veto powers. Veto powers increase the transaction costs of reforms and bias the institutional framework towards the status quo (Tsebelis, 2002). Stability is hence a two-edged sword. Stable institutions may provide a basis for long-term fiscal planning at all government levels, but they may also prevent reform and adaptation to changing circumstances (Cox and McCubbins, 1991). Very stable constitutions may slow down the pace of structural reform and fiscal adjustment.

The numerical results for the intermediate level indicator "stability of fiscal constitutions" are presented in Figure 3.6. Australia, Russia and the United States have highly stable fiscal constitutions. Low stability is found in Austria and Switzerland. The remaining countries can be classified as having moderately stable fiscal constitutions. The most coherent institutional environment within this building block is observed in Germany, while this building block is less coherent in Brazil, where strong judicial and bicameral veto powers go along with a proliferation of actors that can propose a constitutional change.

Figure 3.6. Stability of fiscal constitutions

Intermediate level indicator representing building block 5



4. Types of fiscal constitutions

The final step in the empirical assessment is to compare and rank all fiscal constitutions based on an aggregate classification. Such a classification helps better discern similarities as well as differences between fiscal constitutions, and it helps assess the meaning of terms such as "competitive", "co-operative", "executive", "dual" and other types of federalism. In the following two empirical methods are used to assess the overall character of fiscal constitutions: 1) *clustering* which helps identify groups that share similar fiscal constitutions but which are genuinely different from other groups, and 2) *factor analysis* which helps to calculate a single summary indicator reflecting the degree of decentralisation the fiscal constitution is granting.

4.1. Identifying distinct groups of fiscal constitutions: Clustering

Cluster analysis provides a hierarchical and agglomerative (bottom-up) classification of individual elements. A clustering algorithm begins with each country as a separate cluster and successively groups countries into larger clusters. Several agglomerative methods can be used to create clusters, of which four were used in this study: 1) Ward's method which aims at minimizing the within-cluster variance. 2) Average-linkage clustering, which determines the closest two groups by the average (dis)similarity between the observations of the two groups. 3) Single-linkage (nearest-neighbor) clustering, which defines the similarity between clusters as the shortest distance from any object in one cluster to any object in the other. 4) Complete-linkage (farthest-neighbor) clustering is comparable to the single-linkage algorithm, except that cluster similarity is based on the maximum distance between observations in each cluster.

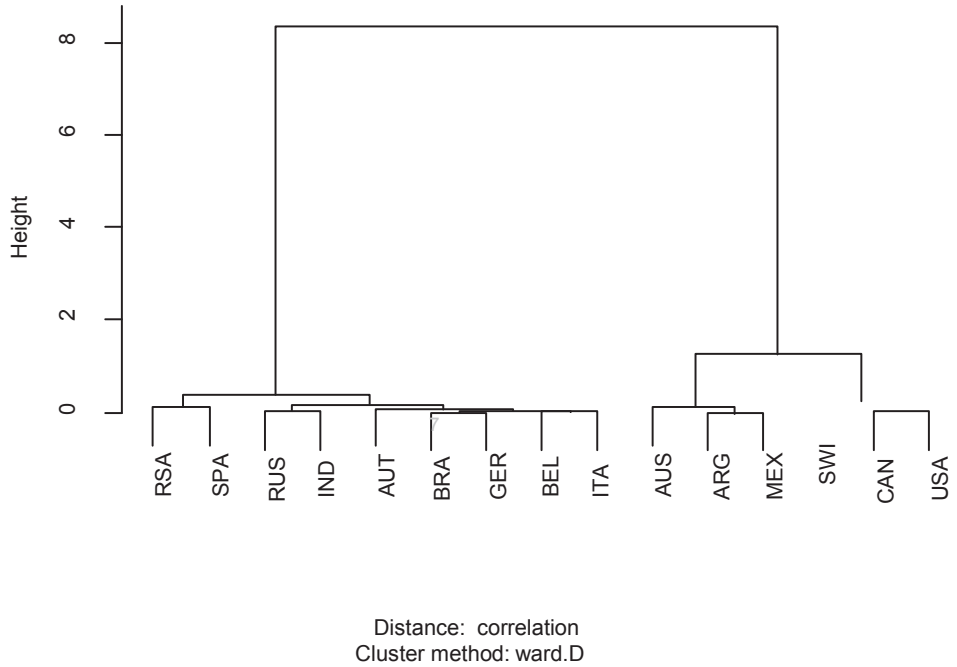
Different similarity measures can also be applied. In this paper two similarity measures are used, i.e. the Euclidean and correlation measures. Distance measures focus on the magnitude of the values and portray as similar the objects that are close together, even if they have different patterns across the variables. Instead, correlation measures focus on the patterns across the variables and do not consider the magnitude of the differences between objects (Hair et al., 2010). In general, the various methods applied deliver similar results. As an additional robustness check the cluster analysis is replicated by using four rather than five building blocks, i.e. dropping the stability building block which is hardly correlated with the four other building blocks. The analysis delivers largely similar results. Results are shown graphically in the form of dendrograms.

Clustering delivers *two groups of distinct fiscal constitutions*, which can be divided further into sub-groups. Figure 3.7 shows an example of a dendrogram.

- The United States, Canada, Switzerland, Australia, Argentina and Mexico feature decentralized fiscal constitutions. These constitutions combine institutions that provide for high autonomy of states, relatively high responsibility, low co-determination and weak budget rules and frameworks. Decentralised constitutions tend to be quite stable as well (Switzerland is an exception). Although clustered together, decentralised fiscal constitutions still differ significantly in the degree of responsibility. While in the United States, Canada and Switzerland the state level is highly responsible for its actions, responsibility is somewhat lower in Argentina, Australia and Mexico. These countries create a separate cluster of quasi-decentralised federations.
- Austria, Belgium, Brazil, Germany, India, Italy, Russia, South Africa and Spain feature cooperative or integrated fiscal constitutions. As a mirror image of the previous cluster, these federations tend to combine low autonomy and responsibility with a high level of co-determination and strong fiscal rules and frameworks. On average, integrated fiscal constitutions are less stable. Overall, the cluster of integrated federations looks more coherent than the cluster of decentralised federations, as shown by the higher level of dissimilarity. Some outliers should be pointed out: South African states have relatively weak co-determination power; Belgium and Russia have quite stable fiscal constitutions.

Figure 3.7. Similarities and differences between fiscal constitutions

Dendrogram based on cluster analysis



Note: The clustering height on the vertical axis is a measure of dissimilarity. The higher its value the more heterogeneous are units grouped in a given cluster. The horizontal axis has no meaning, i.e. clusters lying close to another one are not more similar than clusters farther apart.

4.2. The degree of constitutional decentralisation: Composite indicator

The second method to gauge similarities and differences between fiscal constitutions is to develop a composite indicator reflecting the *degree of constitutionally provided decentralisation.* In order to do so, factor analysis is applied as the first step. Factor analysis gauges whether building blocks are always combined in the same fashion. Then a composite indicator covering four of the five building blocks is constructed.

Factor analysis can be used to identify which building blocks of the fiscal constitutions differentiate most the federations and to assess empirically how various building blocks are combined across countries. In order to make the interpretation of the relevant factors easier, the first step of identifying factors is generally followed by a rotation of the factors that were retained. Rotation of axes simplifies the factor structure and therefore makes their interpretation easier and more reliable. For this factor analysis, varimax rotation, the most common rotation method is used. In varimax each factor has a small number of large loadings and a large number of zero (or small) loadings. This simplifies the interpretation because, after a varimax rotation, each original variable tends to be associated with one (or a small number) of factors, and each factor represents only a small number of variables.

Table 3.2 shows the details of the factor analysis carried out for the five building blocks. The results are largely driven by two factors, namely the first factor covering autonomy, responsibility, co-determination and budget frameworks; and the second factor covering stability. Results of the factor analysis suggest that the various building blocks are indeed highly correlated, with around 85% of the total variation explained by two single factors. Factor 1, strongly associated with autonomy, responsibility, co-determination and budget rules, represents around 66% of the variation in the original building blocks. Factor 2, explaining roughly 19% of the variation in the original variables, is mainly associated with the stability of the fiscal constitution. Differing degrees of stability are hence the second characteristic that helps differentiate fiscal constitutions.

Table 3.2. Communalities between the building blocks of fiscal constitutions

Results of factor analysis

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Eigenvalue	3.27	0.97	0.60	0.12	0.05
Share of the variance explained (%)	65.5	19.4	11.9	2.3	0.9
Cumulative share of the variance explained (%)	65.5	84.9	96.8	99.1	100
Correlation with building blocks					
Autonomy	**0.97**	-0.02	0.18	-0.03	0.17
Responsibility	**0.95**	0.02	-0.13	0.28	-0.04
Co-determination	**-0.79**	0.21	0.56	0.16	0.03
Budget frameworks	**-0.85**	0.14	-0.48	0.10	0.11
Stability	0.30	**0.95**	-0.05	-0.06	-0.02

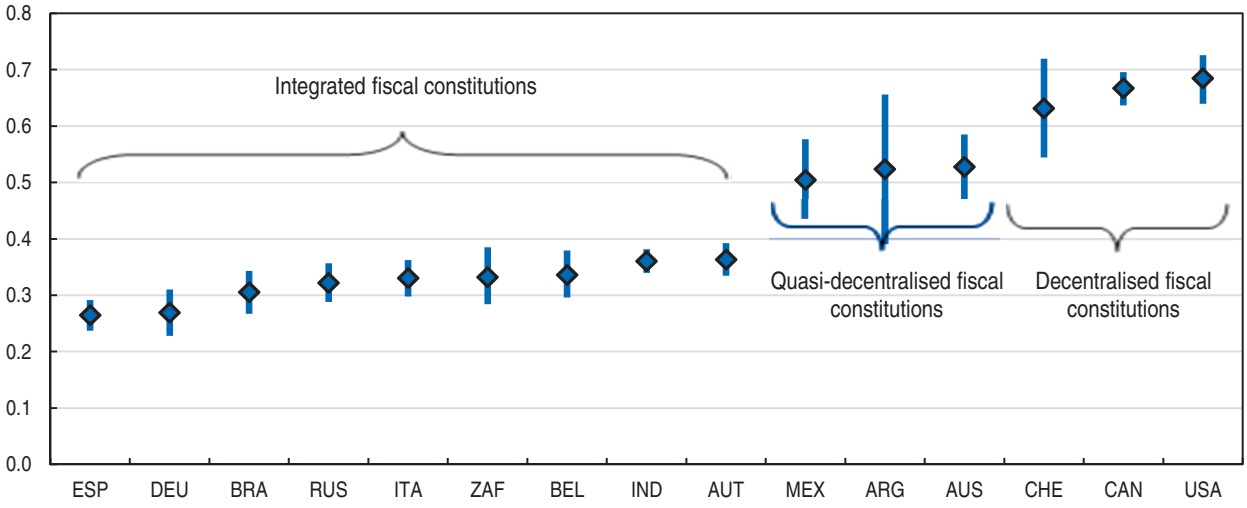
Source: OECD Secretariat calculations.

Given its correlation with the individual building blocks, Factor 1 reflects the degree of constitutionally provided decentralisation. A fiscal constitution is the more decentralised the higher fiscal autonomy and fiscal responsibility and the lower co-determination and the weaker budget frameworks are. Conversely, a fiscal constitution is the more integrated, the lower autonomy and responsibility, the higher co-determination and the stronger budget frameworks are. As such, a composite indicator reflecting a single dimension "decentralisation" can be constructed, using the four aforementioned building blocks. To aggregate the composite indicator, the random weights method is applied to the four intermediate-level indicators.

Results are largely similar to the cluster analysis before, with two groups of constitutional settings emerging (Figure 3.8). The United States, Canada and Switzerland are federations with a highly decentralised fiscal constitution, featuring what is sometimes referred to as competitive federalism. Spain, Germany and Russia feature relatively integrated or co-operative fiscal constitutions. Mexico, Argentina and Australia are in between. Confidence intervals indicate the level of coherence between building blocks. The largest incoherence is observed in Argentina, while some institutional misalignment can also be seen in Russia, South Africa, Mexico, Australia and Switzerland.[2] Again, results show clearly that constitutional coherence is *independent* of whether a federation is decentralised or integrated.

Figure 3.8. Decentralised versus integrated fiscal constitutions

Ranking order and coherence of the composite indicator



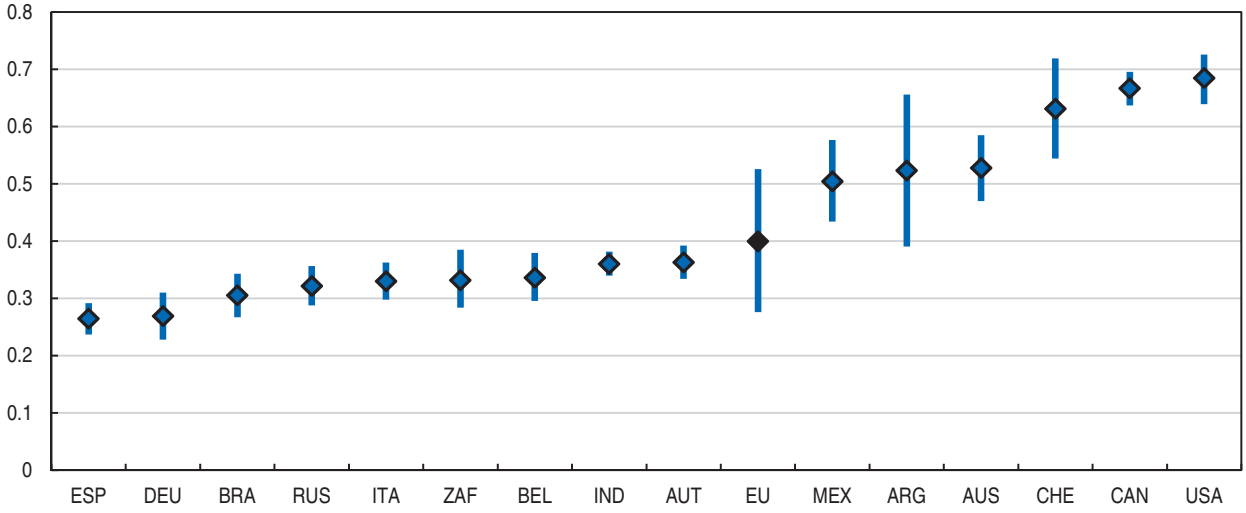
Note: The random weights technique is used to generate the composite indicator. Since co-determination and budget framework indicators are negatively correlated with Factor 1, their values are adjusted so that higher values of these variables indicate more decentralisation.

4.3. The EU fiscal constitution: How decentralised, how coherent?

Although the European Union is not usually seen as a true federation, some aspects of its institutional design and governance are akin to those observed in nation-state federations. As in all federations, many policy issues are related to institutional questions such as "who does what" and "how do procedures function". The single market, the (small) EU budget and majority voting in selected policy areas also suggest that the European Union has some features of a federation. Against this background, the Union's constitutional design and coherence can be ranked against nation-state federal countries. The same methodology as for the 15 federations is applied.

The EU fiscal constitution is moderately decentralized and rather less coherent (Figure 3.9). It is less decentralised than that of the United States, Canada and Switzerland, and less than quasi-decentralised federations like Mexico, Argentina and Australia. On the one hand, the EU constitution features relatively high autonomy and responsibility of the member states. On the other hand, the EU constitution is characterised by high co-determination and strong hierarchical budget rules and frameworks, i.e. the building blocks of co-operative federalism. The EU constitution mixes therefore elements from competitive and co-operative federal systems, resulting in a relatively low coherence.

Figure 3.9. The European Union's fiscal constitution: Degree of decentralisation and coherence



This assessment appears to reflect well the EU's constitutional set up. Member states enjoy large fiscal autonomy but a lot of EU policies serve to co-ordinate fiscal policy across countries and impose constraints on national discretion. Since the EU budget is small, fiscal co-ordination is achieved by a multitude of hierarchical and rather stringent budget rules and frameworks (OECD, 2014), imposed through the Maastricht Treaty and Excessive Deficit Procedure, the Stability and Growth Pact, regulations contained in the "Six Pack", the "Two Pack" and the "Fiscal Compact". Policies are also coordinated and subject to surveillance by the Commission and the Council within the annual cycle of the European Semester. Recent changes to the EU's fiscal framework further reinforced fiscal and economic governance by amending surveillance procedures, sharpening sanction mechanisms and setting intermediate fiscal and economic targets and adjustment procedures. This top-down fiscal framework established over the last twenty years and especially in the wake of the economic and fiscal crisis stands in contrast with the wide-ranging autonomy of the member states in tax and spending matters (Wyplosz, 2013).

5. The evolution of fiscal constitutions

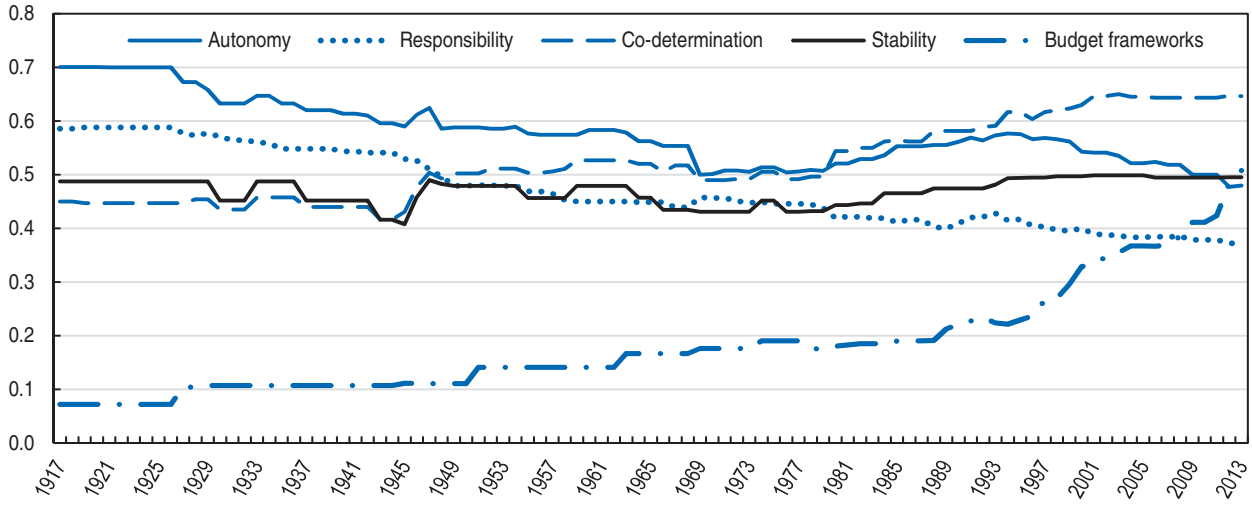
Fiscal constitutions evolve over time. There are three questions related to the dynamics of fiscal constitutions: (1) "what changes?", (2) "how does it change?", and (3) "why does it change?" (Benz and Broschek, 2013). The first and second question refers to the evolution of the five building blocks. The third question refers to mechanisms that produce constitutional reform. Fiscal constitutions may change because the fiscal or economic environment has changed (booms or crisis times), because the political setting has changed (large political swings; military or authoritarian regimes), or because of separatist movements or a looming break-up of a country. As such, fiscal constitutions do not only reflect fiscal policy considerations, but the wider environment within which countries thrive.

5.1. The evolution of fiscal constitutions

Fiscal constitutions have become less decentralised and more integrated over most of the time they have been in place, although a few countervailing episodes also occurred (Figure 3.10). To evaluate the evolution of fiscal constitutions, the average indicator values of all countries are calculated for the years between 1917 and 2013.[3] While autonomy and responsibility of sub-federal entities are trending downward – except autonomy which increased in the 1980s and 1990s – co-determination and budget frameworks tend to strengthen over time. The degree of stability has remained – well – relatively stable. While most building blocks evolved more or less in a linear fashion – either upwards or downwards, the evolution of states' autonomy can be divided into three clearly distinguishable periods.

Figure 3.10. The evolution of fiscal constitutions

Changes in the five building blocks, 15 country average, 1917-2013



Note: The lines represent the annual average of indicator values for 15 countries. The panel is unbalanced, i.e. countries enter the sample at different points in time (Argentina, Australia, Brazil, Canada, Mexico, Switzerland and the United States in 1917, Austria in 1945, Italy in 1948, Germany and India in 1949, Belgium in 1969, Spain in 1978, Russia in 1993 and South Africa in 1996).

5.2. What explains the evolution of fiscal constitutions?

This section provides more insights into the evolution of four building blocks – without stability – of fiscal constitutions.

- Autonomy: The evolution of states' autonomy can be divided into three periods, (1) the period between 1917 and the early 1980s, (2) the span between the early1980s and mid-1990s, and (3) the period between the mid-1990s to 2013. 1980 to the mid-1990 was a period when the state level regained some power. In Australia, the credit limitations imposed by the Loan Council were phased out and the monitoring of states' debt was left to financial markets. Mexico experienced a considerable surge in state autonomy. During the education reform in the early 1990s several policy functions were delegated to the states. In the 1990s, the state level in the United States gained more power after a series of Supreme Court rulings and the reforms of the welfare state.

- Responsibility: The responsibility indicator has trended downward since 1917, largely commensurate with autonomy. The main reasons for decreasing state responsibility throughout the 20th century are: (1) a rise in all sorts of intergovernmental transfers, and (2) bailouts. The rise in intergovernmental transfers was partly a response to crises, partly a response to regional disparities between sub-national units and the rise of inequality as a policy issue. The surge in the late 1980s can be related to institutional changes in Australia, Canada and the United States. During the 1980s, the federal government in the United States abolished the revenue sharing and equalisation mechanism and reduced the size of the intergovernmental grant system. In Australia and Canada, states and provinces self-imposed a set of fiscal rules.
- Co-determination: There are two episodes in the dynamics of co-determination worth discussing: first, a surge in co-determination in the 1950s and 1960s, and second a slower upward trend since the early 1980s. Stronger co-determination in the late 1940s and early 1950s followed the end of authoritarian rule in some countries. The evolution during the 1960s was largely driven by Germany and Brazil. Starting in the 1980s, countries such as – in chronological order – Belgium, Mexico, Canada, Australia and finally Italy approved constitutional amendments that strengthened co-determination.
- Budget rules and frameworks: Budget rules and frameworks were beefed up at an unprecedented scale over the last decade, after having changed little over a very long period. Numerical rules, procedural rules and other fiscal institutions underwent deep changes. The financial and debt crisis of 2010 was the driving force behind many reforms. The introduction of "second generation" numerical fiscal rules was probably the most salient element of budgetary reform. Following Switzerland that adopted a constitutional debt brake – actually a balanced budget rule – in 2001, Germany, Italy and Spain implemented similar reforms in 2009, 2011 and 2012, respectively. Budget institutions and frameworks – such as the introduction of medium-term budgetary frameworks into the constitution – were also strengthened.

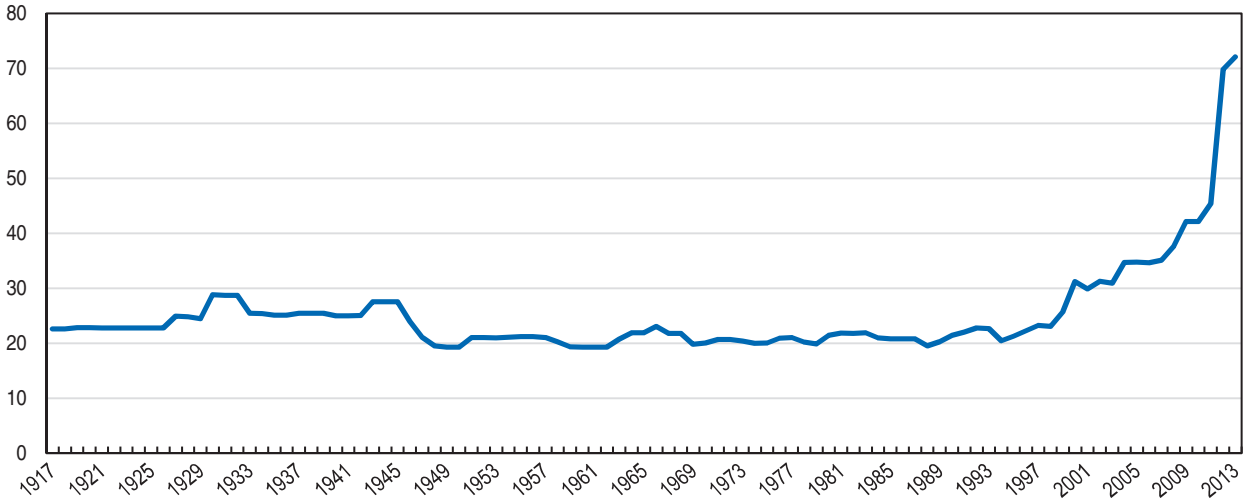
5.3. Coherence of fiscal constitutions over time

Overall, coherence or alignment remained flat over long periods but has considerably increased since the 1980s (Figure 3.11). The increase over the last 30 years can be traced back to the strengthening of the budget framework in many federations, often in reaction to low state responsibility, and, to lesser extent, to a better alignment of autonomy and responsibility. Decentralised federations evolved less than integrated federations. Incoherence was highest during war periods and during authoritarian regimes. Some constitutions such as Argentina or the United States hardly moved with respect to the level of coherence.

The clear-cut distinction between decentralised and integrated fiscal constitutions that can be observed today is actually quite recent. As cluster analysis of fiscal constitutions for 1980 and 1996 reveals that the precise division of federations into two groups was impossible (not shown here). In 1980 and 1996, at least four clusters of federations could be distinguished, with no characteristic dividing line between them. Over time fiscal constitutions moved towards either of the two (coherent) models. Put in other words: fiscal constitutions have become more similar and at the same time distinct.

Figure 3.11. The evolution of coherence in the period 1917-2013

Average of 15 countries



Note: Incoherence is measured as the average of the variance around intermediate level indicators for all 15 federations in each year. Coherence is measured as the inverse of incoherence, hence an upward sloping curve means rising coherence.

6. Fiscal constitutions and fiscal outcomes

This section provides a few simple bivariate correlations between selected features of the fiscal constitution and fiscal outcomes. The correlations link fiscal outcomes to both the *level* and the *coherence* of constitutional decentralisation, i.e. to both indicator values and variance. Correlation does not mean causation. Fiscal institutions and fiscal outcomes interact. Fiscal institutions may affect fiscal outcomes, but the latter might also trigger changes to the basic fiscal framework, as shown in Section 5. In some periods the relationship runs from institutions to outcomes, while in other periods outcomes strongly affect changes to the institutional framework.

The correlations suggest that fiscal outcomes are hardly related to the *level* of constitutional decentralisation (Figure 3.12) but more closely related to *coherence* of constitutional decentralisation (Figure 3.13). In other words, the extent to which fiscal constitutions are decentralised has less impact on outcomes than the extent to which the various arrangements within a fiscal constitution match. As such, the results of the simple bivariate correlations linking coherence to outcomes can be summarised as follows:

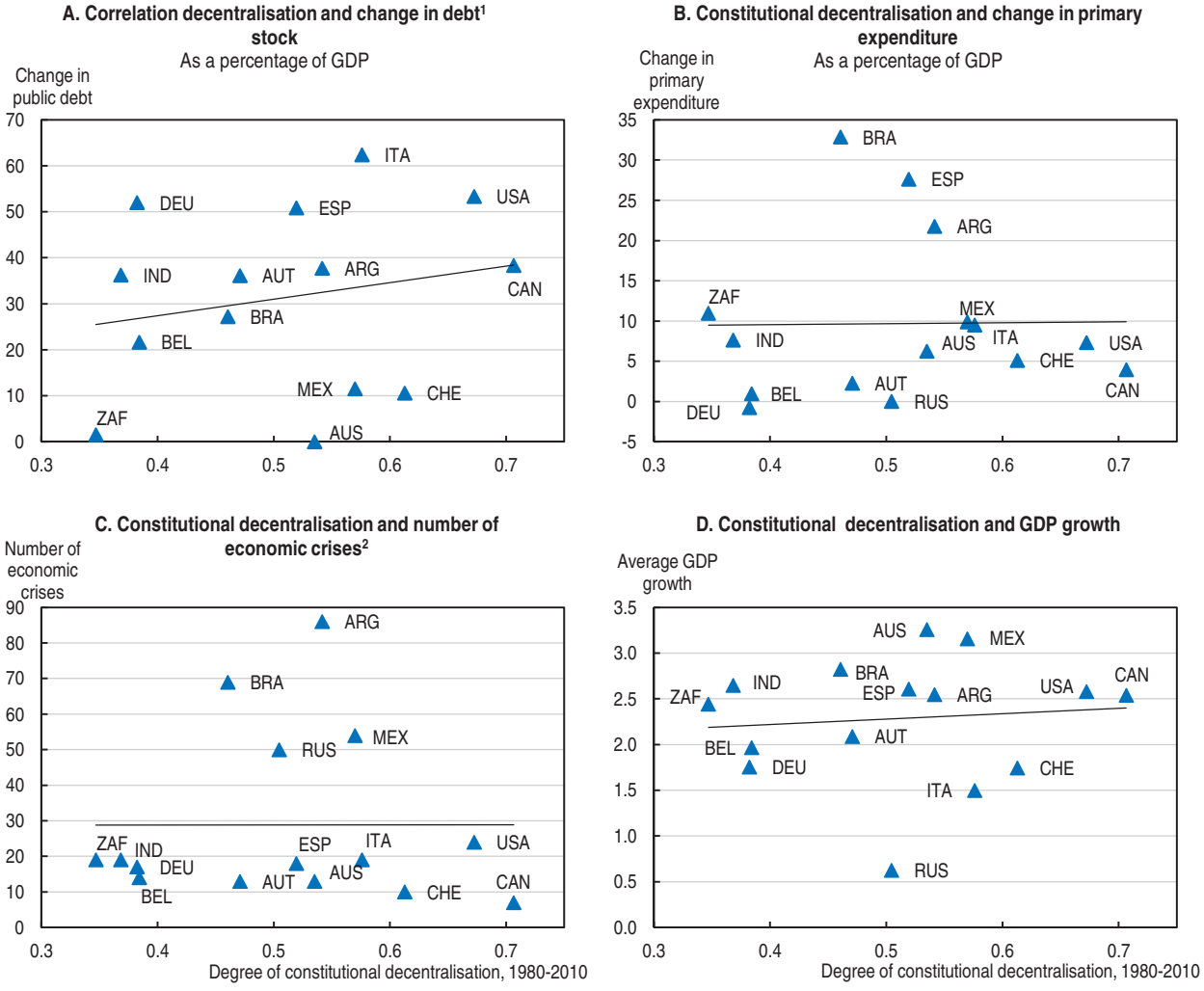
- Coherence and spending. Primary spending seems to be positively correlated with less coherence. In a less coherent setting states may shift the consequences of excessive spending to other government levels or general government.
- Coherence and debt. Debt seems to be positively correlated with less coherence at least for the period from 1980 to 2010. In less coherent settings, i.e. when autonomy and responsibility are not aligned, sub-national units may be able to shift the consequences of fiscal profligacy onto the federal level or other states.
- Coherence and crises. There is some evidence of positive correlations between incoherence and the number of crises. In incoherent settings, deficit and debt might accumulate more easily, leading to a higher crisis probability.

- Coherence and economic growth. Finally, coherence is positively correlated with growth rates. Through different channels, coherent fiscal constitutions may affect the economic fabric positively.

Linking the level of constitutional decentralisation to the same fiscal outcome variables as above (growth of debt, growth of primary spending, economic crises, GDP growth) delivers very weak results, maybe with the exception of the relation between decentralisation and debt growth, which is slightly positive.

Figure 3.12. Correlations between the degree of decentralisation and fiscal/economic outcomes

1980-2010

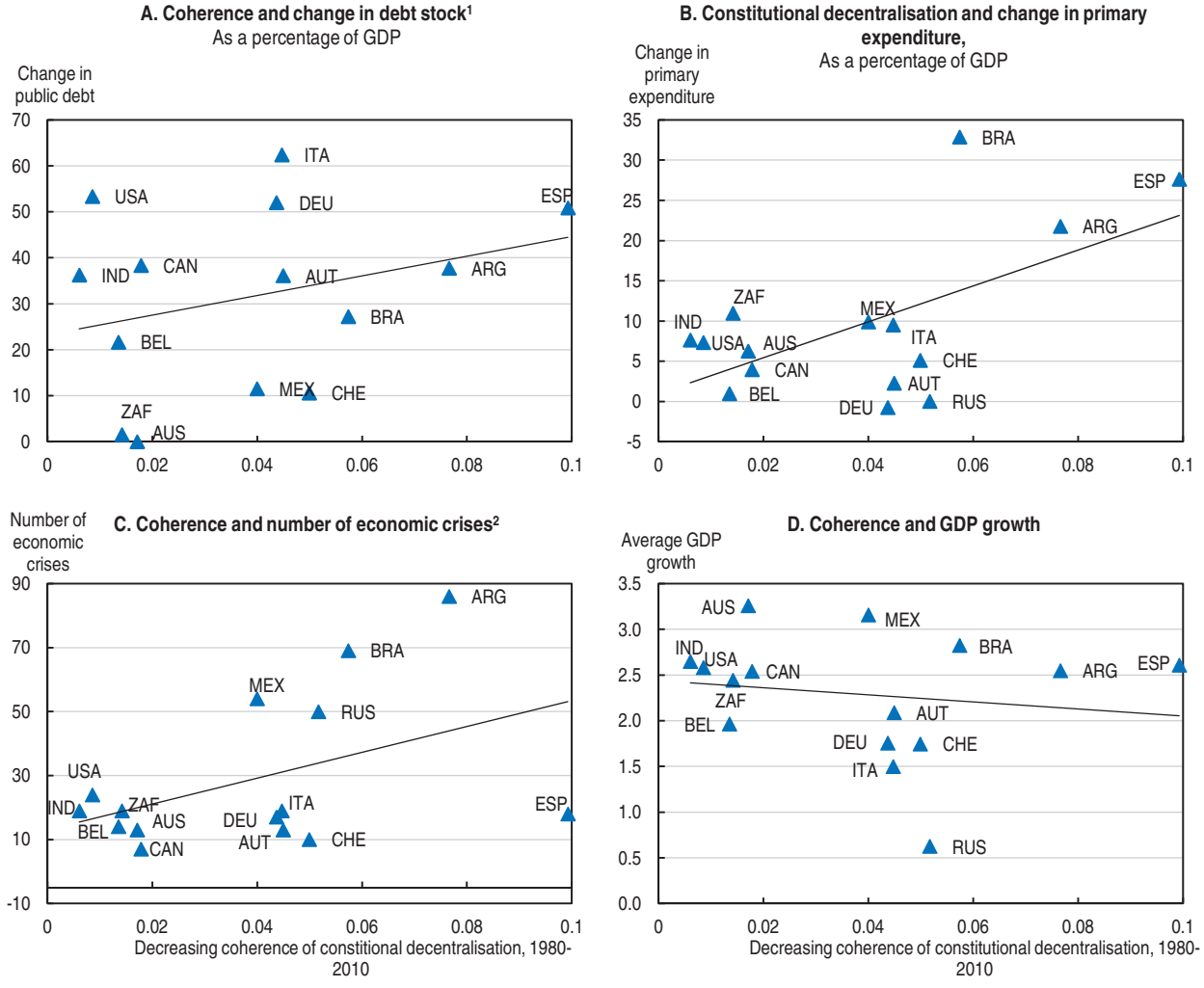


1. Russia is dropped from the sample since in the period 1993-2010 (for which the fiscal constitution is coded) Russian public debt decreased by more than 100 percent points from 116% of GDP to 13% of GDP.

2. An "economic crisis" is defined as the sum of crisis events such as currency, inflation, stock market, sovereign debt and banking crisis, as defined by Reinhardt and Rogoff (2010) and available at www.carmenreinhart.com/data/browse-by-topic.

Figure 3.13. Correlations between the coherence of fiscal constitutions and fiscal/economic outcomes

1980-2010



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7. Linking fiscal, monetary and political institutions

This final section extends the picture by providing some insight into the link between fiscal, monetary and political institutions. More specifically, the five building blocks of the fiscal constitution are set against the institutions of monetary policy such as central bank independence or political institutions such as the electoral system.

Results are shown in Table 3.3, with the upper panel showing the five building blocks set against a number of institutional variables and the lower panel showing set the summary decentralisation indicator set against a subset of these institutional variables. Results suggest that the states in federations with a proportional electoral system to the first chamber have less autonomy, less responsibility and more co-determination rights. Also, larger ethnic heterogeneity is associated with lower co-determination of national policy by states. Central bank independence is negatively correlated with responsibility, i.e. the central bank is more independent in countries where state responsibility is low. Other associations are not statistically significant, at least at the conventional level of 5%., reflecting that fiscal, monetary, political and social institutions are often independent from each other and might have evolved independently of each other.

Table 3.3. Correlations between characteristics of the fiscal constitution of features of political systems

	State level autonomy	State level responsibility	Co-determination of national policy by states	Budget frameworks	Stability of the fiscal constitution	Completeness of the fiscal constitution	Incoherence of the fiscal constitution	Degree of constitutional decentralisation	Central bank independence	Proportional electoral system to the first chamber	Parliamentarian system	Presidential system	Ethnic heterogeneity	Linguistic heterogeneity	Religion heterogeneity
State level autonomy	1														
State level responsibility	0.88	1													
Co-determination of national policy by states	-0.66*	-0.78*	1												
Budget frameworks	-0.90*	-0.72*	0.45*	1											
Stability of the fiscal constitution	0.26	0.30	-0.07	-0.11	1										
Completeness of the fiscal constitution	-0.78*	-0.82*	0.72*	0.65*	-0.36	1									
Incoherence of the fiscal constitution	0.42	0.09	0.07	-0.66*	0.07	-0.07	1								
Degree of constitutional decentralisation	0.97*	0.93*	-0.76*	-0.90*	0.21	-0.82*	0.37	1							
Central bank independence	-0.30	-0.45*	0.40	0.23	-0.46*	0.54*	0.15	-0.37	1						
Proportional electoral system to the first chamber	-0.53*	-0.67*	0.55*	0.45*	-0.44*	0.87*	0.13	-0.61*	0.68*	1					
Parliamentarian system	-0.10	-0.01	-0.04	0.19	-0.39	0.08	-0.46*	-0.09	0.17	0	1				
Presidential system	0.10	0.01	0.04	-0.19	0.39	-0.08	0.46*	0.09	-0.17	0	-1	1			
Ethnic heterogeneity	0.15	0.31	-0.53*	-0.12	-0.03	-0.16	-0.08	0.28	-0.31	-0.18	-0.29	0.29	1		
Linguistic heterogeneity	-0.08	0.14	-0.44	0.13	-0.01	-0.10	-0.30	0.06	-0.44	-0.20	0.26	-0.26	0.58*	1	
Religion heterogeneity	0.31	0.43	-0.47*	0.00	0.30	-0.28	-0.21	0.29	-0.52*	-0.19	-0.05	0.05	0.21	0.26	1

Source: Crowe-Meade's database on central bank independence and Keefer's database of political institutions were extracted from the Quality of Government Institute database available at www.qog.pol.gu.se/data/datadownloads/qogstandarddata/ (accessed on 15 September 2014). Data on ethnic, linguistic and religious heterogeneity were extracted from Alesina et al. (2003).

Notes

1. The term "state" is interchangeably used with the country-specific terms for the intermediate level (canton, community, estado, land, oblast, province, region, state).
2. The coherence measure takes only misalignment between the building blocks into account. An alternative method is to combine coherence between the building blocks with coherence within the building blocks. Hence, an alternative indicator was constructed where 50% of the variance within building blocks (between LLIs) and 50% of the variance between building blocks (between ILIs) are used. This alternative indicator delivers largely similar results, except for Mexico whose overall arrangement becomes more coherent.
3. The indicators for the following countries and periods are coded: Argentina (1853-2013), Australia (1901-2013), Austria (1945-2013), Brazil (1891-2013), Belgium (1969-2013), Canada (1867-2013), Germany (1949-2013), India (1949-2013), Italy (1948-2013), Mexico (1917-2013), Russia (1993-2013), South Africa (1996-2013), Spain (1978-2013), Switzerland (1848-2013) and the United States (1791-2013).

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Chapter 4

Fiscal adjustment, decentralisation and sub-national autonomy

Dirk Foremny, Agnese Sacchi and Simone Salotti

This paper studies the relationship between fiscal decentralisation and the duration of the fiscal consolidation episodes in 17 OECD countries between 1978 and 2009. It appears that consolidation lasts longer when expenditure decentralisation is higher. The paper also finds that transfers from higher levels of government are reduced during consolidation episodes. This suggests that, given a certain institutional structure within the country, central governments are able to shift the burden of consolidation towards lower tiers of government by reducing intergovernmental transfers. This is particularly the case when sub-national governments have little legal autonomy to raise tax revenues and cannot affect executive decisions taken at the central level.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

1. Introduction

The recent financial and economic crisis and the ensuing recession have forced many OECD countries to consolidate their general government balances. Severe austerity packages have been implemented in many countries across the globe to achieve this goal, with hotly debated results (Blyth, 2013). While general aspects of fiscal consolidation, such as political economy and macroeconomic conditions, have been studied extensively in the literature (Price, 2010; Grüner, 2013), the question of whether fiscal decentralisation supports the ability of a country to implement fiscal adjustment measures has not been answered yet.

The hypothesis that decentralisation may play a role in how, and to what extent, countries implement consolidation measures (and with which results) is an appealing research question, which we address in this paper. According to Neyapti (2013), decentralisation can be considered an appropriate institutional mechanism able to sustain fiscal adjustment and to promote fiscal discipline over time. Escolano et al. (2012) claim that the latter is particularly true when sub-central governments have the power to raise adequate resources and revenues to cover their spending. According to the IMF (2013), medium-term adjustment plans should be supported by reforms to strengthen fiscal institutions such as better fiscal rules, better budgetary processes, better fiscal monitoring and transparency (including through independent fiscal agencies and fiscal councils) and better coordination of policy across the various levels of government.

From a theoretical viewpoint, fiscal decentralisation may either favour or impede the governmental consolidation efforts. On the one hand, in a more decentralised system the number of veto players increases, making the adoption of corrective packages more difficult and potentially running into a typical common pool problem. Some studies point out that in times of crisis, a combination of deficit bias and coordination failures due to fiscal decentralisation has resulted in over-spending (and/or under-taxation) tendencies at the sub-national level as well as conflicting fiscal stances between the central and the sub-central levels (see, e.g. Jonas, 2012; Eyraud and Moreno Badia, 2013).[1]

On the other hand, central governments may consolidate their balances via lower spending by simply cutting their inter-governmental transfers to sub-national units in order not to face the direct political costs of such unpopular measures.[2] The more expenditure are in the hands of sub-central tiers of government without corresponding revenue powers (as indeed it tends to happen in most decentralised and advanced economies, see Sacchi and Salotti, 2014), the more of the burden can be shifted to sub-national levels. Also, some forms of cooperative arrangements between central and sub-national governments like internal stability pacts and sub-national fiscal rules are now in place in some countries (e.g. Austria, Germany, Italy) making sub-national constraints more binding and coordination over fiscal adjustment targets easier to achieve.

However, all those scenarios depend crucially on the financing structure of the different levels of government: what is the real level of autonomy of local governments over their budgets? Foremny and von Hagen (2013) suggest that the real degree of sub-central autonomy and the reliance on transfers may crucially affect the relationship between decentralisation and consolidation efforts. They find that sub-national governments in unitary countries in particular saw a significant increase in transfers from the central government during the Great Recession, which did not occur in federal states. This suggests that the composition of transfers and its change during consolidation

periods depend on the degree of fiscal decentralisation, but also on the true assignment of power to different levels of government.

Related to this, the presence of sub-national fiscal rules, usually limiting certain budgetary items, may also influence the duration of adjustment episodes as well as their intensity. Indeed, such rules can favour a more coordinated behaviour between central and local policy-makers, if not increasing their fiscal discipline and accountability. However, the evidence on the disciplinary effects of sub-national rules is not too strong (Escolano et al., 2012, Foremny, 2014). In fact, such rules may not be effective if they represent only *de jure* instruments with the possibility of a bailout intervention from an upper level of government. It appears that the sub-national governments of many countries had accumulated significant fiscal risks over the years up to 2007 (IMF, 2013),[3] something that played unfavourably during the subsequent turbulent times. In general terms, sub-national governments had accumulated significant fiscal risks over the years during the crisis, especially in countries both without and, to a lesser extent, with sub-national fiscal rules (Escolano et al., 2012).

Our aim is to combine the literature on fiscal consolidation with that on fiscal federalism and decentralisation. The question we raise in this paper is whether or not more decentralised countries consolidate their budget for longer periods than more centralised countries. Furthermore, we investigate the possible mechanisms behind our findings. In particular, we look at how transfers from central governments change during consolidation periods in order to understand whether transfers are used by central governments as an instrument to achieve their consolidation objectives.

Our main results are the following: fiscal consolidation spells are longer in countries characterised by larger proportions of public spending in the hands of sub-central government tiers. This is particularly true when such governments do not enjoy real autonomy over the revenues which are in their hands. We also document a decrease of intergovernmental transfers from the central level during consolidation episodes which suggests that central governments shift the burden of consolidation towards lower levels of government when they can do so, at the expense of prolonging the length of the consolidation process. Our findings carry interesting implications in light of the widespread concerns over the fiscal imbalances currently characterising most developed countries.

The paper is organized as follows. Section 2 offers a brief literature review on fiscal consolidation, focusing on aspects such as duration, determinants, and success. Section 3 illustrates the empirical strategy we have adopted to investigate the research question introduced above. Section 4 contains the results of the analysis, and Section 5 concludes.

2. Related literature

The literature on fiscal consolidation has dealt with aspects such as the factors leading to consolidation efforts, the determinants of their success, and the duration of the episodes. Existing empirical studies mainly focus on OECD countries and the interest in this topic has been revived by the economic and financial crisis calling for fiscal adjustments in most industrialised countries. There is no unique definition of a successful consolidation effort. For instance, according to von Hagen and Strauch (2001), success is defined in terms of persistence of the effort, and consolidation is considered to be successful depending on the reduction in the budget deficit achieved at the end of the adjustment period. Alesina and Ardagna (2010) consider consolidation efforts where the

cyclically- adjusted primary balance ratio to GDP improved by 1.5 percentage points or more. An alternative definition may regard a consolidation effort to be successful, if the decrease of gross public debt achieved at the end of the consolidation episode has made the latter either sustainable or substantially lower than it was initially (Heylen and Everaert, 2000).[4] Additionally, it can be posited that the success of a fiscal adjustment programme is related to the persistence of the consolidation effort: how long could, and should, a government consolidate its balances?

Molnar (2012) analyses the economic environment, political settings and policy measures conducive to fiscal consolidation and debt stabilisation between 1960 and 2009, finding that the existence of fiscal rules and cooperation among different government levels play a crucial role in favour of fiscal adjustment programmes. The political framework is also relevant as newly-elected governments seem more likely to start and sustain fiscal consolidation, while non-centrist political parties are less likely to make efforts to stabilise debt than those closer to the centre of the political spectrum.

The composition of the changes in expenditures and revenues seems to play an important role in determining the outcome of the consolidation efforts, although there is no consensus on the exact nature of it. On the one hand, spending-based adjustments are more likely to be successful, as they appear to be linked to more long-lasting reductions of deficit-to-GDP ratios (e.g. Afonso, Nickel and Rother, 2006; Barrios, Langedijk and Pench, 2010; Alesina and Ardagna, 2012).[5] At the same time, relying on higher taxes to reduce deficits may damage potential growth by discouraging labour market participation, and by lowering investment and firm profitability due to the distortionary impact of taxes (especially those on income).

On the other hand, revenue-based consolidations may be more effective in terms of fiscal consolidation, particularly if involving revenues that are potentially less harmful for growth such as user fees, environmental taxes, property taxes and value-added taxes (Heylen and Everaert, 2000; Tsibouris et al., 2006). In fact, revenue-based consolidations have been carried out in the past[6] and some scholars claim that revenue-based consolidations could be effective especially when initial revenue-to-GDP ratios are relatively low. Moreover, it appears that the *ex post* composition of adjustments often turned out to be different than planned, with expenditure cuts falling short of target and revenues over-performing (Tsibouris et al., 2006; Mauro, 2011; Mauro and Villafuerte, 2013).

In addition to the expenditure/revenue change mix, initial conditions also seem to matter in determining the successfulness of fiscal consolidation efforts. In a seminal contribution, von Hagen and Strauch (2001) investigate when fiscal adjustments are likely to be started and in which circumstances consolidation efforts are likely to be successful in a sample of European countries during the 1990s. The cyclical positions of both the domestic and the international economy, the initial debt level, and the fiscal policy stance all turn out to be important determinants of the likelihood of fiscal consolidations, as well as of their success. Barrios, Langedijk, and Pench (2010) also report that countries facing higher initial levels of government debt have a higher probability of pursuing successful fiscal consolidations.[7] On the other hand, Alesina and Ardagna (2012) find no differences in initial conditions when comparing successful and unsuccessful episodes and Devries et al. (2011) also show that the role played by initial conditions with respect to fiscal consolidation is at best unclear.

So far we have not mentioned the issue of the duration of the consolidation episodes. Due to its importance, research has been carried out on it, normally using survival analysis techniques. In fact, according to a study by the European Commission (2007), gradual consolidations tend to be more successful than sharp and quicker adjustments, although the latter may be more effective in case of high and rising debt levels. The findings reported below summarise what else has been found in relationship to the duration of past fiscal adjustment efforts.

Illera and Mulas-Granados (2008) study what affects the length of fiscal consolidation episodes defined as the time spells between two fiscal expansions (which are in turn defined on the basis of the dynamics of the cyclically-adjusted government balance) in 15 European countries between 1960 and 2004. They find that the probability of ending a period of fiscal consolidation, what the authors label as 'failure' (the definition comes from the standard survival analysis tools, where hazard functions are used to estimate the probability of a certain event, normally labelled as a 'failure rate'), depends on factors such as the debt level, the magnitude of the adjustment, the relative contribution of spending cuts, and the degree of cabinet fragmentation. It is worth noting that defining consolidation episodes solely on the basis of cyclically-adjusted budget balance improvements may constitute too narrow of an approach, since not all periods in which the balance did not improve should be considered as failures (e.g. governments may simply not want to consolidate). In this respect, the data and definition provided by the IMF (Devries et al., 2011) seem to be more appropriate to investigate the duration of consolidation efforts: fiscal consolidation episodes are classified using a narrative/historical approach based on the analysis of the policymakers' intentions and actions as described in contemporaneous policy document. Thus, the tax and spending measures taken in such periods are motivated primarily by the desire to reduce the budget deficit and not by a response to prospective economic conditions. This is the type of data used in the empirical analysis of our paper.

A more recent contribution on the duration of consolidations is provided by Lodge and Rodriguez-Vives (2013), where hazard functions are estimated for 20 advanced economies between 1970 and 2010. According to their analysis, the starting fiscal and macroeconomic conditions appear to matter for the ability of governments in sustaining lengthy consolidations. More precisely, high debt and deficits, heavy interest burdens, and high bond yields all facilitate the initiation of consolidation (these are the so-called 'push factors'); then, high private savings, strong external balance, competitiveness (measured by real exchange rate) and stable financial conditions facilitate duration (these are called 'pull factors'). Lodge and Rodriguez-Vives (2013) find that the composition of the fiscal adjustment (i.e. the split between expenditure and revenue measures) does not appear to be a significant determinant of the duration of consolidation.

On the other hand, Agnello Castro, and Sousa (2013) use annual data for 17 industrial countries over the period 1978-2009 and find a difference between spending and tax-driven consolidations, with the former spells being shorter than the latter. Moreover, both types of consolidation are longer in non-European countries than in European countries, while the size of the consolidation programme (in percentage of GDP) is not significantly correlated with its duration.[8]

As recently pointed out by the OECD (Vammalle and Hulbert, 2013), successful national consolidation strategies usually benefit from involving sub-national governments, and they also need to take into account their financial situation in order to preserve the local authorities' capacity to deliver important public services. This is

because coordination failures between different tiers of government may arise and adversely influence fiscal adjustment actions. Although it has been acknowledged that sub-national governments are certainly important players in fiscal policy-making, few studies on the length of consolidations have properly considered its role by studying fiscal decentralisation and intergovernmental fiscal relations. For instance, Schaltegger and Feld (2009) study the experience of Swiss cantons, finding that fiscal centralisation significantly decreases the probability of a successful fiscal consolidation, suggesting that competitive fiscal federalism may positively impact fiscal discipline.

The limited empirical evidence (exceptions are the article by Darby, Muscatelli and Roy, 2005 or Blöchliger, 2013) provides support for a constructive participation of sub-national governments in fiscal consolidations in OECD countries, with fiscal consolidations occurring at both levels. There are other articles that have investigated the role of fiscal federalism in the context of fiscal consolidation, although not in relationship with its duration, leaving space for us to carry out original empirical research.

As for emerging economies, Thornton and Adedeji (2010) find that sub-national governments have contributed in the past to successful general government fiscal adjustments by cutting their capital expenditure and raising their own tax revenues. On the other hand, Baldacci et al. (2006) find no robust effects of fiscal decentralisation (measured with dummies indicating the authority over fiscal policy of states and provinces) on the success of fiscal consolidation in a panel of 25 emerging market economies (they build on previous research on emerging economies by Adam and Bevan, 2003 and Gupta et al., 2005).[9]

3. Empirical approach

3.1. Data

The data we use in this paper are collected from various sources. First, data on consolidation episodes are provided by the IMF (the paper by Devries et al., 2011, illustrates the historical approach followed to build the data and provides detailed explanations) and are based on an analytical examination of budget policy documents in search for the intention of governments permits to identify consolidation periods (in the dataset, the consolidation dummy takes the value 1 in years characterised by the will of the government to consolidate its balances). This approach limits the sample to 17 OECD countries over the period 1978-2009, but is superior to the identification of consolidation episodes based solely on the basis of changes in the cyclically-adjusted primary balance. For instance, the latter method may lead us to consider as consolidation efforts instances in which the budget balance improved due to circumstances different from the will of the government to consolidate its finances. Also, cyclically-adjusted series may suffer from measurement errors which are likely to be correlated with economic developments.

