SPAIN
REGIONAL FINANCING FRAMEWORKS

IMF COMMENTS
ON EXPERT COMMISSION REPORT
(September 15, 2017)

PREFACE

The Government of Spain established two Expert Commissions to review the systems of regional and local financing (Council of Ministers, February 10, 2017). The authorities requested the IMF to support the Commissions by providing technical inputs as background to their review, and then to comment on the Commissions' reports, *Informe de la Comisión de Expertos para la Revisión del Modelo de Financiación Autonómica,* and *Informe de la Comisión de Expertos para la Revisión del Modelo de Financiación Local*, both July 2017.

This document transmits the IMF's comments on the regional financing report.[1] The main reviewers were Teresa Ter-Minassian (Former Director of the IMF's Fiscal Affairs Department), Victor Lledó, and Ricardo Fenochietto, all from the Fiscal Affairs Department. Juan Toro, Assistant Director for Revenue Administration, also provided advice. The project was conducted under the guidance of Adrienne Cheasty, Deputy Director of the Fiscal Affairs Department.

The IMF welcomes the collaboration with Spain on these important topics and stands ready to discuss these comments—or other aspects of the reports—upon the request of the Spanish authorities.

[1] A previous document, attached as an annex to this one, provided answers to the commission' questions in four technical areas.

I. SETTING

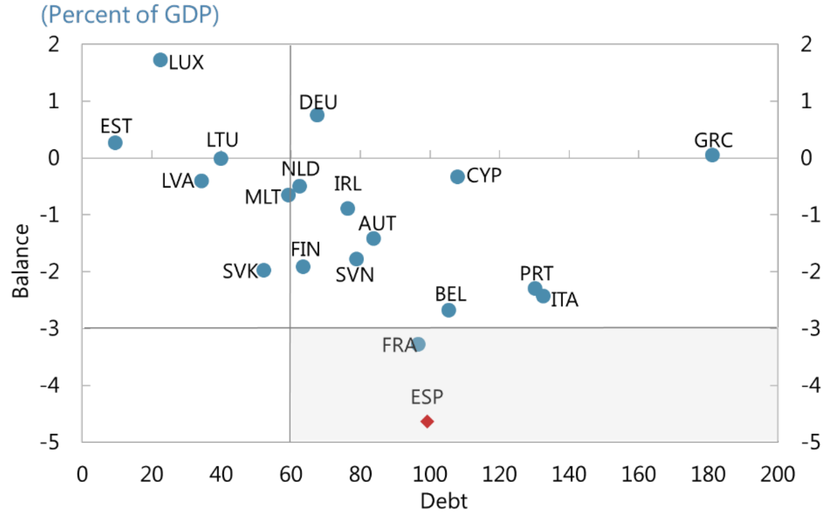
The Commissions on Regional and Local Financing have identified an important menu of issues that, if addressed, would significantly improve the performance of subnational governments. However, it must be recognized that the longstanding challenges facing the subnational system go significantly beyond the scope of the reports. The value of the recommendations will hinge on success in resolving these larger challenges. That said, IMF comments below are restricted to our perspective on the diagnostics and recommendations included in the reports: whether these are consistent with current global good practices in subnational public economics, and whether they go far enough to meet subnational responsibilities to support a stable and sustainable macroeconomy.

Macroeconomic context

It may be helpful to preface the comments with a summary of Spain's macro-fiscal needs. Fiscal consolidation remains a priority for Spain: its public debt, at almost 100 percent of GDP, is nearly three times higher than on the eve of the global financial crisis, and its deficit and annual gross financing need are the highest in the European Union, relative to GDP (Figure 1). These financial vulnerabilities are worsened by high fiscal risks from contingent liabilities, including from the banking sector, and longer-term pressures from population ageing.

Figure 1. General Government Balance and Debt, 2016

(Percent of GDP)

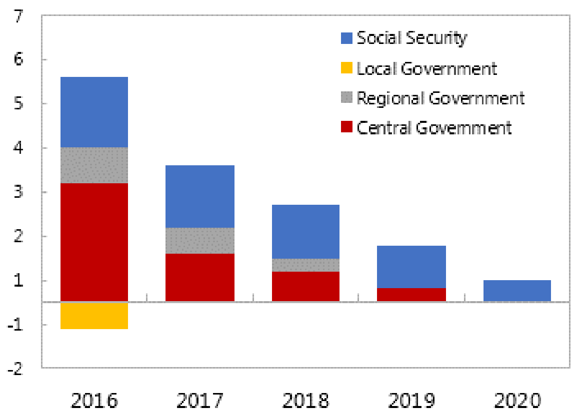


Sources: Eurostat; and IMF *World Economic Outlook*.

The Government's Stability Program lays out a feasible path to consolidation between now and 2020 (Figure 2). The greatest burden of adjustment will fall on central government and social security, but the targets will not be attainable unless regional governments also make a contribution, and municipal governments remain in balance. This means that there is little scope for regions to address their problems by passing the burden upwards to the central government. Moreover, achieving the overall targets will require strengthening regions' compliance with their fiscal targets, to avoid the deviations that have worsened deficits and debt in the recent past (Figure 3).

Figure 2. Budetary Projections, Excessive Deficit Procedure

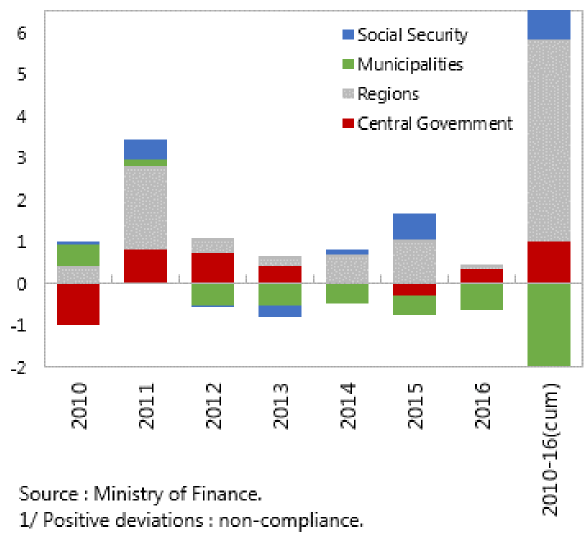
Fiscal deficit by sector 1/
(Percent of GDP)



Source : Ministry of Finance.