Second, we augment the dataset with information over fiscal decentralisation (*edec*), which is measured using the proportion of spending in the hands of sub-central governments divided by general government's expenditure (source: OECD). This is the standard way to express numerically the degree of fiscal decentralisation, although the following shortcoming has to be acknowledged. It is well-known that such a measure tends to overstate the degree of sub-central autonomy and responsibility, as some types of expenditures are labelled as sub-central although sub-central governments have little power over them (Ebel and Yilmaz, 2003). Alternative measures trying to account for such a feature have been constructed by researchers (most notably, see Stegarescu, 2005),

but their use would imply a severe loss in terms of missing observations. Moreover, we include in our analysis series accounting for real sub-central autonomy as explained below.

Third, we use some variables to capture the extent of real sub-national autonomy. Those variables measure executive influence of sub-national sectors, fiscal autonomy, and co-determination of policy making between the sub-national and the central level of government. This information is captured by the Regional Authority Index developed by Hooghe, Marks, and Schakel (2010). Executive influence is defined as the extent to which a regional government co-determines national policy in intergovernmental meetings and varies between 0 and 2. Fiscal autonomy is the extent to which a regional government can independently tax its population. The minimum value of 0 is set when the central government sets the base and rate of all regional taxes and the maximum of 4 when the regional government has the right to define the base and rate of at least one major tax. Eventually, co-determination is also measured by an indicator which increases if a regional government can exercise authority by co-determining decision making at the national level by either direct participation in the design of national laws, or by sharing executive responsibilities with the national government, or by having an influence on the distribution of tax revenues in the country as a whole. Finally, and most importantly, the indicator which varies between 0 and 12 takes into account if regional government can exercise authority over the constitutional set up of the country.[10]

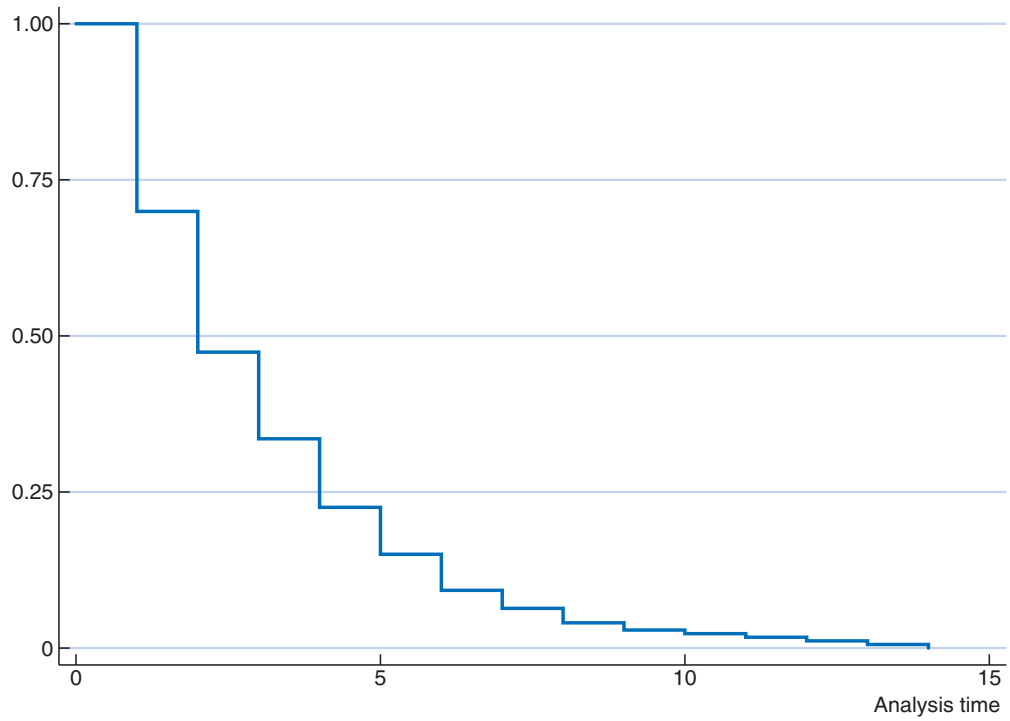
Last, the rest of the variables employed in the analysis are defined as follows: *debt* is gross public debt divided by GDP (taken from the IMF Historical Debt database); *deficit* is the general government budget balance (source: OECD); *real gdp growth* is the growth rate of real GDP per capita (source: Penn World Tables); *election year* is a dummy carrying information on election years; *government type* is a categorical variable assuming the following values: 1 for single party majority governments, 2 for minimal winning coalitions, 3 for surplus coalitions, 4 for single party minority governments, 5 for multi-party minority governments, and 6 for caretaker governments; *right wing* is a dummy taking the value of 1 for right-wing governments and zero otherwise (source: the Comparative Political Dataset by Armingeon et al., 2012); *interest rate* is the nominal long-term interest rate on government bonds (source: OECD); *interest payments* stands for interest paid on public debt divided by GDP (source: IMF, Mauro et al., 2013); finally, *trans* stands for intergovernmental transfer revenues (source: OECD). Table 4.1 shows summary statistics for our main variables.

Table 4.1. Summary statistics

Variables	Number of observations	Mean	Standard deviation	Minimum	Maximum
consolidation	527	0.32	0.47	0.00	1.00
edec	544	36.59	14.01	8.66	65.61
debt	544	57.18	25.84	4.29	134.07
real gdp growth	544	2.49	2.38	-8.35	11.50
government type	544	2.45	1.30	1.00	6.00
election year	544	0.31	0.46	0.00	1.00
deficit(t−1)	527	-0.09	3.20	-10.38	9.01
interest rate	527	0.12	1.85	-15.27	9.21
interest payments	527	0.00	0.51	-2.23	2.29
right wing	544	0.56	0.50	0.00	1.00
fiscal autonomy	498	2.09	1.51	0.00	4.80
executive influence	498	0.53	0.75	0.00	2.00
shared rule	498	3.06	3.35	0.00	12.00
log(trans)	345	10.53	1.30	7.15	13.16

Figure 4.1 presents the Kaplan-Meier function for our consolidation's duration data, and it can be seen as the first step of our analysis. The length of the horizontal parts of the line along the horizontal axis represents the survival duration for that interval, which is determined by the end of the consolidation episode. For example, the probability of a consolidation episode to last at least one year is 100%, which is basically due to the yearly frequency of the data and the fact that there is at least one consolidation episode lasting one year only (in total, there are 13 of those in our sample). The probability decreases as the length of the consolidation spells increases, and it reaches zero for spells longer than 14 years (the reason being that in our sample there is one 14-year long episode, Canada between 1984 and 1997, and no episodes longer than that). The vertical distances between the horizontal parts of the line illustrate the change in cumulative probability of ending consolidation as the curve advances. The most notable 'jumps' characterise the consolidation episodes lasting a few years, which are also the most numerous in the sample that we consider (for example, there are 15 two-year episodes in the sample, but only five six-year episodes). We devote the rest of the paper to the investigation of the reasons behind the duration of those consolidation episodes, as explained below.

Figure 4.1. Kaplan-Meier survival function



3.2. Identification

Our empirical approach is based on three individual steps. First, we perform a duration analysis by following the literature on consolidation in order to estimate the determinants of the duration of fiscal consolidation. The advantage of such an analysis is that it makes use of all the information available in the data, enabling the duration of fiscal consolidation as being endogenous (Gupta et al., 2004). Thus, we can study how long governments have managed to sustain uninterrupted periods of consolidation in the past and what factors affected their ability to do so. However, some caveats remain as duration analysis does not deal with, among other things, the economic and welfare consequences of consolidation, and it does not directly deal neither with debt sustainability nor the success of fiscal consolidation in achieving a lasting reduction in government debt ratios (Lodge and Rodriguez-Vives, 2013). More importantly for our purposes, we want to fully understand the role of fiscal decentralisation and of sub-central autonomy in affecting the duration of the fiscal consolidation episodes. In order to do so, we proceed along the analytical steps illustrated below.

We estimate the determinants of the time h employed by a country to consolidate with a standard duration model such as the following:

$$h(t,Z) = h_0(t) \times (\mathbf{Z}\gamma + \mathbf{X}\beta) \qquad (1)$$

In our baseline specification the baseline hazard h_0 follows the Weibull model as this is the most flexible specification of those commonly used in the literature. In this case, the following holds: $h_0(t) = p \times t^{\rho-1}$. The parameter ρ as the baseline hazard will be estimated as an endogenous part of the model.

The vector **Z** includes the variables dealing with decentralisation and sub-central autonomy which are the focus of our analysis. **X** is a set of control variables. Regarding **Z**, we are interested in whether – and how – consolidation at the general government level is affected by the degree of decentralisation and by the sub-national institutional setting. Therefore, in the baseline model we investigate the effect of expenditure decentralisation and include only this variable in **Z** (in fact, for comparison and robustness purposes, we also report the estimates arising from a parsimonious specification that excludes entirely the vector **Z** which conforms more to the analyses of the existing literature).

Later, we estimate three alternative specifications of model (1) obtained by augmenting **Z** separately with both one of the indicator variables accounting for sub-national real autonomy and its respective interaction term with expenditure decentralisation. We focus on one indicator per specification out of the following three: fiscal autonomy, executive influence and co-determination to avoid potential multicollinearity issues. The three indicators all aim at capturing a similar dimension, i.e. real sub-central autonomy, therefore they are likely to be correlated with each other. The control variables included in the vector **X** and explained in Section 3.1 are selected following previous studies.

Finally, we analyse the effect of consolidation periods on sub-national public finances. At this stage, our aim is not to provide causal estimates, but rather to present correlation-based evidence on whether or not consolidation has been undertaken at the expense of sub-national sectors. In order to do so, we estimate the following equation:

$$\Delta \log(transfers) = \beta \times consolidation_{i,t} \times \Omega + \eta_i + \varepsilon_{i,t}, \qquad (2)$$

where Ω is equal to one of the three variables included in the interactions of the previous step. To analyse the effect we compute the marginal effect of consolidation episodes conditional on the values of the interacted variable.

4. Results

We begin the illustration of our empirical results by discussing the estimates of equation (1), presented in Table 4.2. The first specification (reported in the first column of Table 4.2) only includes the control variables taken from the existing literature and not the decentralisation variable to allow for comparison with previous analyses. In the second column expenditure decentralisation (*edec*) is included as the main variable of interest.

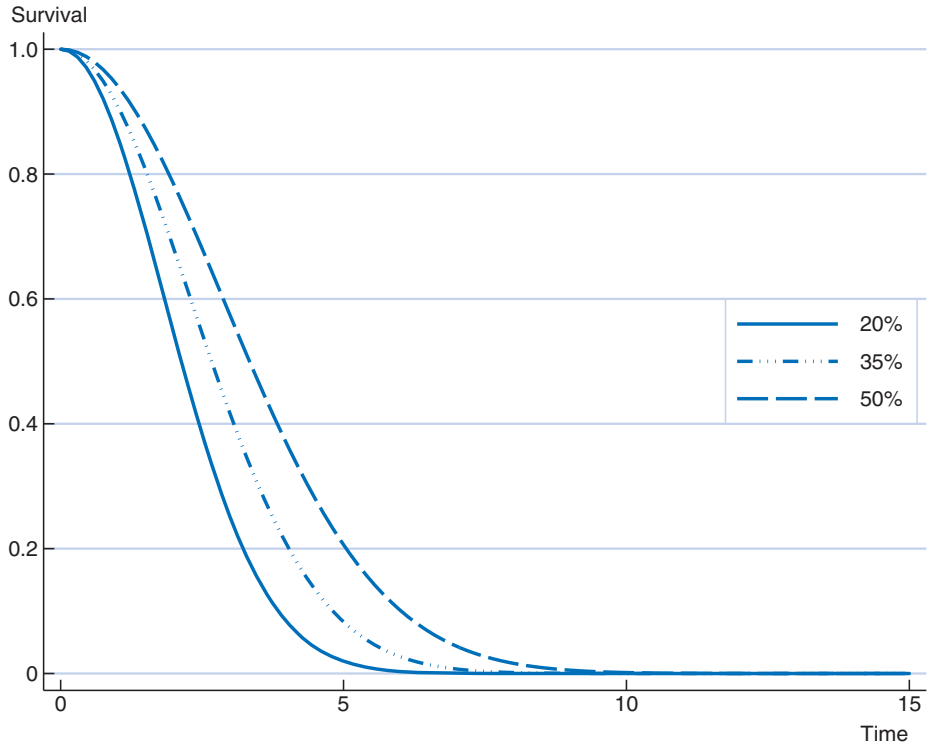
Table 4.2. Baseline results

Survival Time	(1)	(2)
Decentralization		
edec		-0.074***
		(0.024)
Controls		
deficit(t−1)	-0.067*	-0.056
	(0.036)	(0.036)
debt(t−1)	0.020	0.006
	(0.028)	(0.029)
debt	-0.040	-0.025
	(0.028)	(0.028)
Δ interest payments	0.498***	0.497***
	(0.167)	(0.165)
real gdp growth	-0.188***	-0.139**
	(0.055)	(0.057)
Δ interest rate	0.036	0.000
	(0.051)	(0.052)
election year	0.107	0.119
	(0.163)	(0.165)
right wing	-0.548***	-0.273
	(0.169)	(0.183)
government type	-0.703***	-0.406**
	(0.169)	(0.190)
tax based consolidation	0.248*	0.209**
	(0.131)	(0.088)
Hazard parameters		
Constant	-0.156	0.407
	(0.245)	(0.283)
ln(ρ)	0.667***	0.712***
	(0.051)	(0.052)
Number of observations	166	166

Note: Survival time estimation assuming the Weibull survival distribution. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

The negative and significant effect of *edec* indicates that more decentralised countries have a lower hazard rate, i.e. the probability that a consolidation period will last for an additional year is increasing when decentralisation is higher. This effect is illustrated in Figure 4.2 which depicts the survival function for different levels of decentralisation.

Figure 4.2. Survival function: Survival probability and decentralisation



Note: Underlying estimation is Model (2) of Table 4.2.

The survival function for countries with a decentralisation level of 50% is significantly shifted to the right compared with countries with a lower level of decentralisation. Therefore, more decentralised countries consolidate on average for longer periods.

The other control variables show the expected signs, but many are not statistically significant. From the macroeconomic side, it emerges that an increase in the interest payments makes it more likely that a consolidation period will stop earlier. On the political side, we find that right-wing governments tend to consolidate longer on average. While the political cycle does not appear to affect the duration of the consolidation episodes (as the coefficient associated with the election year dummy is not statistically significant), the coefficient for the type of government shows a significant and negative impact. Another interesting result is that consolidations based on tax hikes are more likely to end sooner. This effect prevails in both models and highlights the important difference between the spending and revenue policy tools (Alesina and Ardagna, 2010).

Thus, this initial duration analysis suggests that there is a significant effect of fiscal decentralisation on the duration of fiscal consolidation. Our aim is to complement this finding by identifying the channel behind this effect. On the one hand, more decentralised countries may find it easier to consolidate for longer periods simply because central governments can shift the adjustment burden down to sub-national sectors. On the other hand, the positive impact on duration could emerge because sub-national governments contribute substantially to the stabilisation function of economies making it simpler to sustain longer-lasting consolidation efforts. The first effect would be the more

pronounced the less real fiscal power is transferred to sub-national sectors: if sub-central governments are responsible for large expenditure shares but do not possess the relative revenue power, it is easy for the central government to cut transfers at the expense of lower governmental layers. We test this hypothesis by augmenting the model with the respective indicators of real autonomy and their interaction terms with decentralisation. Results are presented in Table 4.3.

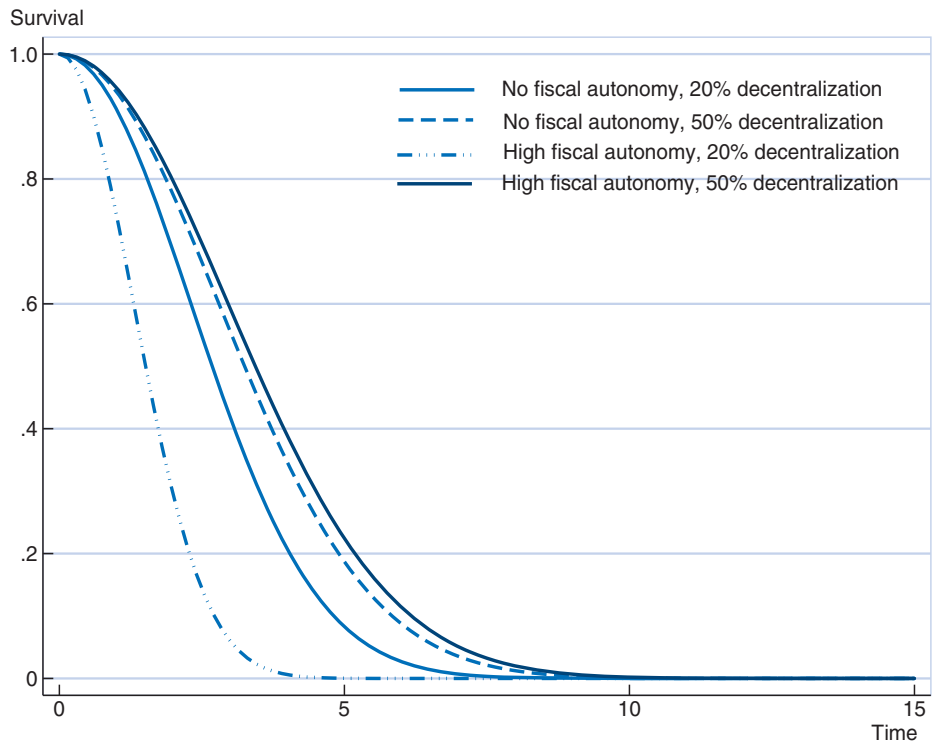
Table 4.3. Interaction effects

Survival Time	(1)	(2)	(3)
Decentralization			
edec	-0.013	-0.022**	-0.023
	(0.018)	(0.011)	(0.015)
Autonomy			
fiscal autonomy	0.508**		
	(0.241)		
executive influence		2.571***	
		(0.822)	
shared rule			0.142*
			(0.078)
Interaction terms			
fiscal autonomy · edec	-0.011*		
	(0.006)		
executive influence · edec		-0.056***	
		(0.019)	
shared rule · edec			-0.031
			(0.031)
Controls			
deficit(t−1)	-0.077**	-0.151***	-0.078**
	(0.036)	(0.039)	(0.038)
debt(t−1)	0.023	0.033	0.015
	(0.032)	(0.033)	(0.033)
debt	-0.041	-0.052	-0.035
	(0.031)	(0.032)	(0.032)
Δ interest payments	0.553***	0.497***	0.447**
	(0.173)	(0.153)	(0.180)
real gdp growth	-0.145**	-0.145**	-0.146**
	(0.063)	(0.064)	(0.065)
Δ interest rate	-0.016	-0.042	-0.012
	(0.054)	(0.049)	(0.055)
election year	0.109	0.155	0.088
	(0.169)	(0.159)	(0.172)
right wing	-0.110	-0.111	-0.379*
	(0.209)	(0.196)	(0.196)
government type	-0.276	0.035	-0.297
	(0.219)	(0.213)	(0.205)
tax based consolidation	0.204**	0.194**	0.221**
	(0.089)	(0.091)	(0.095)
Hazard parameters			
Constant	-0.652	-0.520	0.069
	(0.691)	(0.425)	(0.381)
ln(ρ)	0.718***	0.751***	0.711***
	(0.051)	(0.058)	(0.051)
Number of observations	162	162	162

Notes: Survival time estimation assuming the Weibull survival distribution. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10. All models replicate Model (3) of Table 4.2 but include the respective interaction terms. Model (1) with fiscal autonomy, Model (2) with executive influence, and Model (3) with co-determination.

As a general result, the negative coefficient of expenditure decentralisation holds throughout all specifications. However, the baseline effect only remains significant when legal autonomy is included in the model.[11] Augmenting model (1) with an interaction term between expenditure decentralisation and a real autonomy indicator (any of the three that we use separately in the model) results in a positive and statically significant coefficient associated with the main effect of fiscal autonomy and a negative coefficient on the interaction term. This implies that decentralised countries consolidate longer but larger fiscal autonomy is capable of offsetting consolidation efforts. To interpret the negative interaction term and illustrate the overall effect, we plot the survival functions in Figures 4.3 to 4.5 for different combinations of the two variables using the three real autonomy variables separately.

Figure 4.3. Survival function: Impact of tax autonomy



Here, the leftmost line represents the effect with high fiscal autonomy at sub-national levels while expenditure decentralisation is small (20%). Such countries tend to consolidate for shorter periods of time. At the same level of decentralisation but without fiscal autonomy the consolidation spells last on average slightly longer as the survival curve shifts to the right. This indicates that, in countries which are rather centralised, higher real fiscal autonomy might avoid that the adjustment burden will be shifted to sub-national sectors (if this indeed happens will be analysed in the next step after discussing the other effects on duration). Turning to the countries characterised by high levels of decentralisation (around 50%), the curves shift as expected to the right as higher decentralisation increases the survival probability, that is, the probability of having lengthy consolidation spells. These two right-most survival functions almost overlap. Without fiscal autonomy the main effect of decentralisation prevails, as the interaction

term and the main effect of fiscal autonomy are equal to zero. However, if we switch to a high autonomy regime, we would expect a shift to the left as those regimes were found to consolidate for shorter periods. However, this effect is almost offset by the negative interaction term which gains large relative importance.[12] At this level of decentralisation, it seems that switching from a high to low-fiscal autonomy model of decentralisation does not change anymore the duration of consolidation spells.

We turn to real legal autonomy defined as executive influence in Model (1). Results are in line with those obtained previously with fiscal autonomy. This implies that decentralisation does not only work together through the interaction term, but also shifts the survival function to the right by itself. This is illustrated in Figure 4.4. While the ordering of the lines is generally the same as before, the impact of decentralisation now more than offsets the reduction in the survival probability due to legal autonomy.

Figure 4.4. Survival function: Impact of legal autonomy

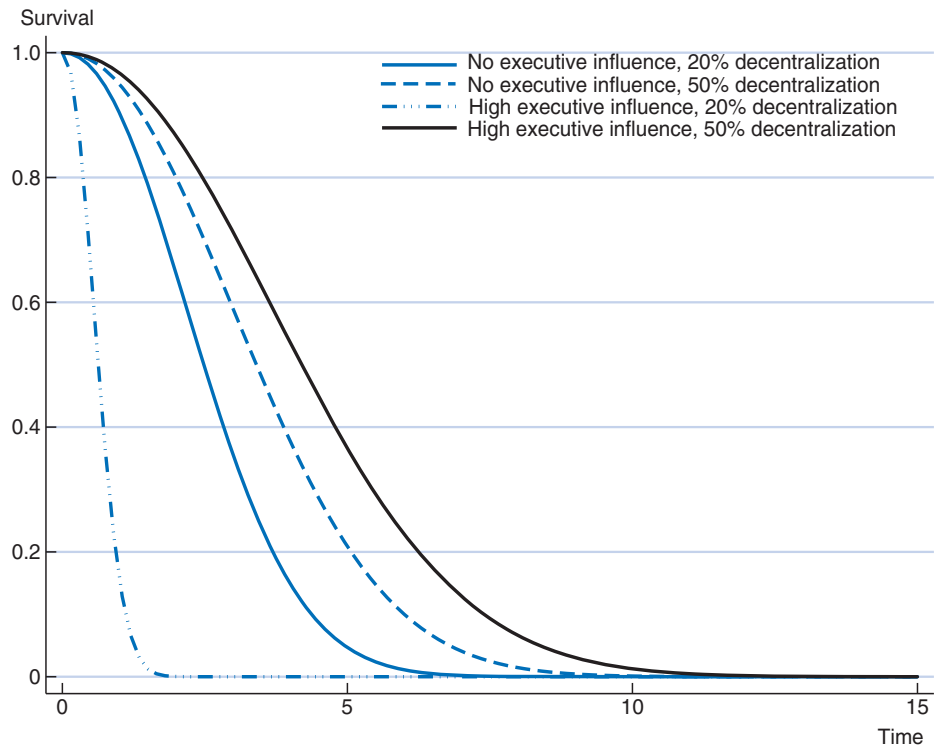
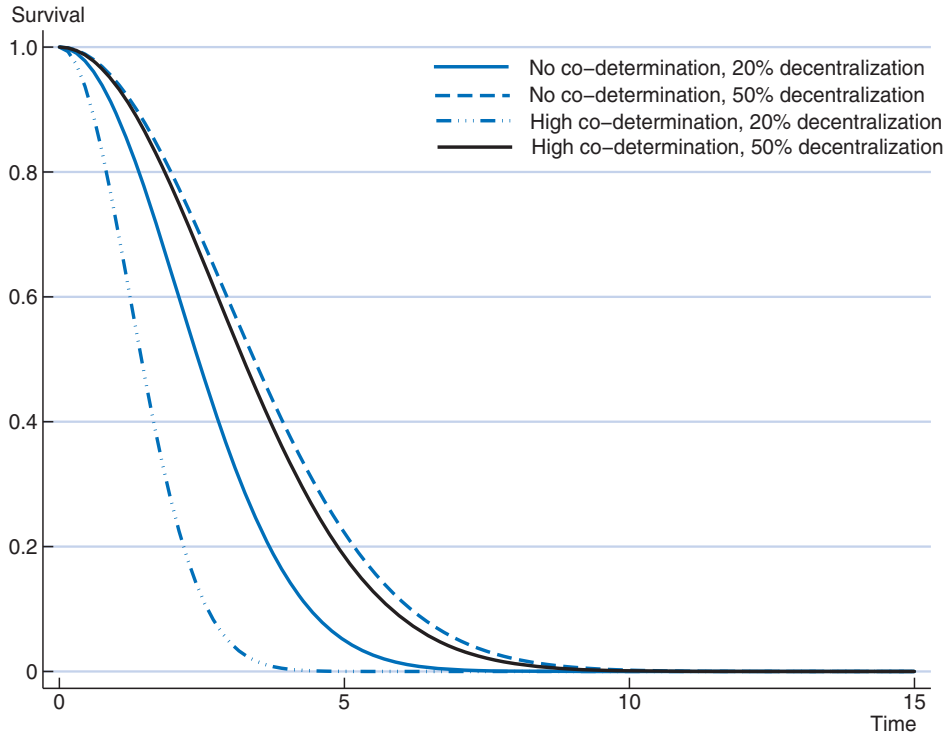


Figure 4.5 completes the analysis with the indicator for legal co-determination (shared rule). The results are almost identical to those illustrated above. This indicates that the most important element of such institutional arrangements might be the fiscal part and highlights the importance of the proper design of intergovernmental fiscal institutions.

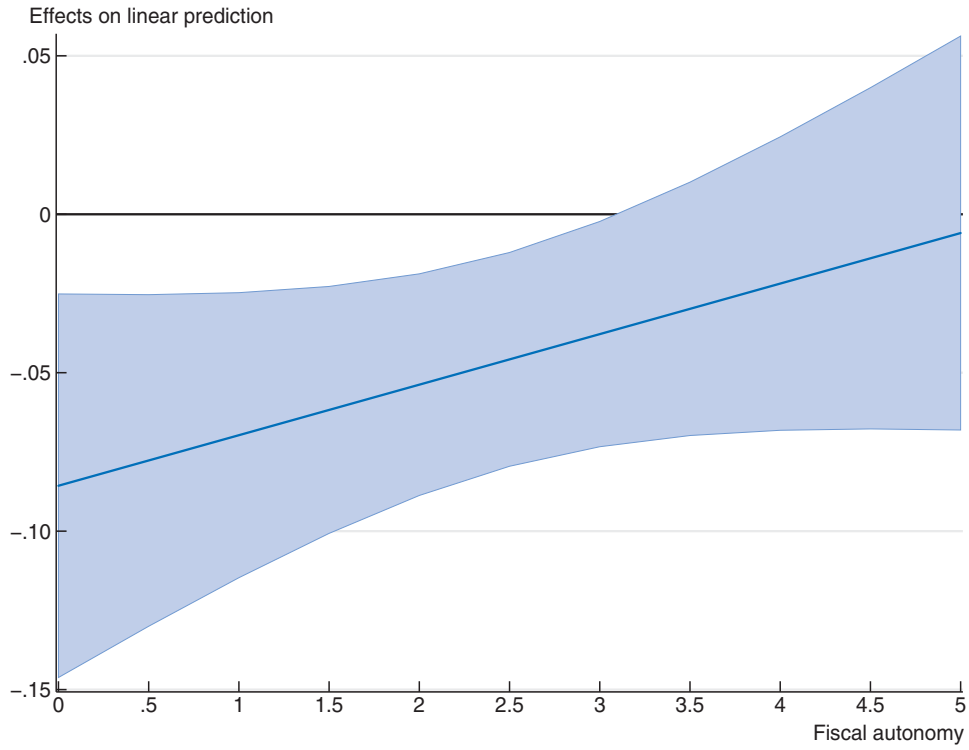
Figure 4.5. Survival function: Co-determination



Thus, the results so far suggest that more decentralised countries consolidate for longer periods, but this effect is mitigated by real autonomy in the hands of sub-central government tiers. For relatively high values of decentralisation, the first effect dominates that of real autonomy. In other words, if countries are only mildly decentralised central governments can shift the burden of long-lasting consolidations to lower levels of government unless they are effectively shielded by some element of real autonomy. If they have sufficiently high autonomy, consolidation lasts less. However, at high levels of expenditure decentralisation real autonomy essentially makes little difference.

Next, and as the final step of the analysis, we estimate equation (2) in order to check whether the fact that more decentralised economies consolidate longer is driven by cuts in transfers to sub-national sectors. Figure 4.6 plots the marginal effect of a consolidation period on the log-difference of transfers for all the possible values of the fiscal autonomy variable.

Figure 4.6. Consolidation burden: Impact of tax autonomy



The slope of the interaction terms does not turn out to be significant in the regression. Nevertheless, the figure reveals some interesting insights. First, during consolidation periods transfers to lower levels of government are substantially reduced as the impact of consolidation is negative and different from zero. This suggests that consolidation – at least partially – has been achieved in the past by reducing the transfers to sub-national levels, confirming the stylised facts presented in Vammalle and Hulbert (2013). However, the effect is only different from zero as long as real autonomy, here in terms of fiscal autonomy, is not sufficiently large. Sub-national sectors with higher autonomy on this dimension can use their additional power to prevent central government cuts in their transfer revenue.

Similar evidence is offered by repeating the exercise with the other two indicators of real sub-central autonomy, executive influence and co-determination of policy making (executive influence and shared rule, respectively). Figures 4.7 and 4.8 differ from Figure 4.6 only in terms of the real autonomy variable utilised.

Figure 4.7. Consolidation burden: Impact of legal autonomy

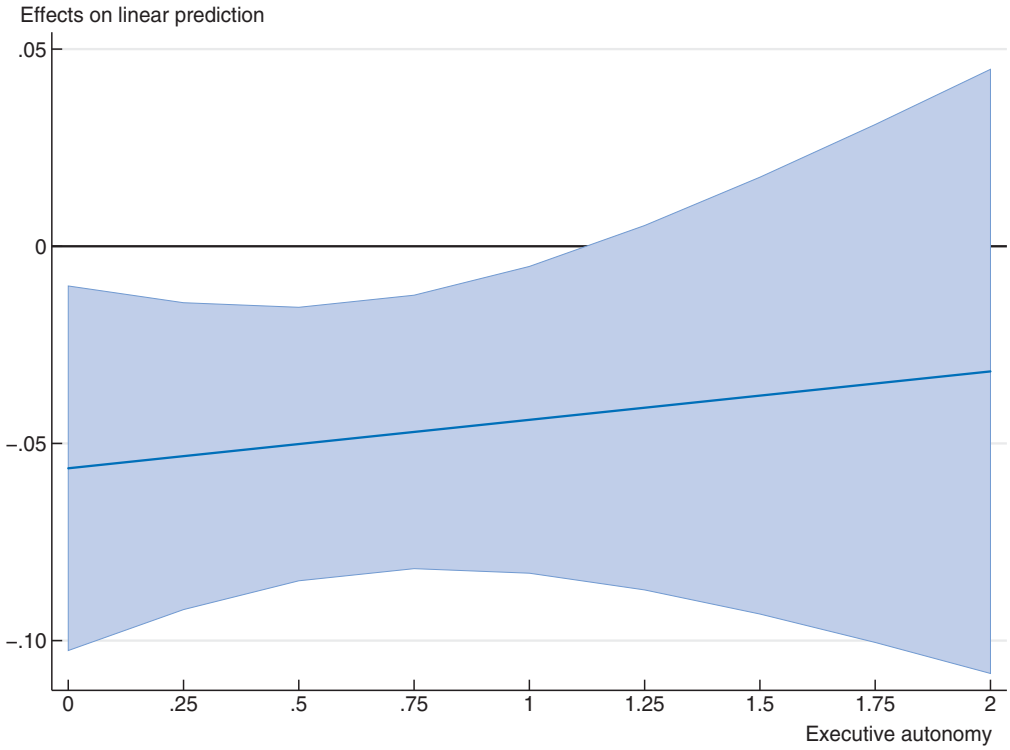
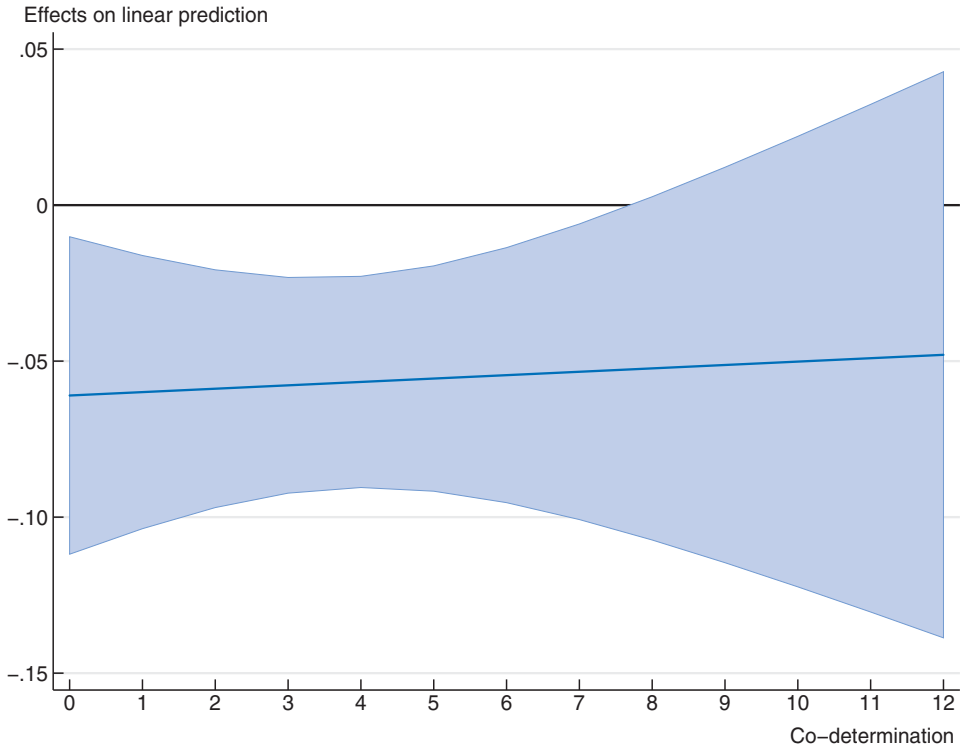


Figure 4.8. Consolidation burden: Impact of co-determination



While the slope becomes flatter, the estimated averages are still negative representing transfer cuts during consolidation periods. Once again, sub-national sectors which enjoy substantial influence in policy making do not experience any significant reductions in transfers during consolidation periods, as for higher values of this indicator consolidation periods are not characterised by significant decreases in transfer to lower levels of government.

5. Conclusion

The necessity to adjust public finances and address governments' fiscal imbalances has recently animated a lively debate on which fiscal tools (e.g. spending reviews, changes in tax systems) should be used, and how, in order to ensure and maintain sustainable fiscal positions. Existing research has dealt mostly with the analysis of the welfare and economic effects of the various types of austerity measures implemented, as well as with the determinants of successful fiscal adjustment plans.

A relevant issue not yet extensively explored is the duration of such fiscal consolidation processes, hence analysing which elements affect it constitutes an interesting research question. The IMF suggested that fiscal institutions may be appropriate tools to sustain fiscal adjustment measures over time (Blanchard and Cottarelli, 2010). Among other institutions, the organisation of the fiscal relations among different tiers of political authorities appears to be a natural candidate that could affect the length of the consolidation processes. On the one hand, coordination failures and deficit bias issues may arise in the presence of multiple government tiers and agencies but, on the other hand, more efficient and effective fiscal adjustments may result from the combined action of the several political actors in more decentralised systems under a cooperative institutional framework. Thus, we hypothesise that the multi-layered fiscal structure, which characterises most OECD countries, should be taken into account when assessing the duration of fiscal consolidations.

Our paper investigates the impact of fiscal decentralisation on the duration of consolidation episodes in 17 OECD countries between 1978 and 2009, finding that: i) duration is longer in more decentralised countries, but only if sub-national governments have little real autonomy over their budgets; ii) transfers from the central government are reduced during consolidation periods, and this effect is more pronounced if sub-national authorities have little legal power to affect the central government's decisions. As a consequence, the most vulnerable local governments during fiscal retrenchment episodes seem to be those having more spending tasks and responsibilities not accompanied by enough legal power. Indeed, this seems to be a common feature of OECD countries, which are largely characterised by an asymmetry between expenditure and tax decentralisation (Blöchliger and Vammalle, 2012).

The fact that central governments reduce their transfers to lower tiers during fiscal adjustment processes may reveal a (possibly short-sighted) strategy of central governments to shift the adjustment burden to lower government levels[13] in order to appear virtuous in the eyes of international financial markets and of supranational institutions. Such behaviour goes against the recommendations of the IMF (2013) according to which the best way to achieve credibility is having medium-term fiscal plans with a visible anchor (e.g. either an average pace of adjustment or a fiscal target to be achieved within a certain period) combined with structural and institutional reforms, possibly involving different tiers of government.

Moreover, the central governments' behaviour of reducing their transfers to sub-national units during fiscal consolidation episodes may lead not only to longer consolidation spells, but also to the loss of political consensus at the sub-central level that can be reflected on the results of national elections. The IMF (2013) suggests a different approach based on the coordination of decision-making across different government tiers to guarantee the success of adjustment strategies.[14]

Our results call for further research. A possible future step could consist in investigating whether more decentralised countries are actually more successful in their consolidation strategies, as suggested by Schaltegger and Feld (2009) for Swiss cantons. Furthermore, the distributional effects of such policies across governmental levels have to be carefully considered. All in all, given that budget consolidation measures are normally unpopular, the duration of the consolidation episodes is relevant also in light of the political support needed by governments in order to carry out such measures. Our findings suggest that when many institutional actors are involved in the process, as it normally happens in decentralised systems, there are non-negligible effects on the length of consolidation which may affect the prioritisation of the government's policy objectives, their implementation, and, finally, their success.

Notes

1. For example, overspending by regions in Spain resulted in larger than expected primary deficits during the recent recession, particularly in 2011.
2. Indeed, this seems to be what is happening in Italy with the latest government budget containing spending cuts of EUR 15 million, see the article by Bordignon (2014) titled La manovrona.
3. One significant example is Iceland. Before the crisis there were no formal constraints on local government finances, and local government debt surged to 37% of GDP at end-2009, with debt-to-revenue ratios exceeding 150% in two-fifths of municipalities owing to a lack of proper oversight.
4. It is not easy to define debt sustainability either. Neck and Sturm (2008, p. 1) explicitly write that "although sustainability of public finance has been discussed for more than a century now, it is still an imprecise concept."
5. Devries et al. (2011) also claim that spending-based adjustments have been less contractionary in the past, but only due to accommodative monetary policy.
6. For instance, in the aftermath of the oil shocks in the early 1980s, countries such as the United States, Japan, Germany and Canada relied relatively more on tax increases than expenditure cuts (IMF 2013).
7. Cafiso and Cellini (2014) stress that although a certain debt/GDP ratio may affect the likelihood of consolidation, the opposite is also true, as consolidation affects the debt dynamics. Their analysis of EU countries over the period 1980-2009 suggests that consolidation leads to lower debt/GDP values in the short run, but not in the medium term.

8. Studies on the duration of fiscal adjustment episodes have also been performed in a sample of developing countries where, using survival analysis, expenditure composition, the size of the fiscal consolidation and past performance on fiscal consolidation represent factor affecting the persistence of the adjustment (Gupta et al., 2004).

9. As noted by Schaltegger and Feld (2009) the decentralisation dummy variable used by Baldacci et al. (2006) does not allow to capture the influence of tax competition and the counteracting impact of grants on fiscal consolidation in such countries.

10. We thank Jaroslaw Kantorowicz for making this point during his discussion at the OECD Fiscal Federalism Network Workshop in Paris.

11. This might indicate a problem of collinearity as expenditure decentralisation might evolve together with the real autonomy variables in some cases.

12. Note that the maximum value of fiscal autonomy is equal 2, while we assume edec to be equal to 50.

13. Actually, this may be also partly attributable to the fact that while many national governments suspended or abandoned national fiscal rules following the crisis, rules concerning sub-national deficits and debt often remained in force.

14. Despite their growing importance, intergovernmental fiscal arrangements have not been a focus of reforms over the last years. Among the nine G-20 countries with fiscal objectives covering the general government or wider, only six clearly identify the contribution of each level of government to the targeted balance and debt position in their fiscal plans. Only four countries have taken steps to strengthen the fiscal oversight of their sub-national governments during this period.

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Chapter 5

Soft budget constraints: The case of municipal bonds in Italy

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This paper discusses a novel approach to identify soft budget constraint expectations, exploiting the idea that financial investors rationally incorporate in sub-national bond prices also expectations of future bailouts by the central government. We consider as a testing ground the municipal bond market in Italy. We first build an original dataset of all the 1 388 bond issuances from 1996 (the year when the national legislation provided an organic discipline for municipal bonds) to 2011, involving 529 cities out of about 8 000. We then regress bond yields at issuance on bond characteristics, central government bond yields, and three proxies for bailout expectations on soft budget constraints (an index of vertical fiscal imbalance and of central government budget tightness, plus a dummy for the city being subject to the Domestic Stability Pact). Our results suggest that soft budget constraint problems arise frequently, especially in small cities and those located in the poorer South.

1. Introduction

Decentralisation may have its merits. A large economic literature, starting from the seminal work of Oates (1972) suggests that by delegating functions and resources to local levels of government, efficiency in public spending should increase as local politicians would have more incentives to learn about, and to take into account, local interests. It would also increase political accountability, as there should be a stricter link between the taxes and fees that citizens are asked to pay and the services they get in exchange.[1]

This rosy view of decentralisation is predicated on the fact that local governments take full responsibility for their actions. The reality is very different from this ideal world. Local governments are generally not fully autonomous on the funding side, since grants usually play an important role in financing local expenditure; and they are not fully autonomous on the spending side, as many local functions are regulated by central government legislation. Moreover, there are often administrative limits on the amount of resources a local government can raise via debt, thus reducing the ability of local governments to smooth public consumption over the economic cycle. All the above requires, even in a decentralised setting, financial assistance by the central government as an essential part of a well-functioning system of inter-governmental relationships. The simple fact that this possibility exists might then distort local governments' actions. Local governments might be induced to inefficient or risky choices on the expectation of central government intervention in case of troubles. Clearly, this peculiar form of moral hazard, which in the literature is often referred to as (local) soft budget constraint (with reference to the seminal work by Kornai, 1986), might seriously undermine the normative arguments discussed above, reducing rather than increasing fiscal responsibility and political accountability under decentralisation.

Given their potential importance, the issue of a soft budget constraint in intergovernmental relations has been scrutinised in a large literature, starting from the seminal book by Rodden et al. (2003). Economic theory today is quite unanimous about the prevalence of and potential policy responses to soft budget constraints (e.g. see Bordignon, 2006, for a survey). But the empirical literature has been far less successful in determining the true relevance of the phenomenon, in spite of the rich anecdotal evidence reported in many case studies. The main difficulty is that the soft budget constraint problems at the local level depend on expectations of future interventions by the central government. As expectations are unobservable, this creates a formidable problem to all attempts to identify the causes and the relevance of the phenomenon empirically. It would also be conceptually wrong to try to identify soft budget problems just by looking at bailing out examples of local governments' debt by the central government. First, as the theoretical literature has clarified (Bordignon and Turati, 2009; Treisman, 2006), soft budget problems might arise in the form of distortions in patterns of local expenditure or in central government transfers, rather than in an explicit bailout of local governments' debt. Second, a bailout *per se* is not evidence of the existence of a soft budget constraint, as the latter requires that the local government misbehaved because of expectations of future interventions, which might not be the case in all the observed examples of bail outs.

Faced with these difficulties, the literature has tried to find different ways to circumvent the problem of testing empirically for a soft budget constraint, looking at "natural experiments" where expectations are assumed to be revealed, or imposing *ad hoc* restrictions on expectations' formation. In order to address the issue, we follow the same

strategy as Bordignon and Turati (2009) but taking a different route, based on a suggestion by Rodden (2006).[2] He attempts to recover expectations of future bail outs by looking at the relationship between the credit ratings of new debt issued by state or regional governments in five federations (Australia, Canada, the United States, Spain and Germany) and the regions' stock of debt. The idea is that a large pre-existing debt should reduce the creditworthiness of the issuer; and where this negative relationship is weaker, it means that the credit agency, reasonably a well-informed agent, (e.g. Standard & Poor's in Rodden's work) rationally expects the central government, should a problem occur, to step in and help the state/region in trouble. Using this method, Rodden (2006) concludes that expectations of soft budget constraints are rampant in Spain and Germany, where regional ratings are only weakly correlated with the stock of regional debt, while there are no expectations of central government ex post intervention in the other federations.

Rodden's analysis is only illustrative, as it is of course difficult to make sensible comparisons across countries, where not only functions and resources, but also the access to financial markets for local governments are very different. But it suggests a potentially fruitful way to proceed in order to recover expectations of bail outs inside a single country, where comparison across local governments makes more sense as laws and institutions are also the same. Investors, especially institutional investors, should carefully evaluate the ability of local governments to repay their debt, and therefore the returns asked to retain local debt should be, ceteris paribus, lower for local governments with more own resources to repay their debt. For local governments where this relationship is weaker or absent, one could then reasonably infer that expectations of bail outs are larger. Besides, one can also test, in a dynamic framework, if policies that according to theory should strengthen the local budget constraint (such as further devolution of tax bases or more strict budget rules on local governments) have the expected effect on bail-out expectations.

With this research strategy in mind, we collect data on all municipal bonds issued by Italian cities, in the period from 1996 (the year when the national legislation provided the right for issuing municipal bonds), to 2011, the last year for which complete information on these bonds is available. Out of about 8000 municipalities, 529 issued bonds during that period to finance investment, some several times, for a total of 1 388 issues, mostly concentrated in the Northern regions and mostly over the mid-2000s. For each single issuance of municipal bonds, we then collected information on the characteristics of the local bond (amount, duration, return, ...), information on central government bonds with similar characteristics issued in the same year (that captures the general market conditions), information on the characteristics of the municipality and, in particular, on the ratio between transfers and own revenues (an index of the ability of the municipalities to pay back their debt), and other characteristics of municipalities as controls. We also capture with time dummies national policies that should have had an effect on bail-out expectations at the municipal level (decentralisation of the tax base and hierarchical control of local budgets). We further introduce an indicator of national budget "strictness" (the ratio between the Italian deficit and the deficit of European partners) that should also have affected the ex-ante probability that the central government could intervene in order to help municipalities in trouble.

Our results suggest that at least for some Italian municipalities, the soft budget constraint problem is serious. The return that institutional investors required to hold municipal bonds did not depend on the financial characteristics of the municipality or on the strictness of local budget regulations. Rather, the variable capturing the strictness of the national budget, and therefore the ex-ante probability that the centre could intervene

to help municipalities in trouble, turns out to be significant and with the expected sign in all specifications and for all subsets of municipalities. There is also some evidence that when the central government seemed to be more serious in pursuing a decentralisation agenda (up to the beginning of the 2000s) investors perceived the local budget to be harder than in the second period, when a process of re-centralisation had begun. On the whole, these results provide support for the theoretical literature on soft budget constraints and are in line with previous studies of the Italian government system. They also suggest that the methodology adopted in this work may be useful for further studies of soft budget constraint problems in other countries.

The remainder of the paper is organized as follows. Section 2 offers an institutional and historical account on local government bonds in Italy, with a specific focus on municipalities and municipal bonds. Section 3 is devoted to our empirical analysis. Section 4 briefly concludes.

2. The institutional background

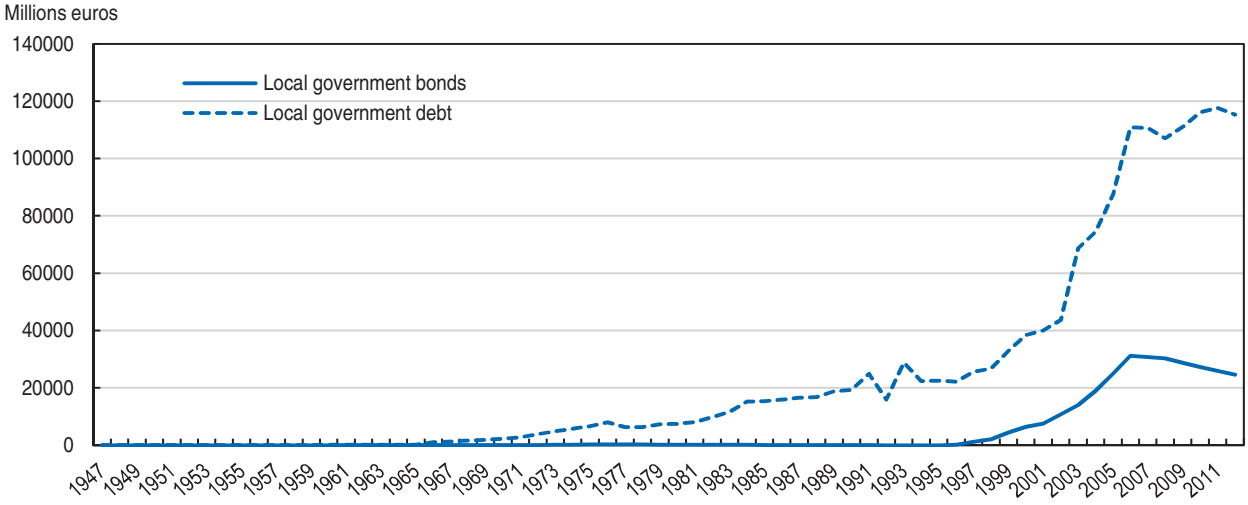
2.1. A brief history of local government bonds in Italy

Though the first law that regulated bond issuance by local governments in Italy dates back to 1865, few years after the country's unification,[3] issues (and data) were sporadic until World War II. More systematic information – but aggregate for regions, provinces and municipalities – have been made recently available by Della Torre (2013) for the post-war period, based on Francese and Pace (2008). According to these data, bonds issued by local governments were EUR 1.2 million in 1947, out of a total debt of EUR 12.2 million (Figure 5.1). Bonds increased in the first half of the seventies, reaching EUR 285 million in 1975, but less than the total debt for local governments, that peaked at more than EUR 7 billion in 1976. Bond issuance decreased sharply after the seventies, because of the introduction of increasingly stringent regulations on local authorities in the following years, to disappear by the mid-1990s, despite total debt being still over EUR 20 billion. Local government bonds resurrected during the nineties: following new and more flexible legislation, local governments started again to issue bonds, at levels never reached before: the peak was attained in 2006, with EUR 31 billion, out of EUR 110 billion of total municipal debt (Figure 5.1). This evolution justifies our focus on this last period, from 1996 onwards, in what follows.

There are two key characteristics of local government debt that are consistent across the years and are still valid today. First, local government debt represents just a small fraction of the whole Italian public debt. Figure 5.2 shows that at the end of the nineties, local government debt was about 2% of public debt; it reached 7% in 2007, to decrease to 5.2% in 2013 (see Francese and Pace, 2008, for a longer period). Municipalities, together with the regions, cover the largest share. Second, most of local government debt is in the form of bank loans. This is evident from Figure 5.1 and from Figure 5.3, considering only more recent years. Bank loans, especially via the Cassa Depositi e Prestiti, are about 90% of total debt. Bonds grew from 20 up to 30% of total debt in 2006, to fall to 10% in 2013.

Figure 5.1. The evolution of local government debt

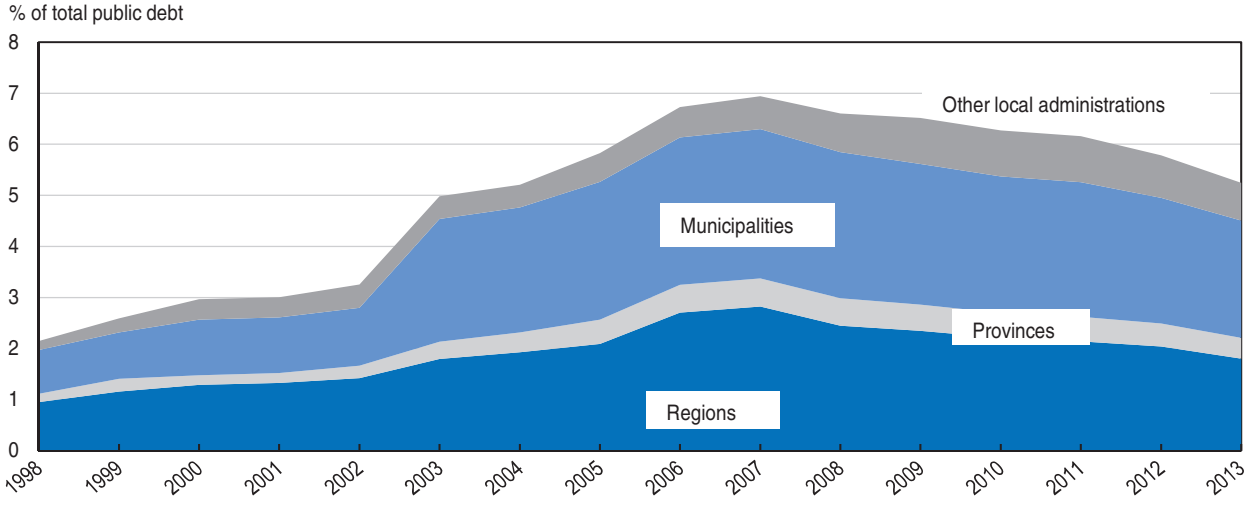
1947-2012, EUR million



Source: Della Torre (2013).

Figure 5.2. Local government debt as a share of public debt

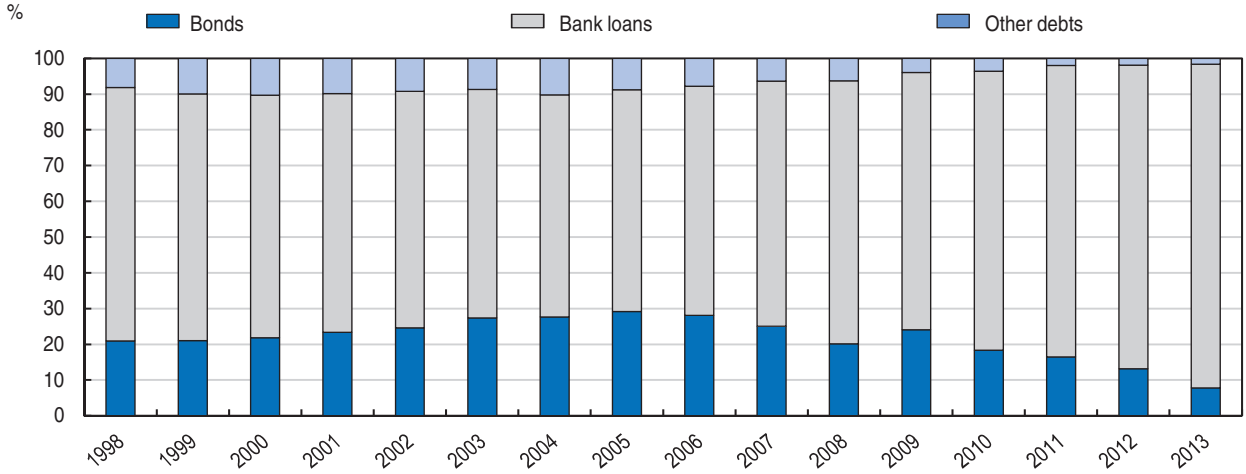
1998-2013, in per cent



Source: Bank of Italy.

Figure 5.3. Share of bonds and bank loans in local government debt

1998-2013, in per cent



Source: Bank of Italy.

There are several reasons that explain the more flexible regulation of the nineties, which favoured the burgeoning of the local government bond market. The main one was the willingness to increase the financial resources for investment by local authorities, which was very limited at that time because of the stringent requirements by the Maastricht Treaty. In addition, it was expected that the possibility to directly raise resources from private subscribers should allow local authorities to reduce the cost of funds, thanks to the absence of costs by financial intermediaries. A second reason was to enlarge the choices of investors, through the supply of new securities in the domestic bond market, which so far was almost monopolised by Treasury bonds. Moreover, legislators believed that by subscribing bonds residents would be more involved in managing local resources. Third, there were hopes to change the approach of local governments toward investments: it was hoped that bond financing could foster a culture that would evaluate public investments according to the concept of project financing, well-developed in other countries, especially in the United States. In addition, bonds were thought to improve accounting practices and the disclosure of financial information at the local level, and to apply for rating in order to reduce the cost of placements, as in other countries.

Unfortunately, most of the objectives listed above were not met. The fixation *ex lege* of the financial characteristics of bonds, even on the basis of a prudential approach, severely limited the number of municipalities that were able to make use of this new instrument. Moreover, in a number of cases, bonds have been issued having in mind the banking system as the sole and final subscriber, so that the pricing of these bonds has been closely linked with the pricing of bank loans, implying intermediation costs and no role for independent rating. The development of project financing failed too. Municipal bonds have a hybrid nature, in between the US Revenue Bonds and General Obligation Bonds. In particular, although they do finance a specific investment, like the US Revenue Bonds, re-payment is guaranteed by general tax revenues like for General Obligation Bonds, and not by the cash flow potentially originating from the investment (Benvenuti and Calò, 2000). Hence, it was difficult to harmonise the legislation that rules the bonds

with the one for project financing. Finally, even the hope that citizens would have been more involved in local matters as a consequence of bond issuance has been deceived: subscription offers – the more efficient way to make citizens involved – were never provided to residents.

2.2. Municipalities and their finances in the Italian government system

Municipalities are the level closest to citizens in the Italian government system. They are in charge of providing a wide array of goods and services, ranging from general administrative services (e.g. the registry office) to local public goods (e.g. local transport, public parks and amenities, street lighting and cleaning, child and elderly care), from environmental services (e.g. garbage collection and disposal) to heating and water. Besides provision of these services, municipalities are also in charge of investment at the local level, including for instance roads, public buildings (swimming pools and schools), parking lots and museums. Differences among the more than 8 000 municipalities are wide with respect to population size, tax bases and services provided to citizens. Capital spending was about 1/5 of total spending in recent years. More importantly, spending by local governments represents the highest share in capital spending by all levels of government, being about 44% in 2012 (Ministero dell'Economia e delle Finanze, 2013).

Current spending is funded by a blend of different taxes and fees, as well as central government grants. Grants were heavily reduced by fiscal decentralisation reforms implemented during the 1990s, which were explicitly directed at reducing the vertical fiscal imbalance and to increase political accountability of local governments. The most important reform was the introduction of the *Imposta Comunale sugli Immobili* (ICI, a municipal property tax on all buildings) in 1993, which reduced the share of central government grants in municipal budgets by about 20 percentage points from 60 to 40%, on average. However, the reduction in the importance of grants was very uneven across the country, with the poorer Southern municipalities still relying on average more on grants with respect to Centre-Northern ones. A second important episode of increasing fiscal autonomy occurred in 1999 with the introduction of a municipal surcharge on the personal income tax (called *Addizionale IRPEF*; see Bordignon and Piazza, 2010, for details and further analyses). However, the general push towards decentralisation was reversed during the 2000s, a period in which central government claimed back taxing power. In 2002, for instance, the PIT surcharge was frozen by the central government (but resumed in 2007) and in 2008 the property tax on the main residence was abolished, but re-introduced in 2012.

Autonomy was not given for free: since 1999, following the European budget rules, the traditional accounting rules on municipalities were strengthened, when the Domestic Stability Pact was introduced. The rules of the Pact changed over the years, moving from expenditure rules (thresholds on the maximum allowed increase in current expenditure) towards budget balance rules (imposing a surplus on the current budget), first excluding, then including capital expenditure, and with sanctions (prohibition to hires, reduction in future transfers, etc.) that became stricter and better enforced. The subset of municipalities subject to the fiscal rules also changed. Up to 2000 it covered all municipalities; excluded municipalities below 5 000 inhabitants in the period 2001-04, excluded municipalities below 3 000 inhabitants in the period 2005-06, and again excluded all municipalities with less than 5 000 inhabitants in the period 2007-12. Since 2013, only municipalities with less than 1 000 inhabitants are excluded from the Domestic Stability Pact.

2.3. Technical characteristics of municipal bonds

The characteristics of municipal bonds (*Buoni Ordinari Comunali*, BOC) were defined by a decree of the Ministry of the Treasury in 1996. As a general rule, BOCs can be used solely to finance investment, while it is prohibited to issue these bonds to finance current expenditure. Moreover, bonds can be issued only by financially sounds municipalities (D.Lgs. n. 504/1992, Art. 45), that is, without any current operating deficit, and/or past deficits which were bailed out by regions (according to Law n. 68/1993). The duration of a BOC cannot be less than five years. The amount of the loan, net of placement fees, should not exceed the amount of capital resulting from a project.

The bonds are placed at par and interest can be paid with annual, semi-annual or quarterly coupons, at a fixed or variable rate. In the case of a variable rate, for bonds issued on domestic markets the coupons subsequent to the first are determined using the yield at issue of Treasury Bills or, alternatively, the Rome Interbank Offered Rate (RIBOR) with the same maturity. For variable rate loans issued on foreign markets (and for those denominated in foreign currency)[4] the benchmark for the coupons will be the London Interbank Offered Rate (LIBOR) with the same maturity. The effective yield before tax for the subscribers of the loan shall not exceed, at the time of issuance, the gross yield on the aforementioned parameters with the same duration issued in the previous month plus one. In the absence of issuances, the gross yield must be referred to the yield of government bonds with a maturity closest to that of the bonds to be issued plus one. There is therefore a ceiling on the maximal yield that a BOC can offer.

Repayment has to follow the amortizing method: instalments include, from the first year, a share of capital and the interests. Because of the rather slow expansion of the local government securities market, the Law n. 448/2001 allowed municipalities – for a few years – to issue bonds with repayment in a lump sum at maturity, the so-called bullet method. However, the obligation to take the amortising method for bond issues was re-introduced in 2008. It is important to notice that the repayment of the loan is secured by the delegation of payment on municipality's own tax revenues and grants from central government, which oblige the municipal treasurer to repay the bonds. From a legal standpoint, any form of guarantee by the state is prohibited, as is any form of warranty by regions. These provisions should curb bail-out expectations for investors that should rely only on the financial characteristics of the issuers in order to price the bonds.

Finally, the law set a number of limits for the use of derivatives. All derivatives could only be indexed to parameters referring to the group of seven most industrialised nations. Moreover, in order to limit credit exposure, contracts should have been negotiated only with financial intermediaries identified by rating agencies recognised at the international level. Since 2006 new restrictions and disclosure requirements were introduced, in an attempt to avoid a loss of control in the use of innovative tools for debt management.[5] In 2008, the signing of new derivatives by municipalities was prohibited. While information on contracts negotiated with foreign banks are not systematically available, the additional debt originating from the negative values of derivatives negotiated with banks operating in Italy reached EUR 1.5 billion in 2012 or 1.4% of total outstanding debt.

3. Recovering bailout expectations from yields: A first pass

3.1. The empirical strategy

We focus on a single country with common institutions across municipalities, and – more importantly – consider a large sample.[6] In particular, we build on the idea of "rational expectations" provided in Bordignon and Turati (2009), to study how investors perceive the softness of municipalities' budget constraints. The implicit assumption to specify the mean function properly is the rational investors' behaviour, i.e. the efficient market hypothesis. Let y measure the BOC yield at issuance; we assume that yield is a linear function of both structural variables and bailout expectations in the following empirical model:

$$y_{it} = \sum_k \beta_k X_{kit} + \pi B_{it}^e + v_{it} = \sum_k \beta_k X_{kit} + \sum_j \pi_j Z_{jit} + v_{it} \qquad (1)$$

where vector X includes structural variables that should have an impact on bond returns (like bond characteristics and the Treasury Bond effective yield on the same maturity, a measure of long term sovereign risk applying to the country), while B^e are bailout expectations which we model as a linear combination of a vector of variables Z. In particular, we include in X the following variables: *Duration*, which measures bond maturity in years; *Amount_pc*, which considers the nominal amount of debt issued relative to the municipal population; *Frequency2*, which is a dummy variable picking up those emissions with half-yearly coupons; *Floating*, which is another dummy variable identifying issuances with variable returns; finally, *Btp_yield*, is the effective yield on Treasury Bonds on the same maturity.

As for the proxies for expectations, exploiting the Italian economic history starting from the second half of the Nineties, we consider in Z three different variables: i) an indicator of Vertical Fiscal Imbalance (*VFI*), defined as the ratio at the municipal level between central government's transfers and municipality's own taxes; ii) the existence of fiscal rules for municipalities, such as a Domestic Stability Pact (*DSP*) imposing ceilings on deficit and/or spending; iii) the tightness of central government budget, by considering the ratio between Italian public deficit and the average Euro countries deficit (*PBT*).

What should we expect from a rational investor?

- First, if none of the π coefficients associated to these variables is significant, then investors are pricing bonds according to structural variables only and do not perceive any additional risk coming from the characteristics of the bond issuer or any other institutional variables. Hence, the interpretation is that they basically expect central government to step in and bail out any debt by municipalities should a problem occur.
- If the π coefficients are significant, then investors perceive soft/hard budget constraints according to the characteristics of the issuer and the general condition of the country; and the magnitudes of the coefficients are also likely to be important, because the degree of softness/hardness could be different in different groups of municipalities or for different periods. In particular, as suggested by theory, a rational investor should perceive a higher risk the higher the share of transfers from the centre (e.g. the higher the VFI), because a municipality with limited own resources might have more difficulties in meeting its debts obligations in case something bad happens to the financed project. This means

that – if we are correctly identifying bailout expectations – then πVFI should be insignificant if the investor expects the municipality to be bailed out by the centre, while it should be significant and positive if the budget constraint is perceived as hard, because the risk for investors should be higher in investing in bonds issued by municipalities that are mainly financed with central government transfers.[7]

- Similarly, if fiscal rules do work appropriately, municipalities subject to fiscal rules should be more fiscally responsible; hence, πDSP should be negative, determining a lower average return for investors.
- Finally, bailout of local debts should be less likely when the central government Italian deficit is higher than the average Euro country deficit, as one would then expect that Europe would impose corrective measures, making it more difficult for central government to intervene in favour of municipalities. Rational investors should understand this and, therefore, πPBT should be positive, implying that investors ask for a higher return for a higher level of default risk.

3.2. A database on municipal bonds 1996-2011

We collect relevant information from the Bloomberg database on all BOC issued by Italian municipalities between 1996 and 2011. We have 1 388 BOC issued by 529 municipalities. Distribution across years and across regions is clearly uneven. More than ¼ of all issuances took place in 2005; more than half between 2004 and 2006, the year in which the Domestic and Stability Pact for Municipalities fixed a goal in terms of capital spending.[8] As for regional distribution, 71% of all issuances refer to a municipality located in the Northern part of the country, 15% refer to regions in the Centre, while the remaining 14% is in the South. Among Northern regions, Emilia Romagna takes up more than 35% of emissions. In terms of market shares, Lombardia (16%) and Veneto (12%) are the regions in which most of the issues are concentrated beside Emilia Romagna. The average duration is 20 years, but maturities range between the minimum of 5 years, as requested by the law, and a maximum of 45 years. The average amount is about 13 million euro, but the range is between EUR 23 000 and more than EUR 3 billion. This partially reflects the variability in terms of the size of municipalities involved, which ranges from 377 inhabitants to more than 2 million such as in Rome. Almost all issues have semi-annual coupons; and 62% have a floating interest rate. The unconditional average BOC return over the entire time period is 3.5%, but variation across years and between issuers is large. Bond yields follow a clear temporal pattern, with a sharp decrease in the years before Italy joined the Euro, and much smaller oscillations in the years after (Figure 5.4).

Figure 5.4. Municipal bond yields in Italy (1996-2011)

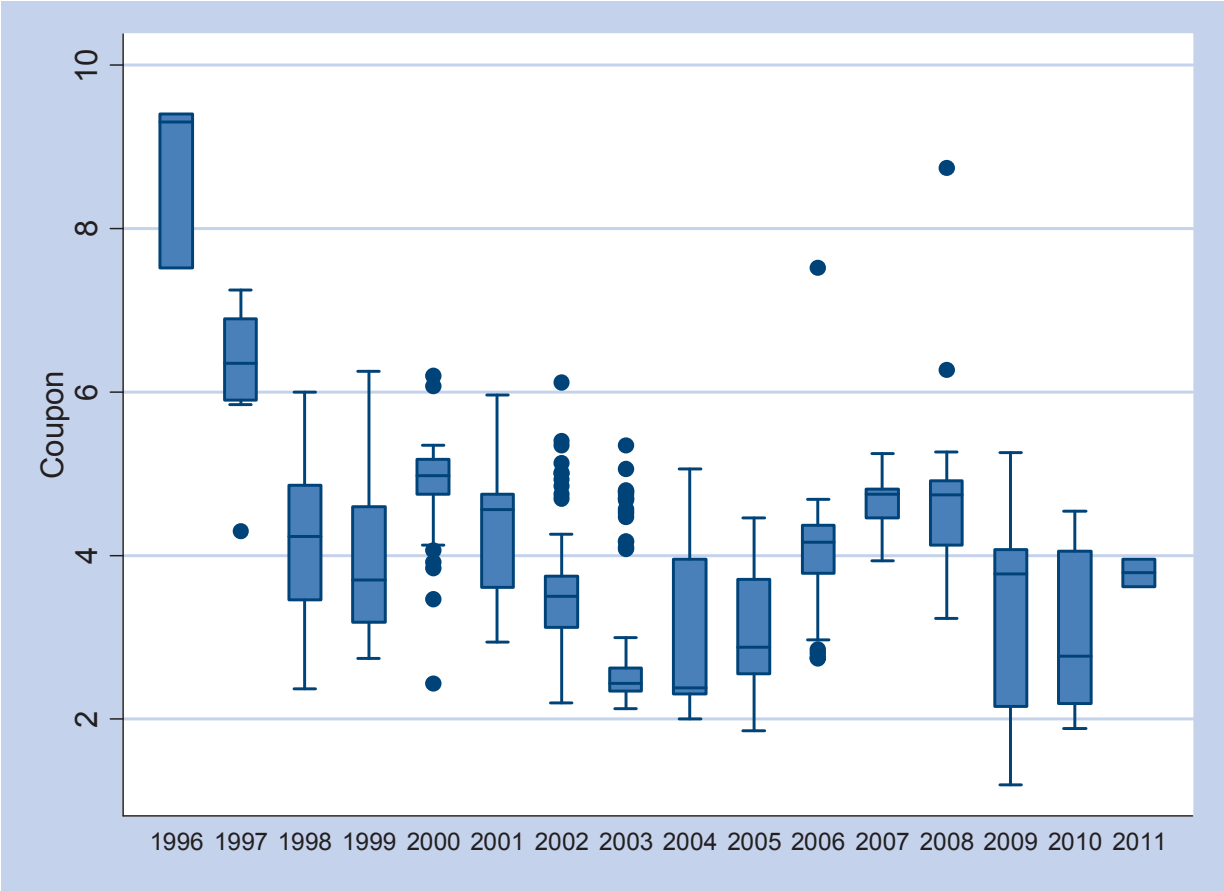
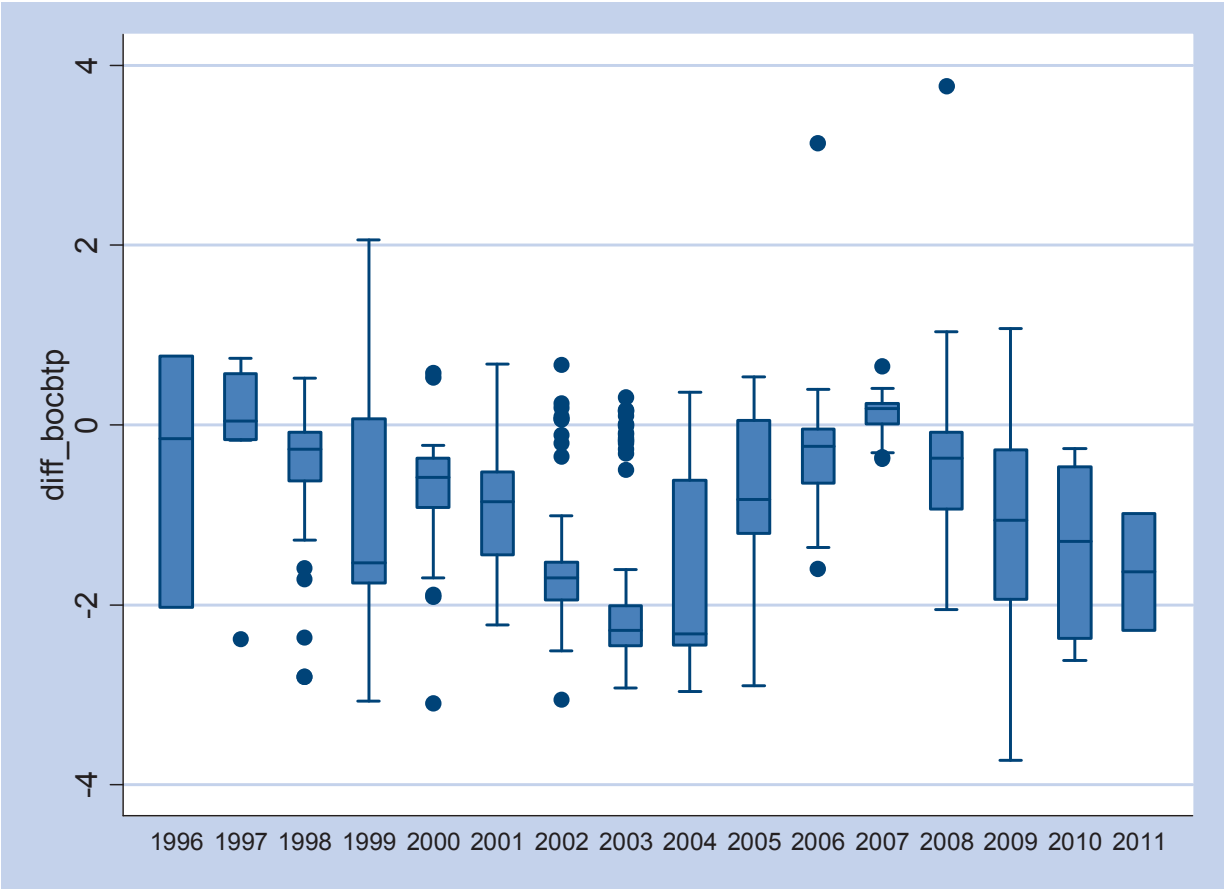


Figure 5.5 plots the unconditional mean of the spread between BOC yields and the corresponding Treasury Bond yields over time. We still observe the interest rate cycles characterizing the evolution of yields in Figure 5.4. Notice that the median spread is –0.97%, meaning that Municipalities in those years managed to finance their investment, on average, at a *lower* rate than the central government.[9] This also suggests – as expected given the constraints imposed on municipalities as shown above – that the process of issuing BOC was not random across Municipalities, with more financially sound cities more likely to issue bonds. There is therefore a selection bias in our sample, which makes it more difficult to detect evidence of bailing out expectations.[10] As can be seen from Figure 5.5, several observations are far away from the median: a larger range is observed in 1999 and 2009, and a number of outliers are observed especially in 2002 and 2003.

Figure 5.5. Spread between BOC yields and Treasury Bonds in Italy (1996-2011)



3.3. Results

We first consider a simple model including only bond characteristics and sovereign risk proxied by the effective yield of Treasury Bill on the same maturity. We estimate three different specifications considering regional FE only, year FE only, and both regional and year FE, using robust standard errors in all specifications.[11] Estimates of this narrow model are in Table 5.1, column I to III. The sovereign risk coefficient is always positive, significant and unsurprisingly less than one in magnitude, especially when considering models with time fixed effects, which are likely to better capture changes in the level of the country risk than Treasury Bill yields on the same maturity of the BOC. Bonds with floating interest rates appear less costly for issuers, given the negative and statistically significant coefficient. The coefficient of the per capita value of the issuance is also consistently negative and statistically significant in two out of three specifications, most likely capturing a 'scale effect' of the investment. The only case in which this coefficient is not significant is the specification with regional FE only, since most large BOCs were issued by few regions in specific years. Bonds with half-year coupons cost less to issuer than those with annual coupons;, the coefficient on *Frequency2* is consistently negative and statistically significant in all the specifications, except in the regional FE specification for the same reason as before. On the contrary, *Duration* has a coefficient that is not stable across specifications, being negative (and statistically

significant) in the model including year FE only, and positive in the remaining two cases (but statistically significant only when including both year and region FE).

These results remain largely unchanged in terms of signs, significance, and magnitudes, when augmenting the model to include our bailout expectations variables, first one at a time (col. IV to VI in Table 5.1), then together (col. VII in Table 5.1).[12] Most importantly, coefficients on our proxies for B^e come up with the expected signs, and are always statistically significant. Hence, on average, investors do not seem to hold bailout expectations, and rationally price the risk of different issuers according to available information.[13] In particular, the coefficient on the degree of VFI is positive and statistically significant. Hence, the higher the share of transfers in financing municipal expenditures, the higher the risk of default, thus the yield required by investors. The coefficient on the Domestic Stability Pact is negative and statistically significant, which means that more fiscally responsible municipalities, the ones more abiding to fiscal rules, are perceived as less risky, and asked to pay a lower return. Finally, despite PBT to be time varying only, its coefficient is consistently positive and statistically significant. There is a country risk of the Italian Republic priced in the BOC yield, which is higher the higher the Italian deficit relative to the average European countries one.

Table 5.1. The determinants of BOC yields: Whole sample

	Bond characteristics only			Including bailout expectations proxies			
VARIABLES	I	II	III	IV	V	VI	VII
btp_yield	0.200***	0.777***	0.187***	0.673***	0.758***	0.759***	0.639***
	(0.0673)	(0.0469)	(0.0665)	(0.0366)	(0.0443)	(0.0476)	(0.0351)
duration	0.00446	-0.0102**	0.00851**	-0.00714	-0.0111**	-0.0105**	-0.00825*
	(0.00384)	(0.00482)	(0.00389)	(0.00458)	(0.00484)	(0.00460)	(0.00433)
amountpc	-0.00322***	-0.000149	-0.00329***	-0.000214	-0.000277	0.000209	5.19e-05
	(0.000783)	(0.000315)	(0.000749)	(0.000325)	(0.000390)	(0.000284)	(0.000377)
frequency2	-0.218	-0.326***	-0.229*	-0.352***	-0.351***	-0.168	-0.205*
	(0.143)	(0.118)	(0.128)	(0.119)	(0.117)	(0.133)	(0.125)
floating	-1.121***	-1.209***	-1.053***	-1.187***	-1.207***	-1.213***	-1.191***
	(0.0398)	(0.0369)	(0.0434)	(0.0367)	(0.0373)	(0.0341)	(0.0342)
vfi				0.00232***			0.00218***
				(0.000575)			(0.000596)
dsp					-0.227***		-0.197***
					(0.0663)		(0.0695)
pbt						0.224***	0.238***
						(0.0217)	(0.0214)
Constant	7.787***	1.742***	7.847***	1.880***	2.091***	1.177***	1.588***
	(0.987)	(0.305)	(0.977)	(0.275)	(0.301)	(0.309)	(0.280)
Year Fixed effects	Yes	No	Yes	No	No	No	No
Regional Fixed effects	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,388	1,388	1,388	1,384	1,388	1,388	1,384
R-squared	0.742	0.480	0.754	0.475	0.486	0.535	0.542

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

In order to understand whether bailing out expectations are important for particular types of municipalities, we explore how our results change considering a number of different subsamples. First, we divide municipalities in two groups, below and above 5 000 inhabitants, the threshold defined most of the times for being subject to the DSP (see Section 2.2 above). Results reported in Table 5.2, col. I and II, seem to suggest a 'too-little-to-fail' effect: two out of three of our proxies for bailout expectations are not significant in the sub-sample of small municipalities; only PBT is positive and significant, with a similar magnitude in both models. In particular, the coefficient on VFI is insignificant, implying that investors do not perceive a different risk being associated with (small) municipalities largely financed with grants or own revenues.[14]

Second, given the large territorial differences in tax bases, we consider municipalities in Northern, Central and Southern Italy separately. Interestingly, our proxy measures for expectations come up as significant and with the expected sign only in the Northern and Central subsamples, the two areas with higher fiscal capacity. In particular, both VFI and DSP are significant and with the expected sign only for cities in the Center-North of the country. For the Southern subsample, only PBT is significant and with a magnitude similar to the one observed in the other two subsamples, suggesting again that the risk, besides that already incorporated in the Treasury Bond yield, is basically related to the whole country but not to the characteristics of the specific municipality in the South. An obvious interpretation is that when the Italian deficit is higher than the average deficit in Europe, bailout is perceived as less likely even for municipalities in the South.[15]

Third, we split our sample according to different time periods, in order to capture the erratic nature of decentralization in Italy, with Municipalities being autonomy sometimes granted, sometimes taken away. In the period considered municipalities were allowed to raise additional resources via a municipal PIT surcharge (see Section 2.2 above). This surcharge was introduced in 1999 and remained in place until 2002; it was then frozen from 2003 until 2006, to be resurrected again in 2007 and 2008.[16] While central government, made up by different coalitions of parties over the period (mostly Center-Left in the 90's and mostly Center-Right in the 2000's), aimed at reducing Vertical Fiscal Imbalance for both regions and municipalities; in the second part of the 2000's, the central government started instead cutting back fiscal autonomy, mainly by blocking or removing some local taxes. This story appears clearly from the results in Table 5.2, col. VI to VIII: most proxies for bailout expectations are significant and with the expected sign[17] in the first two periods, while they are not significant in more recent years, suggesting that cutting back fiscal autonomy increased the expectations of future bailouts for investors. The argument is confirmed also by looking at Table 5.3, where we report estimates of additional models in which we interact our VFI variable with time dummies. In col. I, we consider a dummy picking up the possibility for municipalities to raise additional funds with the PIT surcharge: our estimates show that VFI per se is not relevant, while the coefficient is positive and significant when interacted with the PIT surcharge dummy. In col. II, we consider three time dummies to distinguish the three periods before 2000, between 2000 and 2007, and after 2007. Only coefficients on the first two interactions are statistically significant and positive, supporting the previous conclusions.

Table 5.2. The determinants of BOC yields: Different sub-samples

	Size differences		Geographical differences			Role of IRPEF surcharge			Selection effects	
VARIABLES	more 5 000	less 5 000	North	Central	South	before 2000	2000-07	after 2007	Emilia-R.	Others
btp_yield	0.575***	0.638***	0.624***	0.485***	0.726***	0.533***	0.577***	0.265	0.744***	0.586***
	(0.0367)	(0.0976)	(0.0470)	(0.0847)	(0.0584)	(0.138)	(0.0292)	(0.205)	(0.0696)	(0.0396)
duration	-0.000190	-0.0125	-0.0162***	0.0255**	-0.0178	-0.0676**	-0.00167	0.0110	-0.0193*	-0.00459
	(0.00472)	(0.00871)	(0.00528)	(0.0104)	(0.0131)	(0.0285)	(0.00402)	(0.0191)	(0.0111)	(0.00475)
amountpc	0.000492**	-0.0223	9.64e-05	-0.135	-0.0378	-0.00190	-0.0107	0.985	0.000393	-0.0499*
	(0.000244)	(0.0601)	(0.000307)	(0.125)	(0.129)	(0.00137)	(0.0275)	(2.432)	(0.000330)	(0.0260)
frequency2	-0.0943	-	-0.0184	0.123	-0.280	0.409*	-0.0142	0.0812	0.641*	-0.239*
	(0.124)	-	(0.164)	(0.266)	(0.319)	(0.217)	(0.110)	(0.916)	(0.389)	(0.127)
floating	-1.188***	-1.324***	-1.201***	-1.167***	-1.005***	-0.357	-1.255***	-1.107***	-1.182***	-1.200***
	(0.0414)	(0.0889)	(0.0415)	(0.102)	(0.120)	(0.423)	(0.0320)	(0.183)	(0.0636)	(0.0415)
vfi	0.00307***	0.00102	0.00358***	0.00399*	8.02e-05	0.0113**	0.00277***	0.000261	0.00128	0.00272***
	(0.000789)	(0.000730)	(0.000957)	(0.00210)	(0.000683)	(0.00455)	(0.000482)	(0.00163)	(0.000963)	(0.000758)
dsp	-1.111***	0.0846	-0.222***	-0.549**	0.0253	-0.212	0.128**	0.187	-0.486***	-0.0668
	(0.151)	(0.0928)	(0.0786)	(0.248)	(0.158)	(0.252)	(0.0521)	(0.321)	(0.140)	(0.0774)
pbt	0.247***	0.296***	0.253***	0.227***	0.206***	-4.632***	0.251***	1.938***	0.263***	0.233***
	(0.0221)	(0.0660)	(0.0344)	(0.0330)	(0.0343)	(1.143)	(0.0209)	(0.366)	(0.0582)	(0.0208)
Constant	2.139***	0.530	1.373***	1.089*	0.894	8.531***	0.800**	0.461	0.576	1.329***
	(0.343)	(0.651)	(0.367)	(0.623)	(0.638)	(1.432)	(0.404)	(1.593)	(0.679)	(0.341)
Regional FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1 189	195	983	211	190	75	1 186	123	490	894
R-squared	0.564	0.766	0.524	0.594	0.617	0.654	0.606	0.659	0.499	0.583

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Finally, we try to consider the potential bias stemming from the non-random nature of the issuers, the selection bias in our sample, by considering a peculiar public institution (the *Centro Servizi Finanza Enti Locali*, Cesfel, www.cesfel.it/) put up in one of the regions, Emilia Romagna, to help even small municipalities in fulfilling all the administrative procedures needed to issue bonds in the capital markets. The idea is that while for the other regions, the absence of such institution should make the process more difficult and the selection bias more severe, in the case of Emilia Romagna this problem might have been mitigated by the presence of regional assistance. Indeed, as we already mentioned, the percentage of bond-issuing municipalities in this region was much larger than in other regions with similar characteristics. Table 5.2, col. IX and X, shows that the results for Emilia Romagna are similar to the "other regions" subsample, suggesting that the selection bias, to the extent we can control for it, is not so severe. In particular, by looking at results for Emilia Romagna, only the coefficient for VFI is marginally insignificant, even though with the expected sign. Yet the coefficient for DSP is insignificant in the "other regions" subsample, since smaller municipalities (excluded from the application of DSP) are less likely to issue bonds. Finally, in both subsamples, the coefficient on PBT is positive and significant, reinforcing the importance of country risk (beyond the evaluation already included in the Treasury Bill yields) in driving bond pricing by investors.

4. Concluding remarks

In this paper we follow a methodology first suggested by Rodden (2006) to study soft budget constraints, applying it to local governments in Italy. We try to capture bailing-out expectations by looking at the relationships between the interest charged by institutional investors for holding Italian municipal debt and variables characterizing the financial characteristics of the same municipalities. The general idea is that the less the risk premium reflects these characteristics, and the more it reflects features affecting the willingness and ability of the central government to bail out municipalities in the case of financial troubles, the larger should be the expectations of bailing out. To this end, we collect an extensive dataset on all bonds issued between 1996 and 2011 and perform our empirical analysis both on the whole set of municipalities, and on subsets of municipalities. We also look at different time periods with potentially different bailing out expectations.

The exercise has a number of limitations: there is a selection bias, as only municipalities in better financial conditions could issue bonds given the administrative regulations set up by the national legislator; moreover, important additional controls (like indicators of the financial health of municipalities[18] or political variables capturing the favour with which higher levels of government can look at specific municipalities)[19] are not included in the analysis. Still, the results we obtain are interesting and provide support to some of the suggestions derived by the theoretical literature on soft budget constraint.

- There is evidence that investors in general took into account the financial characteristics of the municipality in pricing bonds. As one would expect, the return required to hold Municipal bonds was higher for towns and cities characterized by a larger quota of transfers in their total revenues and was lower when municipalities were subjected to more stringent regulations by the Domestic Stability Pact.
- This result does not hold for all municipalities, however. Both parameters turn out to be insignificant for the subset of Southern cities as well as for smaller municipalities. Here, there is more evidence of bailing out expectations, as the required rate of return was independent of the financial characteristics of the Municipality issuing the bond.
- In basically all specifications, the variable referring to the Italian deficit with respect to the European partner's deficits also turns out to be significant and with the expected sign. As we already control for the general risk of the country by introducing the interest rate on national bonds in all regressions, this is a quite interesting result; it would be difficult to explain why such a macro-variable should matter for investors' evaluation of municipal bonds without assuming that it affects the budget constraint for municipalities. Tellingly, this is also the only variable that turns out to be significant for Southern cities and smaller municipalities too.
- As suggested by the literature, there is some evidence that more local autonomy on the revenues' side curb expectations of bailing out. Our variable concerning VFI turns out to matter more in periods in which the Central Government seemed to aim for more tax revenue decentralization, and to matter less in periods where the central government was doing the opposite. It is tempting to conclude that investors believed the local budget constraint to be harder when the Central

Government seemed seriously intentioned to pursue a decentralization agenda, while it became softer, when it was clear that the Central Government wanted to re-centralize the system. Further work on this issue is on the research agenda.

Table 5.3. The determinants of BOC yields: Fiscal decentralization

VARIABLES	I	II
btp_yield	0.531***	0.567***
	(0.0457)	(0.0359)
duration	-0.00708	-0.00394
	(0.00431)	(0.00440)
amountpc	-0.000433	-0.000819***
	(0.000304)	(0.000312)
frequency2	-0.211*	-0.0994
	(0.118)	(0.114)
floating	-1.201***	-1.193***
	(0.0335)	(0.0422)
vfi	-0.000689	
	(0.000567)	
vfi_PITsurcharge	0.00635***	
	(0.00104)	
vfi2000		0.0125***
		(0.00202)
vfi2000_2007		0.00212***
		(0.000474)
vfiafter2007		0.00173
		(0.00160)
dsp	-0.318***	-0.0542
	(0.0681)	(0.0585)
pbt	0.210***	0.254***
	(0.0215)	(0.0211)
Constant	2.360***	1.528***
	(0.252)	(0.286)
Regional FE	Yes	Yes
Observations	1,384	1,384
R-squared	0.572	0.566

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Notes

1. These are not the only reasons for, or against, decentralisation. Recent surveys can be found in Lockwood (2014) and Treisman (2007). The latter in particular offers a quite negative view on the usual economists' arguments in favour of decentralisation.

2. In a similar vein, see also the work by Jenkner and Lu (2014), testing risk transfer from local to central government when a bail-out program is announced.

3. On the impact of Italy's unification in 1861 on the sovereign bonds of the seven merged states, see Collet (2013).

4. To hedge against the exchange rate risk, the loans denominated in foreign currencies must be accompanied at the time of issuance by a corresponding swap operation. The need to swap the exchange rate risk has been confirmed also after the introduction of the euro by the D.M. n. 389/2003. The swap transaction has to be carried out by intermediaries with proven experience in the sector, considering also their evaluation by the main rating agencies (D.M. n. 420/1996).

5. Interestingly, some municipalities (as well as regional governments) also accused financial intermediaries for frauds, and courts have been called to define the controversies. For instance, the process involving the municipality of Milan and four banks (UBS, Deutsche Bank, Depfa Bank and JP Morgan) has gone through two sets of proceedings: the second one absolved the banks, overturning the first judgement, and cancelling the one million fee for each. The morale seems to be that even large municipalities do not have experts that can help them in the process of managing bonds.

6. Rodden (2006) only considers Regions/States in Federations, of which there are much fewer than municipalities. Most analyses of sub-national governments bonds indeed consider regions or states. Examples include Jenkner and Lu (2014) on Spanish Comunidades Autónomas, Feld et al. (2013) on Swiss cantons, Schulz and Wolff (2008) on German Länder, Von Hagen et al. (2011) on German, Spanish and Canadian regions/states. Municipalities are examined for instance by Dove (2014) considering the United States, and by Pinna (2013) looking at Chief Provincial Towns bonds in Italy.

7. This is indeed a key prediction of the theoretical literature on SBC; hard budget constraint rule are not credible when a local government is largely financed by transfers, as this would not have the means to cope with unexpected shocks on revenues or spending. See Bordignon and Turati (2009) for an empirical analysis suggesting that this prediction was confirmed for Italian Regions in the 90's.

8. Basically, the municipal Domestic Stability Pact for that year imposed a severe constraint on current spending, that had to be reduced, while it allowed capital expenditure to be increased up to a threshold. Notice further that in that year, the Pact, traditionally imposed only on municipalities with more than 5,000 inhabitants (25% of the total number of municipalities), was extended also to those with more than 3,000 inhabitants. See Ambrosanio and Balduzzi (2014) for details.

9. This might also depend on the fact that, as discussed above, BOC were in principle tied to a specific investment. But the municipality was responsible with its own revenues for the re-payment of the debt, implying that the financial conditions of the issuer should be relevant in determining the interest rate paid.

10. We will come back to this below, discussing the case of municipalities in Emilia Romagna.

11. We cannot use municipal fixed effect because the VFI index is very stable across the years, so being very akin to a fixed effect.

12. Notice that, since most of the variability in DSP and PBT is across years, we consider from now on a specification with regional FE only.

13. Recall, from Section 2.1, that in spite of the original intentions, only institutional investors were allowed to participate in the purchase of BOC. Assuming them to be rational investors make of course a lot of sense.

14. That the coefficient on the DSP turns to be insignificant is surprising as these municipalities were not in general being subjected to the Pact.

15. Interestingly, and in line with the flavor of the above results, smaller and Southern municipalities are historically more likely to end up in formal distress, the bankruptcy procedure foreseen by the Italian legislation to assist municipalities in trouble (see Ambrosanio et al., 2014, for data and discussion). Notice that this procedure is costly for municipalities: although it is usually accompanied by some extra funding from the Center, it implies a suspension of municipal democratic bodies, and the increase of all local taxes and fees to the maximum allowed rate. Municipal debts are also renegotiated. This is why municipalities try to avoid it as far as possible and try instead to get extra money from the center through different means.

16. In the sample considered by Bordignon and Piazza (2010), PIT surcharge at the end of the period covered up to 8% of total tax revenues of the municipalities.

17. Notice that coefficient on PBT is negative and statistically significant in the first period considered here. This is likely due to an anomalous value of PBT, which takes up a value of 8 in 2000, despite the level of the Italian deficit is 0.8% of GDP.

18. For instance, we do not have information on the outstanding debt of municipalities issuing bonds.

19. For instance, political party alignment of municipal governments with the regional or the central government at the time of the issue.

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Chapter 6

Fiscal relations across levels of government and sub-national fiscal rules in Japan

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Fiscal rules are thought to help maintain the sustainability of public finances and underpin fiscal consolidation. This paper estimates a model which regresses the primary balance of local governments in Japan on debt, to the power of debt, the level of temporary government spending, a business cycle indicator and a set of fiscal rules enacted in 2007. Local governments include all prefecture governments over the period from FY1985 to FY2011. Overall, results are consistent with the Bohn (1998) debt sustainability definition. The primary balance initially falls at low levels of debt/GDP. As debt increases beyond certain levels, however, the primary balance rises significantly with increasing debt. The improvement of the primary balance was achieved by expenditure cuts and local tax revenue increases, while intergovernmental transfer played no decisive role. The debt service ratio serves to improve the primary balance of local governments, while net revenue and the current account balance do not play a disciplining role. The introduction of the fiscal rule reduced the explanatory power of fiscal variables.

Introduction

Requirements for local public services imposed by the central government and the design of the grant and tax system have created conditions for an increase in local government debt. How do local governments react to the accumulation of debt? Faced with a gross debt amounting to 190% of GDP in 2014, a continued large deficit and significant spending pressures stemming from the rapid ageing of the population, Japan has to take significant steps to restore fiscal sustainability. Rethinking fiscal relations across levels of government is of paramount importance in this regard. Japan is a unitary country with a relatively high share of local government expenditure among OECD countries. On the revenue side, the local government share is smaller but remains high by OECD standards. The Japanese system combines Northern European expenditure decentralisation with Continental style centralised methods of financing as pointed out by Mochida and Lotz (1999). This is a problematic match.

Ballooning local government debt is another sign of misalignment in fiscal relations across levels of government. Local debt has soared since the early 1990s, reaching 40% of GDP in FY2000, rising from 15% in FY1990. It has remained stable in the 2000s. The ratio of outstanding debt to local resources is 240% in Japan (see OECD and KIPF, 2011). Japan is clearly an outlier. Assume debt revenue ratios concerning OECD countries have a standard normal distribution, with μ the sample average and σ the standard deviation. Then, 99.73% of the numerical values should be distributed within the range of $\mu \pm 3\sigma$. By substituting actual data into the formula, we obtain a range from -0.61 to 1.85. Numerical values concerning Japan (2.40) stand out of this range, indicating that the debt of local governments is extraordinarily high. Japan is saddled with the worst level of local debt.

Rules on local government budget balances were rather lenient by international standards. Budget constraints have been further softened by the tax and expenditure assignment and the design of transfers. When local governments are allowed access to capital markets, sub-central governments (SCGs) without significant revenue raising capacity covered deficits through borrowing. Since they depended on transfers, lenders perceived them as borrowers, whose debt is implicitly guaranteed by central government. As a result, local governments' ability to repay their debt is thus questionable.

Whereas the public debt/GDP ratio has reached the highest level in Japan, this paper provides evidence of corrective action: the marginal response of primary surpluses to changes in debt is increasing with a rising debt-GDP ratio. Despite a rapid increase in local debt, the existing fiscal rule on debt servicing cost has become binding. Section 2 starts by describing conditions for an increase in local government debt. Market discipline has not been playing a decisive role in disciplining local governments. During the 2008 economic and financial crisis, Japan strengthened its fiscal rules to ensure debt sustainability and underpin fiscal consolidation. Section 3 identifies the models to test debt sustainability and extends Bohn's method by including fiscal rule indicators. Section 4 discusses the estimation results. We find direct evidence for corrective actions by examining the response of the primary budget surplus to changes in the debt-to-GDP ratio. A positive response shows that the government is taking actions – reducing non-interest outlays or raising revenue – that counteract the change in debt. The final section summarises the empirical results and looks at the policy implications for debt management.

Institutional framework

2.1. Conditions for an increase in local debt

Most countries have decentralised some aspects of fiscal policy. Lower-level jurisdictions – be they states or provinces, prefectures or regions, cities or municipalities – are typically given responsibility for delivering important public services, such as schools, health and social services. This holds true for Japan as well. Several important points are worth mentioning. Sub-national government expenditure represent about 19% of gross domestic product (GDP). In expenditure terms, the weight of local governments is about half that of the general government. Local taxes cover about 44% of local government spending and represent, therefore, about 8.1% of GDP. As a consequence, transfers from the central government to local government account for 5.7% of GDP and cover 30% of local government resources. Local governments account for 74% of general government investment. Local net lending is small relative to central government net lending, but indebtedness is as much as that of central government. These data suggest that Japan does not follow the standard model of a centralised country at all, where relatively weak sub-national governments are assigned limited expenditure and revenue responsibilities.

With large spending responsibilities at the local level, the main challenge is to provide local governments with sufficient revenue-raising autonomy to make them accountable to local citizens, while ensuring that all have enough capacity to raise revenue to provide core public services. Local governments have long relied on local taxes, in particular personal and corporate income taxes. The economic slump, however, has resulted in stagnant local tax revenues. Meanwhile, local financial needs grew since local spending was promoted by the central government, in part to cushion the sluggishness of other demand components. A block grant called Local Allocation Tax and local bonds have thus played an increasing role in filling the local government funding gap.

First, local governments played a big role in public investment projects until the late 1990s. They were expected to co-operate with stimulus packages launched by the central government since the economic bubble burst. The central government could no longer afford to give conditional grants for infrastructure projects (city halls, parks, gymnasiums, sanatoriums, etc.), because of its financial distress. Instead, local governments were encouraged to issue bonds to underpin stimulus packages. In return, the central government gave a commitment to service local bonds with an additional Local Allocation Tax grant in future years. Local governments were put under the illusion that their debt would be eventually redeemed by the central government. Mochida (2004) estimates that local governments recognised only 47% of outstanding debt as their own liabilities.

Second, fiscal arrangements rely heavily on explicit revenue sharing arrangements between the national and local governments. During the 2008 financial crisis, revenues to be shared dropped significantly. The growing gap between revenues and spending at the local level led to an increase in equalisation entitlements, while the revenue pool available for equalisation purposes was declining. The law stipulates that the gap between entitlements and the funding pool should be addressed by an increase in the local tax share (Local Allocation Tax Law 6-3-2). It is, however, difficult to raise the tax sharing ratio of five national taxes during a severe recession. Actually, the LAT revenue shortage has been covered by: 1) 'ad hoc' transfers from the general account of central

government, 2) by LAT special account borrowing, and 3) local bond issuance. In FY2012 the amount of the block grant reached JPY23 trillion, although the revenue pool available for it was only 11 trillion. The remaining gap was filled by 6 trillion of defect-covering bonds and 6 trillion of ad-hoc transfers, respectively.

2.2. Market discipline did not play a disciplining role

Japanese local government bonds are largely held by financial institutions. That contrasts with US municipal bonds which are mainly held by households. Investment by public and quasi-public institutions was declining, falling to 27% in FY2009, from 63% in FY1989. The government has a long history of collecting a substantial amount of public funds through credits from financial institutions, such as the postal bank and pension funds. The 'Fiscal Investment and Loan Programme' (FILP) gave long term and low interest loans to the local bond market. FILP, however, was dismantled in FY2001. Instead, the central government started to issue national bonds to raise funds and sub-lease them to local governments. In addition, direct loans of postal savings and pension funds to local governments were terminated in FY2007.

In contrast, the private sector has underwritten an increasing share of local government bonds. Private-sector funds cover about 60% of total local bond issuance—private banks buy 26% and the remaining 34% are offered directly on the market. In the past, the central government was responsible for negotiating with lenders, thereby the issuing conditions were uniform regardless of individual local government creditworthiness. However, reflecting the widening gap in secondary market prices, the central government allowed local governments to negotiate with creditors.

Although the private sector has underwritten an increasing share of local government bonds, market mechanisms did not play an important role in enhancing fiscal discipline. Several factors limited the disciplining role of financial markets. The central government has implicitly guaranteed creditworthiness of local government bonds through 1) the dominant role of public institutions in underwriting, 2) a bond approval system, and 3) a fiscal reconstruction system. Under these arrangements, both lenders and creditors believed local governments would not go bankrupt. Moody's, an international rating agency, expects the ratings of its 12 rated prefectures and designated cities will remain at Aa2 with a negative outlook. It is the same rating as for Japanese government bonds, reflecting their belief that central government would eventually step in to help any local government experiencing fiscal distress.

However, recent reform initiatives could enhance the role of financial markets. Since FY2006, a local government does no longer need to obtain approval from the central government to issue bonds. Under the new system local governments should consult with the ministry before issuing bonds. If the ministry disagrees, they can still issue bonds, but repayment costs will not be accounted for in the LAT formula. This system could contribute to enhancing the role of financial markets in disciplining local government fiscal behavior, since the previous approval system has often been perceived as an implicit government guarantee by investors. Local bonds with an agreement, however, will continue to be guaranteed by the central governments. In order to ensure debt sustainability, the effective debt service ratio is still watched. When that ratio reaches18%, local governments are required to receive approval from the central government to issue bonds. According to the central government, 12 prefectures and 400 municipalities still need approval.

2.3. Strengthening fiscal rules during the fiscal crisis

Administrative controls on local bonds and fiscal rules may provide counteracting forces. National law prescribes which expenditures can be financed by local government bonds and dictates a number of fiscal rules to be respected if local government plans issuing local bonds. The Local Finance Law (Article 5) stipulates that bonds can only be used to finance: 1) spending by public enterprises (e.g. transportation, gas and water services), 2) investment in and lending to organisations involved in areas of public interest (e.g. roads, airport, sport facilities), 3) loan refinancing, 4) disaster restoration works and 5) expenditure on construction of public facilities and purchase of land for building public facilities. These bonds are called 'Construction Local Bonds' (kensetsu chihosai).

In addition, National laws dictate a number of fiscal rules to be respected if a local government intends issuing local bonds. The ratio of local debt service is calculated as follows.

Debt service Ratio = {(A+B) - (C+D)}/ (E - D)

- A: Redemption of principal and interests of the current year.
- B: Provision to a special account, which was used to service public enterprise bonds.
- C: Special revenue used for A.
- D: Debt service, which was included in the Standard Fiscal Need in the calculation of the LAT.
- E: Standard scale of local finance (the general revenue estimated necessary to maintain ordinary administration standards).

When that ratio reaches 18%, local governments are required to receive approval from the central government to issue bonds. When the ratio reaches 25%, most bond issues will not be approved.

Despite the rapid increase in local debt, fiscal rules were not binding during the 2008 economic and financial crisis. Under the previous law, a municipality running a deficit exceeding 20% of its general revenue could still issue bonds only if it has introduced a financial rehabilitation plan approved by the MIC. The problem is that fiscal rules monitored only the general account deficit, while debt levels were not watched. The fiscal collapse of Yubari city was a sign of the malfunctioning of the fiscal rehabilitation system, since the city was designated as a local government under the fiscal rehabilitation scheme and its budget directly controlled by the MIC, effectively stripping the city of its autonomy.

Recent reform initiatives contributed to enhance the role of the fiscal rehabilitation system, strengthening the safety net for fiscally distressed local governments. The Law on Restoring the Fiscal Health of Local Governments was enacted in FY2007. The law rebuilt the existing Law on Special Measures for the Promotion of Local Financial Reconstruction for the first time in half a century. It strengthened oversight to prevent local governments from a fiscal collapse. First, local governments are required to report several fiscal indicators to the local assembly and disclose them to the public. Details about these indicators are shown in Box 6.1. The 'effective deficit ratio' and 'future burden ratio' has fallen from FY2007 to FY2009, indicating better financial health of municipalities.

Box 6.1. Early-stage fiscal improvement benchmark

1. 'Effective fiscal deficit ratio'

Ratio = A/B

A : Deficit of the general account

B : Standard scale of local finance (the general revenue estimated necessary to maintain ordinary administration standards)

2. 'Consolidated effective deficit ratio'

Ratio = {(A+B)-(C+D)}/E

A: Deficit of the general account

B: Deficit of the special account of public enterprises

C: Surplus of general accounts that have a surplus

D: Surplus of special accounts of public enterprises that have surplus

E: Standard scale of local finance (the general revenue estimated necessary to maintain ordinary administration standards)

3. 'Effective debt service ratio'

See Section 3 for the definition of the debt service ratio

4. 'Future burden ratio'

Ratio ={(A-(B+C+D)}/(E-D)

A: Local debt outstanding, consolidated effective deficit

B: Reserve fund used for redemption of A

C: Special revenue used for redemption of A

D: Debt service, which was included in the Standard Fiscal Need in the calculation of the LAT

E: Standard scale of local finance (the general revenue estimated necessary to maintain ordinary administration standards).

Second, the rehabilitation process consists of two different stages: stage one which is fiscal improvement and stage two which is fiscal rehabilitation. If fiscal indicators exceed numerical targets at the 'early stage', local governments have to formulate a fiscal consolidation plan and the ministry issues a warning sign, if the plans are inappropriate. Even more, if fiscal indicators exceed numerical targets of 'rehabilitation', local governments must come up with a fiscal rehabilitation plan in consultation with the ministry. Since FY2007, all four fiscal indicators improved gradually. The oversight to prevent local government from fiscal collapse was strengthened, and institutions for promoting local government fiscal rehabilitation are now in place.