Figure 3. Regions' Fiscal Compliance with Budgetary Targets

Fiscal deficit deviations by sector 1/
(Percent of GDP)



Source : Ministry of Finance.
1/ Positive deviations : non-compliance.
Negative deviations : over-compliance.

II. IMF COMMENTS

Informe de la Comisión de Expertos para la Revisión del Modelo de Financiación Autonómica (Julio 2017)

The regional Commission's report discusses the main weaknesses of the current financing model of the *Comunidades Autonomas* (CCAAs), and provides some technically-based responses to issues that inevitably have strong political connotations. We agree with significant parts of the analysis and recommendations, but also have a number of comments on them, detailed below. The comments focus on three areas which are key to giving regions the capacity and incentives to fulfil their spending mandates in a fiscally responsible manner:

- o Regional revenue autonomy
- o The design of the intergovernmental transfer system; and
- o The regional financing framework.

A general comment on the report is that several of its analyses and recommendations would benefit from further technical assessment, to better inform and facilitate decisions at the political level. The Commission may have been constrained in detailing and quantifying a number of its recommendations and their prospective impact by a lack of consensus among its members, as well as by the relatively short time of its deliberations. There is accordingly a need for further technical reflection on some of the proposed reforms. Some of the comments below provide a few preliminary suggestions in this respect.

A. Regional Revenue Autonomy

The report is in line with the fiscal federalism literature in arguing that additional revenue autonomy for regions would increase their incentives to internalize the costs of spending decisions, thus helping to reduce spending overruns and above-target fiscal deficits. It could usefully add that giving regions greater revenue autonomy would dispel perceptions that they have insufficient policy levers to maintain fiscal compliance in the face of revenue shortfalls—and by doing so would help reduce calls for bailout and related moral hazard risks.

The challenge in granting greater regional revenue autonomy is to do so without worsening economic distortions, undermining the central government's macroeconomic stabilization capacities by eliminating important revenue handles, or increasing compliance costs for taxpayers. For these reasons:

- We welcome the Commission's focus on increasing tax autonomy though the **level and structure of rates of ceded taxes**, rather than through the definition of their bases.
- We support the report's call to harmonize the definition of **assessment bases for property taxes**, with a view to reducing administration and taxpayer compliance costs, limiting revenue losses through tax competition, increasing transparency, and facilitating the calculation of revenue capacities.

On the Commission's specific recommendations on ceded or own regional revenues, we broadly agree with the proposals to:

- Maintain the current distribution of responsibilities for the **personal income tax**, but make more visible to taxpayers the regions' autonomy in deciding the rate structure of their tranche of the tax (*tramo autonomico*). The recommendation to harmonize income tax allowances across the national territory has benefits in terms of reducing administration costs and the scope for tax competition; however, it could reasonably be nuanced by allowing differences justified by measurable regional differences in the cost of living.
- Update the base and rate structure of the **estate and gift taxes**, which have remained unchanged since 1987. We also support the recommendation to introduce a minimum rate, to avoid a "race to the bottom" among regions for these taxes. It would be useful to compile estimates of the potential revenue gain from these actions.
- Ask the central government, in consultation with the CCAAs, to prepare a framework law on **environmental taxes**, which clearly specifies the powers of the different levels of government and ensures a coordinated approach.
- Increase the CCAAs' powers to levy **user fees and co-payments** for services provided, for instance in health. It would be useful to give more specific proposals for the types of user fees to be increased (perhaps also in utilities and other public

services), and a range of estimates of their potential yield. Relatedly, it would be useful to explore the scope for regions to make better use of their commercial assets (e.g., real estate and other properties) and improve the return from the enterprises they own.

- Strengthen existing **coordination mechanisms between the national and the regional tax administrations**, especially as regards exchange of taxpayer information, and the use of technology. We are not in a position to assess the recommendation to integrate the central and regional administrations over the longer term, given the paucity of details provided in the report, but at a general level, remark that we are wary of creating a new super-structure in the tax administration.

As regards the ***Impuesto sobre el Patrimonio*** and the ***Impuesto sobre Transmisiones Patrimoniales y Actos Jurídicos Documentados***, the report highlights the trade-off between efficiency and revenue-maintenance. On balance, given the fiscal consolidation imperative, we agree with the recommendation to maintain these significant sources of revenue for a while, while harmonizing their base.

The Commission's main proposal to increase regional revenue autonomy is to create ***tramos autonomicos*** **of VAT and excises** from the portions of these taxes currently shared with the regions, with uniform bases and rates to be set collectively by the regions at the CPFF, on the basis of unanimity, or at least a qualified majority. This proposal raises issues of feasibility and potential impact.

- The suggestion to use an unanimity vote to overcome the incentive for individual regions to free-ride (benefiting from a rate increase, but trying to avoid the political cost of the decision by voting against it) could well lead to gridlock—certainly to delays in decision-making. It may not be easy even to achieve a qualified majority, given the regions' heterogeneity in spending needs and preferences, and of tax capacities and effort.
- Having a uniform *tramo autonomico* of indirect taxes might improve the fiscal resilience of the CCAAs to generalized macroeconomic shocks, but would not help them cushion asymmetric ones. And, if implemented, the proposal would diminish the central government's ability to use the taxes as stabilization instruments (or for consolidation).