3. The empirical model

3.1. Debt sustainability analysis for the sub-national level is scarce

The government intertemporal budgets constraint states that the net present value of all future primary balances must be sufficient to pay back the initial debt (see Escolano, 2010). Hamilton and Flavin (1986) propose an empirical framework for testing the intertemporal budget constraint. On the other hand, Bohn (1998) finds more direct evidence for corrective actions by examining the response of the primary budget balance to changes in the debt-GDP ratio. A positive response shows that the government is taking actions – reducing non-interest outlays or raising revenue – that counteract the rise in debt. For the United States Bohn (1998) finds evidence that the primary surplus is an increasing function of the debt-to-GDP ratio for 1916-95.

Previous debt sustainability analyses in Japan have focused their effort on central government's action, while research on sub-national government is scarce. For central and general government, Fukuda and Terunuma (1993), Doi and Nakazato (2004) test empirically debt sustainability with unit root and Bohn's test. Sumi and Kawase (2012) use intertemporal budget constraint criteria and conclude that almost every prefecture's debt is not sustainable since the mid-1990s. Akamatu and Hiraga (2011) tests debt sustainability with Bohn's method and interpret their estimation result as showing the existence of positive feedback until 1989. They also point out that rural local governments did not take action in response to rising debt, while metropolitan governments did. Yoshida and Ueda (2012), using primary balance time series data of Tokyo, find no statistical evidence for corrective action of the Tokyo metropolitan government. Finally, Fujino (2006) estimates a fixed effect model and confirms a non-linear relationship between the primary balance and local debt. It also concludes that the debt of 42 prefectures other than large metropolitan areas is sustainable.

Against this background, this paper extends previous research as follows:

- There are some fiscal rules with respect to local government debt. These rules promote the sustainability of public finance and underpin fiscal consolidation. To understand how these rules induce local governments to take corrective action in response to changes in debt, we extend the previous model. To that end, we add three numerical indicators as independent dummy variables, which capture the impact of the "Law for restoring the fiscal health of local government". These numerical indicators are the current account balance ratio, the net revenue ratio and the debt service ratio.
- We decompose not only the change in the debt-to-GDP ratio, but also the change in the primary balance. The improvement in the primary balance can be divided between cuts in spending, own revenue increases and fiscal transfers. The issue is to what extent each component contributes to improvements in the primary balance. Does local finance enjoy steady and sufficient resources thanks to extensive use of fiscal equalisation and grants? Alternatively, was an improvement in the primary balance achieved entirely through a local government's own effort – by reducing non-interest outlays or raising revenue?
- Macroeconomic fiscal data derived from the National Accounts are usually reported on an annual basis. This paper, however, creates a database for local government fiscal indicators on a quarterly basis, using quarterly cash flow information. This paper also clusters prefectures in such a way that prefectures in

the same group are more similar to each other than to those in other groups. Then, we estimate a fixed effect model for each group, using balanced panel data.

3.2. Extending the basic model by including a fiscal rule index

We use Bohn's method as the basic estimated model. The basic model has two equations for a linear function and a non-linear function, respectively. Concerning the linear function, we regress the primary balance on debt, the level of temporary government spending and a business cycle indicator. The model is:

$$s_{i,t} = \alpha_{i,t} + \beta_1 d_{i,t} + \alpha_x GVAR_{i,t} + \alpha_y YVAR_{i,t} + \epsilon_t \quad (1)$$

Where $s_{i,t}$ is the primary balance-to-GDP ratio; $d_{i,t}$is debt-GDP ratio; GVAR is the cyclical component of government spending; YVAR is the business cycle indicator. Subscript i denotes region i; subscript t denotes year t. By estimating this regression model, we expect parameter $\beta_1$to be significantly positive. In order to capture nonlinearities, we added the power of d_t and a function of the form max $(d_t - d^*)$ that picks up periods with debt is above d^*. The model is:

$$s_{i,t} = \alpha_{i,t} + \beta_1 d_{i,t} + \beta_2 \left(d_{i,t} - \bar{d}\right)^2 + \alpha_x GVAR_{i,t} + \alpha_y YVAR_{i,t} + \epsilon_t \quad (2)$$

Where $s_{i,t}$ is the primary balance-to-GDP ratio; $d_{i,t}$is the debt-GDP ratio; $\left(d_{i,t} - \bar{d}\right)^2$ is the power of $d_{i,t}$; GVAR is the cyclical component of government spending; YVAR is the business cycle indicator. Subscript i denotes region i; subscript t denotes year t. By estimating this regression model, we expect parameter β_1 to be significantly negative and β_2 to be significantly positive, respectively.

Moving to the empirical estimation, we take a few additional steps to extend Bohn's basic model. There are some fiscal rules with respect to local government debt. To understand how these rules induce local governments to take corrective action in response to a change in debt, we include three numerical indicators as independent variables: the current account balance ratio (CR), net revenue ratio (NR) and debt service ratio (DR).

$$s_{i,t} = \alpha_{i,t} + \beta_1 d_{i,t} + \beta_2 \left(d_{i,t} - \bar{d}\right)^2 + \alpha_x GVAR_{i,t} + \alpha_y YVAR_{i,t} + \beta_3 CR_{i,t} + \beta_4 DR_{i,t} + \beta_5 NR_{i,t} + \delta_1 D_t d_{i,t} + \delta_2 D_t \left(d_{i,t} - \bar{d}\right)^2 + \delta_3 D_t CR_{i,t} + \delta_4 D_t DR_{i,t} + \delta_5 D_t NR_{i,t} + \varepsilon_t \quad (3)$$

$$D_t = \begin{cases} 0, t \leq t^* \\ 1, t > t^* \end{cases}$$

$$t^* = 2007$$

- The current account balance ratio (CR) is the ratio of mandatory spending (i.e. personnel, welfare and debt service) to general resources. The government sets the desirable level of CR at 75-80%. If it exceeds 90%, central government diagnoses that the local government concerned is falling into budget rigidity or inflexibility.
- The net revenue ratio is defined by subtracting spending from the sum of local taxes, LAT, earmarked grants, fees and charges, and local bond issues. Net revenue should not exceed -5 and -20% of general-purpose resources (i.e. ordinary taxes, LAT and the Local Transfer Tax) for prefectures and municipalities, respectively. If local governments do not comply with this rule,

they can, under certain conditions, continue to issue bonds. A Prefecture running so-called net revenue exceeding -5%of its general-purpose resources can still issue bonds if it has introduced a "financial rehabilitation plan" approved by the MIC. This entails measures to increase revenues by setting tax rates above standard tax rates and measures to cut spending by reducing the number of government employees and their compensation and by cutting investment.

- The debt service ratio (DR) is the average ratio of debt repayment costs (only principal and excluding those financed through the Local Allocation Tax) to general-purpose resources over the past three fiscal years. The DR should be below 20%: the alert level is 15% and the risk level is 20%, respectively. Local governments with a DR over 20% are expected to take action for restoring fiscal flexibility.

In equation 3, an additional variable of interest is the dummy variable which captures the impact of the Law for Restoring Fiscal Health of Local Governments. This dummy is 1 since the Law was implemented. As we expect the relationship between the primary balance and debt to be time-variant with respect to the implementation of the Law, we include an interaction term. Specifically, to test for a structural break we create a period dummy, D_t, which is equal to one since the implementation of the Law on RFHLG (FY2008), and interact it with other independent variables included in the equation.

4. Estimation result

4.1. Marginal response of primary balance is increasing

The OLS estimation results for equation (1) and (2) are presented in Table 6.1, column 1 and 2. Overall, the results are consistent with Bohn's debt sustainability definition. The coefficients β_1 for d_t in equation (2) are significantly negative, while coefficients γ for $(d - d^*)^2$ are significantly positive. That indicates that the primary balance initially falls at low levels of the debt-to-GDP ratio, but when debt increases beyond certain levels, the primary balance rises significantly with increasing debt. On the other hand, β_1 for d_t is not significant in equation (1), as a change in debt may not be taken as seriously by local governments at low levels of the debt-to-GDP ratio. These results suggest that the marginal response of the primary balance to changes in debt is increasing in the debt-to-GDP ratio.

Table 6.1. The marginal response of the primary balance to changes in debt rise with the debt-to-GDP ratio

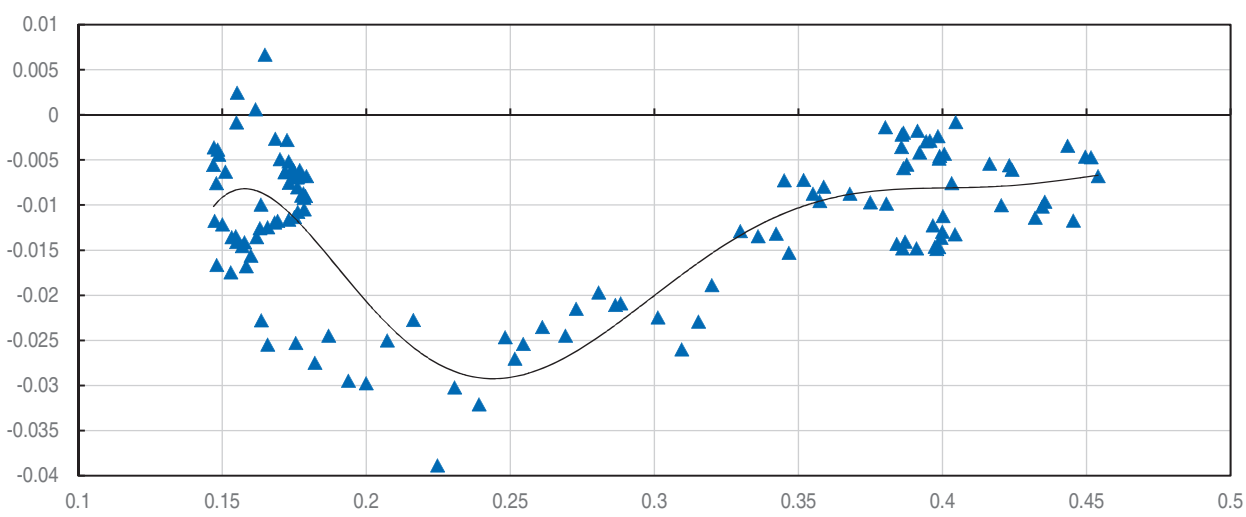
Quarterly Base, Total Local Government

Dependent variable:	1980Q1～2011Q4		1980Q1-1994Q4	1995Q1-2011Q4
Primary balance/GPP	1	2	3	4
d_t	0.0	-0.06**	-0.22*	0.11***
$(dt - d)^2$		0.85***		
GVAR	0.08***	0.09***	0.06	0.09***
YVAR	0.02	-0.02	0.03	-0.15***
Constant	-0.00	0.01	0.04	-0.04***
R^2	0.60	0.63	0.66	0.77
DW	2.39	2.64	1.05	2.17
Autocorrelation coefficient	0.78***	0.74***	0.79***	0.39***
Number of observations	127	127	56	67

Note: ( )=standard error. ***P<0.01、**P<0.05、* p<0.01.

Using these estimation results, we calculate the marginal response of the primary balance to changes in the debt-to-GDP ratio. It rises from a negative value for $d_t \leq 0.225$ to a significantly positive value for $d_t > 0.225$. The reaction of the primary balance to changes in debt is thus convex downward as shown in Figure 6.1, indicating a turning point in 1994 Q4. We check this estimation result with the Chow test, which confirms that a structural break occurred before and after the first quarter of 1995.

Figure 6.1. Primary balance to change in debt



The estimation results of the panel analysis for equation (3) are shown in the third column of Table 6.1. Overall, the results are consistent with the debt sustainability definition. Coefficients β_1 for d_t in equation (3) are significantly negative, while coefficients γ for $(d - d^*)^2$ are significantly positive. It indicates that the primary balance initially falls at low levels of the debt-to-GDP ratio. As debt increases beyond certain levels, however, the primary balance rises significantly with increasing debt.

The signs of the control variables for the fiscal rules are of key interest. Changes in the debt service ratio (DR) are associated with significant and positive changes in the primary balance, consistent with our expectations. Intuitively, one may expect a higher debt service ratio being associated with a higher primary balance. Contrary to our expectations, a change in net revenue (NR) is associated with an insignificant change in the primary balance. As there is some room for manipulation of net revenue, local governments may use *ad hoc* financing: withdrawals from various funds, advance payment from next year's budget and extensive use of local bonds. Finally, changes in the current balance ratio (CR) are associated with a significant and negative change in the primary balance.

The coefficients of the interaction terms are significant, confirming that a structural break occurred between FY2007 and FY2008. The signs of the explanatory variables and interactive terms, however, are reversed, and as a consequence the absolute value of the coefficient is close to zero. As we expected the relationship between the primary balance and debt to be time-variant with respect to the implementation of the Law for Restoring of Fiscal Health of Local Government, the expected sign of the interactive term is positive. In contradiction to our expectation, the explanatory power of debt and other fiscal indicators has been lost with the implementation of the Law.

4.2. Metropolitan governments may not take action to change in debt

Even if debt sustainability can be confirmed in general, a couple of local governments may not take actions – reducing non-interest outlays or raising revenue – that counteract the change in debt. Such multiple actions are reported by Fujino (2006) and Akamatsu and Hiraga (2010) based on anecdotal evidence. We take a few additional steps to capture multiple actions more generally. Using cluster analysis, we group a set of prefectures in such a way that prefectures in the same group are more similar to each other than to those in the other groups. Table 6.2 shows the result of the cluster analysis, indicating prefectures to be roughly grouped into six different classes. Then, we estimate the relationship between the primary balance-to-GDP ratio and explanatory variables in which fixed effects are included.

Our regression results on the primary balance of group D, E and F are shown in Table 6.2. (Colum D, E and F). These groups include fiscally fragile prefecture governments: Hokkaido, Aomori, Miyazaki, Shimane, etc. On the surface, these underdeveloped areas are in grave financial trouble and debt sustainability may be questionable. Our estimation result, however, is consistent with Bohn's debt sustainability definition. Coefficients β_1 for d_t in equation (3) is significantly negative, while coefficients γ for $(d - d^*)^2$ are significantly positive. It indicates that the primary balance initially falls at low levels of the debt-to-GDP ratio; as debt increases beyond certain levels, however, the primary balance rises significantly with increasing debt.

Table 6.2. Metropolitan governments may not always react to rising debt

Cluster analysis

	A	B	C	D	E	F
Fiscal Capability	◎	○	△	△	×	※
Fiscal Flexibility	○	※	×	△	◎	×
Deeply in debt	◎	※	○	※	×	×
Space for debt service	◎	△	○	×	×	※
	Tokyo	Gunma	Miyagi	Ibaragi	Tochigi	Hokkaido
		Saitama	Fukusima	Niigata	Wakayama	Aomori
		Chiba	Okinawa	Toyama	Tottori	Iwate
		Kanagawa		Ishikawa	Shimabe	Akita
		Sizuoka		Fukui	Ehime	Yamagata
		Aichi		Yamanashi	Saga	Nara
		Mie		Nagano		Tokusihma
		Kyoto		Gifu		Kochi
		Osaka		Shiga		Nagasaki
		Hyogo		Okayama		Kumamoto
		Fukuoka		Hiroshima		Oita
				Yamaguchi		Miyazaki
				Kagawa		Kagoshima

Note: Author's calculation. For detail, see Minegishi, N. (2006).

<good>◎←○←△→×→※<bad>

Contrary to the reaction of underdeveloped areas, most metropolitan governments do not take action when debt levels change. Our regression results on the primary balance of group A and B are shown in Table 6.2 (Column A and B). Group A denotes Tokyo, and group B includes most metropolitan governments: Osaka, Aichi, Kanagawa, Kyoto, Fukuoka, etc. These prefectures fall into the category of fiscal rigidity, but have a relatively high capability of raising tax revenue and the level of the debt service ratio is still not so high. Local debt of these privileged groups is expected to be sustainable. Our estimation result, however, is not consistent with such optimistic expectations. The coefficients β_1 and β_2 are not significant, suggesting that there is no relation between the primary balance and debt as well as power of debt. Furthermore, not only the sign of net revenue (NR) but also the sign of the current balance ratio (CR) and debt service ratio (DR) are not statistically significant. Because most of the interactive terms are not significant, there is no structural break between FY2007 and FY2008.

4.3. A decomposition of the primary balance is key to understand debt dynamics

The previous section revealed that the primary balance falls initially at low levels of the debt-to-GDP ratio; as debt increases beyond certain levels, however, the primary balance rises significantly with increasing debt. The improvement in the primary balance is divided between cuts in spending, own revenue increases and fiscal transfers. An important issue is to what extent does each component contribute to an improvement in the primary balance (see, Ministry of Finance (2013) and Council of Local Government Finance (2013)). Do local governments enjoy steady and sufficient resources thanks to extensive fiscal equalisation and specific purpose grants? Alternatively, was the improvement in the primary balance achieved entirely through local governments' own effort, by reducing non-interest outlays or raising revenue?

The decomposition of the improvement in the primary balance suggests the following points:

- The deterioration in Japan's primary balance over the two decades from 1991 to 2011 is 7.6% of GDP, while the improvement is 6.3%. It took about 20 years to return to the level of 1990 when the bubble economy burst.
- The improvement in the primary balance was divided between cuts in investment spending and increases in local tax revenues. The former contributes 80% of the total improvement. The improvement was achieved mainly through local governments' own effort.
- Specific grants helped stabilise the primary balance during the 2008 economic and financial crisis. But it is more the exception than the rule. Over the last two decades, specific grants were constantly reduced in Japan, because of the decentralisation drive.
- The role of fiscal equalisation – the Local Allocation Tax – with respect to stabilisation of the primary balance is mixed. LAT contributed significantly to stabilize the primary balance during the Asian financial crisis in the late 1990s. However, LAT was reduced substantially during the so called Trinity Reform (2004-06).
- In sum, an improvement of the primary balance has been achieved through mainly local governments' own effort – cuts in expenditure and increase in local tax revenues – in Japan. Contrary to expectations, fiscal transfers played a more passive role.

5. Concluding remarks

This paper estimates a model, regressing the primary balance of local governments in Japan on debt, the power of debt, the level of temporary government spending and a business cycle indicator. The object of the analysis are all prefecture governments over the period from FY1985 to FY2011. The results can be summarised as follows:

Local debt has been sustainable for the past 20 years, contrary to expectations. The primary balance initially falls at low levels of the debt-to-GDP ratio. As debt increases beyond certain levels, however, the primary balance rises significantly with increasing debt. Local governments thus meet the condition of the intertemporal budget constraint. There is a caveat to that, however. Our analysis provides no evidence suggesting that metropolitan governments take action when debt changes. This fact does not mean that

debt incurred by privileged local governments is not sustainable, but rather that they changed the course of fiscal management over the decades. On the other hand, fiscally fragile local governments with high levels of debt have reacted positively to changes in debt. But from the long-term perspective, their debt sustainability is problematic because of limited fiscal space.

We also gauge the factors that contribute to the improvement in the primary balance of local governments in Japan. In sum, the primary balance improved mainly through local governments' own effort, such as expenditure cuts and increases in local tax revenues. Contrary to expectations, fiscal transfers – LAT and specific grants – played no decisive role.

To understand how fiscal rules induce local governments to take corrective action in response to a change in debt, we extend the previous model. We find that the debt service ratio can serve as a trigger to improve the primary balance of local governments, while the net revenue and current account balance do not play a disciplining role. The implication is twofold: room for manipulation weakens the effectiveness of fiscal rules and in the absence of the threat of sanctions, they may be less credible. As we expect, the relationship between the primary balance and debt to be time-variant with respect to the implementation of the Law for Restoring of Fiscal Health of Local Government, the expected sign of the interactive term is positive. In contrast to our expectations, the explanatory power of debt and other fiscal indicators is lost after the implementation of the Law.

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Chapter 7

Intergovernmental budget frameworks in Austria

Anton Matzinger[1]

Austria's federal fiscal constitution is heavily centralised. A consensus-driven political system serves as a counterweight. While the federal parliament has overwhelming taxing authority and decides on tax sharing, cost bearing rules and transfers, legislation is usually drafted on a consensual basis across government levels and amended every four to six years. Within this framework each Land (regional government) or local government is responsible for its own budget. To coordinate budgetary policies the Internal Austrian Stability Pact sets well-defined budgetary goals for each government and ensures compliance through potential sanctions. The intergovernmental framework does not provide tax autonomy for Länder governments, which are financed via federal tax-sharing and transfers. The lack of accountability towards taxpayers as well as a lack of fiscal transparency due to federal co-financing reduce efficiency, and the considerable political clout of the Länder leads to soft-budget constraints. Reforms towards more tax autonomy and efficiency are planned, but are difficult to adopt given that strong vested interests have to be overcome.

1. Introduction

Austria is a federal republic with 9 states[2] and 2 354 local governments. Its constitutional system comprises an array of separate constitutional laws. Together, these form the legal framework for budgeting in Austria. In addition to this formal system of law a second, more informal, pillar has evolved which rests mainly on the political power of the *Länder* (regional) governments, in particular the regional ministers. As a group they have a strong position vis-a-vis the federal government and are therefore an entity to be reckoned with. In this union of formal and informal influences a tradition of consensus-oriented intergovernmental relations has evolved, accepted even by the Constitutional Court in its case law of the fiscal constitution.

A more recent aspect of the intergovernmental budget framework has evolved due to European fiscal rules. Austria's governments have agreed to implement these rules with an internal "Austrian Stability Pact". The pact coordinates the budgetary politics of all levels of government and sets the rules in case of non-compliance.

2. Constitutional setting

Austria has a plethora of separate constitutional laws and even clauses embedded in secondary legislation. The most important laws concerning the intergovernmental budget framework are:

- The constitutional charter[3] outlines the competencies of federal, state and local governments to act as legal entities, to budget autonomously, to own assets, and to conclude public treaties.
- For more special rules the charter points to the Fiscal Constitutional Law 1948[4] which contains the basic rules for the fiscal competencies of the federal level, the states and municipalities. Most important among them is taxing and tax sharing, cost bearing and rules for intergovernmental transfers. Further details on intergovernmental fiscal relations are regulated by single majority laws of the federal parliament, of which the most important is the Intergovernmental Fiscal Relations Act – IFRA.[5] This law usually covers a period of four to six years. In political practice the rules and contents are prepared in negotiations between representatives of all governmental levels until agreement is reached. Other laws, without time limits, cover special aspects of intergovernmental relations, in particular certain earmarked grants.
- A third constitutional law addresses budgetary policies of the respective governments. According to this constitutional law[6] all governments are supposed to conclude a treaty that aligns budgetary policies with European fiscal rules.

2.1. The constitutional charter

The constitutional charter defines the competencies and tasks of the federal government and the Länder in terms of both legislation and administration. Most legislative affairs remain with the federal parliament. This leaves only residual legislation for the respective Länder parliaments. Most important in this context is the Länder's right to legislate on their own budgetary matters, the right to tax and the legislation of local government organisation.

Länder administration is performed by elected Länder parliaments, with at their head the regional prime minister (Landeshauptmann). As far as administration is concerned the Länder position is powerful. Not only are they entitled to administer their own laws, but constitutionally they are entitled to administer most federal laws, federal tax rules being an important exception. This gives the Länder a powerful position in day to day politics (Austrian administrative federalism). The Länder also implement their own budgets, decided upon by each state parliament. Furthermore, within their general right to supervise local governments, the Länder oversee the financial stability of local governments and their respective budgets according to their own laws.

According to the constitutional charter local governments are autonomous. Within the framework of the respective federal or Länder laws they decide on their budget and their assets, conclude treaties, may lend or borrow and may levy taxes. They have no right to legislate, but have an elected municipal council, and a town government, at its head the mayor. The constitution guarantees them a sphere of competencies, which includes everything they are able to administer within their local boundaries. All laws have to explicitly state whether the local governments' sphere is affected in which case local governments are entitled to implement these laws autonomously. In addition to their own sphere, local governments have to act as agents on behalf of the Länder or federal government. These are represented at the local level by a Länder district administrator (Bezirkshauptmann), appointed by the Land's prime minister. This administrator is the first tier of Länder supervision that monitors whether local governments respect the rule of law within their own sphere of competence.

2.2. The fiscal constitutional law

Specific rules on budget frameworks are found in the fiscal constitutional law (FCL). It regulates and separates competencies of all governments (and parliaments) in fiscal affairs. Local governments are explicitly mentioned in that law and insofar are not left to the discretion of Länder legislation.

In Austria's system of assigning competencies to the respective entities of the federation, the constitution usually contains explicit rules for legislation and administration of the federation and of the Länder. The FCL is an exception: it creates a framework within which actual competence allocation is ruled by the simple majority legislation of mostly the federation and to a lesser extent of the Länder. The FCL only covers fiscal matters of territorial governments. Other entities, especially the important autonomous social security authorities, are not addressed and left to regulation by federal parliament.

The first chamber of Federal parliament decides on:

- Taxing powers of the federation, of Länder and of local governments.
- Tax sharing of federal revenues with Länder and/or local governments.
- Cost bearing rules,
- Transfers from the federal to other levels of territorial government.

The second chamber of the federal parliament (Bundesrat), which is the representation of the Länder, has no veto power concerning these issues. It is therefore interesting to note that the constitution does not allow for a veto of the second chamber on these matters. Otherwise the second chamber has veto power on laws relating to intergovernmental fiscal relations.

In case the federal parliament does not use its powers, Länder parliaments may decide these subjects between themselves and local governments. Nevertheless, the federation has the power to overrule a regional or local arrangement, a prerogative which could be decided on any time. In practice these competencies amount to far-reaching regulation of intergovernmental fiscal relations by the federal level, and they restrict the Länder's ability to fine-tune their fiscal relations with the local governments within each Land.

Local governments have the right to tax given federal or Länder law authorisation. The formal side of budgeting too is a task of the federal side. The minister of finance together with the president of the Supreme Court of Audit is entitled to set rules for the form and structure of budgets and balance sheets to ensure comparability.

3. Intergovernmental budget framework

The Intergovernmental Fiscal Relations Act (IFRA) is the core law that governs intergovernmental fiscal relations, adopted by federal parliament with single majority. Federal and Länder parliament(s) using their respective powers have to observe the principle of equality and need to ensure that the allocation of funds to lower level governments does take into account the latter's fiscal needs and cost burdens. Basically, fiscal needs of all governments are on a par. According to the Constitutional Court, negotiations regarding laws on intergovernmental fiscal relations, based on mutual respect and acceptance, are seen as necessary. If a consensus of all levels of governments is reached, the Constitutional Court takes it as given that the political representatives of all governmental levels have drafted a law which is a fair compromise that takes into account the fiscal needs of all governments. The court then usually declines legal actions against the law that come from mavericks or newly appointed governments who base their claim on an alleged breach of the principle of equality. Only obvious regulatory deficits might justify an examination of an agreed law towards compliance with the constitution (VfSlg 12.505/1990). In that case, the court has the right to declare a law that deviates from constitutional regulations as null and void and does on occasion exercise this right.

3.1. Informal intergovernmental budget framework[7]

An IFRA is usually in force four to six years. The various actors usually start negotiations in the last year of the validity of the current law. The federal minister of finance, the respective finance ministers of the Länder – sometimes being the prime minister – and political representatives of local governments meet and decide on the draft. Typically this is a cumbersome process which takes time. Expert proposals from all sides are discussed in working groups and submitted to the political level. As negotiations concern money and, consequently, the financial resources of the respective politicians, negotiations are tough. Vested rights hamper large reforms. As a result of political bickering over the last sixty years what was originally a simple system of tax sharing and transfers has developed into a highly intricate system. The need for reform is strongly felt, but is postponed regularly, and adaptations remain minor. Currently, reforms are planned to start in 2017.

Political power during the negotiations is unevenly distributed among participating groups. As mentioned above, the constitution reserves the right to legislate on the IFRA to the first chamber of the federal parliament only, while the second chamber has no veto power. The finance minister therefore might be expected to exert the most influence.

However, political reality is different. The prime ministers of the Länder are among the most influential politicians in Austria, particularly if they have common interests and act as a group. Their influence stems not only from their constitutionally important functions, but even more so from their political leverage. As heads of regional parties they have clout over federal party organisations which are dependent on Länder parties' political and financial support. Additionally, candidates for the federal parliament are in general appointed by the regional parties. It is therefore hardly unlikely that the federal parliament legislates against the will of the (group of) prime ministers. Additionally, ministers in federal government need strong political backing to be nominated and to keep their job amid fierce party-internal competition. Even if prime ministers are not participating in negotiations they coordinate and support their finance ministers and, in very important questions, even take over.

Local governments are additional stakeholders. They are organised into two voluntary associations. The Austrian Association of Cities and Towns represents larger, urban municipalities while the Austrian Association of Municipalities represents small, rural municipalities. Though they try to speak with one voice, conflicting urban and rural interests weaken the clout of local governments.

The federal finance minister coordinates and promotes reforms in intergovernmental relations. The public and the media see him as responsible for the smooth financing of public services provided by the Länder and local governments. Too often the finance minister has to bow to that pressure and accept monetary demands of sub-national governments to the detriment of the federal budget.

All Austrian IFRAs of the last sixty years were drafted unanimously, usually to the detriment of the federal budget or entailing tax increases. In order to bring all stakeholders on board, a tax and transfer system that was initially simple and transparent has become complex and opaque, and its mechanics are understood by only a handful of specialists.

3.2. Taxing powers and tax sharing[8]

Neither the constitution nor ordinary legislation define the term "tax". Based on the case law of the constitutional court the term is identified as monetary payments levied by territorial governments or by sovereign power to cover fiscal needs (VfSlg 1465/1932, 3919/1962). The constitutional framework provides sub-national governments with very little autonomous taxing power.

- Tax autonomy: The constitutional charter gives the federal parliament the right to introduce new taxes. Länder parliaments are more constrained. They may introduce a new tax only if the federal level does not already tax the same base, in which case they would need authorisation from the federal parliament. Some examples of such taxes are found in the IFRA. Given that the most high-yielding taxes are already tapped by the federation, autonomous Länder taxes remain negligible. Tax autonomy, as the right to legislate on tax policy, is independent of ordinary competence allocation of the constitution. Misusing tax autonomy and tax legislation to regulate matters allocated to another government level would be unconstitutional (VfSlg 10.403/1985). Mandatory payments of citizens to authorities other than territorial ones are not defined as taxes and not regulated by the fiscal constitution (e.g. social security contributions, fines, payments for goods and services, mandatory contributions in kind, VfSlg 8195/1977).

- Types of taxes: The FCL sets the framework for tax autonomy and tax sharing, establishing a framework of abstract types of taxes according to the recipient government(s): 1) exclusive taxes of one government tier and 2) shared taxes, including the sub-categories of taxes shared according to percentages, piggy back taxes and separate taxes from the same tax base. The respective individual taxes are added to one of these groups in the IFRA and the sharing formula fixed (vertically and horizontally) in that law, by decision of the federal parliament. Most taxes are shared vertically according to percentages, following a single formula. As a rule of thumb about 6/9 of tax revenues remain with the federal government, 2/9 go to the Länder and 1/9 to local governments. These vertically and horizontally shared taxes are the most important group. Though lagging far behind, exclusive taxes of local governments are the second most important group. Länder levy only few and minor taxes.
- Own Länder and local government taxes: Länder parliaments are responsible to act on taxes left to them by federal parliament. They may decide to leave those taxes to local governments, share them, or keep the revenue themselves. Nevertheless, the two most important local taxes – the real estate tax and the communal charge, a payroll tax – are constitutionally guaranteed to local governments. These taxes are legislated by the federal parliament, while their revenues are assigned to municipalities. Discretion for Länder is left with respect to decree temporary tax exemptions for new construction of subsidised residential buildings.
- Piggy back taxes: Currently just one tax is assigned to this constitutional type: Länder may add a surtax on the federal gambling tax, levied by federal revenue offices. Nevertheless, piggy back taxes are currently considered as a possibility to give Länder more tax autonomy without creating an additional administrative burden for the taxpayer or the tax administration.

4. Transfers

4.1. Taxonomy of grants

The financial constitutional law sets the rules for transfers from the federal level to the Länder or local governments. The existing transfer types do not fully fit into the OECD taxonomy of grants, as established by the OECD.[9] The taxonomy of grants in the Austrian FCL differentiates between grants to cover costs imposed by another government, non-earmarked block grants allocated according to a pre-defined formula, special need transfers and earmarked grants. The latter usually are matching grants.

Grants to reimburse certain expenditure of lower governments are the most important type of grant, making up 79% of grants in 2013. The largest part of these grants is a federal reimbursement to the Länder of salaries for teachers at the primary and secondary level. Matching grants cover 16%, general purpose grants 3% and capital grants – paid on a discretionary basis – 2% of a total of EUR 7 761 million.

4.2. Cost bearing and the "nexus" principle

The basic rule concerning cost bearing and intergovernmental grants is the principle of "nexus" (*Konnexität*). This principle is related to the well-known benefit principle, but addresses the issue from a different angle. The benefit principle posits that a service be financed by the level of government most closely representing the beneficiaries of this service.[10] By contrast, the traditional meaning of "nexus" in Austria is that each government has to bear its own costs, without consideration of who benefits from that output. This version views government activity not from a citizen's point of view, but from that of the governments. Certainly tasks may be assigned to governments in a way that the nexus principle matches the benefit principle. But its philosophy is different. The issue of which taxpayer – the local, the regional or the federal one – has to bear the costs is not addressed in the nexus approach. In contrast, it is inherent in the benefit principle to organise budget frameworks according to the "Wicksellian connection".[11] In the nexus principle, grants reimbursing the cost of another government play an important role.

The principle of a government paying for its "own" services seems clear cut. But given Austria's widespread indirect administration, where Länder and local governments have to act as agents of higher level government(s) and administer those laws, this rule needs more explanation. The FCL has no definition of „own costs". Therefore, the constitutional court developed, through case law, a system that separates cost bearing obligations. It rules that administrative and not legislative competencies define cost bearing obligations according to the principle of "nexus" – unlike, for instance, in Switzerland. The Länder and local governments acting as administrative agents is a central feature of the Austrian constitutional rules on administration. They have to cover their own costs in fulfilling that task. That includes staff salaries and the usual operating expenditure. Of course, these cost burdens are taken into account within in the tax sharing system. Given almost no taxing power of Länder governments, the tax sharing system also covers costs of core tasks of the Länder, putting the burden of the costs of regional government activity – whether federal or Länder induced – on the federal taxpayer.

Covering special costs for well-defined individual tasks remains the responsibility of the (federal) government, acting as principal. An example is the expensive cleaning of waste disposal sites where the owner – as is often the case – is not able to bear the full cost. Such expenditure has to be reimbursed by the federal government.

Exceptions to the interpretation of nexus are only possible by way of a law of the competent level of government. This is interpreted as a top down approach: federal parliament might delegate federal costs to the Länder and these again delegate their own costs to local governments or at least a share of it. Federal parliament might (and actually does so in some cases) take over costs of lower government levels and reimburse those. Even here the rule of law applies: the respective laws have to be justified by objective argumentation. No private law treaties are possible concerning these cost bearing rules, they are null and void and a paying government could ask to get its money back in court.

In general, the federal government does not use cost-delegation. On the contrary, it often takes over the costs of lower level governments, the most notorious case being the above mentioned salaries of Länder level teachers. A system in which hiring employees is the task of one government and covering the costs is the task of another does not look efficient. The federal government tries to control these costs via staff appointment schemes and controlling. Nevertheless, this aspect of intergovernmental fiscal relations is

a regular discussion point in the negotiations for a new IFRA. Given the political clout of the Länder, this problem has until now not be solved.

4.3. Unfunded mandates and the consultation mechanism

A second meaning of the principle of nexus is a ban against unfunded mandates. Following this interpretation the delegation of tasks has to be accompanied by the necessary financial means. In some way this interpretation was always part of nexus Austrian-style. In the past, periodical negotiations gave room to adjust available means according to new tasks delegated in the meantime. Nevertheless, sub-central governments demanded an arrangement that also covers the ongoing IFRA-period.

In the 1990s, a new constitutional law was adopted that addresses this problem.[12] It introduced a so-called "consultation mechanism". All governments (or for local governments their respective associations) have to be informed in advance about drafts of new laws. A calculation of costs to other governments has to be added. Within a certain period those governments can demand negotiations through a high level political committee. If the new law is ratified in parliament without consensus a mandatory transfer covering the assumed additional costs has to be paid to the governments concerned.[13] The transfer would continue to be paid until the next IFRA is negotiated. At that time it is supposed to be included either explicitly or as part of tax sharing. A suit can be filed at the constitutional court in case of non-compliance.

5. The Austrian Stability Pact

The financial constitutional law also outlines the principles of the "Austrian Stability Pact". Based on similar predecessors this pact implements European fiscal rules in Austria and coordinates budgetary goals among all governmental levels. It is constructed similar to the European model. The Stability Pact has the rank of a (single majority) law as it was ratified by federal and all state parliaments. The pact introduces a system of multiple fiscal rules:

- Balanced Maastricht budgets up to 2016 by coordinating converging deficits of federal and Länder governments.
- From 2017 on a structural balanced budget rule of a maximum of 0.45% of GDP for general government, composed of a maximum 0.35% deficit of the federal and 0.10% deficit of the Länder governments.

In both cases local governments are obliged to balance their budgets, first in Maastricht, later in structural terms:

- An expenditure rule: growth below a reference rate of potential output.
- A debt criterion: the respective part of the debt quota above 60% of GDP has to be reduced by 1/20 each year on average, the respective part being the share each government has of general government debt.

A medium-term adjustment path lays out the route to balanced budgets, as exemplified in Table 7.1.

Table 7.1. The adjustment path to balanced budgets

Austrian Stability Pact, Maastricht goals	2012	2013	2014	2015	2016
Federal government	-2.47	-1.75	-1.29	-0.58	-0.19
Länder	-0.54	-0.44	-0.29	-0.14	-001
Local governments	0.0	0.0	0.0	0.0	0.0

From 2017 on a structural deficit of not more than -0.45% of GDP is defined as a balanced budget, with the federal government's share being 0.35%, that of the Länder 0,08% and that of local governments 0.2% of GDP. These budgetary goals were vertically shared in political negotiations similar to those for an IFRA. States negotiated horizontally on the share of each state and for Maastricht purposes selected a system of sharing according to population, slightly modified relative to fiscal capacity. For structural goals it was just population. Local governments were more or less supposed to have balanced budgets as in previous years, except during the economic crisis of 2009 and 2010.

5.1. Institutional set up

The aim of the Austrian Pact is the coordination of budgetary policies between the respective budgetary autonomous governments. For that purpose the pact establishes several institutions. The most important among them is the Austrian Coordination Committee. This is the same group of politicians responsible for budgets as in negotiations for the IFRA. In this instance, however, negotiations are legally institutionalised. The committee meets at least once a year at a political level, in general on the eve of forwarding the Austrian Stability Programme to the European Commission in April. It meets more often at expert level. Its task is to exchange information, discuss and decide (unanimously) on necessary steering measures and ensure the proper functioning of the coordinated budgetary policies.

5.2. Tolerance and the control account

Using the European Stability and Growth Pact as its model, the Austrian pact entails a system of sanctions in case a government does not comply with the rules. However, the idea is to strive for sustainable budgets and not to sanction each other. Sanctions are a last resort after golden bridges to return to the agreed budgetary path have gone unused.

First, there is a well-defined area of tolerance in case of non-compliance. Within the adjustment path to the Maastricht balanced budget this is supposed to be a one year period at the most, offset the following year. In case of structural goals it takes the more sophisticated form of a current control account. Differences from the agreed budget position – whether positive or negative – are computed in that account. The balance of the control account may take a value of up to -1.25% of GDP for the federal government, – 0.25% for the Länder governments and -0.117% for local governments. If the control account has reached a (virtual) surplus it helps protect against internal excessive deficit procedures in case of later negative developments. If economic development is positive, a negative control account, even if within acceptable limits, must be improved.

5.3. Excessive deficit procedure

Deviations from the tolerated adjustment path or subsequent overdrawing of the control account entail an 'excessive deficit' procedure. The Supreme Court of Audit first issues a public official opinion on the budgetary stance of the party apparently out of compliance. The opinion is based on the annual report of independent Statistics Austria. This public opinion, combined with the ensuing debate about the offending government's sustainability is meant as a first sanction.

If the offending government cannot justify itself to the satisfaction of the Court of Audit, it delivers its opinion to another committee, in the pact euphemistically referred to as Arbitration Committee. This is the body deciding on fines. It consists of two representatives of each government level, but with no deficit-running government among them. Same level peers have the right to be heard, but cannot vote. The Arbitration Committee requests that the offending government submits a restructuring plan within two months. In this phase peer pressure is supposed to add to the public debate. If the offending government does not forward a plan, does not do so in a satisfactory way, or does not execute the plan properly, the committee may impose a monetary fine. Fines can be up to 15% of the transgression, first as a deposit and, in case of repetition, distributed amongst all complying parties.

The offending government may appeal to a last level arbitration body, each government (local governments: associations) nominating a member. This body can unanimously decide to abolish the fine, if it considers the initial findings as incorrect. However, this possibility is not promising, given the procedures, the nomination rights of institutions involved and the need for unanimity.

The pact is quite complicated and it is a challenge to keep sub-national governments informed and aware of its technical features. It might be worth considering a simplification of the rules, not an imitation of the European level. One option is to implement fiscal rules sub-national governments are familiar with, such as the Maastricht deficit rule and a simple debt rule. All other rules would fall under the responsibility of federal government. Still and despite the complexity of the pact, sub-national governments until now have performed better than the federation.

5.4. Exit options

Exceptional circumstances that are difficult to control by governments offer temporary exit options from the obligations of the pact. These include impacts of national or international measures on the budget, to safeguard financial stability especially of the banking system. Other exit options are major impacts on the financial position of the general government or a severe economic downturn as set out in the revised Stability and Growth Pact. In these latter cases the respective parliament may decide to temporarily deviate from the adjustment path or the goal. However, at the same time it is required to ratify an adjustment plan to return to the original budgetary position.

6. Reforms of intergovernmental budget frameworks

Reforms concerning budget frameworks of Austrian governments are often seen as overdue. From an institutional point of view the FCL is not a good example of lawmaking. It was in need of repair from the beginning. Its meanings are often blurred, occasionally using the same words in different articles for different meanings. Nevertheless, Austria has learned to live with it, in large part due to the constitutional court's case law which has clarified many questions. Reform attempts have never reached a critical momentum necessary for success. Some new regulatory needs were addressed with a few amendments in addition to the above mentioned law on the consultation mechanism and the Austrian Stability Pact.

A reform of Austrian intergovernmental budget frameworks is nevertheless high on the agenda. All federal governments, for at least the last ten years, had a reform agenda – but without ever starting serious negotiations with its sub-national partners. The present government too has such a project on its agenda. The first step is an extension of the IFRA to 2016. This is intended to give time for preparation of a reform draft. Given the extension, the IFRA 2008 will cover an unusually long period of nine years.

All parties involved are preparing their position for the new IFRA. It seems that the most important issues will be greater tax autonomy for the Länder, a funding system (tax sharing and transfers) more aligned with actual functions, special needs of peripheral regions/urban areas and – hopefully – a legal and organisational simplification of the intergovernmental budget framework.

Notes

1. The expressed views are those of the author and not necessarily those of the Ministry of Finance.
2. Land, plural Länder.
3. Bundes-Verfassungsgesetz, BGBl 1930/71, BGBl I 2013/164.
4. Finanz-Verfassungsgesetz 1948 - F-VG 1948, BGBl1948/45, BGBl I 2012/51.
5. Finanzausgleichsgesetz - FAG, presently FAG 2008, BGBl I 2007/103, 2013/165.
6. Bundesverfassungsgesetz über Ermächtigungen des Österreichischen Gemeindebundes und des Österreichischen Städtebundes, BGBl I 1998/61.
7. See Anton Matzinger, Austrian Fiscal Partnership - Interactions between Subnational Expenditure, Tax Sharing and Lacking Tax Autonomy, in: Kim J., J. Lotz and N. Mau (2015), Interaction between local expenditure responsibilities and local tax policy, The Korea Institute of Public Finance and the Danish Ministry for Economic Affairs and the Interior.
8. See details and figures on the tax sharing system as on the horizontal and vertical sharing formulas and procedures Anton Matzinger, Austrian Fiscal Partnership - Interactions between Subnational Expenditure, Tax Sharing and Lacking Tax Autonomy, in: Kim, J., J. Lotz and N. Mau (2015).

9. See Blöchliger (2013), Measuring Decentralization: the OECD Fiscal Decentralization Database, Measuring Fiscal Decentralization: Concepts and Policies, OECD Fiscal Federalism Studies, OECD Publishing.

10. See Ahmad, Hewitt and Ruggiero (1997).

11. " … as clear a linkage between expenditure and revenue decisions as possible …". Bird and Slack (2013).

12. It was named somewhat unimaginatively "Constitutional law empowering local government associations".

13. There are certain exemptions, e.g. tax laws or laws implementing EU rules.

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Chapter 8

Autonomy and interdependence: The scope and limits of "fend for yourself federalism" in the United States

Timothy Conlan, Paul Posner, Heidi Jane Smith and Matt Sommerfeld

Despite a gradual, intermittent trend toward greater centralization, the United States remains one of the world's most decentralized federal systems. The federal government has nonetheless had a growing fiscal influence over time, thanks to the increase in federal grants to state and local governments since the 1930s and the unprecedented number of federal mandates handed down over the past five decades. As fiscal interdependence has grown, the institutional structures that helped knit together the levels of government have eroded or disappeared altogether. This chapter will explore each of these facets of fiscal federalism in the United States, including the role of state fiscal rules and the implications of national policies – especially intergovernmental grants – for state and local government. It will particularly examine the paradox of deinstitutionalising intergovernmental consultation mechanisms in an era of rising interdependence, and it will explore its implications.

1. Introduction

Despite a gradual, intermittent trend toward greater centralization, the United States remains one of the world's most decentralized federal systems. This decentralization is grounded in the legal framework of the U.S. Constitution, nurtured by political culture and institutions, expressed through the national government's dependence on state and local governments for program administration and service delivery, and reinforced by state and local governments' considerable fiscal autonomy. States and – at the discretion of states – local governments enjoy broad authority over fiscal policy within their purview, including which taxes to employ, the rates and bases of those taxes, and budgetary priorities. States are responsible for articulating their own fiscal rules governing budget balancing and debt, as well as those pertaining to local government. The federal government has made a conscious choice to let states sink or swim with their own choices, leading some to coin the term "fend-for-yourself-federalism" to characterize the system.[1]

The federal government has nonetheless had a growing fiscal influence over time, thanks to the increase in federal grants to state and local governments since the 1930s and the unprecedented number of federal mandates handed down over the past five decades. Such trends have not fundamentally altered the structure of fend for yourself federalism, but they have complicated it. Yet, ironically, as fiscal interdependence has grown programmatically between states and the national government, the institutional structures that helped knit together the levels of government in cooperative governance frameworks have eroded or disappeared altogether.

This paper will explore each of these facets of fiscal federalism in the United States. It begins with an overview of the fiscal architecture of American federalism and an examination of the structure of budgetary and fiscal rules that govern the system. Explicit fiscal rules governing budget balance, tax and expenditure limits and fiscal supervision of financially troubled local governments are largely the province of state governments, and the nature, distribution, and effectiveness of these will be described and analysed. National government policies that have significant budgetary and fiscal implications for state and local governments will also be discussed. This includes the scope and structure of federal grants-in-aid and so-called unfunded federal mandates, as well as federal budget policies such as sequestration. Finally, the paradox of deinstitutionalising intergovernmental consultation mechanisms in an era of rising interdependence will be examined and its implications explored.

2. The fiscal architecture of US federalism

Unlike many federations, the United States does not have an overt fiscal constitution explicitly defining the fiscal roles and relationships of the federal and state governments in supreme law. Rather, those roles are established implicitly within the legal structure of dual sovereignty under the Constitution. States have broad, autonomous and independent fiscal authority that is defined by their own constitutions and circumscribed by only a handful of provisions in the US Constitution.[2] As John Kincaid has put it: "A state government can levy any conceivable tax, spend money for any purpose, and borrow money without limit unless it is prohibited from doing so by the federal Constitution or its own state constitution" (Kincaid, 2012). Thus, most fiscal limitations on states have been imposed by their own citizens via constitutional and statutory law. State laws and constitutions also determine the fiscal roles and degree of financial autonomy afforded to

local governments, which exist legally as creatures of the states and whose powers and structures vary from state to state.

The federal government's fiscal powers are defined by the US Constitution in Article 1, Section 8. Those powers not delegated to Congress are reserved to the states or to the people. This dual assignment of functions has long been considered one of the essential features of the federal system. Although the federal government's powers are limited to those enumerated in the Constitution, they are also extensive and constructed with sufficient breadth as to permit expansive interpretation and adaptation over time. Specifically, the Constitution states that "The Congress shall have Power to lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defense and general Welfare of the United States." The Constitution also confers on Congress the specific powers to coin and borrow money, regulate interstate and international commerce, establish bankruptcy laws, and "to make all laws which shall be necessary and proper for carrying into execution the foregoing powers."

Missing from this list is any explicit authority to provide grants-in-aid to state and local governments, establish a national banking system or to regulate financial transactions between private parties. The courts over time have interpreted the Constitution to allow Congress to take such actions, though often only after decades of controversy. However, the Constitution does not address common forms of fiscal rules, such as requiring annually balanced budgets or expenditure limitations at either the national or state levels. These decisions are left to Congress or the individual states.

Consequently, the fiscal constitution of the United States is essentially an expression of dual federalism, permitting each level of government to establish its own policy priorities and raise the revenues to finance them as they see fit. States enjoy the freedom and autonomy to design their own tax and expenditure systems, establish fiscal and budgetary rules, and create their own systems of local government.

At the sub-national level, this gives rise to diverse patterns of taxing and spending. For example, state personal income tax structures and rates vary considerably from state to state. Seven states impose no income tax at all (Alaska, Florida, Nevada, South Dakota, Texas, Washington and Wyoming), while eight states have top marginal tax rates of eight per cent or higher, with California and Hawaii each topping eleven per cent.[3] Eight states impose a single flat rate on all individuals subject to the state individual income tax, while five states have progressive tax rate structures with nine or more individual tax brackets. At least eleven states also empower at least some local governments to impose a tax on individual incomes as well.

A comparable pattern of tax policy diversity pertains to state general sales taxes. Forty-five states utilise some form of sales tax on most goods, and some services, but five states have no sales tax at all – Alaska, Delaware, Montana, New Hampshire and Washington. Among the states that employ the sales tax, rates vary from a low of 2.9% in Colorado to rates of 7% or higher in California, Indiana, Mississippi, Rhode Island and Tennessee. Moreover, the sales tax base varies from state to state, with significant differences over the taxation of business and professional services as well as varying exemptions for food and drugs.

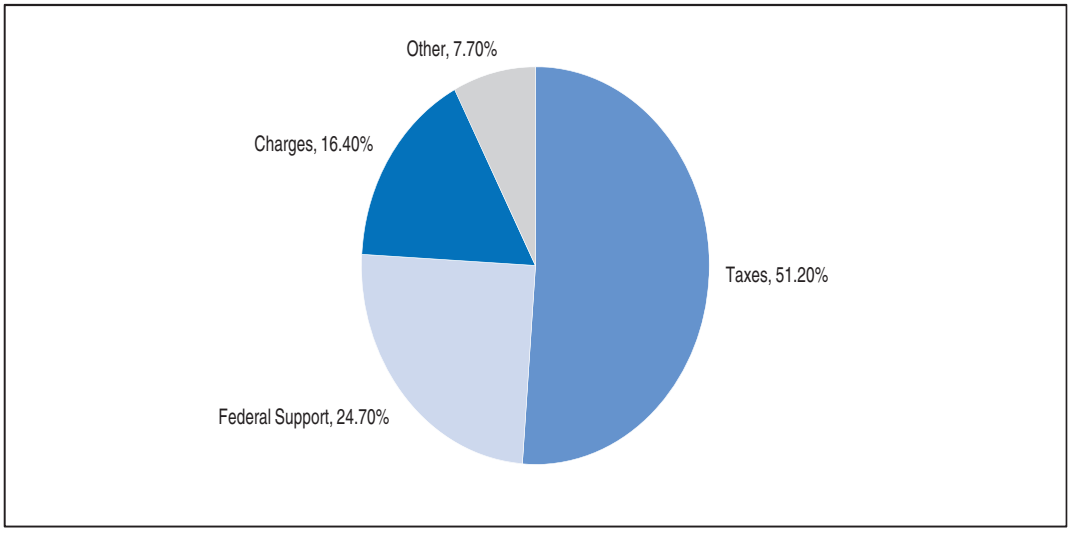
States also determine their own systems of local government. Nationally, there were 90 056 units of local governments according to the 2012 Census of Governments, including 19 519 municipalities, 3 031 counties, and 12 880 independent school districts (Carma Hogue, 2012). Yet the precise number and forms of local government differ from

state to state. States in the Mid-west average over 3 330 units of local government – a number elevated by the widespread use of small rural townships and independent school districts, while states in the South average 1 181 local governments. Illinois alone had 6 693 local governments in the 2012 census. California and Texas each had over 1 000 school districts, while a majority of states had fewer than 200, and Hawaii had only a single school district for the entire state.

States determine not only the number and types of local governments but also their powers. This includes powers of taxation. Most major units of local government are empowered by states to tax real property, although tax rates vary widely.[4] Many also have systems for granting property tax relief to the elderly and other classes of homeowners, according to state law. Many local governments also tax personal property, some are empowered to charge local add-on sales taxes, and most impose user fees for utilities and other services. In so-called home rule states, major local governments have been granted considerable discretion to construct their own systems of local government finance. In other states, operating under a legal doctrine known as Dillon's rule, localities have only those powers which have been explicitly granted them by the state legislature. Yet, ultimately, all local governments in all states are the legal creatures of the states and can be subject to any set of fiscal rules or requirements that the state constitution and state law designate.

The end result of this constitutional infrastructure is considerable fiscal autonomy for state and many local governments. In 2011, state and local governments combined raised three-quarters of their general revenues from own sources – primarily taxes (51%) and fees for services (16%). Transfers from the federal government provided another 25% (Barnett and Vidal, 2013) (Figure 8.1). Looked at in isolation, state governments receive a somewhat larger proportion of funding from federal transfers than do local governments. Thanks in part to lagging state tax receipts from the Great Recession and some remaining federal stimulus spending, state governments received 31.6% of their revenue from federal transfers in 2012, while raising over 68% from their own sources.