For these reasons, we would caution against introducing a new system of uniform *tramos autonomicos* of VAT and excises without an efficient and conclusive decision mechanism. In such circumstances, it would seem preferable to leave the central government with its current determining role.

The report considers the possibility of seeking to restore **powers to differentiate excise taxes** across regions (p. 54). While Spain will need to remain compliant with EC Directives in this area, we note that, for many non-EU countries, the capacity to put regional surcharges on national excises is an important instrument for increasing own-revenues.

B. The Design of the Intergovernmental Transfer System

Vertical sharing of resources

We agree with the Commission's view that total **transfers from the central government to the CCAAs** under the common regime should in principle be adequate to cover the gap between the spending needs of CCAAs, taking into account national minimum standards for the services they provide, and their revenue raising-capacity under the current or a reformed own revenue system, at an agreed level of revenue effort. This view is in line with well-established principles in the literature.

However, we would question the report's **definition of spending needs** as the expenditures needed to restore essential social services *to the levels envisaged in the 2009 reform of the regional financing system*. This procedure would implicitly place on the central government the entire burden of adjustment to the devastating impact of the global financial crisis and especially the Euro crisis on public revenues—and would probably compromise Spain's medium-term consolidation plan.

In our view, further analysis is needed to arrive at a balanced assessment of the adequacy of the vertical distribution of resources between the two levels of government. Simulation of the financial and distributional effects of alternative options would be particularly insightful, notably regarding:

- The appropriateness and affordability of alternative national minimum standards for essential social services.
- Consideration of alternative methodologies for costing spending needs across different functional categories (e.g. health, education, etc).
- The scope for mobilizing additional regional own revenues, not only by implementing the reforms discussed in the previous section, but also through a better exploitation of the bases of own and ceded taxes, and of non-tax revenue sources, as well as through possible changes in revenue assignments, including those recommended by the Commission.

Horizontal equalization

We agree with the Commission's diagnosis that the design of the current system of intergovernmental transfers is complex, opaque, and ineffective in providing horizontal equalization. We concur with the report's assessment that such drawbacks are largely driven by **the multi-fund structure of the current system of general-purpose current transfers**, where the relative transparency and effectiveness of the horizontal equalization fund (the Guarantee Fund) is undermined by two additional vertical equalization funds (the Sufficiency Fund and the Competitiveness Fund), which follow different criteria. Previous studies also corroborate such findings.

We therefore generally welcome the report's proposals for streamlining the current system. The proposal to channel all general-purpose current transfers from the central government into a unique fund (*Fondo de Nivelacion Vertical - FNV*) that would replace the existing Sufficiency and Competitiveness Funds is reasonable. And so is the proposal to replace the Guarantee Fund by a new horizontal equalization fund (*Fondo Basico de Financiacion - FBF*)—although with some further exploration of how it would be resourced, given the caveats raised above about regional VAT and excise taxes, which are proposed by the Commission to be one of the *FBF* financing sources.

Proposals for refining existing **indicators of revenue-raising capacity and spending needs** are also reasonable. That said, given the existence of relatively rich data, it could be relevant to bring in more parameters to better reflect the considerations important to the various different stakeholders. More generally, the report would benefit from simulation exercises looking at the horizontal equalization impact of the proposed system, like those used to assess the current system.

We agree that it would be highly desirable on equity grounds that the two **CCAAs under the regimen foral** begin to contribute to the horizontal equalization system. The Commission estimates that this contribution could amount to Euro 2.6 bln. It could usefully elaborate on the implications of this amount for those regions' budgets.

Settlement System

The report correctly recognizes that the current **lag in settling transfers** delays the regions' adjustment to unexpected revenue shocks, but also reduces the procyclicality of regional resource availability. We would favor proposals to reduce the current settlement lag, but with a lower frequency than the monthly one suggested in the report, given the current lack of stabilization funds and other mechanisms to smooth the financing of regional spending.

C. Regional Fiscal and Financing Framework

Fiscal discipline

We broadly welcome the Commission's call to strengthen **regional fiscal responsibility** through both a better implementation of the existing fiscal rules, and greater reliance on financial market discipline. The two prongs of such an approach should be mutually reinforcing. In particular, we support the Commission's recommendation to phase-out the existing permanent **liquidity funds (FFCA)**. International experience suggests that soft budget constraints are most successfully avoided by limiting direct central government lending only to crisis periods and subject to firmly enforced conditionality.

A firmer enforcement of the rules will be a prerequisite for effectiveness of the Commission's recommended strategy. An important supporting action would be to remove any remaining concerns about the regions' **accounting, reporting, and overall fiscal transparency** as soon as possible—including by better disclosure of fiscal risks. In line with EU practices, fiscal rules do not cover SOEs that receive less than half of their revenues from the regional governments, nor the contingent liabilities from PPPs and other guarantees. Hence it will be important for the fiscal risks stemming from such exclusions to be properly identified, quantified, and disclosed by the regions.

Fiscal targets

We recommend that the Commission's **recommendation that debt and deficit targets should be differentiated across regions** be recast as a transitional convergence strategy to eventual uniform targets, since it is difficult to justify it on economic grounds as a permanent arrangement. Even then—and leaving aside important questions about political feasibility—more thought would be needed about: (i) the merits and acceptability of possible criteria to guide the choice of the differentiated targets; and (ii) the possible implications of the recommended approach for compliance by Spain with the EU-mandated targets for the General Government.

Debt Restructuring

We note the dissent among the Commission's experts on the topic of regional debt restructuring. We tend to side with the majority who view any **cancellation of debts as a source of moral hazard**, whose risks must be contained. International evidence compiled in the attached note (which we shared with the Commission prior to the finalization of its report) suggests that central government's financial support through emergency loans, ad-hoc transfers, or debt restructuring episodes has usually led to increases in both subnational and sovereign spreads. Considering these international experiences and our comments above on the need for pragmatism in assessing the regions' vertical fiscal imbalances, we would argue against the minority proposal to link any restructuring of regional debt to the alleged insufficiency of central government transfers since 2009 to cover the levels of essential services.

We would, therefore, favor a cautious approach to debt restructuring which, as suggested by the majority view in the Commission, should start with careful debt sustainability assessments (DSAs) for each region, to determine the extent to which its problem is one of liquidity or solvency. Such DSAs should be conducted independently and publicly, ideally by the AIReF and under the supervision of the Bank of Spain, using a standardized methodology.

Debt restructuring should be considered only in the event that the debt is considered unsustainable under several specific scenarios and above accepted probability thresholds. In such cases, the debt restructuring should take form of longer repayment periods, extended grace periods, or subsidized interest rates. To minimize moral hazard, nominal debt pardons, even if partial, should be avoided. Best international practices advise that any debt restructuring should be preceded by reforms to strengthen subnational fiscal responsibility frameworks, and should be accompanied by effective conditionality. Ideally, the reforms would include legislation for an appropriate ex ante insolvency framework.

Stabilization Funds

The adoption of **stabilization funds (or rainy-day funds)** should wait until regions' budgets are closer to structural balance. Using above-trend revenues to replenish a stabilization fund, rather than to reduce debt, could undermine a region's compliance with its fiscal targets and may not be financially optimal, as the return on the fund's assets is likely to be lower than the cost of the debt. Nonetheless, since the Government Stability Program envisages structural balance by 2020, the additional study of stabilization funds called for in the last paragraph of the report should not be delayed. Besides examining core design features (i.e., number, size, rules governing flows to and from the fund), such a study should discuss whether such funds should be individual for each region or pooled (an important consideration here being how correlated business cycles tend to be among the different regions). The annexed note (also prepared by the IMF staff on request of the Commission, ahead of the publication of its report) reviews international experiences with stabilization funds; discusses some of the issues mentioned above; and offers some lessons with respect to the number, size, deposit and withdrawals rules, investment criteria, and transparency requirements for such funds.

Annex: IMF Responses to Expert Commission Requests, transmitted July 14, 2017

SPAIN
REGIONAL FINANCING FRAMEWORKS

IMF Responses
TO EXPERT COMMISSION REQUESTS

(July 14, 2017)

PREFACE

The Government of Spain has established two Expert Commissions to review the systems of regional and local financing (Council of Ministers, February 10, 2017). The authorities requested the IMF to support the Commissions by providing technical inputs as background to their review. The Commissions, together with the Ministry of Finance, specified six topics where IMF inputs would be useful.

This document provides consolidated answers to questions in these topic areas requested by the Expert Commission on Regional Finances. Answers were compiled by a team of experts under the supervision of Teresa Ter-Minassian (Former Director of the IMF's Fiscal Affairs Department). Team members included Victor Lledó, Ivo Razafimahefa, and David Wentworth, all from the Fiscal Affairs Department. The project was conducted under the guidance of Adrienne Cheasty, Deputy Director of the Fiscal Affairs Department.

The IMF welcomes the collaboration with Spain on these important topics and stands ready to discuss this document, address further technical issues in support of the Commissions' work, and comment on the Commissions' reports upon completion.

I. Regional Financing Frameworks—IMF Responses

A. Central Government Management of Subnational Governments' Debt Crisis[2]

One of the consequences of the recent crisis in Spain, in terms of regional finances, has been that a significant part of the debt of the Autonomous Communities is now held by the central government. Are there other countries where this has occurred? What happened to that debt? If it has been totally or partially pardoned, has it had any detectable negative consequences on the incentives of sub-central governments to maintain fiscal discipline?

Country cases

Spain's current situation, where the central government holds about 50 percent of subnational government debt, is unusual for advanced countries.[3] In normal times, advanced-country central governments do lend directly to SNGs, but lending is usually small and targeted and, as a result, central governments own only a small fraction of SNG debt (Palomba et al, 2015). Central governments in Australia, Canada, and the U.S. provide small specific-purpose loans to states to finance selected programs (Table 1). Programs mainly focus on housing and infrastructure (Australia, Germany) and unemployment compensation (U.S.). Austria is the only notable exception of large centralized borrowing in normal times. The Austrian federal government's debt management agency is tasked by law to raise debt and on-lend to states through direct loans. In 2011 the stock of these loans covered about one third of states' financing needs.

Table 1. Stock of Direct Federal Loans to States in Selected Federations, 2011-12

	In percent of GDP	In percent of CG gross debt	In percent of states' gross debt	Purpose
Argentina	3.6	8.0	55.4	Debt restructuring and current financial support
Australia	0.2	1.2	2.6	Housing and infrastructure
Austria 1/	2.4	3.6	31.9	General budget financing and borrowing on behalf of states
Canada 1/	0.2	0.5	0.5	General budget financing
Germany	0.3	0.6	1.2	Housing and infrastructure
India	1.8	3.4	7.9	General budget financing
United States 1/	0.3	0.5	1.1	Unemployment compensation

1/ For Austria, states including Vienna; for the US, central, states and local governments debt in 2010; for Canada state debt in 2008.
Source : Palomba et al, 2015.

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[2] By Victor Lledó, Ivo Razafimahefa, and Teresa Ter-Minassian.

[3] Share of total regional government debt owed to the central government from direct lending operations (Fund for the Financing of Regional Governments – FFCCAA, as of Q1 2017; Source: Bank of Spain).

Central governments in emerging economies lend more often to subnational governments, typically indirectly through centrally owned entities (Palomba et al, 2015). Centrally-run funds in India (such as the pension fund and small savings fund) provided for about one quarter of Indian states' financing needs and owned about half of their debt in 2011-12. Centrally owned development banks provide project-related financing to SNGs in Mexico (Banobras), Argentina (Banco de la Nacion and others), Brazil (BNDES and others) (Table 2).