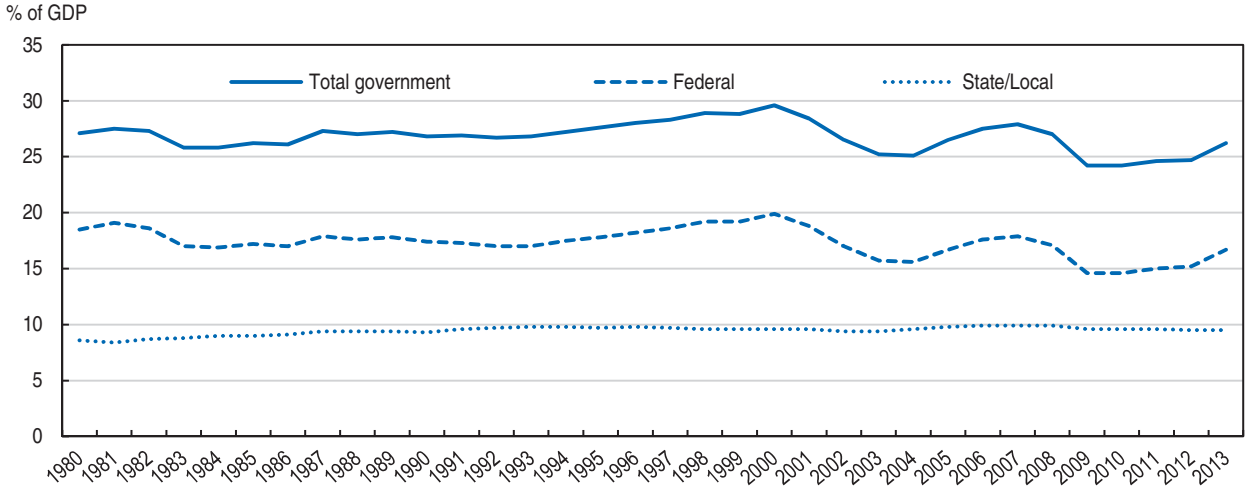
Figure 8.1. Composition of state and local revenue, 2011



Source: U.S. Census Bureau, 2011 Annual Surveys of State and Local Government Finances.

Viewed systemically over the past fifty years, state and local own source revenues have averaged between thirty-three and forty per cent of general government revenue. In 2013, for example, state and local expenditure from own source revenues totalled 35.6% of general government spending. When one includes federal grants-in-aid to state and local governments, state and local spending as a percentage of total government spending rises to 44% or 17% of GDP (Figure 8.2).

Figure 8.2. Total government receipts as percentage of GDP



Source: Office of Management and Budget, Budget of the United States, FY 2014, Historical Tables, Tables 15-1.

The advantages and disadvantages of this decentralised system of fiscal federalism have been much discussed in the political science and economic literatures and require little attention here. Suffice it to say that high levels of fiscal autonomy at the state and local levels have been associated in economic theory and research with welfare and efficiency gains, and with policy innovation and better representation in decision-making.[5] At the same time, the system generates and tolerates wide fiscal disparities among state and local governments, which are only modestly redressed by intergovernmental transfers at the state level, on average, and barely diminished nationally by federal government transfers.[6]

3. Fiscal discipline and rules

Many OECD countries have strong traditions of intergovernmental fiscal collaboration and joint stewardship, reflected in fiscal targets for deficits and debt and expenditure limits shared by national and sub-national governments. The United States is an exception. There is no central budget authority with responsibility for overall levels of spending, borrowing, or debt, nor are there fiscal rules and constraints imposed by the central government upon sub-national governments.[7] Rather, fiscally autonomous states create their own budget and fiscal rules with little involvement by the national government. This uncommon but robust system allows credit markets to work independently from budget authorities. Indeed, some have argued that the preservation of the United States federal system rests heavily upon the federal government's limited

control over state and local borrowing, debt, and finances and the resulting credibility of the federal government's consistent refusal to assume responsibility for sub-national governments' debts.

Historically, several types of fiscal rules have been used in the United States at the state and local levels for constraining spending, deficits, taxes and debt. This has been done through state balanced budget requirements, tax and expenditure limits (TELS) and debt limitations. The veto power of governors is sometimes considered a constraint on state fiscal indiscipline, as well. The use and distribution of these fiscal rules across the American states, and their changing use over time, are reviewed in the following section. So too is the scholarly debate over the relative effectiveness of such institutional and fiscal rules.[8]

3.1. Fiscal rules at the national level

Most significant fiscal rules in the US federal system operate at the state and local levels. The national government has no balanced budget requirement, tax or expenditure limit, or item veto, although each of these has been seriously considered at various points in time. However, two sets of rules that affect fiscal policy at the national level can have indirect effects on state and local finances and deserve brief mention. The first is the statutory limit on federal government debt. The second is federal budget procedures that constrain federal spending and tend to have a disproportionate impact on discretionary programmes, including many intergovernmental transfers to state and local governments.

Uniquely, the US Congress sets a statutory limit on the debt of the central government. This so-called debt ceiling provision dates back to 1917, and has been raised many times to accommodate the borrowing needed to finance federal budget deficits. Having a federal debt limit theoretically provides Congress with an additional tool to control central government spending, including aid provided to state and local governments.[9] On the other hand, controversies over raising the federal debt ceiling provoke fiscal and monetary uncertainty. Moreover, increased partisan polarisation in Congress has made the debt ceiling a negotiating tactic to advance other legislative objectives, which often have intergovernmental fiscal consequences. Consequently, many budget experts have advocated eliminating the federal debt limit altogether.[10]

Federal budget rules and agreements can also have indirect but important implications for state and local finance. For example, the Budget Control Act of 2011 imposed significant cuts to the discretionary portion of the federal budget, which includes most federal grant-in-aid programmes. The implications of such provisions are examined later in this paper.

3.2. State balanced budget requirements

All states, with the exception of Vermont, have some kind of constitutional or statutory balanced budget requirement (BBR). In most cases, the BBR refers only to the general fund. Capital fund spending can generally be financed by debt. Consequently, when states are said to have "balanced the budget", this is referring to the general fund and thus applies to 75% or less of the total state budget (Gordon, 2012).

Specific BBR provisions vary considerably across the states. Some are merely statutory; others are enshrined in state constitutions (Table 8.1). There are generally three distinctive levels of BBR stringency, depending on the point in the process by which the budget must be in balance. Currently 45 states require the governor to submit a balanced

budget to the legislature, the weakest of the requirements. In 41 states, however, the legislature must also pass a balanced budget for gubernatorial approval, and 31 states require that the governor only sign a balanced budget. The most stringent mechanism regarding a BBR concerns the requirement of the budget to be balanced either at the time of enactment, or at the end of the fiscal year. Currently, 38 states prohibit carrying a deficit into the next fiscal year, and allow for revisions during the year if necessary to achieve balance, although methods of enforcement are often weak.

Despite relatively weak enforcement mechanisms to bind lawmakers to their respective requirements, research has found that states do adjust their policies to keep general fund revenues and expenditure in balance, particularly if 'full faith and credit debt' is considered (Bohn and Inman, 1996 or Strauch, 1998). Bond markets and voters penalise leaders who fail to meet BBR's, according to some research (e.g. Lowry and Alt, 2001). However, when off-budget expenditure are entered into the equation, the constraints offered by BBRs have been found to have less effect on public debt ratios (von Hagen, 1991). In other words, a 'substitution effect' often enables politicians to work around constrained budget items and instead place items under unconstrained portions of the budget, such as capital investment spending. A final critique regarding state level BBRs is their tendency to induce pro-cyclical fiscal behavior during recessions. Following balanced budget rules during economic downturns tends to exacerbate the effects of recessions on state economies and fiscal balances (Laubach, 2005).

Table 8.1. State balanced budget requirements

State	BB from Governor	Nature of Requirement	BB from Legislature	Nature of Requirement	Governor Must Sign BB	Nature of Requirement	Carry Over Deficit?
Alabama	X	C,S	X	S			
Alaska	X	S	X	S	X	S	
Arizona	X	C,S	X	C,S	X	C,S	
Arkansas	X	S			X	S	
California	X	C	X	C	X	C	X
Colorado	X	C	X	C	X	C	
Connecticut	X	S	X	C,S	X	C	
Delaware	X	C,S	X	C,S	X	C,S	
Florida	X	C,S	X	C,S	X	C,S	
Georgia	X	C	X	C	X	C	
Hawaii	X	C,S			X	C,S	
Idaho			X	C			
Illinois	X	C	X	C	X	S	
Indiana							X
Iowa	X	C,S	X	S	X	S	
Kansas	X	S	X	C,S			
Kentucky	X	S	X	C	X	C,S	
Louisiana	X	C,S	X	C,S	X	C,S	X
Maine	X	C,S	X	C	X	C,S	
Maryland	X	C	X	C		C	
Massachusetts	X	C,S	X	C,S	X	C,S	
Michigan	X	C,S	X	C	X	C,S	X
Minnesota	X	C,S	X	C,S	X	C,S	
Mississippi	X	S	X	S			
Missouri	X	C,S			X	C	
Montana	X	S	X	C			
Nebraska	X	C	X	S			
Nevada	X	S	X	C			
New Hampshire	X	S					
New Jersey	X	C	X	C	X	C	
New Mexico	X	C	X	C	X	C	
New York	X	C	X	C	X	C	
North Carolina	X	C,S	X	S			
North Dakota	X	C	X	C	X	C	
Ohio	X	C	X	C	X	C	
Oklahoma	X	S	X	C	X	C	
Oregon	X	C	X	C	X	C	
Pennsylvania	X	C,S			X	C,S	
Rhode Island	X	C	X	C	X	S	
South Carolina	X	C	X	C	X	C	
South Dakota	X	C	X	C	X	C	
Tennessee	X	C	X	C	X	C	
Texas			X	C,S	X	C	
Utah	X	C	X	C,S	X		
Vermont							X
Virginia					X	C	
Washington	X	S					X
West Virginia			X	C	X	C	
Wisconsin	X	C	X	C	X	C,S	X
Wyoming	X	C	X	C	X	C	
Totals	44	0	41	0	37	0	7

Source: NASBO, Budget Processes in the States, p. 40.

3.3. Tax and expenditure limitations

In contrast to BBRs, TELs are not necessarily concerned with local and state governments' fiscal conditions. Rather they are motivated by more ideological positions on the size of government and the purported challenges faced by taxpayers in monitoring the fiscal decisions of governments. The impetus for the enactment of many TELS began during the so called 'tax revolts' of the late 1970s and early 1980s, when calls for limitations on the growth rates of state and local governments' spending gained popular support. Similarly, there was a major increase in the number of states adopting balanced budget and debt limits during the same period (Table 8.2).

Table 8.2. State adoptions of BBRs

	1979	1984	1989	1994	1999	2002	2008
Governor must submit a balanced budget	23	43	44	43	44	45	44
Legislature must pass a balanced budget	21	39	38	39	39	41	41
Governor must sign a balanced budget	29	29	31	29	37	35	37
State may carry deficit over into next fiscal year	11	21	9	11	9	3	7

Source: Tabulated from The Book of the States series, various years. That series stopped reporting on state BBRs since 2005. For 2008, NASBO's Budget Processes in the States.

Currently, 35 states have some kind of limitation on expenditure increases (Table 8.3), with varying degrees of stringency. For example, many states require that general fund expenditure grow no faster than inflation or population growth, while others use the previous year's budget or personal income growth as the baseline. Moreover, 10 states require a supermajority (either two-thirds or three-fifths) of the state legislature to raise taxes which, when combined with a state balanced budget requirement, can impose a significant limitation on state expenditure growth. Finally, some TELs require that any surplus in the state budget be returned directly to the taxpayers.

Some evidence has been found regarding the effectiveness of TELs in limiting state spending, depending on the type and stringency (Pagano and Wang, 2014). TELs that focus on limiting expenditure based on population growth, inflation and require states to refund revenues have been the most successful at restraining the size of government (New, 2001). However, critics argue that creating nominal limits on spending per capita creates too much inflexibility when it comes to addressing societal needs in education, health or other welfare spending. Moreover, demographic shifts (such as aging populations) are not captured in simplistic 'population growth plus inflation' equations that state budgets are bound to under TEL requirements.

Table 8.3. Tax expenditures and debt rules in the States

State	BBR	TEL	Limits on authorization of debt	Bankruptcy authorization	Line item veto
Alaska	S; 1	D		No	X
Arizona	C,S; 1	I	X	Yes	X
Arkansas	S;1			Yes	X
California	C; 2	D, I		Conditional	X
Colorado	C; 1	D,B,I	X	Limited	X
Connecticut	S;1	D	X	Conditional	X
Delaware	C,S;1	B	X	No	X
Florida	C,S;1	I	X	Conditional	X
Georgia	C,S;1		X	No (specifically prohibited)	X
Hawaii	C,S;1	I	X	No	X
Idaho	1	I	X	Yes	X
Illinois	C;1	B	X	Limited	X
Indiana	3	B	X	No	
Iowa	C,S;1	B	X	No (with exception)	X
Kansas	S;1		X	No	X
Kentucky	S;1	I	X	Conditional	X
Louisiana	C,S;2	D,B,I	X	Conditional	X
Maine	C,S;1	D,B,I	X	No	X
Maryland	C1	B	X	No	X
Massachusetts	C,S;1	I	X	No	X
Michigan	C,S; 2	I	X	Conditional	X
Minnesota	C,S;1			Yes	X
Mississippi	S;1	B	X	No	X
Missouri	C,S;1	I	X	Yes	X
Montana	S;1			Yes (but not counties)	X
Nebraska	C;1		X	Yes	X
Nevada	S;1	D	X	No	
New Hampshire	S;1		X	No	
New Jersey	C;1	I	X	Conditional	X
New Mexico	C;1		X	No	X
New York	C;1		X	Conditional	X
North Carolina	C,S;1	I	X	Conditional	
North Dakota	C;1		X	No	X
Ohio	C;1	D,B	X	Conditional	X
Oklahoma	S;1	B		Yes	X
Oregon	C;1	I	X	Limited	X
Pennsylvania	C,S;1		X	Conditional	X
Rhode Island	C;1	B	X	Conditional	
South Carolina	C;1	I	X	Yes	X
South Dakota	C;1		X	No	X
Tennessee	C;1	I	X	No	X
Texas	1	I	X	Yes	X
Utah	C1;	D,I	X	No	X
Vermont	3		X	No	
Virginia	1		X	No	X
Washington	S;2	I	X	Yes	X
West Virginia	1		X	No	X
Wisconsin	C;2	I	X	No	X
Wyoming	C;1		X	No	X

BBR - C = Constitutional; S = Statutory; 1-3 ranking denotes level of stringency (1 being the highest).

TEL -D = Demographically based (population increase, inflation); B = Budgetary (last year as baseline, % of revenue increase); I = Income (% of personal income or growth).

Source: NASBO, 2008; National Conference of State Legislatures survey of legislative fiscal officers, November 2011; James Spiotto et al., "Municipalities in Distress?: How States and Investors Deal with Local Government Financial Emergencies", Feb. 2012; Pew Charitable Trust, *State Role in Local Government Financial Distress Report* (July 2014) pg. 11 (Debt, TELS and Fiscal Rules from www.nasbo.org/sites/default/files/BP2008.pdf).

3.4. Gubernatorial line item veto

Unlike the President of the United States, most governors have some form of line item veto authority regarding appropriations. The extent of this power varies depending on whether the governor's veto authority resides solely on appropriations or in other budgetary matters. Currently, 44 states provide the governor with full line item veto authority, while 15 extend this power to selected words in the budget (NASBO 2008). In California, for instance, the governor may only employ the veto for selected words in extenuating circumstances regarding the separation of powers of the branches of government, while the Louisiana Governor's veto is limited to appropriations. In Wyoming, the Governor has the full authority to veto all bills involving appropriations. Some research suggests that greater veto authority contributes to achieving more balanced budgets at the state level.[11] Other research has found that the item veto enhances the governor's negotiating leverage with the legislature but has little long-term effect on state spending (Holtz-Eakin, 1988 or Bohn and Inman, 1996).

3.5. Debt rules

Effectively, all states in the United States have debt rules applying to their own debt and that of local governments, with statutory limits based on either general funds or tax receipts. Some states limit the authorisation of general obligation bonds, while others aggregate them and cap the total amounts of revenues (Table 8.3). If debt exceeds a certain percentage then the state must change its statutory limits through their state constitutions. In this way, the states reduce the risk of local bankruptcy and fiscal distress, as happened recently in several California localities and Detroit, Michigan (Spiotto, Acker and Appleby, 2012).

For example, Florida caps its state and local debt at 7% of General Fund revenues and insists that its debt is pledged by full faith and credit, where credit may not exceed 50% of tax revenues in the preceding two years. In Minnesota there are several rules applying to state spending and debt: (1) general fund appropriation for debt service shall not exceed 3% of non-dedicated revenues, (2) general obligation debt shall not exceed 2.5% of state personal income, (3) state agency debt shall not exceed 3.5% of state personal income, (4) 40% of general obligation debt shall be due within five years and 70% within ten years.[12]

All general constitutional rules that apply to state public finance also are extended to local governments, as legal creatures of the state (Kincaid, 2012). The fiscal autonomy of the states vis-a-vis the federal government is not replicated in the fiscal relationships of states to local governments. Rather, states have assumed responsibilities as stewards of local finance, both providing general purpose and tied aid for local governments as well as imposing a web of fiscal rules on debt, fiscal balances and tax and spending aggregates. Indeed, many states go beyond their own rules on state finances to extend additional restrictions on local government finances. Limits on property taxes and spending are examples of such constraints. States also impose financial management and audit requirements on local governments to ensure appropriate financial accountability for spending.

3.6. Bankruptcy rules

In a similar fashion, states have designed their own policies and intervention programmes to deal with the risk of local bankruptcy. 23 states have laws which allow them either to supervise local government debt or to assist local governments with debt

restructurings in the face of a fiscal emergency Spiotto et al., 2012). Several states have score card systems (green, yellow and red) as a way in which state legislatures and budget officials can monitor local government debt. Other states have stronger intervention strategies including appointing emergency financial managers or financial control boards supplanting local authority over the budget. Still others have financial assistance programmes that target fiscally-distressed communities. In effect, state variation reflects individual policy decisions and fiscal behaviour that is relatively constrained by the absence of federal bailouts.[13]

Beyond this assistance, states must enact legislation to authorise local governments to file for Chapter 9 federal bankruptcy protection. 26 states have such laws on the books, although remarkably few local governments have opted to seek Chapter 9 municipal bankruptcy protection or have fallen into state receivership. The default rate for general obligation bonds, secured by full faith and credit, was just 0.06%, compared to 1.1% for corporate debt after the 2008 financial crisis.

Thus, while Detroit and several other local governments slipped into financial bankruptcy or severe fiscal crisis, in general very few local governments in the United States declare bankruptcy. For their part, states are not given the option of bankruptcy protection and reorganisation under federal law.

The critical theoretical question is: what factors account for the relative absence of bankruptcies and financial meltdowns among state and local governments? The fiscal autonomy of states helps ensure that they will be free of expectations for federal bailouts, thereby forcing them to rely on their own resources and self-restraint to prevent fiscal self-destruction (Rodden, 2005). However, this fails to explain the limited cases of local bankruptcy. After all, state governments in fact perform the role that analysts like Rodden worry about – fiscal guarantors and backstops for local fiscal crises. Michigan moved to fund Detroit and other desperate local governments in Michigan, just like New York State's Governor did 40 years ago when New York City experienced a fiscal crisis that threatened the credit rating of the state itself. But state and local officials are more than suppliants who greet prospective bailouts and takeovers as invitations to engage in fiscal profligacy. Rather, the evidence from the latest fiscal and financial crisis in the United States suggests that state and local officials fear the shame and damage to their own standing in public and financial circles by bringing on the damage and loss of control that local bankruptcy entails.

Do fiscal rules themselves make a difference in altering local and state fiscal behaviour by preventing fiscal self-destruction? Early research suggested that stronger fiscal requirements did in fact yield more discipline in fiscal decision making (ACIR, 1987). However, this work failed to adequately account for an underlying problem of endogeneity – states with stricter rules may not be reacting to the rules but to the underlying political culture and norms which give rise to the rules in the first place. Tracy Gordon's useful analysis of later studies attempting to control for these effects suggests that fiscal rules do in fact matter under certain conditions and constraints (Gordon, 2012). For instance, Poterba showed that balanced budget requirements were linked to faster responses to deficits, but only in states with unified party control (Poterba, 1994). Budget stabilisation or rainy day funds have been shown to reduce volatility and smooth business cycle fluctuations, even though they were frequently coupled with strict balanced budget provisions which exacerbated volatility in state economies (Fatas and Mihov, 2006).

The most recent empirical efforts describe how clarity within the rule making process helps eliminate information asymmetries and allows for market mechanisms to operate at the sub-national level (Kelemen and Teo, 2014). Bond markets are more of a deterrent for violations rather than courts to instill fiscal discipline than those who violate fiscal rules (Poterba and Rueben, 1999). The clarity of fiscal rules can also augment and reinforce market support for fiscal discipline.

4. The rise of fiscal interdependence

Notwithstanding the relative legal and fiscal autonomy of subnational governments in the United States, all levels of government became more fiscally intertwined during the 20th century. This interdependence was driven most directly by an increase in federal and state transfers to lower level governments, and a corresponding rise in the relative fiscal profiles of the federal government and the states vis-à-vis local governments. Local governments, in turn, have become more fiscally dependent on intergovernmental transfers, especially from state governments.

4.1. Growth of federal intergovernmental transfers

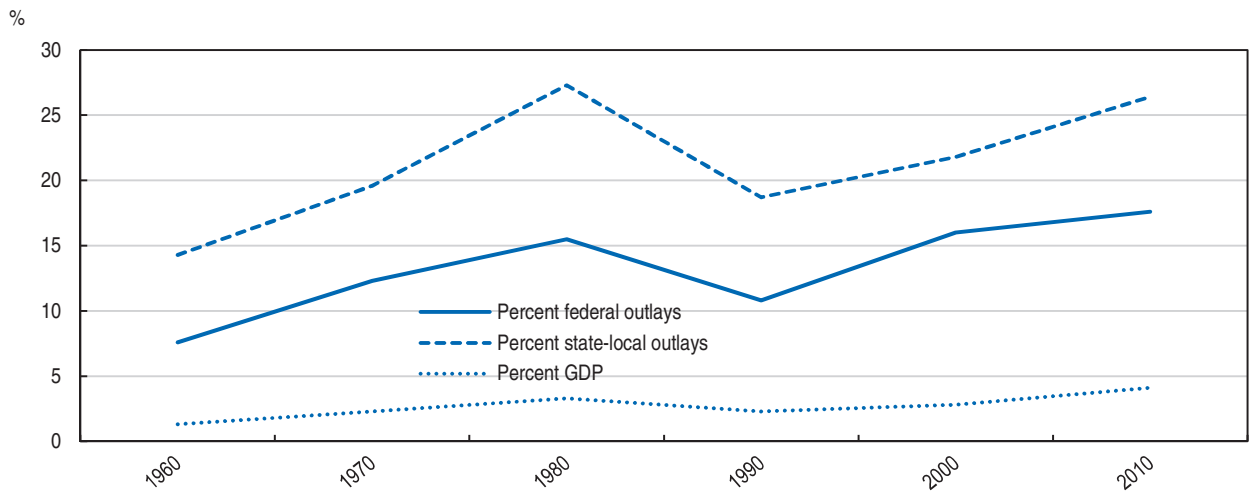
Although the US federal system retains a level of state/local fiscal autonomy unmatched outside of Switzerland and Canada, the degree of fiscal interdependence in the system changed substantially in the 20th century, especially from the 1930s onward. The most abrupt shift occurred in the 1930s as the national government responded to the Great Depression and established the foundations of a modern welfare state. The total number of federal grant programmes doubled from 1929 to 1939, from 15 to 30, and the amount of aid rose from a relatively insignificant USD 100 million to USD 2.9 billion (Walker, 1995). As a proportion of state and local own source general revenues, federal transfers grew from 1.6% to 9.8% during this same decade, and the federal share of total own source governmental revenues rose from 17% to 47%. (Carter et al., 2006).

This abrupt but permanent change in intergovernmental finance introduced a new era of intergovernmental relations, commonly referred to as "co-operative federalism." The relatively strict division of governmental functions between the national government and the states was discarded in favour of shared involvement across a range of welfare, housing, public health and transportation services. Increased co-ordination and close working relationships grew up between professionals at all levels of government, and a relative degree of fiscal equilibrium was achieved across levels of government. The federal government's share of non-defense, own source revenues, which grew so dramatically during the 1930s, remained virtually unchanged until the 1960s (Walker, 1995).

This equilibrium in intergovernmental finance was altered in the 1960s, as far-reaching changes in the scope, content and structure of federal assistance programmes made the system more centralised and far more complex. Federal government involvement increased in traditionally local fields of activity, such as elementary and secondary education, as well as new public functions such as Medicaid and air pollution control. There was a tripling of new federal grant programmes, from 132 to 379, and federal aid to state and local governments grew from USD 7 billion in 1960 to USD 24 billion in 1970. Finally, federal funding increased from 17% of state and local own-source revenues in 1960 to 23% in 1970 and the percentage of state agencies receiving federal aid grew substantially (Conlan, 2006).

Following the 1960s, there were a number of efforts to scale back this expanded system of intergovernmental transfers, but none had a lasting and significant effect. Presidents Richard Nixon and Ronald Reagan succeeded in consolidating some categorical aid programmes into larger and more flexible block grants, and Reagan and the 1990s Republican Congress temporarily reduced federal aid to state and local governments (Figure 8.3). However, the broad contours of the federal aid system and the concomitant degree of fiscal interdependence, changed little.

Figure 8.3. Grants in per cent of federal outlays and in per cent of GDP



Source: Congressional Research Service (CRS).

Accordingly, the contemporary federal grant system remains broad and extensive. According to the Congressional Research Service (CRS), state and local governments were eligible to receive 953 distinct federal grant programmes as of 2009 (Dilger, 2009). In a separate tabulation, the Office of Management and Budget counted 124 separate grant programmes in education and 169 in health and human services in 2004. Many programmes are small, however. The 35 largest programmes obligated more than USD 490 billion of budget authority in FY 2013, roughly 80% of total grant spending for that year.[14] The remaining 928 programmes comprised less than 20% of grant-related budget authority.

Administratively, this proliferation of grant programmes creates confusion for both recipients and federal officials. Many programmes overlap. In 2003, for example, the Government Accountability Office reported that there were 21 separate grant programmes assisting first responders in homeland security.[15] While each provided support for varying combinations of equipment, training, planning, and exercises, many of these grants had differing eligibility requirements, maintenance of effort provisions, performance standards and funding formulas or other means of distributing aid. Such complexity is repeated across the spectrum of grants in other functional areas.

From an economic perspective, the US aid system is sub-optimal. Unlike most federal systems, the national government has no programme of general purpose equalisation grants. Although certain grant programmes have indicators of recipient need in their formulas, many do not. Hence, the system of federal transfers as a whole has little equalising effect (Beam and Conlan, 2002). Nor is the system well designed to compensate for the economic effects of externalities or enhance economic efficiency (Beam, 1980 or Scheppach, 2012). Rather than stimulate new spending on services with externalities, many major grants have been found to prompt fiscal substitution of federal for state and local funds (Fischer and Bristle, 2012).

4.2. State Aid Systems

State aid to local governments exceeds levels of federal aid to states, although a portion of such state aid is "pass–through" aid from the federal government. In 2008, state transfers to local governments totaled USD 467 billion, which constituted 27% of state expenditures and 33% of local general government revenues.

State aid to localities takes the form of both general and categorical assistance, although most is provided as conditional aid for specific purposes, such as education, welfare, and highways (Lee, Willhide and Pome, 2014). One clear difference from federal aid, however, is that a portion of state assistance is provided in the form of shared tax revenues rather than grants, per se. In such cases, a dedicated portion of some state-collected tax is turned over to local governments, based on a specific legislative formula. Much of the states' general support for local governments is provided in this way. Nevertheless, the two forms of assistance are sufficiently similar that the U.S. Census Bureau's statistics combine both types and do not distinguish between them (Aronson and Hilley, 1986).

In 2011, state and local governments each provided about 44% of funding for K-12 education, with the state share coming largely in the form of state grants to local governments and school districts (U.S. Department of Education, 2013). However, the share of state funding for education varies enormously from state to state, from a high of over 80% in Vermont and Hawaii to under 30% in Nevada and Illinois (Kenyon, 2012). Many states provide education aid in the form of foundation grants that provide more aid to school districts with less taxing capacity. According to one study, about one half (48%) of all state aid to localities is distributed on an equalization basis, through formulas based on such factors as population, tax capacity, and fiscal need (US Department of the Treasury, 1985).

4.3. Growth of federal mandates

Over the past fifty years, federal mandates and preemptions have also become important tools of federal policy influence and intergovernmental interdependence, causing some scholars to suggest that a new era of coercive federalism has been established (Kincaid, 1990). As with federal grants-in-aid, the trend toward the use of more coercive regulatory tools has proven to be durable despite episodes of reform.

The concept of federal mandates covers a wide range of policy actions with centralising and coercive effects on the intergovernmental system. Intergovernmental regulations can range from direct orders imposed on state and local governments by federal statute, which are permissible on limited constitutional grounds, to more indirect actions that force state and local policy change as a consequence of independent federal policies, such as the implications of federal immigration policies for local health clinics.

The Advisory Commission on Intergovernmental Relations defined a taxonomy of "federally induced costs" which suggested eight discrete policy actions the federal government can take to increase state and local costs (U.S. Advisory Commission on Intergovernmental Relations, 1994).

National leaders under pressure are often tempted to consider shifting costs to other levels of government. Cost shifting can actually have a compelling rationale if the national government has costs that are more properly borne by local constituencies who most directly benefit from programme interventions. However, there is a more compelling political explanation behind this practice. Mandates permit national government leaders to claim credit without paying for the costs of their own initiatives.

The secular trend toward greater reliance on federal mandates has occurred under both Republicans and Democrats. The Nixon Administration presided over a major expansion of federal mandates in environmental protection and worker safety costs (U.S. Advisory Commission on Intergovernmental Relations, 1984), while the Reagan Administration endorsed new federal mandates in areas such as highway safety, health care and social welfare policy (Posner, 1998). The George W. Bush administration advanced a variety of new and often costly federal mandates in the areas of educational testing, election administration, homeland security and tax policy. Because of this continued growth in numbers and cost of federal mandates, such federally induced intergovernmental costs became the principal focus of federalism reform efforts by states and localities in the 1990s. Their concerted efforts saw some success with the adoption of the Unfunded Mandate Reform Act (UMRA) in 1995. However, the most detailed analyses of the law to date find that UMRA is having only modest effects in stemming the growth of new federal mandates on state and local governments. (Posner, 1998).

4.4. Assessing intergovernmental interdependence

One consequence of these fiscal and regulatory trends has been an increase in the degree of centralisation in American federalism.[16] This is true both in the relationship between the national government and the states, and in relations between states and their local governments. For example, federal grants as a percentage of state-local expenditure grew from roughly 10% in 1960 to over 30% in the recession-affected year of 2010.[17] Similarly, of the approximately 60 major federal mandates counted by the Advisory Commission on Intergovernmental Relations in 1993, only two existed in 1960.[18] There was a simultaneous doubling of federal preemptions of state and local authority during this same period. Two thirds of all federal preemption statutes enacted by Congress between 1790 and 2004 were adopted after 1965 (Zimmermann, 2005). Consequently, a systematic empirical analysis of federal legislation and executive orders over the post-World War II era found a general pattern of centralisation despite year-to-year volatility. Moreover, this national trend of centralisation was mirrored at the state level. The most widely known index of state-local centralisation rose from 17.8 to 57.0 between 1902 and 2002, as localities ceded relative power and resources to their respective states (Bowman and Krause, 2003).

Consequently, some analysts look at these trends and question whether fiscal autonomy still exists at the sub-national level in American federalism. "A pessimistic view of American federalism [today] is that the growth of federal programs has progressively undermined the fiscal autonomy of the states…to such an extent that the no bailout commitment of the federal government has lost all credibility….. As grants become more important components of subnational budgets and the books of the federal

and lower level governments become increasingly intertwined, the central government's no-bailout commitment loses credibility because it has become politically implicated in service provision in the states" (Rodden, 2001).

This interpretation – that increased federal assistance has undermined sub-national fiscal autonomy to such a degree as to soften state-local budget constraints – was seemingly vindicated during the Great Recession. In response to the crisis, both in the private sector economy and in the concomitant pressure placed on state and local finances, the national government enacted the largest federal stimulus program, by orders of magnitude, since the 1930s (Conlan and Posner, 2011). Rodden fears that "the recent wave of federal bailouts of the private sector, coupled with the recent fiscal stimulus program, has dealt the coup de grace to the notion of market discipline." (Rodden, 2001).

Yet, ironically perhaps, the Obama stimulus program offers a convincing rejoinder to this pessimistic interpretation. It was certainly a large counter-cyclical initiative, which provided considerable temporary federal assistance to state and local governments. Approximately one-third of the total initiative (USD 285 billion of the total USD 787 billion package) was provided in the form of grants to sub-national governments. But the stimulus was implemented in the pursuit of federal policy objectives, not to bail out state and local governments. It was explicitly intended and designed to maintain aggregate demand and employment, including employment by state and local governments, which would have otherwise been forced to lay off hundreds of thousands of employees in education and other fields due to significant state and local budget cuts. The federal grants, in short, were intentionally designed to compensate for pro-cyclical policies at state level that were being undertaken to meet hard budget constraints that were alive and well (Gordon, 2012 or Conlan and Regan, 2013).

Consequently, in spite of desperate fiscal circumstances in many states, and a wave of fiscal distress and bankruptcies at the local level, there were no federal bailouts provided to state or local governments. Major banks, General Motors, and AIG were bailed out, primarily in the form of loans by the USD 700 billion Troubled Asset Relief Program. But the city of Detroit, the very home of General Motors, was not. It underwent Chapter 9 federal bankruptcy proceedings, was placed under state financial supervision and received some state government assistance. But bond holders and creditors, city employees and pensioners were all subjected to the rigor of market discipline and financial reorganisation.

4.5. The implications of federal fiscal rules for sub-national governments

As federal and state and local finances become more intertwined and interdependent, state and local governments may be at greater risk from federal fiscal retrenchment. Major shifts are underway in public finances that will limit the federal resources available to all levels of government. These financial challenges threaten to erode the fiscal foundations that have underwritten co-operative federalism. In its place, the fiscal future of the federal system could feature heightened intergovernmental conflict where all levels of government vie to preempt revenues, shift costs and shift blame for the difficult choices that will be necessary to reduce fiscal deficits.

A glimpse of this future was provided by the Budget Control Act of 2011, which required over one trillion dollars in cuts to the non-defense discretionary (NDD) portion of the federal budget over the ten year period from 2011 to 2021, including annual across-the-board budget cuts known as sequestration (Conlan, Posner and Beam, 2014). The NDD portion of the federal budget funds most federal grant programmes to state and

local governments, although some important federal grants such as Medicaid are not included in that portion of the budget. Consequently, an analysis by the Center for Budget and Policy Priorities estimated that federal spending on discretionary grants to state and local governments would fall to historic lows, declining under the Budget Control Act from a post-World War II average of approximately 1.5% of GDP to approximately 0.8% of GDP by 2021 (Johnson and Leachman, 2013).

5. The deinstitutionalization of intergovernmental coordination

As the United States deals with increasingly important and complex issues of intergovernmental interdependence, it does so without the array of intergovernmental collaborative institutions that arose and operated from the 1950s through the 1990s. By comparison, many other OECD nations have strong intergovernmental traditions of fiscal collaboration and joint stewardship, reflected in fiscal targets for deficits and debt and expenditure limits shared by national and sub-national governments (Ahrend et al, 2013).

In the United States, institutions and traditions of fiscal collaboration have weakened, and federal and state governments pursue their own deficit reduction strategies, often working at cross purposes. Federal officials pass underfunded mandates and budget cuts on to states, while sub-national officials work opportunistically to shift their costs to federal programmes (Posner and Shafroth 2011 or Conlan 2006). Federal tax policy is an arena where most states adopt federal tax base definitions in their own income taxes, but where federal officials often make tax policy decisions with little concern for or involvement by state and local officials.

The dissolution of cooperative federalism is reflected in the "deinstitutionalisation" of intergovernmental coordination. Starting in the 1950s, as federal grants grew with the interstate highway and housing programmes, federal institutions were developed to better understand and coordinate the emerging intergovernmental system that was taking shape. In 1955, President Eisenhower established a high level Commission on Intergovernmental Relations, which recommended, among other things, "improved coordination of fiscal policies" and the creation of a permanent intergovernmental body to enhance consultation, coordination and policy analysis.

This recommendation encouraged Congress to create a permanent Advisory Commission on Intergovernmental Relations (ACIR) in 1959. Members of the ACIR were appointed by the President and Congress and consisted of top elected officials at all levels of government, members of the President's cabinet, as well as private citizens. The Commission developed some of the most influential research in the country on issues of federalism and intergovernmental relations and played a vital role in bringing together governments across the US federal system to address common problems.

Over its 37-year lifespan, the ACIR "grew…into a respected voice on intergovernmental issues" (Howell-Maroney and Handley, 2009). Its research and policy recommendations found their way into major federal legislation, including the General Revenue Sharing programme enacted in 1972, and the Unfunded Mandates Reform Act of 1995. The ACIR was also instrumental in Presidential federalism initiatives, and in the creation of suggested legislation for state adoption (McDowell, 2011).

Other institutions joined ACIR in the emergence of an intergovernmental issue network in Washington. These included a separate grants division in the Office of Management and Budget, as well as specific sub-committees on federalism and

intergovernmental relations in both the US House and Senate. It also included a significant investment in intergovernmental management by the US Government Accountability Office, which did major studies on the grant system, federal funding formulas and intergovernmental impacts of federal policies. An Office of State and Local Finance was created in the U.S. Department of Treasury as well.

The rise of these institutions in Washington also encouraged efforts by state and local interest groups to frame their concerns in fact based and neutral ways that would become credible to other national actors in Washington. During the 1980s, state and local groups invested in the creation of an Academy of State and Local Governments which was intended to perform neutral studies on the intergovernmental system that each group could not perform on its own.

Despite its importance, this institutional edifice eroded and collapsed during the 1980s and 1990s. The ACIR was abolished by Congress in 1996, as part of an effort to achieve short-term budget savings by eliminating smaller agencies and commissions. The Office of Management and Budget eliminated its grants office in the early 1980s, ironically at the time when federalism received high level attention from President Reagan as part of his initiatives to reallocate and devolve powers from federal government to the states. The Congress abolished its independent federalism sub-committees, and the Treasury Department abolished its Office of State and Local Finance in the late 1980s, shortly after producing a major report on the federal intergovernmental fiscal system (U.S. Treasury Department, 1985). Even the state and local interest groups abandoned their Academy, as internal disagreements and fiscal constraints diminished support for the project.

The factors contributing to this collapse of institutional supports for intergovernmental collaboration are complex. The increasingly polarised policy process certainly played a role. The rise of ideologically homogeneous political parties, confrontational politics and interest group advocacy served to erode support for institutions that sought centrist positions and improved relationships among governments.

Over time, state and local government interest groups also became increasingly less collaborative and capable of forging agreements. Growing partisan polarisation in groups like the National Governors Association have weakened their ability to take positions and lobby on the major intergovernmental policy initiatives of recent years, such as the Affordable Care Act of 2010 and Welfare Reform of 1996. The Democratic and Republican Governors Association now have become the vehicle through which highly partisan alliances of Governors express their views to increasingly polarised national officials.

The demise of the ACIR and the erosion of other institutional entities for intergovernmental co-operation and collaboration reflect broader changes in the body politic, including a decline in federalism as a fundamental norm of modern politics and policy making. Thus, a major paradox has emerged, not "Hamilton's paradox" but what might be considered "Reagan's paradox," after the President who set many of these events in motion: even as the US federal system has grown increasingly intertwined and fiscally interdependent, the institutional tools of intergovernmental co-ordination and collaboration have diminished. "Fend for yourself federalism" persists, despite increased fiscal and policy centralisation in American federalism over time. By comparative standards, sub-national governments in the United States retain an enviable degree of fiscal autonomy, along with the burdens of fiscal responsibility that accompany it. But as the stakes of intergovernmental relations increase, as evidenced by during the Great

Recession and the implementation of health care reform, and as the challenges of intergovernmental co-ordination grow in stride, the instruments of co-operation have eroded. Just when the institutions of cooperative federalism are most in need, they have become unavailable.

Notes

1. The term, "fend for yourself federalism" was originally coined in the 1980s by John Shannon, long-time director of fiscal federalism research at the U.S. Advisory Commission on Intergovernmental Relations, to capture the impact of Reagan-era federal budget cuts and devolutionary initiatives on state and local government finances. See Shannon (1987).
2. For example, Article 1, Section 10 of the US Constitution prohibits states from coining money, passing laws, which interfere with contractual obligations or imposing taxes on imports or exports without the consent of Congress.
3. Taxpayers in these states also pay the independently administered federal individual income tax, with a top marginal rate of 39.6%. Despite their administrative and policy independence, most states coordinate their income tax base with the federal income tax base.
4. Tax Foundation, "Property Taxes on Owner-Occupied Housing by State, 2004 – 2009," at http://taxfoundation.org/article/property-taxes-owner-occupied-housing-state-2004-2009.
5. See, for example, W. Oates (1972), Rodden (2006); Yilmaz, Vaillancourt, and Dafflon (2012) and Beam, Conlan, and Walker (1983).
6. See, for example, Peterson (1996), and Beam and Conlan (2002).
7. The provisions for municipal bankruptcy under Chapter 9 of the U.S. Bankruptcy code represent a partial exception to this general pattern of federal non-involvement, but the procedures are highly deferential towards state authority and prerogatives.
8. See, for example, U.S. Advisory Commission on Intergovernmental Relations (1986); Poterba (1994) and Rose (2010).
9. U.S. General Accounting Office (GAO), Analysis of Actions Taken during the 2003 Debt Issuance Suspension Period, GAO-04-526, May 2004, available at www.gao.gov/new.items/d04526.pdf. For a vigorous assertion of the utility of the debt ceiling, see Drishnakumar (2005).
10. B. Bartlett, "Why Congress Must Now Abolish its Debt Limit," Financial Times, October 22, 2009, p. 11; B. C. Roseboro, Assistant Secretary for Financial Markets, U.S. Treasury, "Remarks to the Bond Market Association's Inflation-Linked Securities Conference", New York, NY, available at http://web.archive.org/web/20080709100455/ www.treas.gov/press/releases/js506.htm.
11. ACIR, Fiscal Discipline in the Federal System.
12. NASBO, Budget Processes, p. 44.

13. "GMU Fiscal Study Preliminary Research" published by State and Local Government Leadership Center, 2014. At http://s3.amazonaws.com/chssweb/documents/12810/original/GMU_Fiscal_Lit_Review.pdf?1379616883

14. Author's calculations, based on U.S Office of Management and Budget, Analytical Perspectives, Budget of the United States, FY 2015, tables 15- and 15-3.

15. U.S. General Accounting Office, Homeland Security: Reforming Federal Grants to Better Meet Outstanding Needs, GAO-03-1146T, 2003.

16. See for instance U.S. Advisory Commission on Intergovernmental Relations (1980), Scheiber (1980), and Riker (1964).

17. Rodden (2014). For a century long perspective, see Carter et. al. (2006).

18. Exact numbers of federal mandates are difficult to estimate, depending on the definitions used and the treatment of major reauthorisations and expansions. The ACIR's estimates can be taken as conservative, however; the National Conference of State Legislatures put the total estimate at 185 during this same period. See ACIR, Mixed Record and Federally Induced Costs for more details. Although the ACIR estimates are now twenty years old, few of the regulations involved have been rescinded, relaxed or terminated since then (Reauthorization of the Safe Drinking Water Act in 1996 is an exception). Passage of the UMRA in 1995 appears to have slowed the rate of adoption for certain kinds of new mandates, but did not rescind or relax existing ones.

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Chapter 9

What makes a local government reform successful? The Finnish experience

Antti Moisio

This chapter discusses and analyses the factors behind successful and failed local government reforms in Finland. The reforms investigated include the municipal merger reform, health care reform and grant system reform, pursued by the Finnish government during 2011-15. The reforms are studied from the reform context, timing, scope and reform design angles. The main observation is that the successful reforms have been prepared by experts and civil servants, and political decision-making became involved only at the last phase. Also, it seems important that a single ministry was in charge of the reform. The failed reforms were tightly steered politically from the beginning, without clear political agreement on the process and target of the reform.

1. Introduction

There is a large local public finance literature that focuses on impacts of decentralisation. The aspects covered in past and current research vary from fiscal and political performance to public service delivery. The usual institutional framework used in this research is the "intergovernmental relationship", i.e. the relations between central, regional and local governments. Much less attention has been paid to effects of central government decision-making bodies, especially the inter-ministerial organisation of fiscal decision-making. This is somewhat surprising, because the division of administrative powers at the central government level can have an important impact on reforms of fiscal systems and intergovernmental fiscal relations.

The Finnish government has recently been active in pursuing local government reforms. The most important reforms prepared by the present government include the municipal merger reform, health care reform, reform of the Local Government Act, intergovernmental grant system reform, metropolitan governance reform and reform of local government tasks. In addition, the government's structural policy measures, the general government fiscal plan as well as decisions on central government spending limits include measures that simultaneously affect local governments.

Important changes in the Finnish central government may have contributed to local government reforms. For example, the transfer of the department for municipal affairs from the Ministry of Interior to the Ministry of Finance in 2008 probably improved the co-ordination of fiscal relations and helped to plan the municipal reforms. Further, the decision in 2010 to increase the role of the Ministry of Finance in municipal finances helped to push through a radical grant reform in 2014. Since the start of 2015, the position of the Ministry of Finance strengthened further due to the adoption of new measures that aim to improve the macroeconomic steering of local government.

This paper reviews and discusses the Finnish experience on local government reforms following the approach by Blöchliger and Vammalle (2012). The recent Finnish reforms are thus described and discussed from three main points of view, namely the reform context, timing and scope and reform design angles. In addition, the effects of inter-ministerial coordination and central government institutional arrangements on successful reforms are discussed. Although the methods used in this paper cannot reveal a causal relationship between government reorganisation and reform success, the treatment of the subject can help facilitate further analysis.

The paper proceeds as follows. The second section describes briefly the Finnish public administration set-up. Section 3 describes the Finnish local government set-up. In Section 4 the recent reforms concerning Finnish local government are described and analysed. Section 5 summarises and concludes.

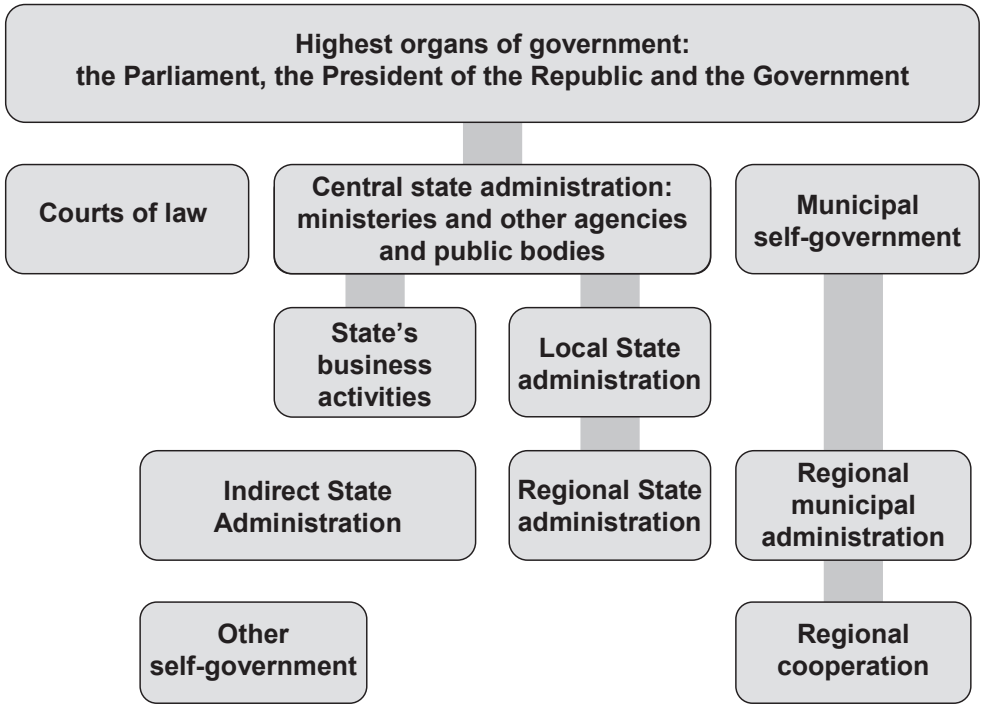
2. Finnish public administration: An overview

Finland is a unitary state where the highest bodies of government consist of the Parliament, the President of the Republic and the Government. Public administration is organised with two tiers of government: the State administration and the self-governing municipalities. The State administration consists of central, regional and local State administration. At the central level, the State administration includes twelve ministries, the State's bureaus and agencies and the State's business activities (Figure 9.1). The regional State administration consists of six Regional State Administrative Agencies

(AVI) and fifteen Centres for Economic Development, Transport and the Environment (ELY). The AVI's legislate, steer and supervise functions in the regions. The agencies also follow the local situation on basic rights and legal protection, access to basic public services, environmental protection, environmental sustainability, public safety and working environment in the regions. The ELY's promote entrepreneurship, labour market functioning, competence and cultural activities, ensure safe and smooth transport operations, a healthy environment and sustainable use of natural resources in the regions. They are also in charge of functions relating to labour force immigration. The local State administration consists of police and prosecuting authorities, registry offices and tax offices.

Local government consists of municipalities and joint authorities of municipalities. At the beginning of 2015, there were 317 municipalities and 184 joint municipal authorities. Municipalities may set up a joint authority for any service they desire, but membership of a joint authority is compulsory for specialised health care (hospitals) and regional councils. Especially the smallest municipalities often organise basic health care by joint authority arrangement on a voluntary basis, mainly because they are too small to arrange health care alone. Joint municipal authorities are also common in education. The 19 regional councils are responsible for regional development.

Figure 9.1. The public sector in Finland – the main institutions



Source: State Treasury.

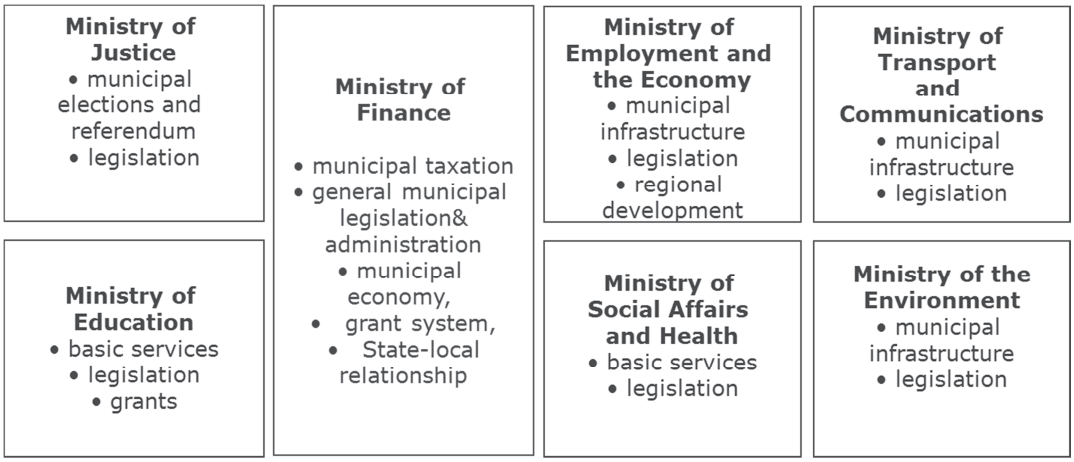
Due to the two-tiers of Finnish government and because central government has delegated many tasks to the municipal sector, a number of ministries are involved in steering the municipalities through legislation or otherwise (Figure 9.2). The key

ministries, however, are the Ministry of Education, the Ministry of Social Affairs and Health and the Ministry of Finance, because these three ministries are jointly responsible for the basic services and the financing of the services. Over the years, especially during the past fifteen years or so, there have been some important changes in responsibility assignment between the three key ministries.

At the beginning of 2008, the inter-ministerial relations were reformed so that the Department for Municipal Affairs, the Department for the Development of Regions and Public Administration and the Local Government IT Management Unit were transferred from the Ministry of the Interior to the Ministry of Finance. At the same time, the provincial, registry and State local district administrations were also transferred to the Ministry of Finance's administrative branch. The main aim of the re-arrangement was to strengthen the coordination of municipal affairs in the central government. This was seen as particularly relevant for the preparation of the basic services programme and the basic services budget. Also, due to the big role of the municipal sector in public service provision, the transfer of responsibilities was seen important for the preparation of the annual central government budget. The operation was thought to help the Ministry of Finance to react early to changes in municipal finances. Naturally, bringing all municipal affairs under the same ministry was though to bring synergies and more efficiency to the design of reforms.

The decision to transfer the responsibility for the grant system from the sectoral ministries to the Ministry of Finance in 2010 was also important. This is discussed in more detail in the section on grant reform.

Figure 9.2. Ministries with steering responsibility of municipal affairs



The restructuring of central government continues and preparations for a reform of central government are under way. The goal is to make the government a more unified structural entity than before, both functionally and financially. The Ministry of Finance has set up a project for the assessment of the central and regional administration (VIRSU). The project investigates the structure of agencies in central and regional administrations.