Table 2. Stock of Indirect Public Loans to States in Selected Federations, 2011-12

	In percent of GDP	In percent of CG gross debt	In percent of states' gross debt	Vehicle
Argentina 1/	1.4	3.1	21.1	Banco de la Nacion; TFPD; TFRI
Brazil 2/	1.1	1.8	9.1	Public financial institutions
India	11.7	22.5	50.3	EPFO; other Funds; NSSF
Mexico 3/	0.6	2.3	23.5	Banobras
South Africa	0.03	0.1	n/a	DBSA

1/ Banco de la Nacion public sector loans and provincial debt to TFPD and TFRI at end-2011.
2/ Refers to SNGs.
3/ Central debt for 2010 and SNG debt for 2011.
Source: Palomba et al, 2015

Central government lending to SNGs has been more frequent *as a temporary crisis response*, but less common than a one-time assumption of the debt stock (Cordes et al, 2015). In Spain, as market access diminished in the aftermath of the Euro Area debt crisis, direct central government on-lending to autonomous communities began in 2012 with the creation of a number of emergency liquidity mechanisms such as the *Fondo de Liquidez Autonomica* (FLA). The debt was not assumed by the central government, given the presence of a no bail-out law clause effective since 2008. This is in line with experience elsewhere. When facing a fiscal crisis, SNGs have rarely been allowed to default on their private creditors, reflecting the absence in most countries of pre-set crisis resolution frameworks such as the U.S. insolvency framework for municipalities.[4] Even when such frameworks existed, they proved to be insufficient to address SNG debt issues.[5]

[4] In the U.S., states and the District of Columbia are not allowed to use Chapter 9 of the Bankruptcy Code.

[5] Mexico set up a Fund for Strengthening Mexican States (FAFEF) in 2006. The fund can be used to pay down subnational debt stock as part of an exchange offer or serve as collateral for subnational borrowing. A handful of states have used the framework to restructure their debts. However, this framework proved insufficient in the

- CGs' support to SNGs in financial difficulties has in some cases taken the form of loans.[6] In the simplest version, the central government has provided a direct loan to enable the subnational authorities to service their debt (e.g. U.S. federal lending to New York City in 1975 and to the District of Columbia in 1996). Spain's FLA set up in 2012 falls in this category. In Russia, following the weaker oil prices since 2009 and recent economic sanctions, subnational revenues have been much lower than expected, reflecting slower growth, while expenditure obligations have been increasing rapidly. As subnational debt has steadily increased and a number of oblasts (provinces) have experienced serious financial distress, the Federal Government has expanded significantly its loans to regional administrations.

- In a few cases, the central government chose instead to step up by a large amount the resources it was providing to SNGs under existing intergovernmental transfers arrangements. These extraordinary transfers were seldom one-offs, as the federal government had to continue providing financing to subnational governments over a number of years. Extraordinary transfers were used to support subnational governments in Argentina from 1992 to 1994, Mexico between 1995 and 1998, and Germany since 1992.

- Most commonly, however, federal governments have resorted to assuming the existing debt of the subnational entity in distress, which in turn incurred a matching liability to the federal government.

Treatment of debt assumed by central government

When SNGs' debt was taken over by central governments during fiscal crises, it was usually not completely pardoned. Whether the central government serviced the assumed debt on original terms (Brazil in 1997) or negotiated a restructuring with creditors (Argentina), it usually retained a claim on SNGs but with some restructuring of terms to make repayment more feasible—notably, longer repayment periods, extended grace periods, and subsidized interest rates. Initial debt restructurings have usually proved insufficient to put SNGs' debt on a sustainable path, leading to additional restructuring rounds. This approach was followed repeatedly in India since the 1970s, in Brazil in the late 1980s and 1990s, and in Argentina during the last decade.[7] India implemented since 1974 a variety of

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aftermath of the Global Financial Crisis, leading the federal government to step in with some additional temporary financing mechanisms.

[6] Direct support from the central government was present in 9 out 16 episodes of subnational fiscal crisis documented in a recent IMF staff assessment (Palomba et al 2015).

[7] SNG debt takeover operations have also taken place at the early stage in the creation of federations (Palomba et al, 2015). In the United States, for example, the federal government took over states' debts in 1790, as the

schemes involving the consolidation of loans on common terms, lower interest rates, moratoria on interest and principal payments, loan write-offs, a debt swap scheme, and most recently the establishment of a Debt Consolidation and Relief Facility. The experience of Brazil is summarized in Box 1 below. In Argentina, SNG debt restructuring in 2001-02 was largely determined by the federal government, who also faced large financing pressures at that time. In China, the 2015 budget allowed regional and local governments to swap RMB 1 trillion of high-interest and short-maturity debt raised through third parties into low-interest and longer-dated bonds; this program was subsequently expanded to provide an additional buffer to local governments in executing an orderly rollover of maturing debt. As a result, a significant portion of SNG debt ended up being owed to the CG in those countries (Figure 1).

Implications for fiscal discipline

By raising bailout expectations, central government financial support to SNGs can transfer risk and create moral hazard. This can be seen in changes in borrowing costs of the sovereign and subnational entities. Recent empirical studies suggest that expectations of bailouts following both permanent or ad-hoc central government financial support to SNGs can unduly suppress spreads for SNGs while adding a risk premium to sovereign borrowing. Schuknecht et. al (2008) and Schulz and Wolff (2009) found that in the case of Germany, which makes large-scale intergovernmental transfers and has a history of Lander bailouts (Saarland, Bremen, and former GDR states), interest rate premia paid by SNGs have been unduly compressed and de-linked from underlying fiscal performance, including debt levels. Jenkner and Lu (2014) found evidence that Spanish sovereign spreads may have increased by around 70 basis points because of the central government's support for fiscally-distressed regions in the aftermath of the global financial crisis.

To counter such expectations, SNG bailouts and debt restructuring have usually been accompanied by a significant strengthening of subnational fiscal frameworks. Debt restructuring was used as a springboard to strengthen the fiscal framework in a durable way through the introduction of fiscal responsibility laws (FRLs) in Brazil and India. In the former, the FRL reinforced the restrictions on personnel spending, deficits, and debt included in the state debt restructuring agreements, and sought to improve fiscal transparency and accountability.

SNG fiscal frameworks have also been strengthened by new restrictions on borrowing. In Russia, the equalization transfer formula was made more stable to combat soft budget

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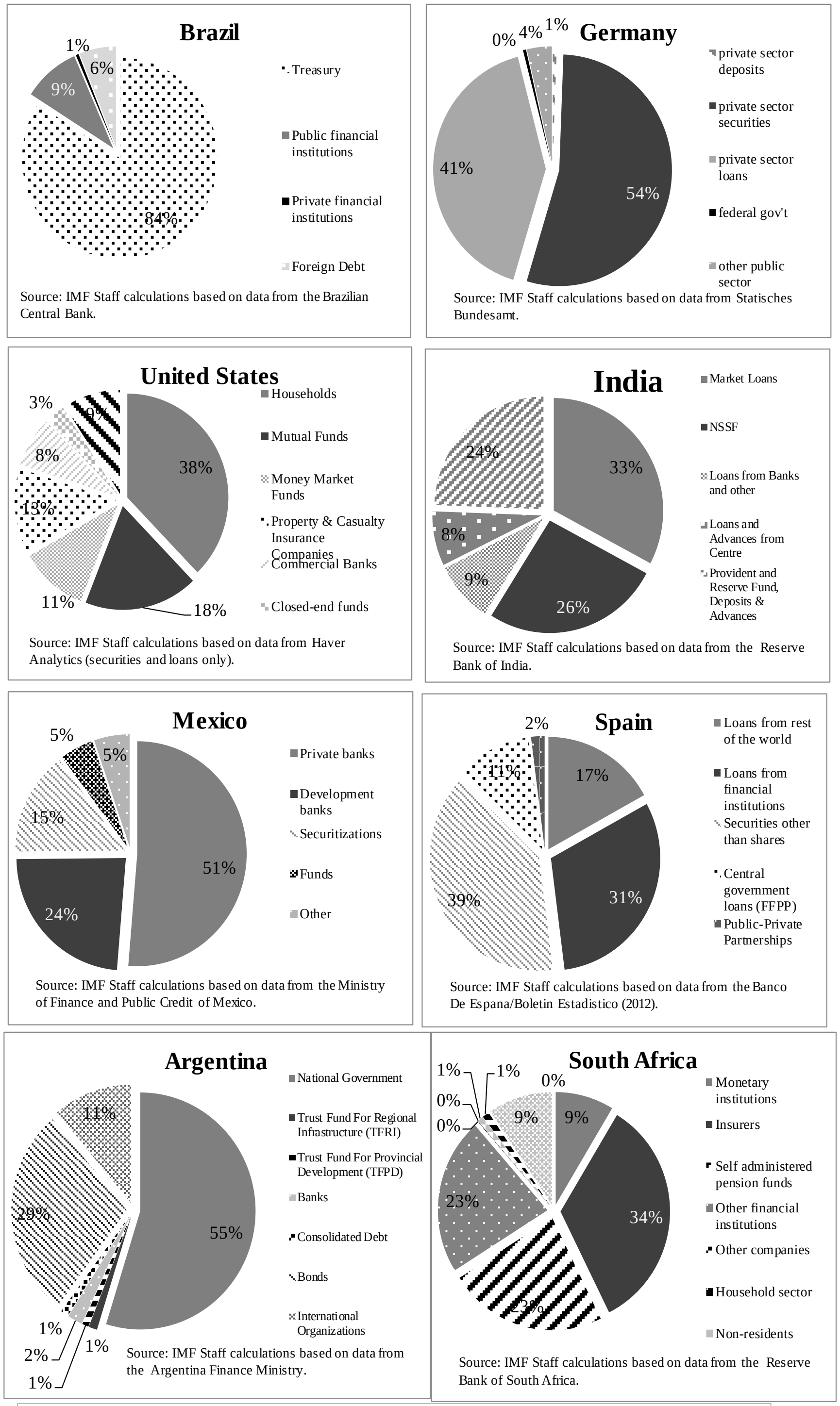
new constitution assigned the main revenue source (i.e., tariffs) to the center. Similarly, in Canada, the new Confederation created in 1867 assumed provincial debt and was endowed with a revenue-raising capacity. In contrast, in 1871, the new federal German government started off without taking over any debt, and states maintained their debt and control over their taxes. However, during the German re-unification in 1990, East Germany's debts were fully assumed by the federal government.

constraints and strict limits were introduced on borrowing (only regions with credit ratings from at least two major agencies as high as the Federal Government's rating are eligible to borrow externally; the stock of debt cannot exceed 100 percent of annual revenues; and debt service cannot exceed 15 percent of new expenditures). In China, a 2014 law limited the rights of local governments to issue debt by setting a quota, and prohibited assumption of enterprise debts by governments; it also established a no bail-out principle.

In the restructuring cases cited above, central government financial support was subject to conditionality. The main goal was to achieve a fiscal regime change so that no further bail-outs would be necessary; to the same end, conditionality was also seen as limiting moral hazard. Conditionality in the case of the 1997 SNG debt restructuring in Brazil is detailed in Box 1. In the case of Argentina in the mid-1990s, it involved a freeze in the number of employees and subnational pension reform. In India, the states were pressured to approve their own fiscal responsibility laws modeled on the federal law.