3. Finnish local government

3.1. Municipal governance and decision-making

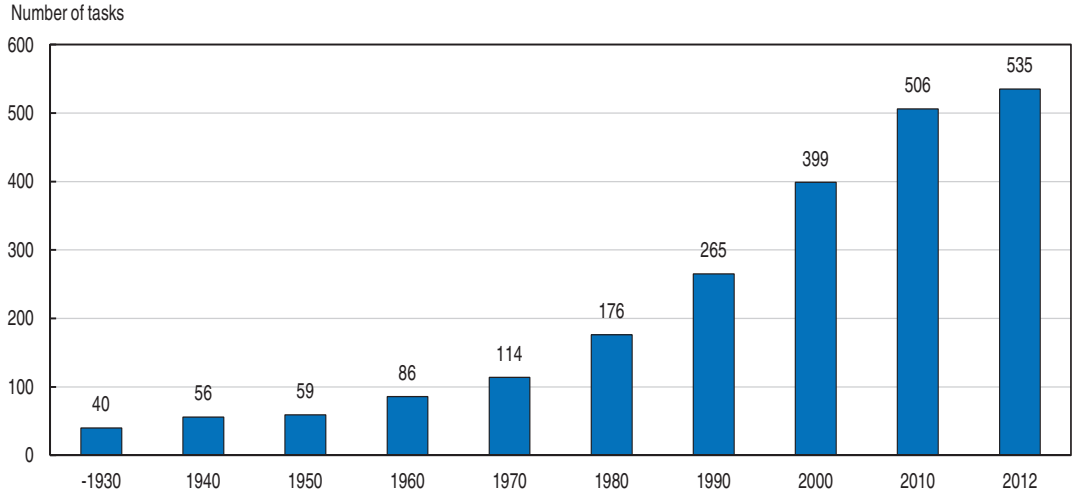
Finnish municipalities have been self-governing entities since Finnish independence. The provision on local self-government was included in the first Finnish constitution in 1919, and universal and equal voting rights were introduced for municipal elections. The municipal councils, which were elected in general elections, got the highest decision-making power. In 1932, provisions on inter-municipal co-operative organisations and joint municipal authorities were added to the municipal legislation.

Finnish municipalities make spending decisions independently, and decide on the level of local income and property taxes. Decisions are made by the municipal council that is elected by the residents for a period of four years. Municipalities also have a municipal board and a municipal manager, both elected by the municipal council. The municipal manager is a civil servant (Moisio et al., 2010).

3.2. Municipal tasks and expenditure

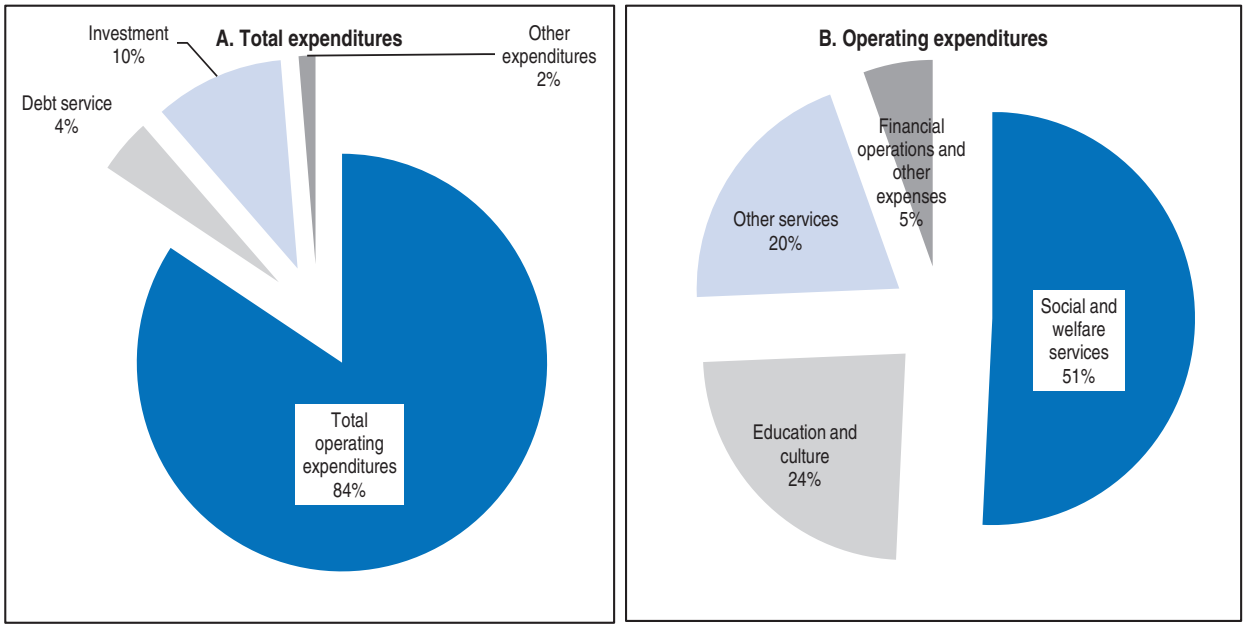
Finnish municipalities are responsible for a wide range of public services. The number of municipal tasks started to grow since the end of the 1950s. The growth of municipal tasks became especially rapid since 1970 (Ministry of Finance, 2013) (Figure 9.3). Currently, all main social, health care and education services are provided by municipalities or by joint municipal authorities. Hence, the overall economic importance of the municipal sector is considerable. Local government spending as share of GDP is around 18% and municipalities employ roughly 20% of the total Finnish workforce.

Figure 9.3. The change in the number of compulsory municipal tasks



Health care and social service expenditure make up more than half of municipal spending, education services about one-quarter and other services one-quarter (Figure 9.4). The largest area of expenditure is operating expenditure, investment represents about a tenth of total municipal spending.

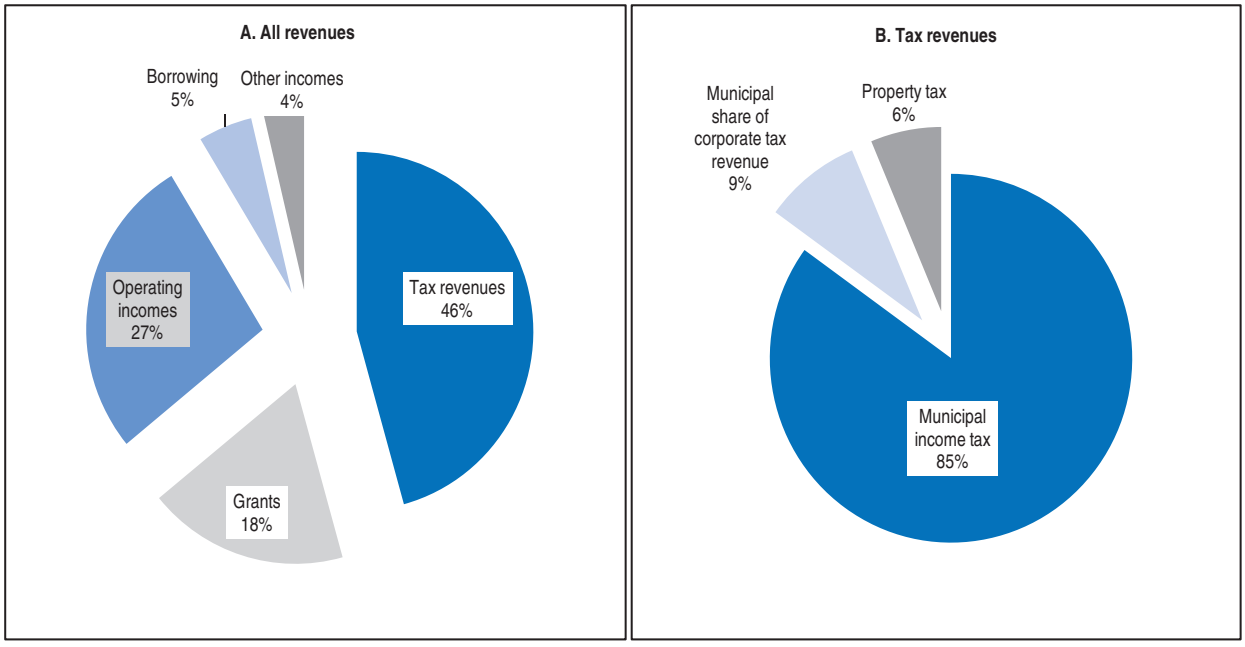
Figure 9.4. Municipal spending in 2011



3.3. Municipal finances

Finnish local government (municipalities and joint authorities) revenues consist of local income tax, property tax, a share in corporate tax revenues, state subsidies, user fees and sales revenues (Figure 9.5). In 2011, tax revenues made up 46% of all municipal revenues. Income tax is by far the most important local tax. Property tax and the municipal share of corporate tax generate much less revenue for municipalities. Grants make up some 18% of the total municipal revenues.

Figure 9.5. Municipal revenues in 2011



Although grants cover only about one-fifth of total municipal sector revenues, grants are a major revenue source for small and remote rural municipalities. From the 1960s until 1993 the grant system was based on matching grants and it was rather generous. State subsidies varied depending on the financial capacity of the municipality, and each task had a different matching rate scale. In 1993 a new grant system based on general, non-earmarked grants was introduced and in 1996 a separate revenue equalisation formula was included in the system. In 2010 the grant system was reformed so that the three main block grants (the grant for education, the grant for social care and health and the general grant) were merged into a single block grant. Although the 2010 reform did not change the state aid criteria, one of its most important aspects was that the majority of the grant system became the responsibility of the Ministry of Finance. The grant reform that took effect since the beginning of 2015 aimed at altering the grant criteria, making the system simpler and more transparent.

3.4. Municipal mergers and co-operation

The policy to delegate more services from the centre to municipalities meant increasing local spending and local tax rates. The average income local tax rate has been increasing since the 1970s. More demanding tasks at the local level also meant pressure to increase the size of the municipalities. In the 1970s, there were many municipal mergers, because local politicians in some small municipalities were not willing to take new responsibilities for health care and social services, and rather sought mergers. Due to voluntary municipal mergers at the beginning of 1970s, the number of municipalities dropped from 517 to 464. After that, municipal restructuring became much slower. During the 1980s and 1990s only twelve municipalities merged. In 2005, the government intensified the reform policy and within a few years the number of municipalities dropped again by more than a hundred municipalities. Nevertheless, the median municipality population size, 6 000 inhabitants, was seen as too small by the government that started its term in 2011. Therefore, one of the first tasks of the newly-elected government was to start a new round of municipal mergers. The plan was very ambitious as it aimed at reducing the number of municipalities to between 70 and 100 municipalities. The reform was not successful, however, as only a handful of mergers were achieved by the end of the government's term in March 2015. The municipal reform is discussed in more detail in Section 4.

While mergers were always unpopular among the Finnish municipalities, the smallest municipalities were active in seeking voluntary partnerships and co-operative arrangements with other municipalities and with the private sector. The most common form of municipal co-operation is the joint authority. Joint authorities are set up by two or more municipalities mainly for tasks that require a larger population base than the small municipalities have alone. Membership in a joint authority is voluntary except for hospital services and regional councils. At present, the joint municipal authorities are solely financed by member municipalities, but in the 1970s the central government funded joint authorities with state subsidies.

4. Three Finnish local government reforms in retrospect

4.1. Background and method of analysis

This section discusses the implementation of recent local government reforms in Finland. The focus is on main reforms that have been considered as important for the future functioning of the Finnish local public sector and public sector in general. As the

parliamentary term is about to end in March 2015, the success of these reforms can now be analysed. Table 9.1 lists the most important local government reforms and their status as of March 2015.

Immediately after taking office in 2011, the new government initiated several local government reforms. The reforms were very ambitious judged both by the targets and by the schedule given for preparation. According to some critics however, the local government reforms in the Government Programme were planned on too optimistic forecasts of economic growth and fiscal conditions of both the central and local governments. One could therefore argue that the Government Programme was too optimistic to begin with. Yet, most local government reforms listed in the Government Programme were motivated by scenarios of a worsening sustainability gap of the public finances.

Table 9.1.Major local government reforms started during 2011-13

	Responsibility	Prepared during	Completed in time (yes/no)
Municipal merger reform	Ministry of Finance	2011-15	no
Health care reform	Ministry of Social Affairs and Health	2012-15	no
Reform of Local Government Act	Ministry of Finance	2012-15	yes
Metropolitan governance reform	Ministry of Finance	2013-15	no
Grant system reform	Ministry of Finance	2011-14	yes
Reform of local government tasks	Ministry of Finance, Ministry of Social affairs and Health, Ministry of Education	2011-14	no

In this chapter three main local government reforms in Finland during 2011-15 are studied. We follow the approach by Blöchliger and Vammalle (2012), and focus on the reform context, timing and scope of the reforms, and the reform design aspects. A fourth aspect used in this paper is the effect of inter-ministerial coordination and change in organisation that was briefly described in the previous section.

Blöchliger and Vammalle (2012) discuss four aspects of the "reform context": economic and fiscal conditions, electoral mandates, majority situation in the Parliament and constitutional status of local government. First, in an unhealthy economic situation and under a weak fiscal condition, the odds for a successful local government reform are small. This is, for example, because there is less room for central government to "buy" the reform or grant a reform dividend. Also, in practice it seems that only a few local government reforms have been implemented in OECD countries during economic crises. Second, electoral mandates can be an important prerequisite for a successful reform, because without a mandate the resistance from the local government level could be strong. Still, as Blöchliger and Vammalle (2012) show, there are examples of reforms that have been realised even without a clear mandate. Nevertheless, without mandate the reforms tend to be smaller than those with a clear mandate. Third, a majority in the

Parliament is an important building block for the reform to be completed successfully. Fourth, a strong constitutional status of local government makes it hard for the central government to force a reform onto the local level.

Also the "timing and scope" theme, as discussed by Blöchliger and Vammalle (2012), can be approached from four directions: the earlier failed reforms and pilot programmes viewpoint, bundling several reforms, sequencing a reform and speed of reform process. The authors note, first, that successful reforms have often been preceded by a number of failed attempts. Failed attempts of previous reforms and pilot programmes can accumulate decision makers' knowledge about the issue and maybe also willingness to negotiate and compromise. The second point is that bundling reforms may help to distribute benefits more evenly and avoid veto-type situations. Blöchliger and Vammalle (2012) note that bundling does have its risks, as the resulting reform may not be efficiency improving, especially if too many stakeholders need to be satisfied. Third, sequencing a reform may help if the reform can be divided into phases. Sequencing gives the decision makers a chance to learn from the previous stage and gives them an option to alter the plan if needed. In general, though, it seems that the so called "big bang" approach has been more commonly applied in OECD countries. Fourth, as for the speed of the reform, a quick implementation of the reform seems a viable approach. This is, for example, because a quickly implemented reform may force the decision makers to focus on the general reform effects instead of letting them calculate how each local government is affected individually.

Blöchliger and Vammalle (2012) analyse the "reform design process" from the political leadership, financial incentives and compensation angles, and whether independent external expertise is used in the reform process. Also the consultation of stakeholders, use of transitional arrangements, role of coordinating bodies, and communication between various players are discussed. Political leadership, i.e. a single politician or a political group committed to the reform process can give a boost to a reform in most cases. However, sometimes it may be better if the reform is driven by external experts and civil servants and not by politicians. Even in the latter case there needs to be at least a low profile political leadership to ensure that the reform will be brought to a close. Financial incentives and compensation to losers of the reform can be used to enhance the reform process. The use of independent external expertise to prepare and to organise the reform seems to be an important factor behind successful local government reforms, in particular because fiscal federalism reforms are usually quite complex. Working with independent expert panels or groups may also give credibility to a reform, and this can be crucial to its successful implementation. Consultation of various stakeholders along the reform process is important as well, because this creates commitment and feeling of ownership. Consultation can also be risky, however, as Blöchliger and Vammalle (2012) point out, because it can direct public discussion away from the overall objectives to speculation about individual winners and losers. Transitional arrangements or opt out clauses can help to "ease the pain" for the sub-central governments that are to lose from the reform. Transitional arrangements also help reduce opposition to the reforms and can therefore be recommended, if the overall targets of the reform will be met. Coordinating bodies are important because usually fiscal federalism reforms concern several line ministries at the central level and various stakeholders at the local level. Without a single coordinating body it would be almost impossible to advance the reforms. As Blöchliger and Vammalle (2012) point out, often the Ministry of Finance is the most natural coordinating body in local government reforms. Lastly, communicating the reform issues with the stakeholders and with the

public is an extremely important part of a successful local government reform. If the understanding of the overall efficiency gains of the reform are not made visible, problems will occur. Also, communication will help to consult the various interest groups and collect information on pros and cons of the reform.

4.2. Municipal merger reform

Soon after taking office in 2011, the government published a very ambitious plan for municipal boundary reform. With the merger reform, the government hoped to support the national government's measures to close the sustainability gap for public finances. The merger reform would, according to the government, help the local public sector to meet the challenges posed by an ageing population, improve public sector efficiency and local democratic decision-making. With the merger reform, the government also aimed to end previous speculations about new (regional) intermediate government levels that had been proposed by the main opposition party during the elections.

The merger plan, prepared by the Ministry of Finance, defined an indicative optimal size for municipalities. The boundaries of the planned municipalities were mostly based on commuting areas, but also the municipalities' ability to raise local revenue and the optimal service structure were taken into account. The government plan claimed that the new bigger municipalities would be economically viable and strong enough to cope with the future challenges. The new municipalities should be able to provide all social services, health care and education (except tertiary education) without need for municipal co-operation. Only for the most specialised health care there would be a need for regional and/or national level hospital providers, these would be organised by municipal co-operative bodies. The so called "strong municipality model" was meant to reduce the number of municipalities from the present 320 municipalities to about 70 or no more than 100 municipalities by 2015. The plan was based on the assumption that the mergers would initially be voluntary, but the "door was left open" also for forced mergers at a later stage. In practice, however, the "threat" of forced mergers was empty because an imposed merger reform was not possible due to the constitutional status of municipalities. Nonetheless, the government did consider legal options for imposed mergers in the 10 or so main urban centres outside the Helsinki Metropolitan Area in case the municipalities did not come up with sufficiently ambitious voluntary consolidation plans.

The second phase of the reform was the official hearing of municipal councils about the government's merger plan. The municipal councils had to provide reports and proposals by July 2014, for mergers to be implemented between 2015 and 2017. This deadline was extended several times, however. In the end, most municipal councils rejected the government's proposals for new, bigger municipalities. From the municipal sector point of view, the proposal was simply too radical. The municipalities demanded that the government plan was to be altered so that it would put more focus on enabling co-operation between municipalities. At the end of the Parliamentary term, only a handful of mergers had been agreed. As such, the merger reform failed to achieve its objective.

The inter-ministerial division of power was important for the municipal merger reform because, as will be discussed below, although the Ministry of Finance was in charge of the municipal reform, it had to co-ordinate with the social and health care services reform that was prepared by the Ministry of Social Affairs and Health. Looking back, one can argue that one of the biggest problems in the municipal reform was that it was originally not well-coordinated with other reforms. It is difficult to evaluate how the transfer of the municipal affairs department from the Ministry of Interior to the Ministry

of Finance affected the merger reform, because there is no counterfactual. However, one can argue that the transfer improved the co-ordination of municipal affairs with overall economic policy. Certainly, since the transfer the emphasis in municipal affairs has been on the economic efficiency aspect, of which the municipal merger reform is a good example.

From the "reform context" point of view one can argue, first, that the time for municipal reform was not favourable, because the economic situation constantly deteriorated during the reform period. The adverse economic development came as a surprise to the government, not least because all macroeconomic forecasts failed to predict the rapid deterioration of the Finnish economy between 2011 and 2015. Blöchliger and Vammalle (2012) note that only a few important local government reforms have been adopted during times of an economic crisis. The Finnish merger reform is an example of a failed reform attempt in a time of recession.

The electoral mandate of the merger reform was not very strong either. The coalition government consisted of six parties, representing parties from both the left and right. Although in the beginning the government parties seemed to agree with the need for municipal reform, some parties resisted strongly the idea of forced mergers. Resistance from the municipal side grew constantly during the reform period. Moreover, as time elapsed, some politicians from the main government parties started to resist the idea of a comprehensive municipal merger reform altogether.

The government had a clear majority in the Parliament at the beginning of the term – 2011 to 2013 –, but the situation changed dramatically by the end of the term. The departure of two parties from the government (the Socialists in March 2014 and the Green Party in September 2014) reduced the majority to only two seats. Nevertheless, even when holding a majority of seats in parliament during the first half of the term, the government seemed unable to agree about how to proceed with the merger reform.

The main obstacle to the merger reform was not political but legal, however. The constitutional position of Finnish municipalities is strong, and they enjoy the right to fiscal and administrative self-governance. The Parliament's Constitutional Affairs Committee criticised the planned merger reform several times for being in conflict with the Constitution.

As for "timing and scope", the first thing to note is that the merger reform was preceded by a municipal reform started by a previous government, the so-called PARAS-project. The PARAS-project's objective was that in primary health care and associated social services, municipalities must reach a population base of at least 20 000. This was an important reform because in 2010 only a quarter of municipal health providers (single municipalities or joint municipal authorities) had a population base of more than 20 000. In the PARAS-reform, municipalities were free to decide whether they reach the minimum population bases with municipal mergers or with enhanced co-operation. In health care and social services, altogether 67 new co-operative areas were started by the end of 2013. The PARAS-reform also supported voluntary municipal mergers with special merger grants. The minimum population requirement and merger grants jointly resulted in many mergers so that by the end of 2012 the number of municipalities was reduced by 96.

The PARAS-reform ended in 2012 so it was still in effect when the new government announced its own merger reform plan. The merger reform of 2011 was thus preceded by a successful municipal reform and not a failed one. Perhaps the greatest enthusiasm for

the municipal reform had already withered at the municipal level. The government's argument was all along that the PARAS-reform was not enough and that it did not solve the main problems of municipalities. Nevertheless, from the timing aspect it seems clear that the reform was started too soon after the previous reform.

The municipal reform was originally bundled with a social and health care service reform. However, the bundling of the two reforms faced problems almost since the beginning. There are numerous reasons behind the problems, but one reason is that the reforms were prepared by two ministries: the social and health care service reform was prepared by Ministry of Social Affairs and Health and the municipal reform was the responsibility of Ministry of Finance. The organisations and the "culture" in these two ministries differ and the ministries also consulted different external experts. The most obvious difference between the two ministries was that the Ministry of Finance stressed the economic efficiency point of view of the reforms, while the Ministry of Social Affairs and Health emphasized equity and access to services. Moreover, the two ministers came from different parties.

There was no sequencing planned during the merger reform, although the reform plan was altered several times. In particular, the bundling with the social and health care service reform became tighter as the opposition against the reform accumulated. The government tried to act quickly, as the merger plan was announced almost immediately after the government took office. The reform got stuck in the municipal hearing process, largely because it was bundled with the social and health care service reform which proceeded very slowly. Originally, there was no clear bundling, because the municipal merger reform was thought to solve also the social and health care service reform, since the "strong municipalities" were supposed to be able to provide all services to their residents. But when it became clear that the municipal sector resisted the large scale merger reform, the government changed the plans so that only municipalities with a population of 50 000 or above would be entitled to provide advanced social and health care services. The problem in this plan was that the smallest municipalities would have been obliged to pay to the "host municipalities" for the services used by their residents, without being able to participate in decision-making. This situation was considered to be against the constitutional autonomy principle and the Constitutional Law Committee of the Parliament rejected this plan. This was probably the "last blow" to the municipal reform.

Concerning the "reform design process" aspects of the municipal merger reform, the political leadership was very clear especially at the beginning, as it was the Minister of Local Government who was personally in charge of the reform and she was very actively promoting the mergers in both political debates and in the media.

As for financial incentives and compensation, the previous programme of merger grants ended during the reform and the new merger grant was tied to the speed and timing of the mergers. In the new merger grant system, a prerequisite for the payment of the merger grant was that the municipal merger will enter into force at the latest in 2017. The idea clearly with this change was to speed up the merger process. But as only a few mergers have been agreed (three mergers in 2015, three in 2016 and one in 2017) it seems that this policy did not work at all.

Independent and external expertise was not used extensively, as most of the preparation was done by civil servants in the Ministry of Finance. The external experts were heard in the official hearings arranged by the Ministry though. The consultation of

stakeholders was thoroughly executed. Although most of the feedback was negative, this was probably not the main reason for the reform to fail as was discussed above.

The coordination responsibility was in in the Ministry of Finance, especially at the beginning of the reform, but along the process, also the Ministry of Social Affairs and Health became involved. Looking back, it seems clear that the communication between the main government parties and between the main ministries involved was far from comprehensive.

4.3. Social services and health care reform

The social services and health care reform was started by the government in 2011 with the aim to create a new service structure for Finland's public social welfare and health services. As was described above, at first the government's plan was based on the "strong municipality" model. But when it became clear that resistance against large scale municipal reform was too strong, the plan was altered so that the provision of main social and health services was given to the so called "host municipalities". The host municipalities would have been municipalities with above 50 000 inhabitants and they would provide most services also for their smaller neighbouring municipalities. When this plan was found to suffer from constitutional problems, the plan was again altered. The opposition parties were then invited to participate in the planning of the reform, and as a result of these negotiations, the model of five regional providers was announced. These five regions were to be organised as joint municipal authorities.[1] The problem was that the five regions were not supposed to produce the services, but to be purely providers. Therefore, in addition to having five regions, the plan was to have 19 smaller joint municipal authorities that would be in charge of producing the social and health care services. These joint authorities would receive their funding from the regional level. The funding of the system was to be organised through municipalities, who would still collect tax revenues and receive central government grants.[2] Municipalities would have paid their share of the social service and health care expenditure to the region, and the regions would then "buy" the services from the producer units. It is clear that this kind of system would have been very complicated. Moreover, the Constitutional Law Committee of the Parliament eventually (in March 2015) rejected this plan for being unconstitutional, because the decision-making power of single municipalities was seen as being too small. This meant that the preparation of social services and health care reform was postponed to the next Parliament and government.

In the previous section the inter-ministerial relations and reorganisation within central government was discussed, and much what was said there applies also to social services and health care reform. But since this reform was led by the Ministry of Social Affairs and Health, the main focus of the reform was on equity issues and access to services. The efficiency aspects of the reform were secondary, despite the efforts of the Ministry of Finance.

From the "reform context" angle, the social services and health care reform suffered from the declining economic situation. Sure, this kind of a large scale reform would be much easier to "sell" to various stakeholders if the economic situation would have been better. However, the above makes clear that neither the economic situation nor the electoral mandate, although both weak, were not the main obstacles to the reform. The main problem was simply the poor preparation of the reform, as the reform plan was rejected three times by the Constitutional Law Committee of the Parliament, the highest

body in Finland to judge constitutional matters. The reform proposal was never brought to a vote in Parliament.

From the "timing and scope" angle, the reform clearly suffered from a lack of previous reform trials and a lack of piloting prior to the reform. The "pilots" that were available were applied in small and remote regions. For example, the Kainuu experiment consisted of municipalities that jointly had only about 90 000 inhabitants. Moreover, the proposed reform was quite different from the model that was experimented in the Kainuu region. Therefore, the reform plan was mostly based on expert opinions, assumptions of benefits of integration of social services and health care, and political reality. The bundling of social services and health care reform with the municipal reform was based on the "strong municipality model" but when this was rejected, the bundling became more of a burden than a benefit. There was no plan to sequence the reform in any way. The assumption was that the reform would have been accepted by Parliament by March 2015 so that the reform could have been in place in 2017. Since there were four years to accomplish this, it can then be argued that there was plenty of time to plan and execute the reform. The problem was that the proposal was altered several times during the process, which clearly hampered the preparation.

From the "reform designing process" point of view, the political leadership was less visible in the social services and health care reform than in the municipal reform. Moreover, the minister in charge of the reform changed in halfway of the term, in May 2013. The disagreements about the reform between the main government parties were visible in the media, which eroded the credibility of the government's leadership. Eventually, the problems in political leadership led to a situation where (since March 2014) the political steering of the reform process was transferred from the Ministry of Social Affairs and Health to a Parliamentary committee where all political parties were represented.

Along the reform process the financial incentives and compensation systems were not much discussed, because the planned system was so vaguely described that winners and losers were difficult to identify. A slightly embarrassing moment for the government was when a private consulting company, jointly with the Association of Finnish Local and Regional Authorities, published their own report in October 2014, while the official report was published two months later. Both reports revealed that changes in municipal tax rates resulting from the reforms (the joint effect of social services and health care reform and the grant system reform) would have been quite large. Based on this information, the opposition in the municipalities against the reform started to mount immediately.

Outside and independent expertise was used to a limited extent only during the process. The preparation was mainly done by civil servants in the Ministry of Social Affairs and Health, also the research institute under the ministry (the National Institute for Health and Welfare) provided support. The consultation of stakeholders was done thoroughly, as was also the case in the municipal reform. Some transitional arrangements were announced to ease the financial burden of the reform at the municipal level. The planning process of the reform was not transparent and open, probably because the preparation of the reform was done mostly by civil servants.

4.4. Grant reform

Until the grant reform in 2010, the line ministries had an important role in the grant system. Actually, Ministry of Education and Ministry of Social Affairs and Health ran their own block grant system. The Ministry of Finance was in charge of revenue equalisation and the general grant, which had a minor role in the grant system. The decentralised administration of the grant systems was problematic especially from a coordination point of view. Moreover, the system was almost impossible to reform, because each ministry was able to use the "right of veto" to prevent the implementation of each other's proposals for overall reform. Each ministry developed its own version of the grant system, which resulted, among other things, in a large number of separate grant criteria. Without coordination, the grant system evolved step by step, making the system complicated and non-transparent. Some grant criteria overlapped, resulting in excessive subsidisation. At the same time, the system was not adequately taking some cost factors into account.

The government started preparing a grant reform immediately after taking office in 2011. The preparation was concentrated in the Ministry of Finance. This was logical since the Ministry of Finance had been in charge of the so-called basic services grant since the previous reform in 2010. Therefore, the organisation of the reform was fairly straightforward. The ministry hired an ombudsman to lead the reform process, who was given resources to order research from external research institutes. The reform should make the system more transparent and simpler, and to make it as neutral as possible with respect to municipal mergers. The Minister of Local Government Affairs steered the reform politically, but also a ministerial group was being informed about the system. The ombudsman's report was agreed upon by the government in April 2014, the new law on the grant system was passed by Parliament in August 2014 and the law is in effect since the beginning of 2015. Compared to the other local government reforms reviewed above, the grant reform proceeded extremely smoothly.

The grant reform benefited from the fact that the Department for Local Government and Regional Administration of the Ministry of Finance alone had the responsibility for preparing the reform. Still, it is impossible to draw sound conclusions of causal effects without a counterfactual. There were also other factors that contributed to the reform success. They are discussed below.

As noted above in connection with the "reform context" approach, the economic and fiscal conditions were not optimal for the reform. Due to the recession, municipal tax revenue growth was declining since 2009 and central government made severe cuts to grants since 2012. The electoral mandate for a grant reform was not particularly strong either. Seen from these angles, the situation for grant reform was much the same as for the other reforms discussed in this paper. Unlike for the two other reforms, a majority was secured for the grant reform, because at the time it was voted in Parliament, the Green Party was still in the government. And its constitutional validity was never questioned.

Seen from the "timing and scope" angle, one may say that the reform clearly benefited from previously attempted reforms. The reform in 2010 was partial, because it did not alter the grant system as such. But it was important because the administrative responsibility of the grant system for basic services was shifted from the Ministry of Education and from the Ministry of Social Affairs and Health to the Ministry of Finance. This created momentum for a true grant reform to be started in 2012. The grant reform was voted in Parliament as a separate law, but it was partially bundled with the new Municipal Act. The new Municipal Act defined, among other things, the basis for new

fiscal rules for the municipalities. Therefore, the bundling of the grant law and the Municipal Act was important. There was no sequencing, but the reform agreement was reached rather fast.

Lastly, from the "reform designing process" angle, the political leadership was clearly in the hands of the Minister for Local Government and the Ministry of Finance. Financial compensation will be provided for municipalities during the first five years, which means that the reform will be fully in effect in 2020. Independent external expertise was used to prepare the reform, as the ombudsman was himself a retired municipal manager. Moreover, independent research institutes such as the National Institute for Health and Welfare and the VATT Institute for Economic Research provided statistical data and analysis. The reform was solely in the hands of the ombudsman and the civil servants of Ministry of Finance, where the final coefficients and formulas were defined. Although some of the new grant criteria were a bit too vaguely justified, the grant reform was a major step forward.

5. Summary and conclusions

Why was the grant reform a success and why did the municipal reform and social services and health care reform fail? There is no simple explanation. The grant reform shared many elements of successful local government reforms described in Blöchliger and Vammalle (2012). Firstly, the reform was a last step in a continuum of attempted (and failed) grant reforms. The decision makers had learned to know where the problems were, and they knew how the problems could be solved. The fact that a single ministry, the Ministry of Finance, was in charge of the reform improved the co-ordination of the project. The previous re-organisation of local government affairs in the central government enabled things to happen. The first step had been the decision in 2008 to transfer the Department for Local Government and Regional Administration from the Ministry of Interior to the Ministry of Finance. The second important decision was to concentrate the grant system administration in the Ministry of Finance. These measures together created the momentum for the grant reform and a good base for further reforms later on.

The municipal reform proposed by the government in 2011 was a very ambitious and a brave attempt for a "big bang" in Finland. The main problem of the reform was that during the whole time no political agreement could be reached that would have accomodated constitutional concerns. The bundling of the reform with the social service and health care reforms turned out to be a mistake both from the timing and the political leadership point of view. The reform was prepared by a small group of experts and civil servants, so the process was not very transparent. The stakeholders were heard very thoroughly but this seemed just to have accumulated resistance. For the moment, no one in Finland expects that a municipal reform will be on the agenda for the next government. Perhaps the best way forward is to strip the municipalities of the tasks that do not really belong to the municipal level.

The social service and health care reform had much in common with the municipal reform. The biggest mistake along the way was probably – again – the bundling with municipal reform. It looked as if the social service and health care reform was a pretext to push municipalities to merge. That constrained the reform unnecessarily into certain types of models that turned out to be complex and not applicable. The reform agenda is likely

to be tackled again after the elections. At the moment it seems that an intermediate level of government with taxing rights and elected decision makers will be a strong candidate.

Notes

1. The board or council of the joint municipal authority would consist of representatives nominated by the member municipalities.
2. A model whereby grants would flow directly to the five regions was also discussed. In addition, a special fiscal rule model was introduced with the aim that the reform would not result in a considerable increase in spending. The discussion of the fiscal rules model that was planned by Ministry of Finance, however, is beyond the scope of this chapter.

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Chapter 10

Intergovernmental co-ordination of fiscal policy in Switzerland

Fabienne Marti Locher, Peter Mischler, Werner Weber

This chapter describes fiscal co-operation institutions in Switzerland, which go beyond traditional vertical top-down co-ordination. Switzerland is an example of intergovernmental co-ordination of fiscal policy in a highly decentralised country. The country is characterised by a highly fragmented structure of sub-national entities. The cantons (state level) have significant policy, organisational and financial autonomy. Due to the fragmented structure and considerable autonomy, vertical co-operation between the federal and cantonal levels as well as between the cantonal and municipal levels is indispensable. This co-operation is based on the following elements: independent financing of cantonal tasks, fiscal equalisation between financially strong and weak cantons, as well as fiscal assistance between the federal and cantonal levels. In this respect, the role of vertical co-ordination of stabilisation policy and particularly of debt policy is limited. Horizontal co-operation is based mainly on inter-cantonal agreements and conferences.

Introduction

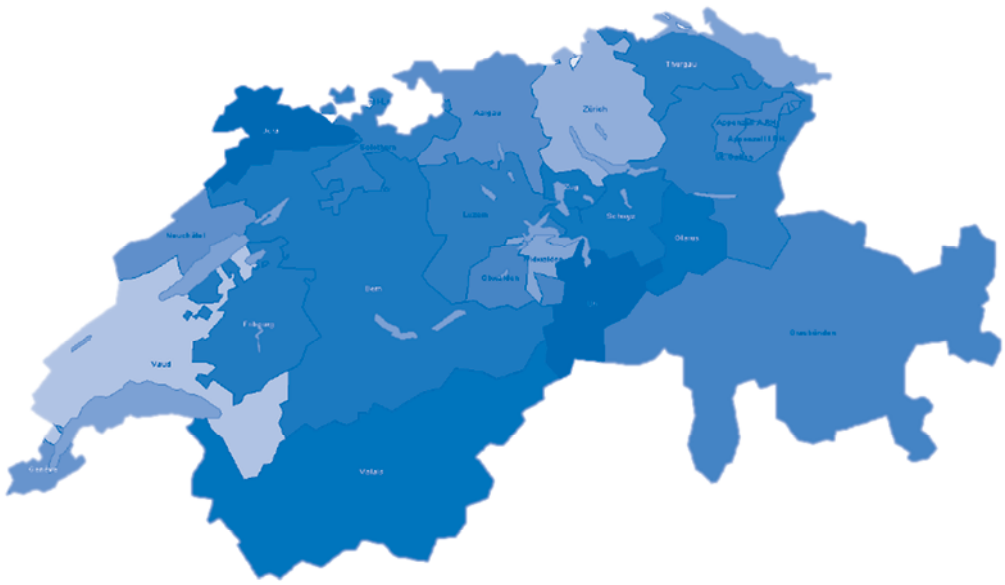
Switzerland is a small country with a fragmented territorial structure. The country is constitutionally a federation: the Confederation represents the central level of government, the 26 cantons represent the regional level and the 2 352 municipalities the local level of government. Since early on, diversity has been an issue for Switzerland as a nation state. Aspects such as language, religion and economic perspectives varied significantly in the different parts of the country. Generally, socio-economic and cultural boundaries – or functional areas – have not coincided with the territorial structure of the cantons. Simple ratios for some basic indicators provide a first impression:

- The area of the canton of Graubünden is 192 times larger than the smallest canton of Basel Stadt.
- The population of the canton of Zurich with 1.41 million inhabitants is nearly 90 times higher than the population of Appenzell Innerrhoden with only 15 771 inhabitants.
- GDP per capita in the canton of Basel Stadt is around 3.2 times higher than in the canton of Uri.
- The tax burden on a household income of CHF 100 000 for a married couple with two children is 5.8 times higher in the canton of Neuchâtel than it is in the canton of Zug.

The disparities between the cantons in taxable resources can be illustrated by their resource potential. This reflects taxable value creation in the cantons and consists of the taxable income and assets of natural persons and the taxable profits of legal entities. Figure 10.1. shows the resulting resource index, which is based on the cantonal resource potential per capita compared to the corresponding Swiss average.

Figure 10.1. Resource potential of cantons

Resource index, 2014



Source: Federal Finance Administration (2015a).

There is a long history of differences and disparities between cantons with regard to taxation and public service provision, and they are generally accepted up to a certain extent. The fragmented structure is considered to provide beneficial effects. The classical arguments are well known from the economic literature on fiscal federalism (with classic authors like Musgrave (1959), Tiebout (1956) and Oates (1972)) and apply in many ways to the realities in Switzerland: federal systems of government respect the heterogeneous preferences of the various regional constituencies for a better link between taxation and public service provision; federal systems may allow for greater accountability for government activity at the respective levels of government; and federalism serves as a laboratory for public policy innovation. Swiss fiscal federalism exhibits idiosyncratic institutional features:

- Direct democracy plays an important role at each level of government. Referenda and popular initiatives are possible on legislative matters as well as – in the cantons – on budgetary issues (financial referenda). Typically, direct democratic involvement increases at lower levels of government.
- Fiscal equalisation (equalization of fiscal resources and expenditure needs) provides a basic level of intergovernmental equity. Fiscal disparities occur at each level of government. Therefore, equalisation schemes are in place at the federal as well as at the cantonal level.
- The hard budget constraints at the sub-national level of government play an important role in Swiss fiscal policy. Non-bailout provisions and fiscal rules are crucial instruments in this respect.

Co-operation among the cantons and between the cantons and the Confederation is indispensable for overcoming problems of fragmentation and providing public services

effectively.[1] This paper aims at examining the different means of intergovernmental co-ordination of fiscal policy and their effects on the socio-economically diverse country of Switzerland. We will focus on the regional level of government and address issues of local governments only cursorily.

We will describe first the constitutional framework of Swiss fiscal federalism with its strong principle of autonomy of the cantons (Chapter 2). Second, we will examine the main elements of vertical co-operation, in particular financial solidarity, financing of administrative implementation, fiscal equalisation and the question of a bail-out in the event of cantonal insolvency (Chapter 3). The principles of horizontal co-operation are outlined in Chapter 4. Based on the strong cantonal autonomy, the Confederation and the cantons have independent legislation and instruments of debt policy which are discussed in Chapter 5. Chapter 6 follows with an overview of the co-ordination of stabilisation policy between the Confederation and the cantons. Finally, the last chapter provides conclusions.

Swiss fiscal federalism and its constitutional framework

Principles of subsidiarity and of fiscal equivalence

The principle of subsidiarity and the principle of fiscal equivalence were the guidelines for the re-assignment of responsibilities during an important federalism reform in 2008 (New system of fiscal equalisation and division of tasks, NFE).[2] Pursuant to the principle of subsidiarity, competences are vested at the cantonal level and can only be transferred to the Confederation when the lower level is no longer able to provide a service "efficiently" (Art. 5a Cst).[3] According to the principle of fiscal equivalence, beneficiaries, providers of funds and decision-makers of a public service should coincide in order to avoid externalities and therefore causing over- or under-provision of public services (Art. 43a Cst). These principles are stated in the constitution and also apply to future tasks and responsibilities. Even though intuitive and convincing in theory, they may still be difficult to implement in practice. The assignment of responsibilities is hardly ever possible from scratch but often dependent on an existing service provision. Therefore, a strict separation of responsibilities is often not possible. There may be also additional goals other than economic efficiency for public service provision, an example of which is equity. A survey on the principles of the NFE investigated the compliance of newly introduced tasks with the principles of subsidiarity and fiscal equivalence and with the organisational and financial autonomy of the cantons (Conseil fédéral, 2014b). Though the survey found that the principles were widely complied with, it also found a certain tendency towards centralisation.

Cantonal autonomy

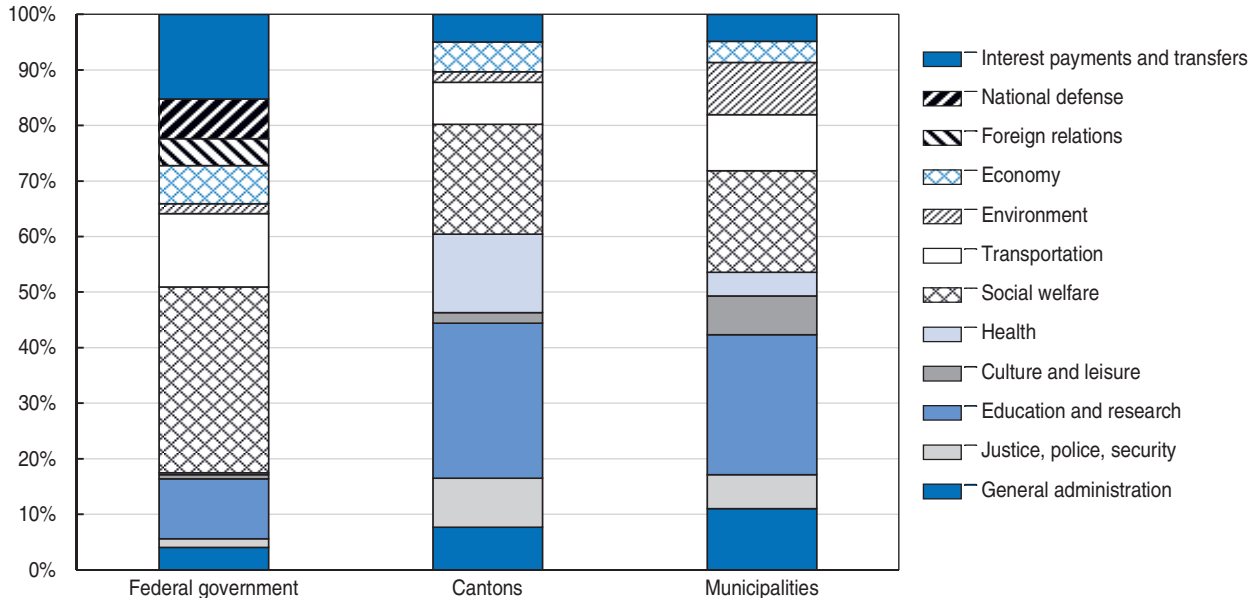
Swiss cantons enjoy far-reaching autonomy. The Constitution grants the cantons organisational autonomy, autonomy in the determination of their tasks as well as financial autonomy (Art. 47 para. 2 Cst).

Organisational autonomy means that the cantons have the freedom to determine their statutory framework, particularly the legal form, the political system and the administrative procedures of government bodies (Tschannen, 2011). Therefore, the cantons are free to determine the powers of government/administration, parliament and the judiciary. However, the principle of separation of powers is protected at the cantonal

level by the Federal Supreme Court (Decision of the Federal Supreme Court, 131 I 291, E. 2.1).

The autonomy to determine tasks obliges the Confederation to leave the cantons sufficient tasks of their own (Art. 47 para. 2 Cst). It grants the cantons the freedom to define, design and implement their tasks (Art. 43 Cst, Tschannen, 2011). The cantons are sovereign except to the extent that their sovereignty is limited by the Federal Constitution (subsidiary general competence, Art. 3 Cst). The competences of the Confederation are explicitly defined in the constitution (Art. 42 Cst). All tasks not assigned to the Confederation remain with the cantons (residual cantonal power). Only very few policy areas fall exclusively under the competences of the Confederation.[4] The Constitution also provides for shared competences between both the Confederation and the cantons. Figure 10.2 shows the structure of expenditure at the federal, cantonal and municipal levels.[5]

Figure 10.2. Structure of expenditure, 2012



Source: Federal Finance Administration (2015b).

As a result, the Swiss federal system entails manifold co-operation:

- Vertical co-operation between the cantons and the Confederation (e.g. social security)[6] as well as between the cantons and the municipalities (see Chapter 3);
- Horizontal co-operation among the cantons – and among the municipalities – without the involvement of the Confederation (e.g. universities,[7] see Chapter 4).

Autonomy to determine tasks must include financial autonomy. A government unit cannot fulfil its tasks without equivalent funds. The cantons may determine their revenue and their taxes provided they are not assigned to the Confederation (Art. 3 Cst). In principle, the cantons are completely autonomous to levy taxes insofar as the federal level is not competent.[8] The Confederation is only allowed to exploit a tax base that is explicitly defined in the constitution. In order to change the set-up, an amendment of the constitution with a mandatory popular referendum is required.

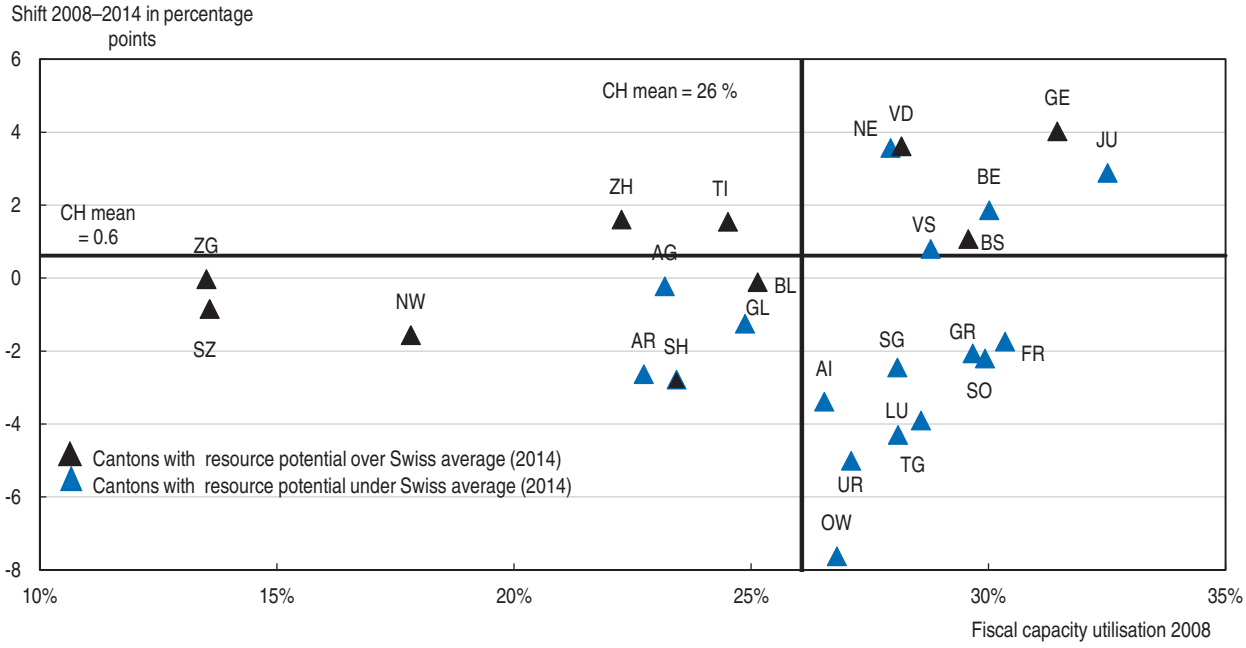
Indirect taxation is essentially a federal task. In particular, value added tax (Art. 130 Cst) is an important revenue source for the Confederation.[9] Value added tax, special consumption taxes, stamp duty or withholding tax cannot be levied by the cantons (Art. 134 Cst).

Direct taxation is a shared competence of the three levels of government (Art. 127 Cst,). The Confederation levies a direct federal tax on personal income and business profits. The cantons and municipalities can tax individual income and wealth as well as corporate profits and capital.

The cantons have a high degree of autonomy with regard to their direct taxes (see the international comparison of sub-central tax revenue in Blöchliger and Nettley (2015)). They are free to set their tax rates, deductions and the progression of the tax scale according to their preferences. Fiscal capacity utilisation[10] has grown only marginally since 2008 (Figure 10.3). However, it has risen in particular in cantons with an above-average fiscal capacity utilisation which has led to increased disparities (Conseil fédéral, 2014a).

Figure 10.3. Shift in fiscal capacity utilisation

2008–14



Source: Conseil fédéral (2014a), p. 81.

The autonomy and competences of the municipalities are guaranteed in accordance with cantonal law. They can generally levy a percent surtax on the cantonal tax. Direct taxation is mainly administered at the cantonal level.

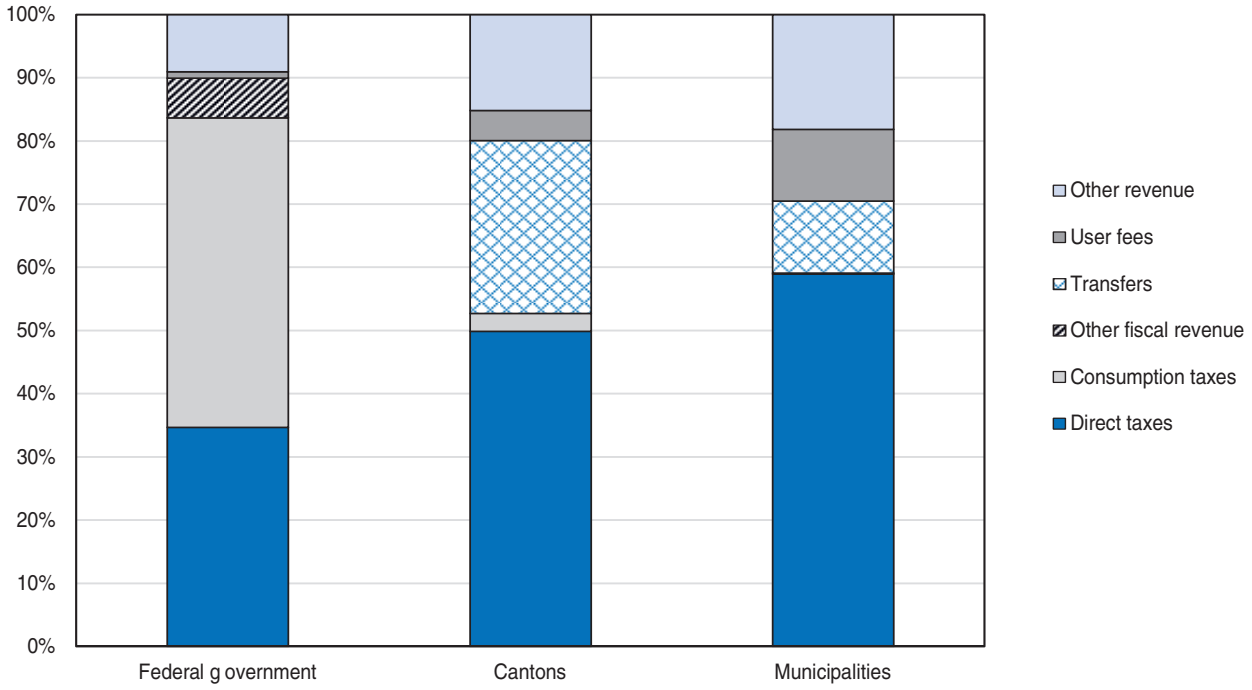
Direct federal income tax is administered and collected by cantonal tax authorities. The revenue is transferred to the Confederation afterwards. The cantons keep 17% of the revenue from direct federal income tax on their territory. This amount can be regarded as

a revenue sharing scheme and is a form of compensation for the cantons in return for their tax administration efforts.

Since the different levels of government have significant leeway to use their fiscal autonomy with regard to direct taxation, large-scale revenue sharing schemes are not necessary in Switzerland. Each level of government is responsible for the financing of public services using their fiscal autonomy (see structure of revenue in Figure 10.4).[11] However, there may be equity concerns in such a system, as is the case in Switzerland too. This aspect is addressed in the equalisation system, described in the next section.

Figure 10.4. Structure of revenue

2012



Source: Federal Finance Administration (2015b).

Principles of vertical co-operation

Solidarity between the Confederation and the cantons

Federal states have to find a balance between autonomy of sub-national entities on the one hand and joint responsibility on the other hand. In Switzerland, the far-reaching autonomy of the cantons is complemented by co-operation between the Confederation and the cantons. They have to support each other in the fulfilment of their tasks (Art. 44 para. 1 Cst).[12]

Administrative implementation

The administrative implementation of federal law is the responsibility of the cantons to a large extent. Article 46 paragraph 1 of the Constitution states that "the cantons shall implement federal law in accordance with the Federal Constitution and federal legislation." The federal level must avoid over-regulation and allow the cantons to adopt

different approaches in their implementation of federal law (Art. 46 para. 3 Cst). In principle, the cantons are not entitled to compensation for the administrative duties they are assigned by federal legislation. Nevertheless, there is usually a political debate about the financial impact of a new federal law on the cantonal budgets and the possibility of the Confederation granting compensation.