Getting conditionality right proved key to success—but difficult. The exercises cited above had mixed results owing to limits to the reach of conditionality, unrealistic targets, and weak subnational public financial management practices and fiscal reporting. A main weakness of the processes was the temporariness of effective conditionality – either because resources were disbursed up front, reducing the incentive to carry out proposed reforms, or because subnational governments were no longer bound by fiscal adjustment agreements once the financial support package expired. In the case of Brazil in 1995, the conditions set were unrealistic, with states required to implement comprehensive privatization programs within a quarter. Enforcement was also undermined by weak public financial management systems and the lack of timely, reliable, and comprehensive information on subnational government operations to enable federal governments to seek corrective action without delay. These weaknesses were largely remedied in the more successful 1997 bailout—which remains the benchmark model for managing SNG debt problems, despite the erosion of success two decades later.

Figure 1 State Debt by Holders in Selected Federations, 2011 1/



1/ Data for Brazil, the U.S., and Mexico cover both state and local governments, for South Africa only locals.
Source: Palomba et al, 2015.

Box 1. Subnational Debt Restructuring and Conditionality in Brazil

Brazil's history of subnational debt restructuring illustrates well some of the considerations in the text above. During the 1980s and 1990s, the country experienced several sub-national debt crises, reflecting lack of control over spending and borrowing by state and local governments. Initial bailouts by the federal government involved largely unconditional debt take-overs and restructuring that created moral hazard, without addressing the underlying causes of the crises.

- In 1989, the federal government assumed much of subnational external debt with states incurring an equal liability to the federal government in domestic currency but with a longer maturity and a five-year grace period.
- In 1993 the federal government assumed the debt of the states owed to federal financial institutions. The new liability of the states to the federal government had a longer maturity and a cap on the annual debt service at 11 percent of net revenues.
- In 1997, however, faced with clearly unsustainable debt positions in all the major states and some large municipalities, the federal government embarked on a comprehensive program of sub-national debt restructuring, supported by firmly enforced fiscal conditionality.

Specifically, the 1997 program involved:
- Federal refinancing of the bulk of state and local debt, with a 30-year maturity and a 6-7.5 percent real interest rate, which at the time involved a significant subsidy to the states;
- Limiting the annual service of the refinanced debt to 13 percent of sub-national net revenues, with the remainder due being added to principal;
- Agreeing on a contractual basis with each SNG that federal transfers and even own sub-national revenues could be withheld by the federal government, in the event of non-payment of the debt service;
- Prohibiting new borrowing by SNGs until their debt fell below 100 percent of net revenues;
- Substantial privatization of sub-national assets, including enterprises and banks; and
- Agreements with individual SNGs on specific fiscal adjustment programs, tailored to their particular circumstances.

These agreements were firmly enforced over the subsequent decade, and were instrumental in securing the maintenance of significant primary surpluses and a substantial decline of the ratios of sub-national debt to net revenues during the period (from 170 percent in 2000 to just over 100 percent in 2011, on average at the state level).

Fiscal adjustment at the subnational level was also promoted by the adoption in 2000 of a fiscal responsibility law (FRL) which mandated the setting by the Senate of limits on the net debt and on payroll spending of states and municipalities, relative to revenues; prohibited further bailouts by the federal government, and introduced standardized and timely accounting and reporting requirements for all levels of government. The federal government was very proactive in supporting subnational governments in modernizing their public financial management systems in order to meet the FRL requirements.

Box 1. Subnational Debt Restructuring and Conditionality in Brazil (concluded)

The institutional framework of the debt agreements and FRL came under stress in the last decade, partly reflecting the changed economic environment. The marked decline in market interest rates (and in the cost of federal borrowing) prompted demands by the SNGs for a reduction of the real interest rates on their restructured debt, along with a change of the price deflator, which was largely accommodated by the federal government in late 2012. In addition, during the 2008-09 global financial crisis, and again in 2012, the federal government eased the restrictions on new borrowing, with a view to creating some room for an increase in subnational investments. As a result, many of the states and some large municipalities re-accumulated significant debts, including some in foreign currency, which became very expensive as the exchange rate weakened.

Moreover, in the absence of any rule to curb spending, many of the states used the fiscal dividends of buoyant commodity prices in 2004-13 to increase current outlays, especially on personnel. When the commodity cycle turned and the economy fell into recession, those states found themselves again in major financial difficulties. The CG is currently negotiating a new bailout of these states, involving further debt restructuring, accompanied by a tightening of conditionality in a new wave of negotiated adjustment programs.

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B. Rainy Day Funds[8]

What is the IMF's assessment of international experience with Rainy Day Funds? How have these funds been designed in other countries and what options have worked best? Is it recommended to use this instrument in the field of regional funding in Spain? If so, in what terms or under what conditions would it be considered useful in our country? How could they be articulated?

Rainy day funds with rules closely tied to revenue volatility can be a useful tool to promote sound public finances. Rainy day funds (RDFs), often referred to as budget or fiscal stabilization funds, are special budgetary funds that receive windfall revenues during good times (usually cyclical upturns) and from which resources can be withdrawn to complement revenue shortfall during bad times (usually cyclical downturns); see Box 1 for a more detailed definition. RDFs have proven helpful in cushioning subnational government (SNG) budgets from cyclical fluctuations in revenues.

Assessing international experience

The international experience comes mostly from the U.S.—in general positive, but demonstrating limits to RDF effectiveness. RDFs have been established in all but three of the fifty U.S. states (not in Arkansas, Kansas, or Montana), and almost all of them have drawn on the RDFs to reduce their fiscal stress during bad times. Empirical evidence shows that the simple adoption of RDFs is not sufficient and that design and implementation matter.

- Research has found that U.S. states where RDFs have deposit and withdrawal rules closely tied to revenue volatility save more, experience less fiscal stress during downturns, have significantly lower borrowing costs, and have smoother government expenditures over the business cycle than states which govern RDF deposits and withdrawals by legislative discretion —Hou and Duncombe (2008), Wagner and Elder (2005), Wagner (2004), and Knight and Levinson (1999).