The NFE has institutionalised new approaches in the implementation of federal law; the Confederation and the cantons have the option of implementing programmes that receive financial support from the federal level (Art. 46 para. 2 Cst). Where possible, these programme agreements should replace input-oriented subsidies with output- or outcome-oriented transfers based on a service level agreement.

Fiscal equalisation

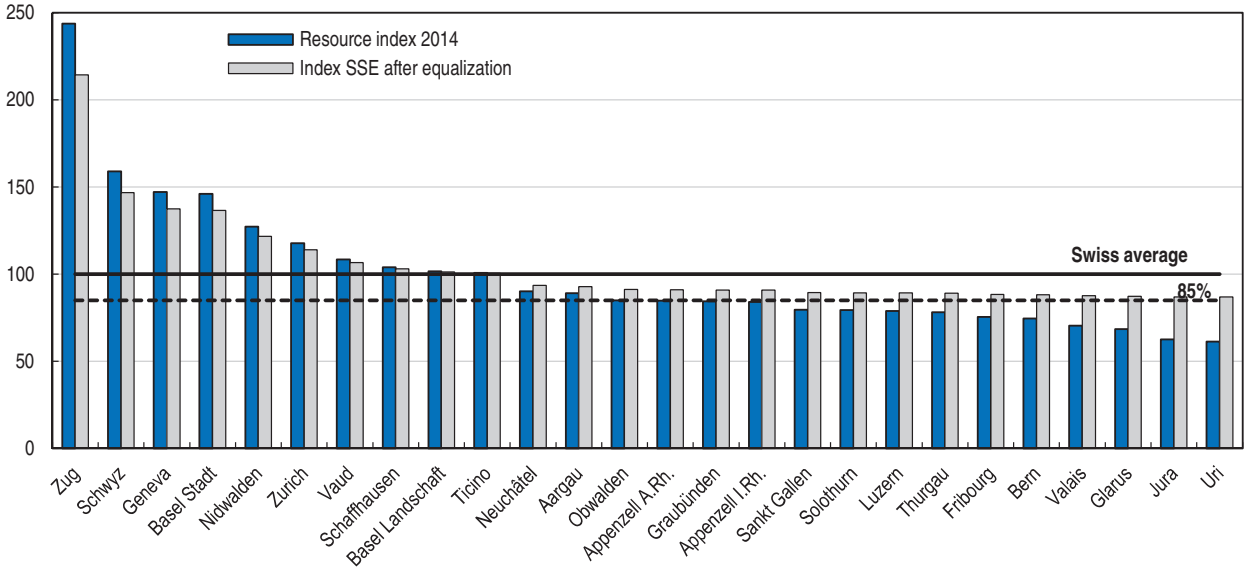
The cantons' dependence on specific grants and subsidies from the Confederation has always been an important issue in Switzerland. Since the Confederation and the cantons have several joint responsibilities, there has been a large variety of conditional and matching grants for the cantons in the past. Generally, these transfers were adjusted to the financial capacity of the cantons. Relatively poor cantons used to receive higher grants than rich ones. The NFE reform of 2008 has reduced the matching grants and increased unconditional equalisation grants.

The new equalization scheme serves to reduce the differences in financial capacity among the cantons and to guarantee them a minimum level of financial resources (Art. 135 para. 2 Cst). The equalisation funds are provided by the Confederation and by those cantons with a higher level of resources (Art. 135 para. 3 Cst).

The equalisation system does not aim at a total fiscal equality but for convergence in terms of a comparable level of public services at comparable tax burdens (Art. 43a para. 4 Cst) and therefore takes into consideration cantonal autonomy (Wiederkehr, 2008). The aim is for all cantons to have a resource index of at least 85 index points (Art. 85 para. 3, FECCA,[13] Figure 10.5).

Figure 10.5. Equalization effect in resource equalization

Resource index before and after equalization, 2014

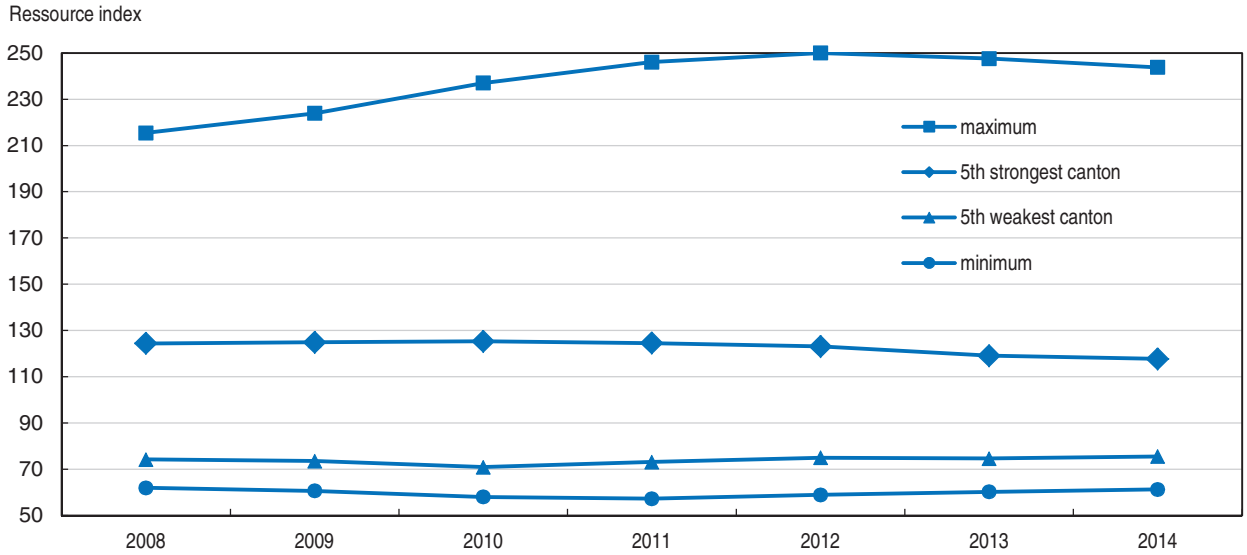


Source: Federal Finance Administration (2015a)

Figure 10.6. shows the highest (canton of Zug) and lowest resource indices (canton of Uri) over the 2008-14 period. While disparities increased up to 2012, they have been declining since then. In comparison, the range between the 20 and 80% quantile diminished. Disparities are essentially attributed to the dynamic development of the cantons of Zug, Schwyz and Basel Stadt in this period (Conseil fédéral, 2014a).

Figure 10.6. Range of the resource index

2008–14



Source: Conseil fédéral (2014a), p. 69.

Financial assistance beyond fiscal equalisation?

Neither the Federal Constitution nor federal legislation contain specific provisions on insolvency or an insolvency code. The insolvency of a canton would be handled in accordance with the general Federal Act on Debt Enforcement and Bankruptcy.[14] In the event of cantonal insolvency, the question is whether the federal level would be obliged to bail out a canton even in the absence of provisions on the assumption of debt or the assumption of liability.

Neither legal doctrine nor the judicature has answered this question definitely. The legal doctrine does not derive a duty to provide assistance in case of a budget crisis from the partnership article (Art. 44 Cst; specifically the principle of loyalty to the Confederation ["Bundestreue"]) or from the duty of disclosure (Art. 52 para. 2 Cst; see Marti Locher [forthcoming]). Furthermore, the Federal Supreme Court has indicated in the case of an insolvency of a municipality (Leukerbad), that there are no statutory provisions in federal law on bailing out cantons for the liabilities of municipalities insofar as they do not ensue from cantonal law.[15] This decision would appear to indicate that there would be no bailout of a canton by the federal level either (cf. Spielmann 2011, p. 126). This view is supported by the cantons' strong fiscal autonomy, particularly their taxation power.

Principles of horizontal co-operation

A main component of horizontal fiscal co-operation is the fiscal equalisation scheme which is co-funded by the cantons with a high level of resources (see above). Furthermore, horizontal fiscal co-operation consists of inter-cantonal agreements and institutions which are not purely financial in nature. Due to the fragmentation of the Swiss cantons, co-operation is considered to be more intensive than in other federal states (Bochsler, 2009). Inter-cantonal agreements are possible through legal relations (treaties or legislation) or inter-cantonal institutions for the joint fulfilment of tasks of regional importance (see Art. 48 para. 1 Cst). There are about 760 inter-cantonal treaties – known as concordats – in force (2006; Bochsler 2009, 358). Inter-cantonal institutions comprise 16 conferences of cantonal directors (cantonal ministers) and the conference of the cantonal governments. These institutions represent important formal and informal settings for policy co-ordination. In particular, the Conference of the Cantonal Directors of Finance aims at co-ordinating the cantons' horizontal and vertical relations in fiscal and public finance matters.

However, competitive federalism (Weingast, 1995) still plays an important role, especially in the area of cantonal tax and fiscal policy (Feld, 2010; Kellermann, 2007). Policy co-ordination often requires rather high incentives or even enforcement (IMF, 2006). For this reason, the NFE reform introduced a new instrument for the further development of inter-cantonal co-operation: The Confederation may declare inter-cantonal agreements to be generally binding or require cantons to participate in such agreements in nine specific policy areas (Art. 48*a* para. 1 Cst).[16] These new instruments address concerns about fragmentation of the cantons and allow institutional congruence in fields of regional interest (Schnyder von Wartensee, 2013).

No co-ordination of debt policy

In federal states, fiscal sustainability is determined by joint debt levels (Blöchliger et al., 2013). Figure 10.7 shows the debt level of the Confederation, the cantons and

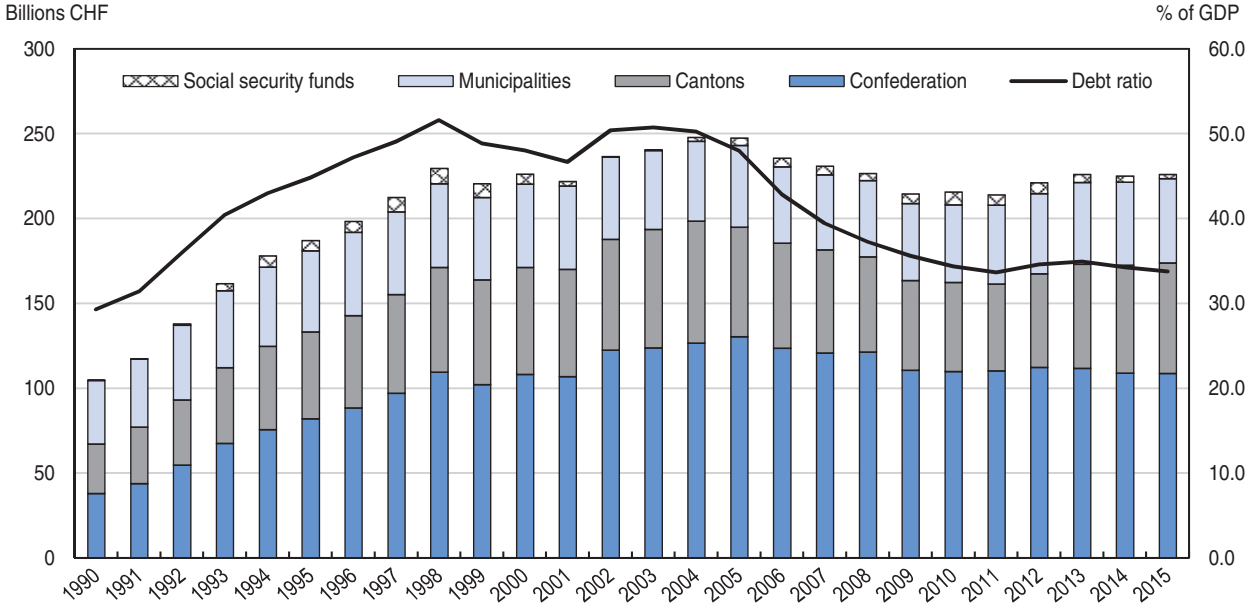
municipalities as well as social security funds for 1990–2014. The cantonal and, most notably, the federal level exhibited an increasing level of debt in the 1990s which continued until 2004. Descending, ascending or horizontal externalities can lead to higher interest rates, uncertainty of financial markets and higher costs of debt (Blöchliger et al., 2013). Furthermore, the possibility of a bailout may weaken the perception of hard budget constraints at the sub-national level (IMF, 2006).

In Switzerland, determining the cantonal debt level is a component of cantonal financial autonomy. As has been shown above, federal legislation provides no explicit legal basis for assistance in the event of a budget crisis. Cantons are reliant on the capital market for their financing activities (bond issues and bank credit). Therefore they are keen on achieving a high rating by credit institutions. Fiscal rules play an important role here in the perception of the cantonal fiscal policy concerning their financial standing.

The Confederation and most of the cantons have institutionalised fiscal rules, the majority of which were introduced as a result of growing debt since 1990.

Figure 10.7. Gross debt ratio of general government

1990–2014



Source: Federal Finance Administration (2015c).

Federal fiscal rule

The federal level implemented a fiscal rule, called "debt brake", in 2001. In the medium term ("over time"), the Confederation shall maintain its income and expenditure in balance (Art. 126 para. 1 Cst). Annual expenditure is limited to the expected income corrected by an adjustment factor (Art. 126 para. 2 Cst). This factor is derived from the output gap of the economy (see Geier 2011, for the method). If the limit is exceeded, it has to be accounted for in a compensation account (Art. 17 FBA). Exceptions to the rule can be justified by extraordinary financial requirements (Art. 126 para. 3 Cst). These are associated with a procedural increase in the majority requirements in the adoption of such exceptions and have to be compensated later on (see Art. 17a FBA).[17]

Cantonal fiscal rules

Almost all Swiss cantons have institutionalised fiscal rules in their legislation. Due to far-reaching cantonal autonomy, these are self-imposed. In 1929, the Canton of St. Gallen became the first canton to introduce a fiscal rule, followed by the Canton of Fribourg in 1961. The rest of the cantons introduced rules in the 1990s or since 2000. The following analysis is based on the taxonomy of the cantonal debt brakes by Marti Locher (2015).

The types of numerical fiscal rules adopted vary across cantons. All cantons – except for the Canton of Appenzell Innerrhoden – have some form of *balanced budget rule* (annual, multi-annual or medium-term budget balance).[18] They are often combined with *expenditure rules*, *revenue rules* or *debt rules*. The complexity of the system of rules differs considerably across cantons. In many cases they are supplemented by procedural rules which restrain the competence of the parliament. There are no patterns in the design of these rules. Each canton has its own combination of rules.

Fiscal rules should be responsive to cyclical fluctuations (OECD, 2014). The Constitution obliges the cantons to take the economic situation in their revenue and expenditure policies into account (see Chapter 6). Seventeen cantons take the state of the economy into account, and the design of numerous cantonal rules takes into account cyclical developments. The majority of the balanced budget rules allows flexibility by way of the medium-term nature of the rules. Few involve the economic cycle by way of exceptional rules[19] or instruments for the accumulation of reserves (e.g. rainy day funds).[20] All cantonal rules are based on the fundamentals of primary law (cantonal constitution or legislation) and are of a permanent nature.

Cantonal procedural rules mostly concern majority requirements for exceptions to the numerical rules or changes in expenditure or revenue in the parliamentary budget process. The Canton of Fribourg has a strong procedural rule which grants the government and the finance and control committee a right to veto a reduction of revenues. In many cantons, the parliaments are restricted by referenda on budgets not complying with the numerical rules, changes in taxes or an increase of public debt. All cantons, except the Canton of Vaud, hold financial referenda (referenda on new expenditure above a certain threshold).[21] In three cantons, voting rights are restricted too. In these cantons, budget consolidation measures (Vaud and Geneva) or initiatives (Valais) are taken to address spending over-runs by corresponding tax increases or consolidation measures.

The enforcement of cantonal fiscal rules consists mainly of rules which stipulate that a deficit must be reduced. There are other combinations of rules, particularly an enforcement through revenue rules (mandatory tax increases). Each canton has an audit office which conducts independent audits but which does not, however, supervise the adequacy of decisions (Buser, 2011). Only two cantons – the cantons of Vaud and Geneva – have institutionalised courts of auditors.[22]

The effectiveness of cantonal fiscal rules has been the subject of several empirical analyses. The main contributions are Feld et al. (2013), Luechinger and Schaltegger (2013), Yerly (2013), Feld and Kirchgässner (2008), Krogstrup and Wälti (2008), Kirchgässner (2004), Schaltegger (2003) and Feld and Kirchgässner (2001). They deduce mostly a significant effect of fiscal rules either on debt, deficits, spending or risk premium.[23]

Long-term fiscal sustainability

Social security costs account for an important share of government spending. Demographic developments crowd out other public expenditure. Current assessments of the long-term fiscal perspective for Switzerland estimate a debt ratio of 131% of GDP for the year 2060 as a result of demographic pressures on public households (see Federal Department of Finance, 2012; Federal Finance Administration, 2008). The cantons have, however, limited responsibility for social security costs: since the reform of the fiscal equalisation system and the redistribution of tasks, the cantons no longer contribute to the old-age and disability pension funds.[24] However, they have to bear part of the health care cost in the form of subsidies for health-care insurance and hospital financing.

Coordination of stabilisation policy

Macroeconomic stabilisation and redistribution should in general be the tasks of the national level (IMF, 2006). Additional sub-central stabilisation policy depends on the country's institutional arrangements and the degree of autonomy of sub-central governments (Blöchliger et al., 2010).

The competence to take measures to achieve a balanced economic development is assigned to the federal level (Art. 100 para. 1 Cst; federal competence with retroactive exceptions). The cantons are involved in such active measures because of the duty of the Confederation to co-operate with the cantons (Art. 100 para. 2 Cst). In addition, all levels of government are committed to taking the economic situation into account in their revenue and expenditure policies (Art. 100 para. 4 Cst).

The fiscal rule at the federal level takes economic fluctuations into account. The calculation of the maximum amount for the expenditure ceiling takes capacity utilization – or the output gap – into account. Yet the federal level imposes no fiscal rule on the cantons and does not sanction them if they breach their own rules (Biaggini, 2007). It leaves the cantons the freedom to respond to economic fluctuations using discretionary measures or to rely on automatic stabilisers. The legal doctrine has not yet answered the question of whether cantons are forbidden to act pro-cyclically with the sole aim of balancing the budget.

Not all cantons meet the obligation of Article 100 paragraph 4 of the Federal Constitution explicitly. Some include a principle in the cantonal constitution or legislation; some provide for a specific regulation on their fiscal rules or exceptions to the rules; some fiscal rules set a medium-term target which produces a similar effect (see Chapter 5). Up to now, the cantons largely abstained from inter-cantonal co-ordination in the field of stabilisation measures (Conseil fédéral, 2009). There is no formal institutional setting for the vertical co-ordination of stabilisation policy between the Confederation and the cantons.

Stabilisation measures are estimated at a total of CHF 8.27 billion for the year 2009 and 7.06 billion for the year 2010 (Conseil fédéral, 2009). They consisted of impulses by the federal (CHF 1.88 and 1.43 billion) and by the cantonal/municipal level (CHF 3.59 and 2.73 billion) as well as by a contribution of the unemployment insurance of CHF 2.80 and 2.90 billion. As such cantons and municipalities bore about 40% of overall stabilisation measures (Conseil federal, 2009).

Empirical analyses are not coherent in the assessment of the cyclical orientation of Swiss fiscal policy (Frey, 2007; Lampart, 2005; Schaltegger and Weder, 2010; Ammann, 2002; Frick, 2012). Most authors find a rather pro-cyclical fiscal stance.

Conclusions

Intergovernmental co-ordination of fiscal policy in Switzerland is characterised by the far-reaching autonomy of the cantons. This autonomy gives the cantons extensive policy discretion for the determination of their tasks and fiscal policy. Formal co-ordination is mainly limited to financial compensation within the scope of fiscal equalisation. Cantonal budget procedures underlie no specific co-ordination. Macroeconomic stabilisation policy mainly relies on the automatic stabilisers and is therefore subject of limited co-ordination. Debt policy is the responsibility of each jurisdiction. The lack of an explicit no-bailout clause in existing legislation creates uncertainty about the insolvency of cantons, which might lead to a debt bias.

Fiscal policy co-ordination between the Confederation and the cantons is necessary in several areas of public service provision. There are a number of vertical and horizontal formal or informal co-ordination mechanisms. The fiscal performance especially in terms of aggregate public debt is encouraging both at the federal as well as at the cantonal level. As such, there is no apparent need for additional fiscal institutions.

Notes

1. Amalgamations and the redesign of boundaries may also be an instrument to address co-ordination issues particularly at the local level of government. We do not, however, elaborate on cantonal mergers since they are largely irrelevant for political reasons.
2. Dispatch of 14 November 2001 on the reform of fiscal equalisation and the division of tasks between the Confederation and the cantons (Federal Gazette, 2002.
3. Federal Constitution of the Swiss Confederation of 18 April 1999 (RS 101).
4. For example, foreign relations (with some reservations concerning the cantons in Art. 54 and 55 Cst), armed forces (Art. 58 Cst) and monetary policy (Art. 99 Cst).
5. The total amount of spending (CHF 190.1 billion) is composed of 61.7 billion at the federal, 83.2 billion at the cantonal and 45.1 billion at the municipal level.
6. While public old-age and disability pension schemes are organised at the federal level, social aid for the poor is exclusively financed at the local level.
7. Universities are generally cantonal institutions with inter-cantonal funding schemes.
8. This is limited by fundamental rights (Art. 7 ff. Cst), federal law (Art. 49 Cst), inter-cantonal law and prohibition of inter-cantonal double taxation (Art. 48 para. 1 Cst and Art. 127 para. 3 Cst respectively), international law (Art. 54 para. 1 Cst) and tax harmonisation (Art. 129 Cst).
9. For instance, motor vehicles are taxed at the cantonal level.

10. Fiscal capacity utilisation is the total fiscal revenue relative to the total taxable value creation.

11. The total amount of revenues (CHF 187 billion) is composed of the federal (64.8 billion), cantonal (79.1 billion) and the municipal revenues (43.1 billion).

12. The Confederation in particular coordinates the financial planning (19 para. 3, FBA) and works towards achieving harmonised accounting standards at the Confederation, cantonal and municipal level (Art. 48 para. 4, FBA).

13. Federal Act of 3 October 2003 on Fiscal Equalisation and Cost Compensation (RS 613.2).

14. Federal Act of 11 April 1889 on Debt Enforcement and Bankruptcy (RS 281.1).

15. Decisions of the Federal Supreme Court 2C.4/2000, 2C.5/1999, 2C.4/1999 and 2C.1/2001 of 3 July 2003 in the case of the "Munizipalgemeinde Leukerbad".

16. These fields are: execution of criminal penalties and measures; school education; cantonal institutions of higher education; cultural institutions of supra-regional importance; waste management; waste water treatment; urban transport; advanced medical science and specialist clinics; institutions for the rehabilitation and care of invalids (Art. 48a para. 1 lit. a-i Cst.).

17. Federal Act of 7 October 2005 on the Federal Financial Budget, RS 611.0.

18. 15 fiscal rules provide for an annual balance (see Marti Locher, 2015).

19. Cantons of Fribourg, St. Gallen, Aargau, Ticino, Valais.

20. Cantons of Bern, Basel Landschaft, St. Gallen, Grisons, Aargau, Ticino, Geneva.

21. In the canton of Vaud, however, legal acts with new expenditure are submitted to the general referendum.

22. There are no fiscal councils in Switzerland.

23. See Kirchgässner (2013).

24. Old-Age and Survivors' Insurance and Disability Insurance.

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Chapter 11

The budgetary policy framework in Sweden and its implication for intergovernmental fiscal relations

Hans Nyström

This chapter provides an overview of the Swedish budgetary policy framework with special attention to the local level. The financial crisis that hit the Swedish economy in the early 1990s was a trigger for several political and structural reforms. The reform of the budgetary policy framework, which is part of the fiscal framework, had a great impact on the central and local level. The reforms had large support from society and during the last financial crises starting in 2008 support grew even stronger together with a lot of international recognition. For the local level the balanced budget requirement is the anchor. There are no sanctions involved if budgets are not balanced but most municipalities and county councils have reached the target. During the last years the central government surplus target has been hard to reach and a debate has started to change it to a balance target.

1. The local government sector in Sweden

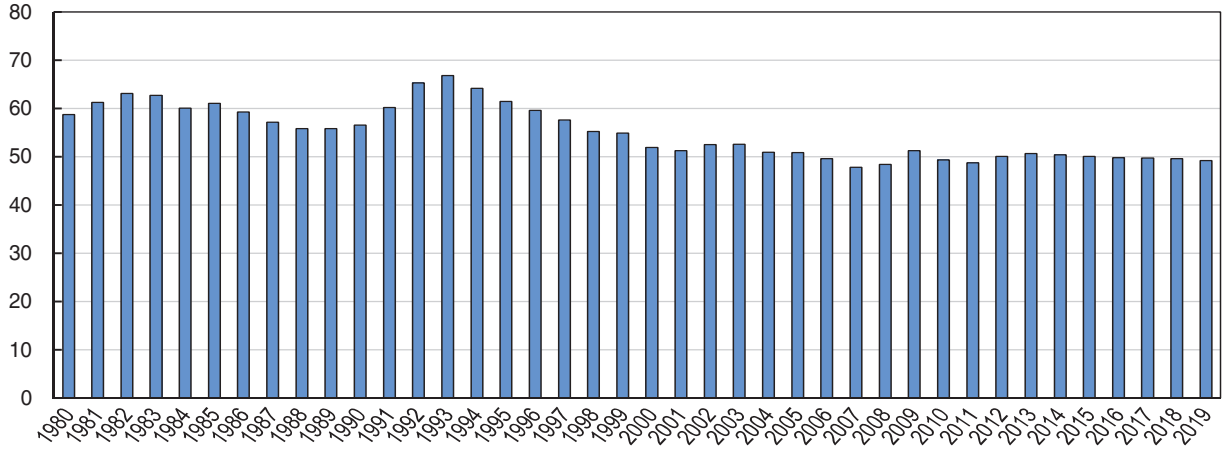
Sweden is divided into 290 municipalities and 20 county councils/regions and they play an important role in carrying out welfare services. There is no hierarchical relationship between municipalities, county councils and regions and they have the right to levy their own taxes. Local and regional self-government is an important element in the democratic system and is written into the Swedish Constitution. Self-government has a long tradition going back as far as 1862. Most of the tasks of municipalities and county councils are regulated in special legislation (e.g. the Social Services Act and the Health and Medical Services Act). The Swedish public sector measured by spending in relation to GDP is over 50% and the major part is carried out by local government. The local government sector employs roughly 25% of the total workforce in Sweden, a majority of them women.

2. Don't waste a good crisis

The level of public expenditure is high today but it has been even higher in the past. When the financial crisis in the early 1990s hit, the expenditure level was around 70% of GDP (Figure 11.1). The crisis was the result of an overheated economy, a fixed exchange rate together with high inflation and a bubble on the real estate market.

Figure 11.1. Public sector expenditure

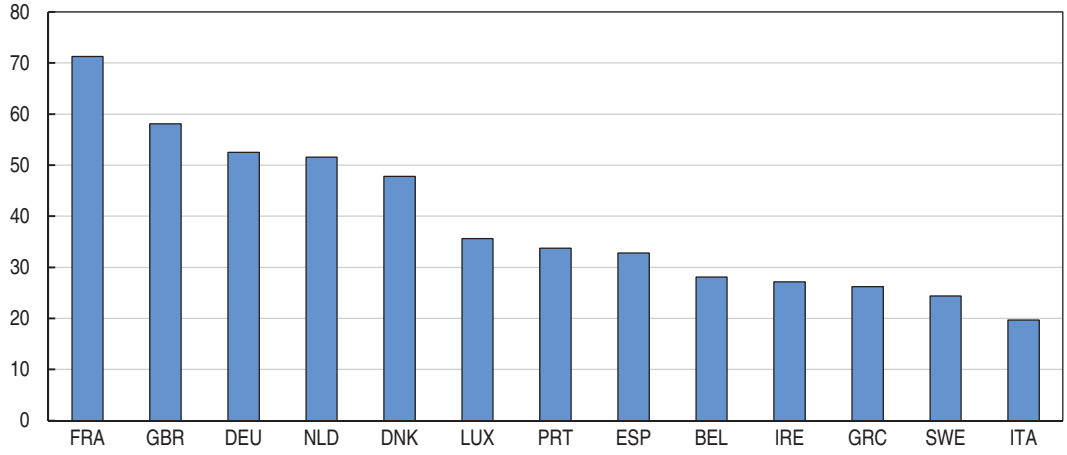
In per cent of GDP



It was clear to the civil servants in the Ministry of Finance that the problem to solve was how to control public spending when the economy was in good shape. One important piece for the new fiscal framework was a study published in 1992 comparing the budget frameworks in different European countries. (Molander, 1992). In the report the budget processes for the 12 member states of the European Union and Sweden was benchmarked. The report showed that Sweden had a weak budget process in line with Greece and Italy. The study and the recommendations had a major impact on the new budgetary policy framework (Figure 11.2).

Figure 11.2. Structural index of the strength of the budget processes

1992

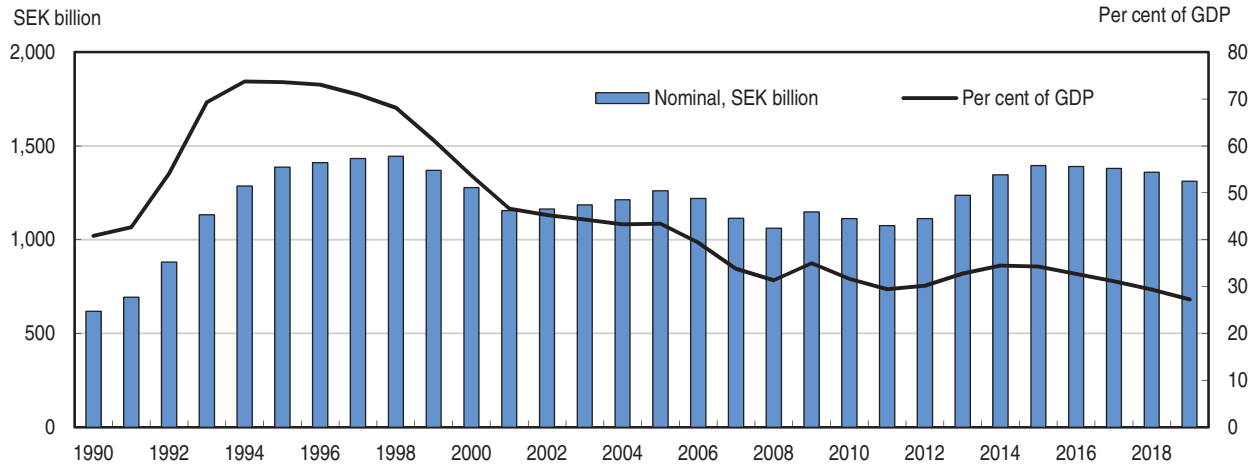


During and after the financial crisis reforms to strengthen the economy and structural reforms were easy to pass because everyone was aware of the severity. Apart from the financial framework, the pension system, the tax system, central bank independence and competition legislation were reformed and Sweden soon became a member of the European Union.

At the local level several structural reforms were launched during this period but they did not get the same attention as other reforms. One reform concerned the merger of several costly earmarked grants into a general grant together with a new equalisation system for both tax raising capacity and structural costs. This reform gave the local level an opportunity to spend more freely but also reduced income disparities across local governments. A school reform opened the opportunity for private schools to compete with public schools with public financing. This reform is now under debate because of poor school results, and the number of earmarked grants has increased. At the same time the local level had to downsize as a result of cuts in state grants which was part of the fiscal consolidation programme 1994-1998.

The fiscal consolidation programme and the fiscal policy framework have been successful in getting central government debt down from over 70% of GDP in the mid-1990s to around 35% in 2014 (Figure 11.3).

Figure 11.3. Central government debt



3. The fiscal policy framework

The fiscal policy framework consists of a number of principles. The framework is a tool to ensure that fiscal policy is transparent and sustainable in the long term. It is a prerequisite for achieving the economic objectives. Certain principles are regulated by law, while others are based on practice that has gradually developed since the financial crisis in the 1990s.

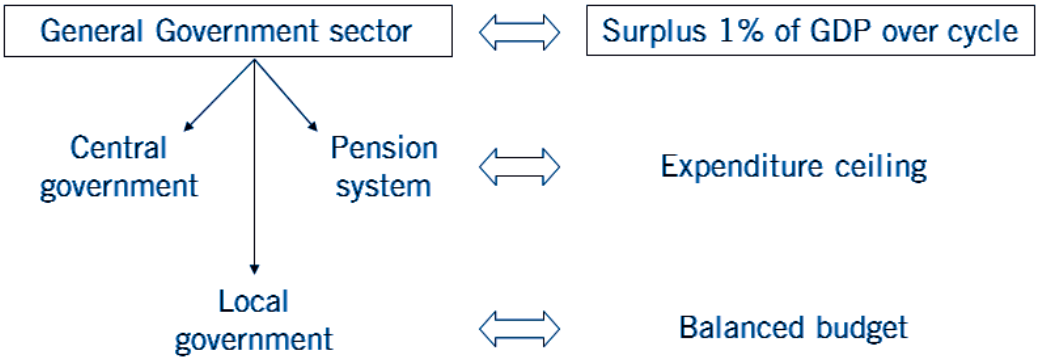
3.1. Budget framework

The budgetary framework is a key element of the fiscal policy framework. It is used to create better conditions for achieving the overall objectives of fiscal policy without jeopardising the public finances. The framework consists of several elements (Figure 11.4):

- A global surplus target for general government. Under the Budget Act, the Government must propose a net lending target for the general government sector. The Riksdag (national parliament) has established that the surplus target for net lending must amount to 1% of GDP on average over a business cycle. The current level will be maintained as long as it is thought necessary to ensure that debt develops in a sustainable way in the long term.
- A central government expenditure ceiling. Under the Budget Act, the Government is obliged to propose a ceiling for central government and old-age pension system expenditure for the next three years. The ceiling is set by the Riksdag. By determining a ceiling, the government [shows the scope for expenditure and taxes in order to meet the surplus target.
- Local government balanced budget requirement. To strengthen the budget process at the local level, a balanced budget requirement has been in place since 2000. The minimum requirement means that each municipality and county council must budget for a balanced outcome. A deficit has to be corrected within three years, although there are no sanctions. Each municipality and county council has to define the financial goals it wants to reach.

- Strict budget process. The surplus target and the expenditure ceiling set the overall scope in the budget process. The guiding principle is that expenditure increases in an area must be covered by expenditure cuts in the same area. The draft budget must include all revenues and expenditure, as well as other payments that affect the borrowing needs of the central government. This is called the completeness principle.

Figure 11.4. Budget framework



3.2. Budget procedures in the Riksdag

The Riksdag (parliament) Act (Ch. 5, Art. 12) requires that its model for drafting and deciding the central government budget shall have a clear top-down profile. In the first stage the parliament decides expenditure frameworks for the 27 expenditure areas it has laid down, as well as an estimate of budget revenues. These matters are drafted by the Finance Committee, which collects opinions from other standing committees in the course of its work. Thereafter the Finance Committee drafts a comprehensive proposal for the Riksdag to vote on. In the second stage, the standing committees consider the appropriations for the various expenditure areas. The expenditure frameworks that were decided in the first stage act as a binding restriction in stage two. This means that an increased appropriation in a particular expenditure area can now be proposed only if it is balanced by reducing another appropriation in the same area.

3.3. The surplus target

After three years of phasing in, a target for public sector net lending was introduced in 2000. The Budget Act requires the Government to propose a target for public sector net lending as well as to report to the Riksdag at least twice in a budget year how the target is fulfilled. The reports are normally included in the Spring Fiscal Policy Bill and the Budget Bill, as well as in the Government's Annual Report. The Riksdag has decided that the surplus target is to be 1% of GDP on average over a business cycle, measured in terms of general public sector net lending.[1]

The surplus target should contribute to the following objectives:

- Long-term sustainability of the public finances so that citizens, firms and financial markets have confidence in fiscal policy.
- Adequate margins for avoiding large deficits during economic downturns even when fiscal policy becomes actively counter-cyclical. As such, the surplus target contributes to a buffer that helps counteract sharply falling economic activity without risking an unsustainable increase in debt.
- A uniform distribution of resources between generations. In Sweden, as in many other countries, the proportion of elderly people in the population will become appreciably larger in the coming decades. Relatively high medium-term public savings during demographically advantageous years means that the large cohorts which will need medical care and social services in the years ahead are themselves contributing to the financing of these services.
- Economic efficiency. The surplus target promotes economic efficiency by providing better conditions for a lower tax take, and does not vary over time on account of demographic changes.

3.4. The expenditure ceiling

The expenditure ceiling was introduced in 1997. The Budget Act stipulates that the government's Budget Bill proposes an expenditure ceiling for the next three years. The ceiling is then decided by the Riksdag. If an approved expenditure ceiling is likely to be exceeded, the Act requires that, to avoid this, the government must take measures to which it is entitled, or propose necessary measures to the parliament. The expenditure ceiling's policy coverage is not regulated in law. However, the established practice is for the ceiling to apply to all expenditure areas 1–25 and 27 plus the off-budget spending for the old-age pension system. The ceiling does not include expenditure area 26 Central Government Debt Servicing. The expenditure ceiling is fixed in nominal terms, which makes evaluation transparent and simple. Moreover, a nominal ceiling gives fewer incentives for the government to try to increase inflation. It has become the practice not to amend the expenditure ceiling. The ceiling's cap on central government expenditure remains unchanged from when the ceiling for a given year is fixed until that year has ended. The ceiling has been altered on just a few occasions, due to changes in the direction of budget policy; in each case it was lowered.

There are no formal obstacles for the parliament to reassess an established ceiling. If there were, a new government's possibility of adjusting fiscal policy would be greatly restricted; neither could policy be adapted to sharply changing economic and fiscal circumstances. In addition, there may be reasons for altering an established ceiling in connection with technical budget rearrangements – e.g. technical reserves in the pension systems, which were excluded as from 2007 – so that the limiting effect of the expenditure ceiling remains the same. The central government budget process has a clear medium-term, top-down perspective. The expenditure ceiling is the overriding restriction on the budget process in terms of aggregate expenditure. Since the expenditure ceiling is set for a period of three years ahead, it underscores the need to establish priorities between different spending items. The medium-term perspective reduces the risk of temporarily high revenues (e.g. in good years) being used to finance permanently higher spending. That in turn limits the risk of fiscal policy having a destabilising (pro-cyclical) effect stemming from the expenditure side.

The expenditure ceiling is a central commitment in Swedish budget policy, promoting budget discipline and strengthening economic and fiscal policy's credibility. One of the ceiling's primary functions is to provide conditions for public finances' long-term sustainability. Moreover, the ceiling should foster a long-term view on the development of central government expenditure. In combination, the surplus target and the expenditure ceiling determine the total tax take and help to prevent a situation where insufficient control of expenditure requires an ever-increasing tax take.

4. The balanced budget requirement and the surplus target for local governments

In order to strengthen budget processes at the local level, local governments are required to balance their budgets since 2000, as required by the Local Government Act. Every municipality and county council has to budget revenue in order for it to equal at least budgeted current expenditure. Investment is exempt from the requirement, i.e. a "golden rule" applies. A local government may budget for a temporary deficit under special circumstances, e.g. if it has a strong financial position or if policy measures in one budget year entail costs but promote future cost cutting or sounder economic management. The assessment of what constitutes special circumstances is done case by case. If a local government ends a year with a deficit, the main rule is that the deviation must be corrected within three years. However there are no sanctions if that rule is breached.

The balanced budget requirement is a minimum requirement. The Local Government Act stipulates that local governments have to practice sound economic management as well. Local governments need to prepare consolidated financial accounts of their assets and liabilities, i.e. including pension commitments and reinvestment needs. As of 2005, local governments have therefore been required to set financial goals in line with sound economic management, usually amounting to a surplus equivalent to 2% of revenue from taxes and general state grants. Local governments' annual reports must include a statement of whether the balanced budget requirement and the goals for sound economic management have been fulfilled. Overall, local governments mostly reach the budget balance requirement but not the benchmark for sound economic management of 2% of revenue from taxes and general state grants.

The balanced budget requirement and the surplus target are closely connected, since sound local government finances help achieve the surplus target. The government therefore closely follows the economic development in the local government sector and includes an account in the Spring Fiscal Policy Bill and the Budget Bill. Insofar as the local government finances are dependent on the business cycle, there is a risk of pro-cyclical changes in local government spending and taxes, thereby exacerbating cyclical fluctuations. The balanced budget requirement, in itself, can reinforce this potential behaviour by local governments. In order to prevent the risk of pro-cyclical fiscal policy at the local level, the government introduced the local government regulatory reserve in 2013.

5. Other aspects of intergovernmental fiscal relations

Several institutional arrangements further shape intergovernmental fiscal relations:

- New mandates and transfers: There is a political agreement, the so-called "Local Government Financing Principle", dating from1993 and never enshrined in a law, which states that central level decisions that impose changes in costs should be adjusted via transfers between the different government sectors.
- Bailouts: As mentioned before there are no sanctions if a municipality or county council does not reach the balanced budget requirement. Most of the municipalities and county councils have reached the target. There has been no bailout since the 1980 and since 2007 there is no financial support from the central level for municipalities and county councils with financial difficulties.
- Local investment: Investment is not part of the local government balanced budget rule, while they are part of the tight central government expenditure ceiling. When it co-finances investment in infrastructure, the central government sometimes asks municipalities and county councils to contribute a higher share of investment spending since these governments have more budget flexibility.

6. External monitoring

Effective external monitoring by international as well as national bodies is important for the long-term sustainability of the public finances. International monitoring is undertaken mainly by the European Union, but also by the OECD and the IMF. National monitoring is in the hands of a number of authorities. Like other EU member states, Sweden undertakes to abide by the rules in the Stability and Growth Pact. The most central rules are the reference values for the public budget deficit (3% of GDP) and public debt (60% of GDP).

External monitoring at the national level is likewise important for an effective fiscal policy. A number of government agencies are responsible for different aspects of fiscal policy monitoring at the national level, e.g. the National Financial Management Authority, the Fiscal Policy Council, the Institute for Labour Market Policy Evaluation and the National Institute of Economic Research. The Fiscal Policy Council is specifically responsible for analysing how well the Government complies with the budgetary goals and whether the public finances are sustainable in the long term.

The Financial Stability Council is a forum in which representatives of the Government, the Swedish Financial Supervisory Authority, the Swedish National Debt Office and Sveriges Riksbank regularly meet to discuss issues of financial stability and how financial imbalances can be counteracted. If a financial crisis should arise, the Council would also function as a forum for the discussion of possible measures for handling the crisis. Meetings of the Council are chaired by the Minister for Financial Markets. Other members are the Director General of Financial Supervisory Authority, the Director General of the Swedish National Debt Office and the Governor of the Riksbank. The government and the authorities represented on the Council decide independently what measures should be taken within their respective areas of responsibility. The deliberations of the Council are published within two weeks of each meeting. The Financial Stability Council replaced the Council for Cooperation on Macroprudential Policy in 2013.

7. The budgetary policy framework might change

The support for the fiscal framework and the budgetary policy framework has been very strong since the 1990s. When the debt rate decreased before the 2008 financial crisis a discussion started with regard to the surplus target but that debate stopped when it became clear that Sweden was much better prepared for the crisis than most other countries. Over the last years the debate started again, mainly because the government found it increasingly hard to reach the surplus target. The difficulties were also highlighted by external monitors including the Fiscal Policy Council.

The new coalition government that came to power in October 2014 has announced that it might change the surplus target to a balanced budget target but that it would scrutinise the issue before passing any legislative changes. The new coalition government's first budget did not pass so that policy continues to be shaped by the budget of the previous government. To avoid further budget blockades the parties of the former government and the current minority government came to the "December agreement" which ensures that the opposition will not reject a government budget proposal. This agreement was set up to prevent a new election and runs until the elections in 2022.

Note

1. To begin with the target was 2% of GDP. When Eurostat decided that as of 2007 savings in the premium pension system could no longer be included in financial saving, the surplus target was technically adjusted, from 2 to 1% of GDP.

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Chapter 12

Municipal bailouts in Denmark – and how to avoid them

Niels Jorgen Mau

Economically robust municipalities are of great importance to the decentralised Danish public sector. The size of municipalities and the extensive equalisation system contribute to this objective, but moreover a mechanism to avoid local bail-outs and bailout-like situations has been developed since the 1980s. This institutional mechanism consists of formula-based elements with a minimum of administrative discretion. The mechanism has worked well since the late 1980s involving a number of cases, and the success originally explained by at least three factors: the thorough application of the mechanism, the local distaste for legal conflict with the central government, and the local stigma of being "under administration" by the upper level of the public sector. In recent years, the need for the mechanism seems to have diminished, because fewer and economically more sustainable municipalities accompanied by structural reforms of local governments from 2007 and the Danish budget law. The budget law has established a top-down economic control of local governments' finances, where non-compliance with expenditure ceilings implies possible use of economic sanctions to both the municipalities in general and to specific municipalities.

1. Introduction

In Denmark – having a large public sector and a high degree of decentralisation to municipalities – every single Danish municipality constitutes an economic unit with economic significance. Not only to the citizens of that community but also – due to economic linkages and de facto obligations – to the neighbouring local governments and to the rest of the Danish society. Therefore, the economic development of a municipality is potentially important for the national economy and the central government. And likewise the prospects and risks connected with the local economy have to be taken into account. In this paper we will concentrate on the situation where the local economy gets into difficulties and the fear that it will economically derail – and the connected possibility of some kind of economic or fiscal bailout if the situation is very bad. Moreover, it will focus on how the local economy gets on track again and avoids bailouts in the future.

The purpose of this paper is to shed some light on how the Danish local government system deals with this risk of municipal bailout – within the framework of a decentralised system but with some possibilities of central government intervention. The paper will start out with a short description of the municipal sector in Denmark and their main responsibilities. Afterwards we will discuss the bailout concept and the connected costs to society if the situation is not handled in an adequate manner. Next we will go through the well-established procedure – or institutional mechanism – that has developed over three decades of experience with relevant cases in Denmark. This is the case of municipalities that are ”put under administration”. The procedure involves certain elements, including options of resolving the problem, the distribution of roles for the central and local government in question and the timescale, which all in all constitutes an institutional mechanism. Also the empirical evidence will shortly be reviewed and to what degree the goals of the procedure have been achieved. Overall, the mechanism has proven to be successful and the reasons for that will be teased out.

Finally, we will try to look into the future. What are the current conditions or challenges to the institutional mechanism of putting under administration? How have the measures taken after the financial crises influenced the economic environment of the municipalities? At one spectacular occasion the system could not prevent a bail out-situation to occur – the famous so-called Farum-case, where Farum was the name of the then existing municipality. Although this case, which also involved imprisonment of a mayor, must be seen as an exeption there might nevertheless be something to be learned from it. However, this case will not be discussed in this paper.[1]

2. The municipal sector in Denmark – economically important and generally robust

The Danish public sector measured by expenditure in relation to GDP is the largest among the industrialised countries, as shown by a sample of relevant countries in Table 12.1. In relation to other OECD countries the public sector’s expenditure have grown more than for most of the other countries in the last 35 years. In recent years it has to be taken into account that Danish real GDP growth has been very low and that Denmark was hit especially hard by the financial crises in 2008/2009 and has only partly recovered from the loss of economic activity.

Table 12.1. Public expenditure in Denmark and selected countries

Per cent of GDP

	Expenditure[1]	
	1976	2012
Denmark	46,8	58,8
Sweden	51,6	51,9
Norway	50,3	43,3
Germany	46,0	45,0
UK	44,7	48,5
Netherlands	51,6	50,4
France	54,8	56,6
USA[2]	33,7	27,3

1. Current and capital expenditure.
2. 2011 figures.
Source: Danmarks Statistik, *Statistisk Tiårsoversigt 2014*.

The local government sector in Denmark accounts for a substantial part of the public sector. In Denmark around two-thirds of public expenditure are handled by local governments, i.e. municipalities and regions, which is a much higher share than in other OECD countries.[2] This is the result of a decentralised public sector, where the municipalities have responsibility over almost all services that relate to citizen's needs, e.g. primary schools, kindergartens, care for the elderly, care for disabled persons, health prevention, environmental issues, etc. – but also technical services like building and maintaining most roads. Municipalities are also responsible for labour market services (rehabilitation and employment services). And maybe most remarkable is the bulk of income transfers to households, except old age pension and child benefit, which are financed mainly by the municipalities.

All in all this means that the average Danish municipality has a budget, excluding reimbursement payments from the central government, of around DKK 4 billion and employs 5 000 persons. At present the government considers transferring even more economic responsibilities to the municipalities in the realm of income transfers, aiming to make the municipal social and labour market sector to work more effectively to raise labor force participation rate.

Those important responsibilities, also in an economic sense, require municipalities to be economically robust, to enable them to avoid severe economic difficulties if the economic climate worsens. This could happen if expenditures increase or revenues decline due e.g. to a shift in overall activity or unfavourable developments of local economic or business factors.

Danish municipalities are relatively robust for various reasons:

- Size: Municipalities are large. Especially after the so-called structural reform of 2007, when 271 municipalities were merged to form 98 new ones, they have gained economic strength and also seem to have improved their economic management.
- Shielding: Various centrally established schemes shield the municipal sector as a whole when it comes to business-activity related factors. The municipal sector is compensated if expenditure and/or revenues changes due to factors that are

business-related and external to the municipalities, i.e. not depending on their decisions. For instance this happens, if outlays for unemployment benefits increase or decrease due to business cycle movements or the municipal income tax base reacts to the general economic development in the country. The compensation is made via the municipal block grant, i.e. in a collective manner not specifically aiming at the development of single municipalities.[3]

- Equalisation: A well-established municipal equalisation system takes into account per capita differences between municipalities in both expenditure needs and tax bases. The degree of equalisation varies from 58% to 90% depending on the type of municipality. In this respect the equalisation system works as a kind of insurance system for local governments hit by external economic shocks.
- Special grants: A limited amount of supplementary grants can be distributed by the central government to needy local governments on discretionary basis.

But even though local governments are in general economically protected the system is not water-proof: they can still experience economic pressures which may involve the potential risk of a bailout.

3. What is a municipal bailout and what are the potential costs?

Before discussing the consequences it first has to be defined what is meant by municipal bailout.

A municipal bail is a situation where:

- The municipality in question has lost control over its economic situation in the sense that it cannot – at least in the short run – balance revenues and expenditure.[4]
- The discrepancy between revenues and expenditure is so severe that the (rest of) society has to step in to relieve the economic situation, i.e. to provide economic transfers for a shorter or longer period.

Or in other words: a bailout comes into play if the negative economic development of a municipality is so significant that the rest of the municipalities and/or the central government have to take on some of the economic burden of re-establishing the economic situation of the unfortunate municipality.

The potential costs of such a bailout are:

- The direct financial burden by the transfer of means to the municipality in question by other municipalities and/or the central government, i.e. bigger deficits/smaller surpluses than have otherwise been projected, and in due time expenditure savings and/or a higher tax pressure. The burden might seem modest at a national level but nonetheless unpleasant since it is a burden inflicted on the other municipalities or the central government without their involvement or decisions. Moreover, there is the risk of creating a precedent which may tempt other municipalities to rely on being bailed out in economic difficult situations.
- Loss of welfare for local citizens who may – in the case of re-establishing an economic healthy situation and possibly at the same time when they have to pay back loans from the central government – have to do without some important welfare services or see a reduction in the quality of those services. In Denmark the reliability and stability of welfare services is of great importance to citizens.

- A damaged economic system, i.e. a loss of confidence in the local economy in question but possibly also in other local governments. This may imply that the borrowers charge a higher interest rate due to a higher risk premium.

All in all, a bailout situation for a municipality may imply significant costs and the question arises how to best avoid the risk of having such a situation.

4. How are potential bail-out situations handled in Denmark?

Over a period of more than 20 years a procedure of handling the potentially risky situation of local governments in economic distress and an ultimate bailout has been developed by the Ministry of the Interior.

4.1. The borrowing regulations and the "kassekreditregel"

The municipal borrowing regulations are the instrument for this procedure – or to be more specific: the so-called "kassekreditregel".[5]

The borrowing regulations of Danish municipalities prevent the local governments to finance current expenditure and – as a starting point – also investment outlays by increasing debt. However, it is acknowledged that a municipality's daily payments and revenues cannot be expected to net out. In some periods, typically at the start of the month, municipalities receive taxes and grants and are therefore – everything equal – in a financially favourable situation. On the other hand the municipality may see a financial deficit – with a negative impact on liquidity reserves – at the end of the month where most of the wages to employees and income transfers to households are due. Therefore, according to the borrowing regulations, the municipalities are at liberty to manage short-term debt and short-term positive balances via short-term loans (cash credits) – provided that the annual average of short-term deposits and loans, calculated over the latest 365 days, is positive. This is the above mentioned "kassekreditregel" or overdraft facility rule.

The rule is especially interesting in connection with the assessment of a possible bailout situation. The reason is that a violation of this overdraft facility rule is seen as an early warning of a municipality under some economic pressure, which may later lead to a bailout, if nothing is done. Moreover, once a municipality violates the overdraft facility rule, it usually cannot normalize the situation in the short run. This is particularly the case, if an average negative liquidity balance seen over the last 365 days with a gradual decline downwards cannot be brought back in a positive balance by e.g. a few days' or months' liquidity surplus.

4.2. The institutional mechanism to deal with a potential bailout situation

A crucial factor for this rule to be respected is the procedure. The important factor here is that the Ministry both has the right and the obligation to react to a violation of the rule. This is done in a standardised manner, i.e. automatically with a minimum of discretion: if the rule is broken the procedure starts and cannot normally be stopped before a plan of re-establishing a healthy financial situation has been agreed upon.

To be more specific the procedure consists of the following elements:

- The procedure is initiated at a meeting in the ministry. The "administrative" character of the procedure is underlined by the fact that the municipal participants typically are politicians and civil servants whereas the ministry participates solely with civil servants;

- In this and subsequent meetings the deeper roots of the financial problems are analysed and the room for manoeuvre for the municipality is discussed;
- The municipality in question is granted a temporary approval to deviate from the overdraft rule for a certain limited period, normally three years maximum;
- this approval is given on the condition that the municipality takes steps to restore the economic situation and that such steps result in cash reserves of a certain "robust" magnitude, and that it possibly also takes steps to improve the economic management of the municipality;
- The central government may or may not – to a limited amount – add some discretionary grants to ease the immediate economic situation;
- The municipality has to report to the Ministry frequently, i.e. every three months, on the economic (liquidity) situation.

This situation is called as the local government being "put under administration". This popular term is used in the media and by the municipal sector itself. The municipality will be "under administration" for the whole period of e.g. 3 years, unless otherwise decided by the ministry.

If the local government does not comply with this rule, it acts against the law. Consequently, a municipality having an open conflict with the law must expect sanctions from the central government (the Ministry of the Interior) (Mau, 2011).

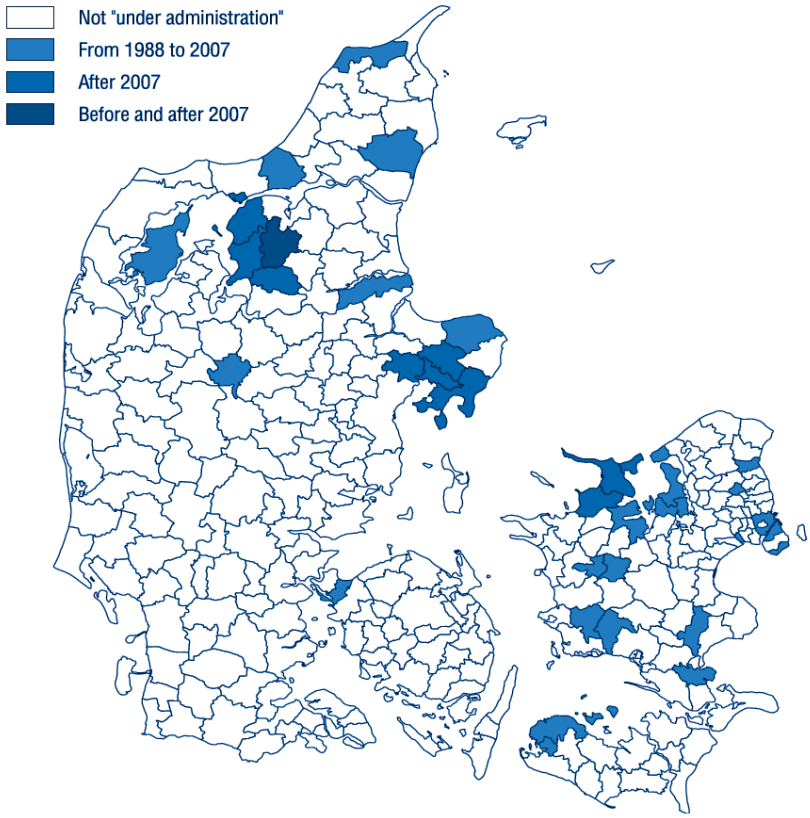
5. Experience with the use of the institutional mechanism

The institutional mechanism has been working since 1988, and in altogether 30 cases. 29 municipalities were granted approval to deviate from the overdraft facility rule, i.e. to incur extra short-term debt for a period subject to them meeting the conditions set by the Ministry. Since 2011, no municipality has been put under administration any more (the reason for that will be discussed below).

In Figure 12.1. the geography of the municipalities is illustrated. Note that due to the structural reform of 2007, the three most recent municipalities put under administration cover more than one of the municipalities that were independent before the reform.

Figure 12.1. The location of municipalities "put under administration"

1988-2011



Source: Ministry of Economic Affairs and the Interior.

By investigating the characteristics of the municipalities under administration one can observe that (Mau, 2011):

- It was in particular the smaller municipalities that were put under administration – although also the biggest municipality, Copenhagen, has been included under the mechanism, however only for one year.
- Unexpected events, i.e. some kind of external shock, increase the risk of having a situation which results in being under administration.
- No structural factors – e.g. high expenditure need and/or low tax base – can explain which municipalities are at a particular risk of being put under administration. All types of municipalities have come under the economic restoration programme.

The most important experience, however, is that all the municipalities in question (with one exception – earlier mentioned in Section 1) have successfully gone through the re-establishing period and even with a better result than projected or aimed at from the start. A few municipalities have their re-establishing period prolonged to four years instead of three years, but some also have had it shortened.

6. What explains the success of the institutional mechanism?

A number of explanatory factors or theories are possible answers to the question: why has the mechanism been so successful?

- Credibility and confidence – the institutional character of the mechanism: The mechanism has been used in a thorough manner following procedures determined in advance, which has contributed to the general confidence from the public about its implementation. Likewise, the concept of ”putting under administration” is well-established and relatively often used (or even misused, i.e. used in cases where it is quite unlikely that the mechanism will be used) as a threat or bogey in the local political discussions. This also makes the communication from the ministry to the local government relatively straightforward since most local politicians know about the mechanism in advance.
- It is the law: The municipality breaking the overdraft facility rule has to realise that it is in conflict with the rules and must anticipate sanctions from the local supervising authority. It is remarkable that the situation has never been brought to the point where the supervising authority has taken sanctions.
- Stigma: Being “put under administration” is noted with displeasure by the other municipalities, which is embarrassing to the municipal board. The local media will naturally cover the problems faced by the municipality in depth. If the municipality cannot live up to the restoration plan the already stigmatising situation will become even worse.
- Room for manoeuvre: the experience seems to prove that when it comes to terms municipalities have the instruments to re-establish the situation, even when the prospects look rather gloomy at the start.
- Limited central government assistance: the ministry has a few – limited – possibilities to add discretionary grants to ease the immediate economic situation. Of course this instrument is used with great care since it would otherwise be a kind of bailout – which it was intended to avoid.

7. Developments since the structural reform and budget law

As pointed out earlier, the Danish structural reform of 2007, implied fewer and bigger local governments – both measured in terms of inhabitants and economic significance. This presumably also has meant more sustainable local governments. It seems that the larger municipalities are more aware of having their economies under strict supervision, and thereby avoid any risk of central government intervention. Perhaps it has simply become unacceptable – or politically frightening – for the local politicians to have their municipality put under administration. In this way the institutional mechanism seems to have become a more theoretical than practical instrument. As mentioned no municipality has been under administration since 2011 and the latest procedure was initiated in 2008.

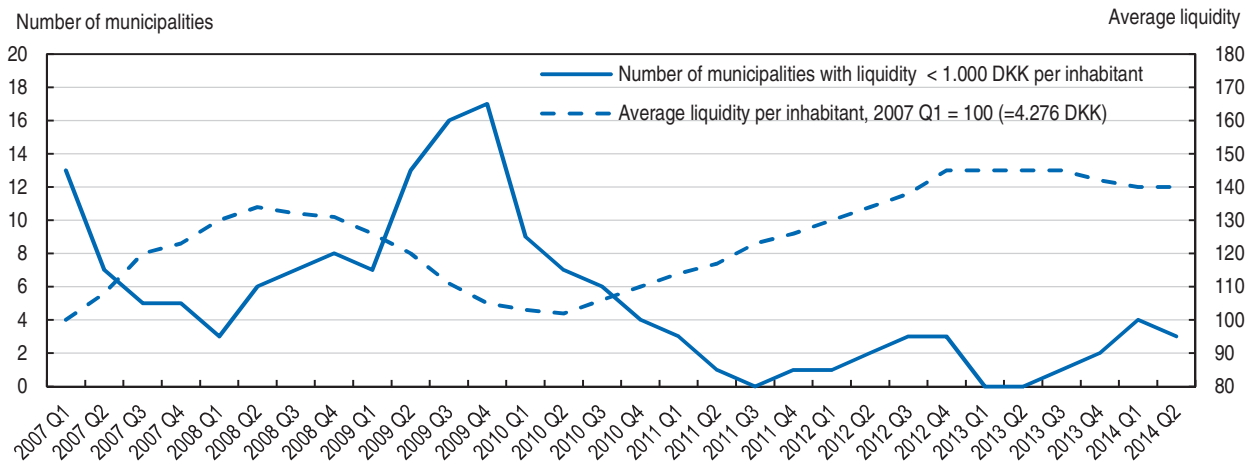
On the other hand, the mechanism certainly is not forgotten by the municipal boards, and the main indicators of liquidity reserves are under close surveillance at both the administrative and the political level. Moreover, some municipalities were rather close to initiate the procedure. There is thus still a need to have such an instrument in the future, also having in mind the economic significance of the Danish local governments. It should

also be taken into account that although the implementation of the procedure is normally not attractive to the municipal board it might also on some occasions be seen as a convenient support from the central to the local government. This is the case, if the municipality has difficulties about having sufficient awareness about its own economic development.[6]

However, another important factor for the current low risk of having municipalities put under administration is the fact that the general economic situation of the municipal sector is good for the time being. The municipal sector has a relatively low level of debt compared to the tax base and GDP (OECD, 2013) and the liquidity reserves have been increasing for some years. The connection between the general situation concerning liquidity and the potential risk of municipalities getting into economic difficulties can be observed in Figure 12.2.

The ministry uses an "early warning" key-figure for such potential problems, which is measured as the municipal net average liquidity less than DKK 1 000 per inhabitant. From Figure 12.2 it can be seen that the list of municipalities with low liquidity declined during the years from 2007 Q1 until 2014 Q2. In the same period the average liquidity per inhabitant has been increasing.

Figure 12.2. Municipalities with low liquidity and average level of liquidity

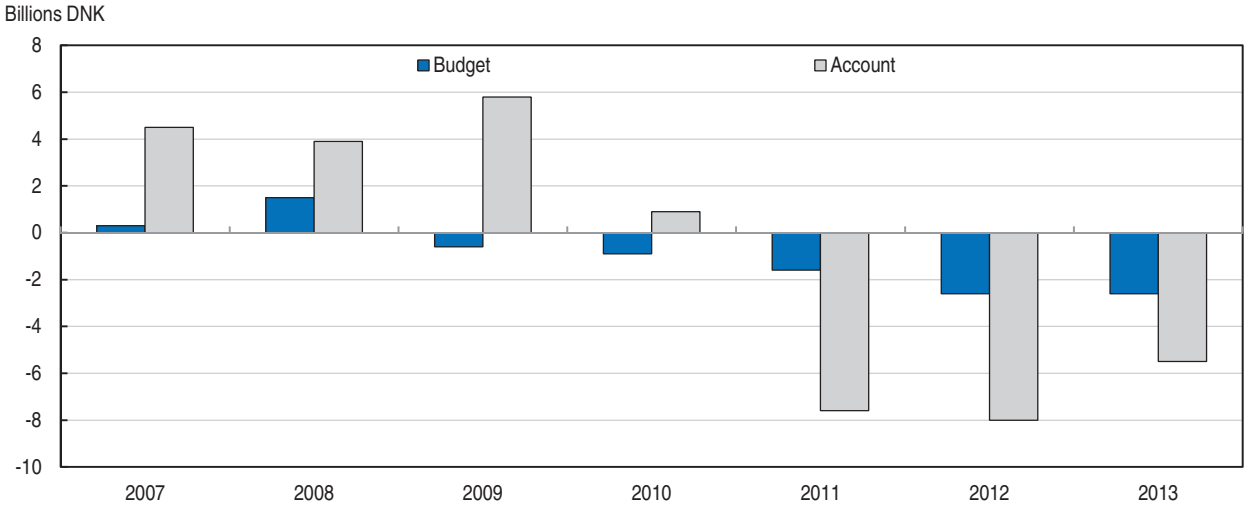


Source: The Ministry of Economic Affairs and the Interior.

An important factor behind the favourable economic situation of the average Danish municipality is the so-called budget law, which was passed by Parliament in 2012 as a follow-up to the EU Fiscal Compact decided upon after the financial crisis and dramatically worsened public budget balances from 2009. This budget law is implemented for the first time in 2014, but already from 2011 a range of rules and sanctions for municipalities – and later for regions – have been implemented. The rules imply that total municipal budgets both have to observe the agreement between the central government and the Organization of Local Government in Denmark about the level of spending and to keep their own individual budgets. If this is not the case there is an institutional mechanism, which involves lower block grants – either on a collective or individual basis.[7]

Although not the primary subject of this paper it is important to keep these new institutional mechanisms in mind as an explanation for the increasing liquidity reserves. Figure 12.3 illustrates how fiscal discipline has improved markedly from 2011 where both budgets and accounts observe the agreed levels of service expenditure. This kind of budget under-shooting seems to go on, although to a lesser degree. It is estimated that also for 2014 there will be a significant surplus on total local governments' accounts, although probably only around half the size of the 2013 surplus.

Figure 12.3. Municipal service expenditure: Deviations from the agreed level



Source: Ministry of Economic Affairs and the Interior.

To sum up, the top-down institutional mechanism and the expenditure ceilings seem to have been a very important factor behind the improved situation of Danish local governments' finances. This has to be seen in combination with economic sanctions to municipalities not complying with the centrally agreed levels of expenditure and own budgets. Whether the budget law and economic sanctions will make the more bottom-up based mechanism of 'putting under administration' – which relies more on local responsibility and local action – less relevant or even redundant in the long run is, however, much too early to judge. Also the differences in methods should not be overestimated since potential sanctions are important elements in both cases – in the situation of a breach of regulations. All in all, the co-existence of both institutional mechanisms may be the most likely outcome.

Notes

1. See instead Mau (2011), p. 169-170 or Farum Kommissionen (2012), Volume 13.
2. In 2012, local expenditure took up 37.5% of GDP or 63.2% of total public expenditure. Nr. 2 on this list was Sweden with 25.6% of GDP and 49.3% of total expenditure (OECD, 2013).
3. The block grant in Denmark is distributed among the municipalities in proportion to their share of the population.
4. The situation could also be characterized as "unsustainable local government economic behavior".
5. More detail is provided by Mau (2011) and Mau (2002).
6. The Ministry of Economic Affairs and the Interior also have engaged in so-called "partnership-agreements" with a limited number of municipalities. These partnerships have inter alia an economic purpose to develop and improve the local economy, but not as the background an acute worsening of the local government finances.
7. See Larsen et al. (2015), chp. 6, on the Danish budget law.

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Chapter 13

Multilevel fiscal institutions and mechanisms for reducing tax cheating: The case of Mexico

Ehtisham Ahmad

Many countries are tempted to copy fiscal multi-level organisations and institutions that operate in the more advanced OECD countries, and they are often recommended by international organisations regardless of the type of economy under consideration. This generally overlooks the context under which the institutions have evolved and function. A case in point is the segmentation of tax administrations for the implementation of the income tax in the United States that was replicated in Mexico for both the income tax as well as the value-added tax. Firms with a relatively high threshold of MXN 2 million were assigned to the states, which had very few incentives to collect the taxes, but provided a "shelter" that generated a large "informal" sector that thrived around "cheating and avoidance" including by larger firms. Recent theoretical research also assumed that the large taxpayers are honest, and therefore recommended increasing the threshold. The Mexican 2013 fiscal reforms, however, eliminated the threshold and closed the "informality" channels used by medium-sized and large taxpayers. The full VAT chain was instrumental in providing information to "close the income tax gaps" and facilitating the removal of measures that add to the costs of doing business. Consequently, the design of appropriate institutions should closely reflect the context in which they are being introduced.

1. Introduction

There is a tendency in emerging markets and developing countries, reinforced by international experts from developed countries, to transplant organisational structures and policies that operate in the industrial countries.[1] This often ignores an important nexus between institutions and public policy design and outcomes (North, 1990). The organisational structures that have evolved as a response to political economy choices and institutions in the advanced industrial countries, particularly the United States, may not be appropriate in developing or even emerging market economies in the OECD. This is seen in attempts to emulate segmented tax administrations relating to federal and local taxes from the US context to other countries, including Mexico, that have very different intergovernmental fiscal relations and also a different set of fiscal instruments, including the VAT.[2]

Levy (2008) defines the incentives to cheat emanating from a reaction to the additional costs of production emanating from the payroll tax. Firms of all sizes disguise their use of labor by "hiding" both labor and the magnitude of transactions and this leads to inefficiencies and reduced growth. The general argument is that the transplant of Bismarckian social security systems into the Latin American context did not work very well, and that firms and workers have incentives to evade the payroll tax. Empirical estimates confirm the Levy hypothesis (Antón, Hernandéz and Levy, 2012; and Ahmad and Zanola, 2015), although the latter suggests that there are other factors that encourage and facilitate cheating.

Somewhat different issues apply with respect to budget and transparency institutions, where international standards are often needed but resisted either to prevent going above arbitrary debt limits (the case of PPPs in Germany), or because of rent seeking possibilities (as also seen in several Southern European countries – and also in emerging markets such as Pakistan).

In this paper, we focus on the issue of tax policy and administration design in the presence of informality – defined in this case as incentives to cheat. We examine both federal taxes in Mexico, as well as some sub-national institutions. We argue that the segmentation of taxpayers for administrative purposes practiced, e.g. in the United States, may not be appropriate in the presence of informality or incentives to cheat, even in OECD countries like Mexico.

Together with well-meaning policies to encourage investment or ostensibly to protect the poor, the weak institutions and inadequate information flows facilitate rent seeking. This is seen clearly in countries like Pakistan that has had the benefit of twenty years of IMF advice and repeated Fund-supported programmes, but with a continuously declining tax/GDP ratio. The interactions between policy and institutions affect both "temptations" to cheat (by creating excess profits) and enhance the ability to cheat by affecting "information flows", or the lack thereof (Ahmad and Best, 2012).

Recommendations by well-meaning international advisors to rely on turnover taxes to address cheating may just make matters worse by increasing the costs of doing business, reducing growth and consequently generating further evasion. Also if a handful of taxpayers are the only honest brokers in the country, and keep getting picked on for additional revenues, it will not be long before the "pips start to squeak", as the pressure on the "honest" taxpayers mounts to compensate for the evasion and cheating by others. It is a critical precept of fairness that similar taxpayers be treated equally.

In Section I we discuss the Mexican experience with tax policy and institutions at the federal level and the difficulty of implementing reforms in the context of vested interests and an inappropriately designed institutional and policy framework.

The 2013 Mexican reforms, discussed in Section II, illustrate how political economy considerations might be incorporated into a reform agenda that is designed to address cheating and informality. The employment enhancing reforms have important lessons for design of tax policies in emerging market economies, as well as more advanced OECD countries, as discussed in Section III.

2. Institutions, rent-seeking, informality and tax reforms

Much of the work on informality in Mexico has been linked to the inappropriate transplant of the Bismarckian social security systems in Latin America (Levy, 2008 and Antón, Hernandéz and Levy, 2013). These analyses focus largely on the incentives for firms and workers to hide social security contributions that add to the cost of doing business. Thus, there are major incentives for informality with the concomitant implications for efficiency, investment and growth. The solution proposed is to shift to a reformed social protection mechanism, financed by general revenues relying largely on a reformed VAT.

Ahmad, Best and Pöschl (2012), while agreeing with Levy (2008), argue that an additional cause for informality in Mexico arises through breaks in the information chain due to exemptions and special provisions in the VAT and income taxes, in addition to the high threshold effect (for both) in the small taxpayer regime *Régimen de Pequeños Contribuyentes* (REPECOS). Splitting the bases of the main taxes – VAT and ISR – between the federal and state governments creates a further distortion.

The incentives to cheat are exacerbated by the *maquiladora* regime that was implemented to attract FDI to the border regions when Mexico had a not very attractive investment climate. This has changed with Mexico's entry into NAFTA, and the regime now has largely become a mechanism to evade taxation.

Not all forms of informality are undesirable. Indeed, in many developing and emerging markets, informal activities provide a safety net for migrating workers from the rural areas. The forms of informality, which are of greatest concern from a policy-making perspective, relate to cheating to avoid paying taxes and social contributions.

The counter arguments against the relevance of informality for tax and social policy design are based on the assumption that large taxpayers are relatively honest, and that one can live with some loss of revenues from smaller hard to tax groups as long as it reduces the cost of tax administration sufficiently. The most recent statement for this case is by Kanbur and Keen (2014, 2015), despite findings by the IMF (2013) that the "low revenue efficiency in Greece… is partly … the result of the large informal economy."

The typical segmentation of tax administrations – into large taxpayers, an intermediate regime and small taxpayers – reflects the typical organisational structure recommended by the international agencies, and was popularised by the US IRS reforms in 1998. Using a similar categorisation of taxpayers consistent with the segmented administration methodology to examine informality, Kanbur and Keen (2015), essentially write off the smallest firms that pay no tax. They next define "adjusters" who are larger, but choose to legally avoid tax liabilities by operating below the threshold. Then there are "ghosts" that should be above the tax threshold, but declare themselves fraudulently

below. A related set is that of "cheats", who avoid declaring part of their sales. Then there are the largest firms, assumed to operate and report tax liabilities truthfully. The Kanbur and Keen (2014, 2015) recommendation is to maintain the segmented structure of the tax administration, but raise the registration threshold.

Although the Kanbur and Keen analysis is analytically appealing, the difficulty with this approach is that even the "honest" large taxpayers have an incentive to cheat, as well as the ability to get away with it. And in the longer term, taxing some large taxpayers and not others would put the former at a competitive disadvantage and "test" their honesty. By focusing taxation on the "honest" largest taxpayers in the economy, heightens the sense of "rounding up the usual suspects" each time there is a need for more revenue. Of course, as we know from the likes of Google, Microsoft and Apple that the largest companies are quite good at becoming "adjusters" in the sense of moving to lower tax jurisdictions.

The "ghosts and cheaters" phenomenon appears to be the norm even in some EU countries – Greece for example, but more often in emerging market countries, including Mexico that happens to be in the OECD. Of course, in developing countries like Pakistan, that have been under IMF programmes for over two decades, the largest taxpayers tend to have friends and family members in government, and exclusively relying on these vested interests has contributed to the continuing failure of tax reforms (Ahmad and Mohammad, 2013). The presence of honest and fully compliant "large taxpayers" may amount more to wishful thinking rather than reality in many emerging markets, and continued reliance on the honesty of some taxpayers may test their behavior over time.

3. Mexican tax reforms, cheating and informality

3.1. The 1980s and 1990s: Good intentions and bad outcomes

The major tax reform in the early 1980s centered on the introduction of the VAT as a federally administered tax with shared revenues, as well as the suppression of most state level taxes (Gil Diaz, 1987). This had many desirable features, in that an "efficient" tax was designed to be implemented by a single federal agency, avoiding the complexity and distortions faced in Brazil with the origin-based state level VATs. Also, in keeping with some of the findings of optimal tax theory at the time, consideration for the poor and vulnerable was incorporated in the design of the VAT – with exemptions and zero ratings for food items and medicines, for example. However, this is also where the problems began, which were amplified by additional seemingly "benign" and progressive policy measures.

The main tax instruments, including the VAT and income tax (ISR) have been subjected to various exemptions and deductions for differing purposes. For the VAT, and as mentioned above, the initial consideration was to improve its distributional impact, with exemptions and zero-rating of food and medicines. However, a lower "border rate" was introduced to induce firms to operate in the new "hubs" along the US border – creating multiple tax rates for the same commodity, and possibilities for arbitrage.

In the 1980s, Mexico had a restrictive trade regime, high tariffs and an uncompetitive exchange rate. In order to encourage foreign investment for exports, especially to the United States, the maquiladora regime was introduced, and had considerable success in generating both investment and growth in employment. However, with the NAFTA, and the 2008-13 trade reforms, the tariffs have been reduced and the tariff structure

simplified, wages are generally competitive, the exchange rate is market determined, and foreign ownership has been facilitated in most sectors. Furthermore, exports are zero-rated under the VAT.

The safe haven provisions were reinforced with the halving of the taxes generated by the maquiladora in 2002. This sector generates negligible revenues and has become a source of distortions and evasion and avoidance possibilities abound, including shifting activities and "profits" to the maquiladora subsidiaries, and generating possibilities of carousel fraud.

A further distortion was created by the segmentation of the bases of the main taxes – VAT and ISR, and assigning the administration and revenues of the small taxpayers (for both the VAT and ISR), with a turnover of below MXN 2 million, to the states under *the Régimen de Pequeños Contribuyentes* (REPECOS) – or small taxpayers regime. The states had little ability or incentive to administer the REPECOS, and evasion was believed to be in excess of 95%. The exemptions and arbitrage possibilities vitiated the information generation capabilities of the VAT, exacerbated the incentives to cheat, and led to a hemorrhaging of revenues.

3.2. Plugging the holes – or fingers in the dyke?

The ISR also was subject to an ever deepening burrowing of "holes" and deductions. Many of the beneficiaries were large firms with important political connections. Once given, the special provisions and tax breaks become virtually impossible to remove. Initially the Mexican government tried to follow the widespread attempt of imposing a "minimum tax", and the Latin American practice of a gross asset tax – called the minimum asset tax (IMPAC) in Mexico. As with the ISR, the incidence was on the largest taxpayers, who were able to maintain their preferential treatment. In order to "plug" the seeping holes in the tax dyke, the government turned to a variant of a turnover tax in 2007 – now being recommended strongly by some international agencies – as a minimum tax. Of course, the Mexican government knew that a turnover tax would add to the cost of doing business and would adversely affect the competitive position of Mexico *vis à vis* its trading partners.

Removing preferences and deductions involves taking powerful vested interests head-on. In 2007, the Government was not able to address vested interests directly either in addressing the holes in the ISR or the VAT. Consequently in 2007, an indirect mechanism was chosen with a minimum VAT tax, creditable against the ISR through the *Impuesto Empresarial a Tasa Única* (IETU). While the IETU had some disincentive effects, the underlying value-added design did not disadvantage investment as much as a turnover tax would have. However, the IETU added further to the complexity and burden of tax compliance. Not surprisingly, its base had the same holes as the ISR, and additional breaks began to be introduced at the behest of powerful interests that plagued the ISR in the first place. While an additional 0.4% of GDP was generated in the years of operation since 2007, this was nowhere close to the envisaged "plugging of holes."

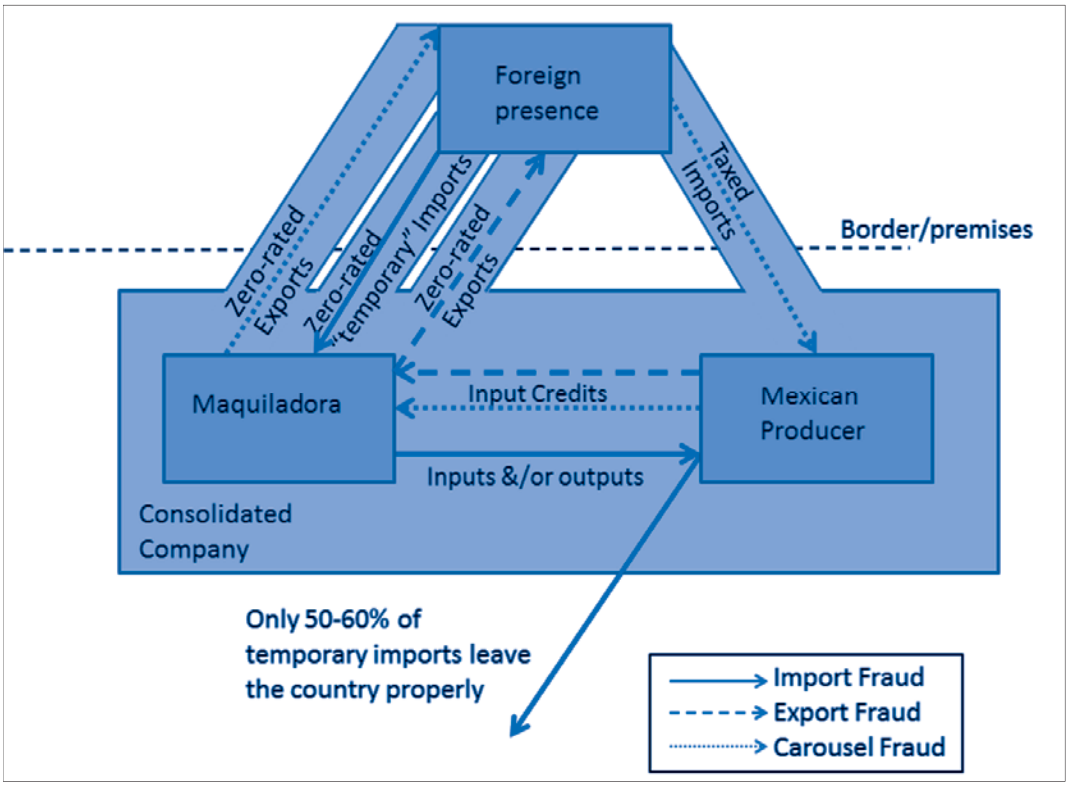
Moreover, the IETU did not significantly expand the base of non-filers. Further consolidation of the income tax base was required to build upon gains and generate information. A simple and full base VAT was still needed to identify non-filers, and also reduce incentives to cheat, together with a credible audit threat. But if this were feasible, the IETU would not have been needed.

The interactions between the "holes" in the VAT and the special provisions in the ISR presented a formidable incentive to cheat and engage in informal activities. This not only affected the potential revenue generation potential, but also the prospects for longer-term growth.

3.3. Who is cheating?

The revenue sink-holes created by the interaction between the maquiladoras regime and the VAT are summarised in Figure 13.1. The orange, dotted arrows depict standard carousel fraud. Businesses that import inputs can pass on the input credits to another Mexican firm, which can then export and claim the input credits. This kind of fraud is greatly facilitated by the ability of maquiladoras to operate as part of a larger group of firms both within Mexico and abroad and with very few reporting requirements to the Mexican authorities.

Figure 13.1. The maquiladora sink holes



Source: Ahmad, Best and Pöschl (2012).

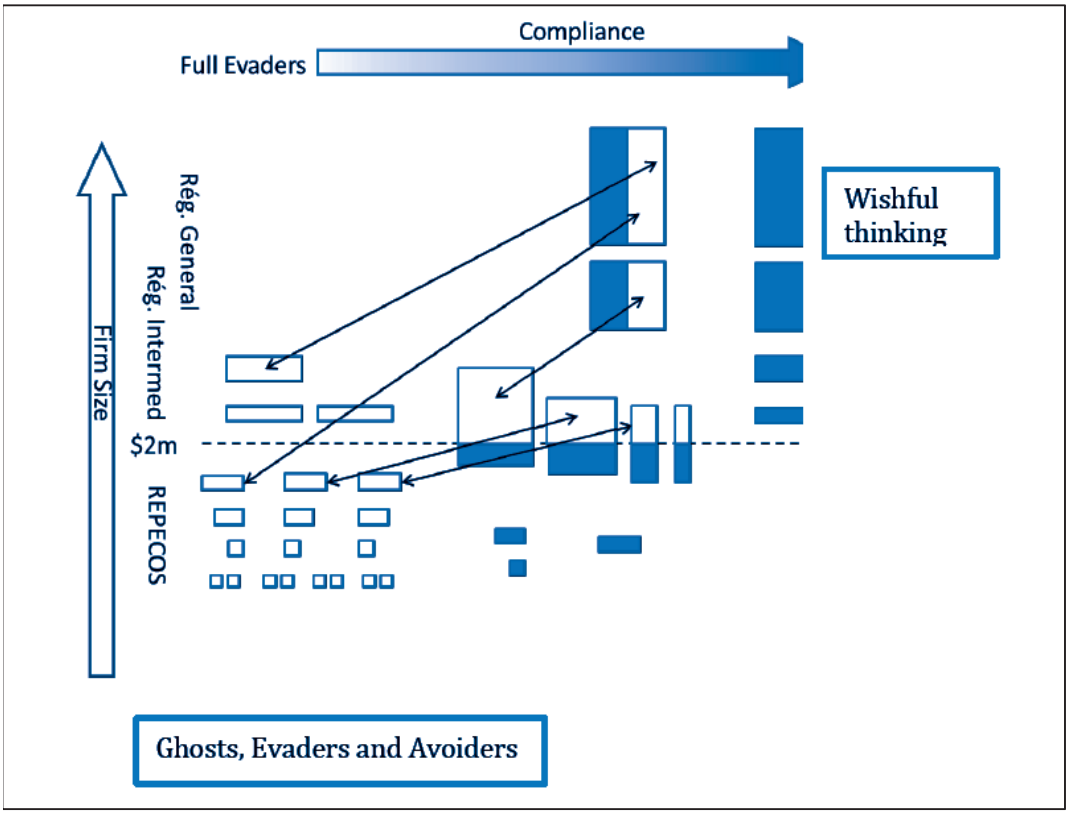
The green, dashed arrows depict a more straightforward export fraud in which a pair of related firms, one maquiladora and one outside the regime, collude to claim an input credit for a transaction that never really occurred. Finally, the red, solid arrows show the most pernicious fraud. Under the maquiladora regime, bonded imports are permitted without incurring a VAT liability provided the transformed outputs are re-exported. These inputs or their resulting transformed outputs are then passed onto another Mexican company, which then sells them in the domestic market without ever having paid the

VAT on the imported inputs. Customs data shows that only an estimated 50 to 60% of the inputs imported under this scheme ever actually leave the country again properly.

All of these possible forms of VAT fraud are greatly facilitated by the existence of the maquiladora regime and particularly by the lack of transparency in the regime, which allows firms to hide and/or disguise activities and the ever-widening definition of a maquiladora, which allows more and more firms to enter the regime.

The overall incentives to cheat are summarised in Figure 13.2. Larger firms are higher up in the picture and are represented by larger rectangles. Similarly, more compliant firms are on the right side of the picture and the degree of compliance is depicted by a greater extent of shading of the rectangle.

Figure 13.2. Incentives to cheat in Mexico



Source: Ahmad, Best and Pöschl (2012) and adaptation of Kanbur and Keen (2014, 2015).

A number of cases can be identified:

- REPECOS and adjusters: Firms with turnover below MXN 2 million were able to join the REPECOS regime for small businesses (the white boxes to the bottom left of the chart). Very few of these pay any tax. Although there is no legal registration threshold for the VAT, this became the de facto threshold. This group of smaller taxpayers is effectively written-off by Kanbur and Keen (2015), but includes what they term as the "adjusters", who legally reduce turnover to stay under the REPECOS threshold.

- Enanos or ghosts: In Mexico, there are a large number of so-called "enanos", actually too large to be eligible for REPECOS, but pretend to be eligible regardless. Furthermore, since the enforcement of REPECOS is generally very weak, businesses know that as long as they pay something, they will keep the state government happy and keep SAT off their backs. These are the "ghosts" identified by Kanbur and Keen.
- Larger firms: As argued by Levy, there is a great deal of cheating by middle and large-sized firms that hide transactions, turnover, employment and profits by trading with enanos, true REPECOS firms, ghosts and other cheaters. These firms reduce payroll and profits taxes as well as avoiding the VAT chain.
- Honest firms: Some firms may not be able to cheat either because they are run by multinationals, or are too large to do so in an undetected manner. On the other hand, the large firms are often the best-connected. And multinationals are better able to avoid taxation than most of the large domestic firms, e.g. by moving corporate headquarters to low tax jurisdictions. However, we maintain the "honest" firm categorisation in Figure 13.2 for completeness' sake (as in Ahmad, Best and Pöschl, 2012).

3.4. The implications for Mexico

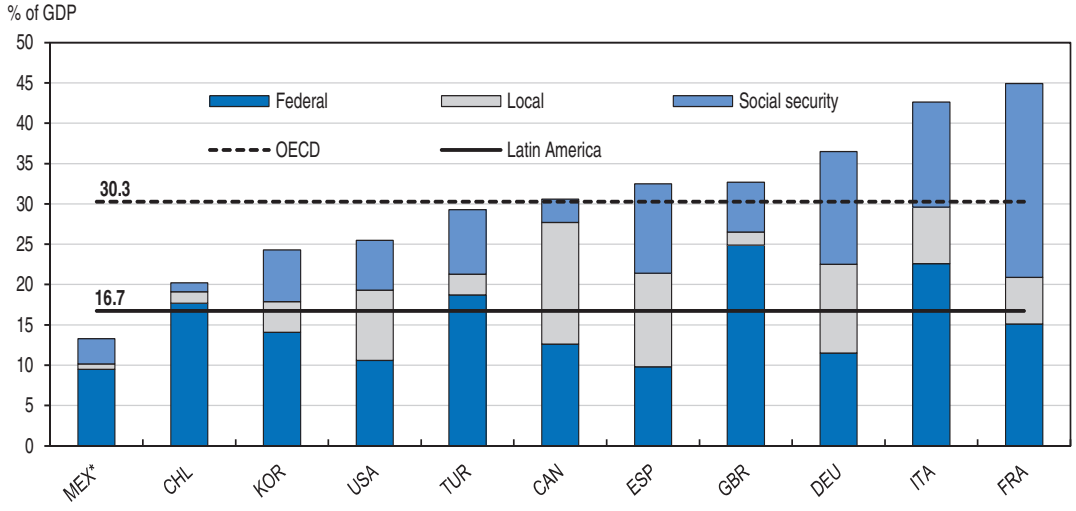
A comparison of the profit distribution declared to the tax administration versus that implied by the Economic Census data (which may itself be an underestimate) provides clues about the extent of under-declaration and its components. The details are shown in Ahmad and Zanola (2015). They provide support for the Levy hypothesis, but also for both the incentives and ability to cheat for firms of all sizes. The smaller and middle-sized firms do not appear to have a monopoly on cheating the tax administration.

Under these circumstances, there are unlikely to be many firms that would be immune to taking advantage of the opportunities of maximizing profits. And to expect that raising the VAT registration threshold per se would raise revenues would be wishful thinking indeed.

The net effect of the tax structure on the tax take, with a tax/GDP ratio of around 10% in 2013, made the country resemble Pakistan more than fellow members in the OECD, including Chile (Figure 13.3). Although petroleum-based revenues facilitate a much higher level of spending (above 20% of GDP), the quantity of production is expected to decline in the next decade. It is also fortunate that the reform was carried out at the end of 2013, as the sharp decline in petroleum prices in 2014 had a major impact on overall revenues. As will be sees below, the timing of the tax reform was extremely fortunate for Mexico.

Figure 13.3. Revenue collection in Mexico

2013, per cent of GDP



1. Excludes hydrocarbon revenues.

Source: Mexican Ministry of Finance, 2015.

4. Key elements of the Mexican 2013 tax reforms

4.1. Overview

Congress passed a package of coordinated reforms to all the main taxes in December 2013. It is worth noting here that successive reforms over the past two decades have tried to plug the holes in the VAT or the ISR – but had failed to move beyond marginal tinkering (e.g. with the "second best" IETU to plug holes in the ISR in 2007). The common feature in each case was treating each tax separately, although in the 2007 the issue of gainers and losers among states was considered explicitly.

Previously, even when compensation was contemplated, it was impossible to pass more than marginal reforms on a tax-by-tax basis – the previous attempt to reform the VAT in 2012 along with compensatory adjustments in *Oportunidades* was rejected by Congress. What makes the 2013 package remarkable is that reforms to all the main taxes (VAT, ISR – both corporate and personal; excises; and a new carbon tax) were introduced in tandem – with offsetting gainers and losers – providing a net positive effect on investment and employment generation.

In addition, the 2013 package of reforms was passed with minimal compensation (beyond the minimum pension that corresponds to a "basic benefit" and does not distort incentives to participate in the labour market). The sequencing of measures is particularly important and signifies a very careful "political-economy" assessment of the issues, including informality and the incentives to cheat.

Although the main body of legislation, comprising a package of tax measures with minimal compensation was presented to Congress and passed in December 2013, the

reforms continued with the abolition of the conditional cash transfer, the *Oportunidades* programme in September 2014, as well as the tax administration restructuring.

The reforms to the administrative measures began early in 2013 with a harmonisation of the social security and tax bases, to permit an exchange of information between IMSS and SAT. This was initiated before the main package of reforms was submitted to Congress. Subsequently, the integration of the small taxpayer regime REPECOS into the main tax administration system, with linkages to access to social security benefits (including universal health care) was key to blocking the ability to "cheat" and also providing incentives for the "informal sector" to integrate with the rest of the economy. The totality of the reforms is designed to enhance incentives for investment and formal employment, and the full benefits will likely become evident over a period of time.

As will be seen below, the revenue performance of the 2013 reforms exceeded expectations, and shielded Mexico from the economic turbulence affecting Asia and Latin America, and partially offset the sharp decline in commodity prices towards the end of 2014.

4.2. Value-added tax

The key element in the reform package designed to stop cheating was the generation of full information on the value-chain by eliminating the gaps and special provisions in the VAT. This involved principally the elimination of exemptions, the multiple rates and special provisions relating to temporary imports/maquiladora sales.

[Leaving out unprocessed food from the reforms did no damage to the political acceptability of the reforms, and also met some of the distributional criteria in accordance with a positive degree of inequality aversion, given the patterns of consumption and income in Mexico. This was shown to be a critical factor in the application of the Ahmad-Stern tax reform model to Mexico using optimal tax criteria (Urúza, 2005). Further, subjecting privately provided education to the VAT should greatly increase the overall equity of the Mexican VAT, as pointed out by Urúza (2005).

The application of the full VAT to the productive chain provides all the information needed to enforce the full compliance with the ISR. Consequently, it becomes possible to eliminate the IETU that had added to the burden of tax compliance for companies, without increasing loopholes or placing additional burdens on businesses or labour. This reform, however, depends critically on eliminating the REPECOS loopholes, and effectively lowering the threshold. This component is described below, as it was also used to effectively link the tax and benefit systems to address the other incentives to cheat and informality that so concerned Levy (2008).

4.3. Corporate income tax (ISR)

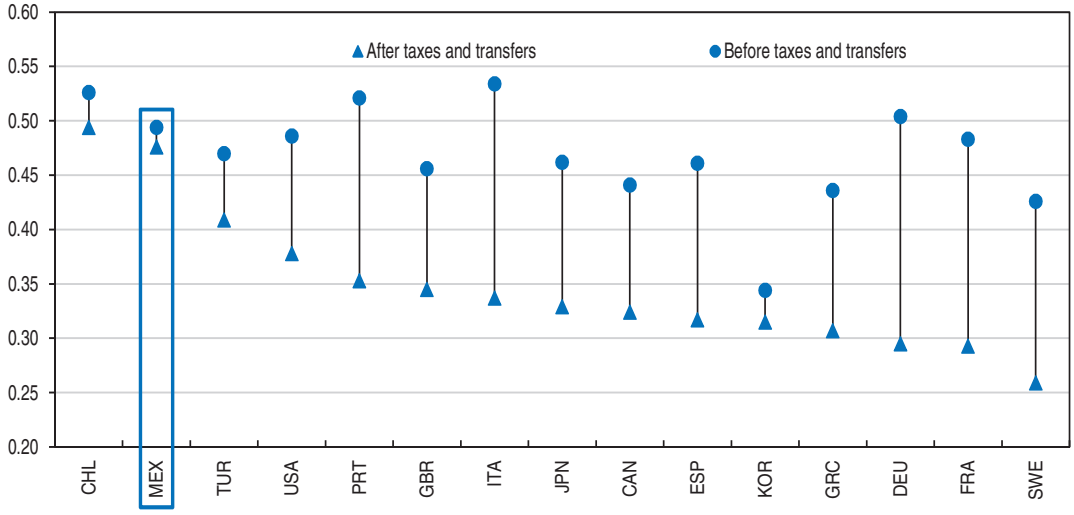
The biggest boost to the corporate ISR was the replacement of the IETU by the full VAT. This has the effect of easing the cost of doing business, and also creating a level playing field by reducing rents that were generated by the special provisions in both the ISR and VAT. It also limited a range of deductions that were permissible under the ISR-*Empresarial*. Equally important, it placed strict limits on the Maquiladora regime.

In addition, for the personal income tax, the reform removed a number of deductions linked to dividend income and capital gains – that were subjected to a 10% tax. It also limited the types of personal deductions permissible, along with a global limit of twice

the minimum salary, or 10% of income. Further, a new band of 32% (35% marginal rate) was introduced for annual incomes above MXN 3 million.

In sum, the reforms tried to enhance the redistributive power of the Mexican tax and transfer system – which prior to the reforms had been the lowest among the OECD countries (Figure 13.4).

Figure 13.4. Redistributive power of the fiscal system



Source: Mexican Ministry of Finance, 2015.

4.4. Carbon tax and energy pricing

One of the most impressive elements of public policy in Mexico is the commitment to green growth and sustainable development that has featured despite a change of parties in office. Consequently the proposals for a carbon tax had strong support from all parties. The two key elements of this reform included:

- An excise on the use of combustibles at the rate of 70.68 pesos per ton of CO2; and
- A narrowing of domestic and international prices to eliminate the implicit subsidy that existed in 2013.

In addition, there was a tax introduced on pollutants – pesticides, herbicide and fungicides between 0-9% as a function of the degree of toxicity.

Further, in keeping with the principle of taxing the "bads", a tax on sweetened drinks of one peso per liter was imposed.

4.5. Is there a need for compensation?

In order to encourage countries to adopt a carbon tax, or reduce energy-related subsidies, international agencies have typically recommended introducing a conditional cash transfer, modeled on the Mexican *Oportunidades*, to accompany a subsidy reduction or carbon tax (as in Indonesia, Pakistan, and most recently Egypt). However, Mexico chose a different path this time, relying instead on a universal basic pension to all people aged 65 and above, provided they do not have an occupational pension. This benefit

would be set at a basic income level set by the *Consejo Nacional de Evaluación de la Politíca de Desarrollo Social* (CONEVAL). The advantage of a basic benefit of this sort is that it does not distort incentives to participate in the labour market (Ahmad and Best, 2012). CONEVAL had estimated that 37.6% of such individuals had no pension of any sort, consequently, the measure would go a long way to address the concerns of the President (State of the Union Speech, 2014) that poverty levels were high in Mexico and had not changed over the past 25 years.

The disillusionment with *Oportunidades* in Mexico had several elements:

- The most important is that it has had little effect on overall poverty over the roughly twenty odd years of its existence.
- Indeed, in the State of Chiapas the take-up rate of Oportunidades increased rapidly, from just over 280 000 families in 2000, doubling by 2004 and increasing to just over 620 000 by 2012 out of around 1 million families. It is interesting that during the crisis period, 2008-10, the incomes of the poor did not fall, unlike those of the relatively well off. This indicates that the programme performed its safety-net task.
- Oportunidades does not appear to have had any impact in terms of closing the gap of the poorest state with other regions. In 2012, Chiapas was still the poorest state with severe deficiencies in public services (especially access to education by the poor) as well as the highest poverty rate in the country (over 75%, CONEVAL 2010). Over 80% of the population did not have access to the formal social security system.
- Oportunidades appeared to have become an entitlement. While this may be justified in the poorest rural areas, and for people unable to participate in the labour market, it did not appear to be relevant as a compensatory measure for changes in energy prices. This would affect lower and middle-income groups in urban areas more than the poorest.
- Indeed, the worry remains that the Oportunidades might reduce labour mobility leading to a poverty trap.

It is not surprising that the Mexican government did not use *Oportunidades* as a compensating mechanism for the 2013 reforms. Rather, it was phased out in September 2014 (announced in the President's State of the Union speech), and replaced with employment-enhancing measures. The reform of public education, together with the creation of a system of unemployment insurance constitute two major areas of focus for sustainable growth.

4.6. Institutional arrangement and the administrative measures

A key part of tax policy changes was to revamp the REPECOS regime. It was replaced by a new regime administered by SAT, the Federal tax administration. This facilitated the integration of the tax bases, and also "closed" the loopholes that existed with the two different regimes administered by different levels of government.

The REPECOS and intermediate regimes were replaced by a *Regime Incorporación Fiscal* (RIF) that exempted establishments with a turnover below MXN 100 000 for the VAT and excises with effect from January 2015, even though there is no legal threshold for the VAT.

The requirement to use electronic invoices, as well as the tax identifying number, that was harmonised with the social security system and base, permitted a very interesting linkage between the tax and benefit systems to be established. Of course, this provides additional information to block cheating. But, equally important, it permits a more accurate identification of people for whom the state pays social benefits – e.g. for IMSS related benefits, and the universal health insurance, *seguro popular*. This also provides a very strong incentive to join RIF.

5. Overall effects of the tax reform

As reported by Vice Minister Messmacher in his CEPAL address (March, 2015), the RIF has had a major impact, generating 6.9 million declarations in 2014, with an increase in the number of registered taxpayers to 4.3 million (from the 3.5 million in the REPECOS regime in 2013 who did not file declarations). This has led to a three-fold increase in revenues from the small taxpayers to over MXN 15 billion over the REPECOS regime. The success of the new regime in blocking the "ghosts" and "cheats" will become clearer over time.

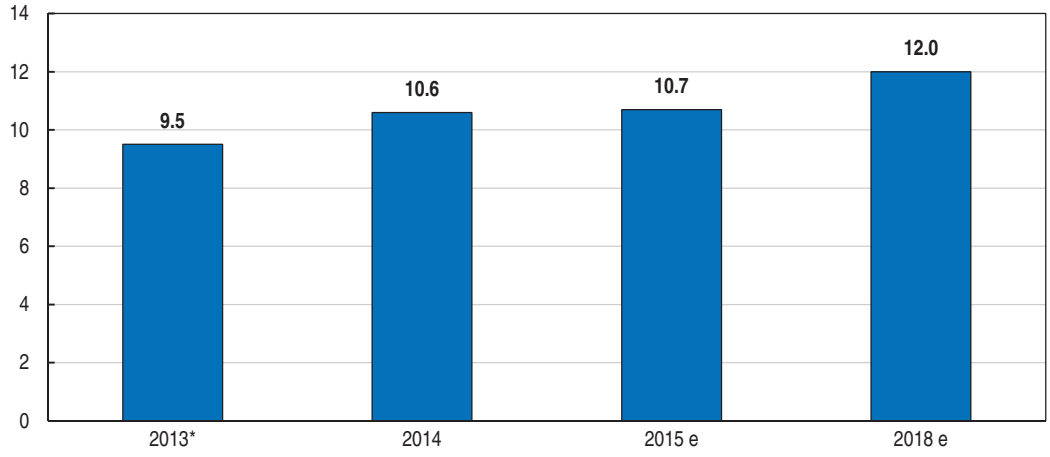
The tax revenue increase of 1.1% of GDP during 2014, a period of continuing economic turbulence in the international markets, is largely due to the measures to "stop the cheating" (Figure 13.5). Maintaining this level of tax effort will more than offset the drop in petroleum income anticipated during 2015. All of this adds to investor confidence in the management of the Mexican economy, which has been maintained despite the turbulence faced by the natural resource based Latin American countries during 2014/15.

There are tangible benefits from the relatively modest carbon tax, excise on sodas, and excise on sweets, raising 0.1% of GDP each (Box 13.1). The reductions in carbon emissions, carbon monoxide and particulates are palpable. Similarly, addressing obesity and health concerns by the excises on sodas and sweets can only be measured over time, but the reduction in sales of the "bads" is apparent.

From the policy design perspective, these outcomes reflect the importance of taking a "comprehensive view" of the tax policy agenda, and in ensuring that there are sufficient long-term gainers in terms of improved growth and employment prospects. In addition, improvements in the quality of life and standards of education and health are critical elements for sustainable growth and in the political acceptability of raising domestic revenues in a responsible and equitable manner.

Figure 13.5. Revenue effects of the 2013 reforms

Tax revenues as per cent of GDP



Source: Mexican Ministry of Finance.

Box 13.1. Tangible benefits from the tax measures during 2014

Excises on Sodas

- 10% reduction in consumption of sodas
- 13% increase in purified water
- Revenue generated 0.1% of GDP

Excises on confectionery

- Reduction of 1.1% in sale of chocolate products
- Reduction of 0.5% in sale of sweets and confectionery
- Revenue generated 0.1% of GDP

Carbon Tax

- Reduction in carbon emissions of 22.2 million tons
- Reduction of 432 000 tons of carbon monoxide
- Reduction of 99 000 tons of particulates
- Revenue generated 0.1% of GDP

Source: Mexican Ministry of Finance.

6. Some lessons

The Mexican 2013 reform represents the most significant package of fiscal measures in any major country over the past twenty years, improving in many respects on the 1993 reforms in China (Ahmad, 2012). But what is common in both cases is that the policy makers understood fully the institutional constraints that operated in their countries – which are very different from those in the United States – as well as the political economy considerations. In both the 2013 Mexican and 1993 Chinese reforms the focus was on generating growth and employment, while balancing the interests of different groups of the population (Mexico), and that no province or region would lose as a result of the reforms (China).

The 2013 Mexican reforms yield a number of general lessons that might be applicable to a range of emerging market as well as other OECD countries:

- Institutional design and incentives to "cheat" matter. One cannot assume that reliance on some "honest" taxpayers will be sufficient.
- The combination of tax and social policy is critical to the effective operation of both. With social policy, there is less need for special provisions in taxes that complicate administration and often do not work. And tax measures are important in generating incentives for accountable spending, and also ensuring that the appropriate "flow of information" keeps all people, not just the largest taxpayers, honest.
- It is important not to take the simple solutions to address deep-seated problems with informality and cheating – the reliance on turnover taxes can make matters much worse. The information from a well-designed VAT is critical in stopping the cheating in the declaration of income taxes.
- An integrated administration for the VAT and the personal and corporate income tax is essential, regardless of how the revenues from either source are assigned among different levels of government or shared.
- Compensatory measures, e.g. for carbon taxes, need to be carefully thought through, as the objective is to change behavior and this will not happen if those affected are compensated. Moreover, the costs are likely to be borne by the rich (no compensation needed) and urban poor. For the latter group, a basic benefit along the lines introduced in Mexico, along with access to health care and education and sustained job creation is the best option. Addressing interpersonal and regional inequalities is particularly important.

The measures taken in the 2013 Mexican reforms are entirely consistent with the post-2015 Sustainable Development Agenda, and merit study. Applications to other cases will, however, depend on the appropriate institutional framework of the country in question.

Notes

1. I am grateful to Massimo Bordignon and OECD Fiscal Network members for helpful comments; and to Miguel Messmacher and Rodrigo Barrios for information on the implementation of the Mexican tax reforms. Research assistance by Ian Seyal is acknowledged. All errors are mine.

2. It is worth keeping in mind that international organisations, like the IMF, have recommended the segmentation of tax administrations consistently, and well before the US IRS adopted it, including also to countries like Pakistan. Although the issue of budget institutions was discussed at the Seminar at the OECD in Paris in November 2014, space considerations preclude a full discussion in this paper. Interested readers are, however, referred to Ahmad, Bordignon and Brosio, (forthcoming).

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Annex A

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Further reading

Institutional and Financial Relations across Levels of Government (2012)

Consult this publication on line at ***http://dx.doi.org/10.1787/9789264246966-en.***

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