- On the other hand, RDFs cannot be relied upon to smooth the impact of longer and deeper economic downturns, as evidenced by RDFs' relative ineffectiveness in alleviating the fiscal stress faced by U.S. states during the global financial crisis (Jonas 2012). This is mainly because RDFs have in practice been generally 'too small' relative to the optimal size needed to cushion shocks, reflecting difficulties in convincing governments to save enough (due to the perceived opportunity cost of not spending, the election cycle, etc.).

[8] By Victor Lledó and Teresa Ter-Minassian.

Box 1. What are Rainy Day Funds?

Rainy day funds (RDFs) are often referred to as budget or fiscal stabilization funds. They are special budgetary funds that receive windfall revenues during good times (usually cyclical upturns, but also for instance privatizations) and from which resources can be withdrawn to compensate for revenue shortfall during bad times (usually cyclical downturns but also, say, natural disasters). Governments are expected to make deposits in the RDF when revenues (purged of the impact of any discretionary measures) rise by more than a given structural revenue threshold. The threshold is usually defined relative to trend or potential GDP growth, times the revenue elasticity to GDP. In the opposite case, governments can withdraw from the RDF.

RDFs differ from other budgetary funds. Unlike general budget funds, whereby monies are deposited and withdrawn at the discretion of Parliament, RDFs usually follow specific deposit and withdrawal rules. RDFs should also be distinguished from pension and other reserve investment funds that aim to help preserve these funds' actuarial sustainability.

RDFs have one main objective, and have implications for macroeconomic management which may be significant. RDFs' main objective is to smooth government spending by countering volatile tax revenues with a stable source of funds. By helping to secure surpluses in good times while increasing available resources in bad times, RDFs provide policymakers with the incentives and capacity to run countercyclical fiscal policy to support macroeconomic stabilization. By curbing the use of surpluses to finance additional spending in good times, RDFs may also support fiscal sustainability by containing pro-cyclical fiscal expansions, a key factor behind up-ratcheting of public debt.

RDFs can be a repository for all 'excess' government revenues or only to a more volatile subset. The latter case is particularly common among resource-rich countries (e.g. Mexico and Chile) or states within a country (e.g. New Brunswick province in Canada). In such countries, stabilization funds, as they are commonly referred to, have deposit and withdrawal rules contingent on reference prices of that country's or region's main non-renewable export commodity (oil in the case of Mexico, copper in the case of Chile). Stabilization funds in such places are typically complemented by savings funds, which are characterized by non-contingent deposit rules. Savings funds typically require the annual deposit of a fixed share of revenues to meet development or intergenerational equity objectives.

Options for design of RDFs

RDFs in U.S. states have different deposit and withdrawal rules. Their design varies considerably across states with respect to (i) their statutory nature; (ii) conditions regulating deposits and withdrawals; and (iii) the size of the fund (Eckl and Kee 2005, Balassone et al, 2007, Pew Charitable Trust 2014 and 2017).

- ***Statutory Nature.*** Most states set RDFs in law, while seven states do so in their constitution (Alaska, Delaware, Louisiana, Oklahoma, South Carolina, Texas, and Virginia).

- ***Deposits.*** Most states do *not* have rules that tie rainy-day deposits to underlying economic or revenue conditions. About two-thirds use year-end fiscal positions (i.e. their balances at the end of the fiscal year) to guide deposit decisions, or make deposits on an ad-hoc or static basis (i.e. a percentage of revenue that does not change with the cycle) or on the basis of revenue forecast errors. Such conventions tend to undermine the capacity of RDFs to build up savings, since they make it easy to game the system by large end-year spending or skewed revenue forecasts. The remaining one-third of states tie deposits to past trends in revenue (Virginia, Tennessee, Idaho, Washington, and Hawaii) or growth (Arizona, Indiana, and Michigan) and thus link them more closely to revenue volatility. Virginia's deposit rules have been considered a strong feature of its Aaa rating.

- ***Withdrawals.*** Revenue shortfalls remain the most common condition for tapping a RDF, but withdrawals are also permitted to address a natural disaster or other declared emergency (for instance in Iowa, Massachusetts, and the District of Columbia). In some states, funds can be accessed at the discretion of the governor or legislature (e.g., Georgia, Maryland, Texas, and Wisconsin). In 12 states, a withdrawal requires a supermajority of votes of the legislature.

- ***Size.*** A rule of thumb informally used by bond rating agencies is that the combination of end-year surpluses and RDFs should equal at least 5 percent of total expenditures. Most states limit the size of these reserves to a range of 3 to 10 percent of total state expenditures. But the limits have been revised upwards after the global financial crisis. States with highly elastic revenue sources, such as progressive income taxes, have opted for a larger balance because their revenue may fluctuate more during economic swings. Alaska is an extreme case: its RDF reaches 263 percent of expenditures, because of the state's reliance on taxes on oil and gas production.

RDFs can be individual or pooled. Individual RDFs can be run by the central government (e.g., Chile's copper stabilization fund) or by individual subnational governments (e.g., U.S. budget stabilization funds). Pooled RDFs serve multiple governments (e.g., Canadian provinces, Mexican states).[9] The choice of whether to pool or not is a judgment call based on perceived advantages and disadvantages of pooling (and the feasibility of convincing SNGs to pool). Pooled RDFs are bigger, save resources, and support risk-sharing, and so offer more effective protection to any single SNG (though less so, the more shocks are synchronized across all SNGs—see below). However, a pooled RDF is vulnerable to free-rider problems—

[9] In the case of Mexico, the pooled RDF (Fondo de Estabilizacion de Ingresos de Entidades Federativas) is administered at the federal level by Mexico's BANOBRAS.

since an SNG has the prospect of accessing funds that it has not itself saved. Serious common-pool problems could encourage overspending and undermine fiscal sustainability. To some extent this problem is counterweighted by the likelihood that a pooled RDF can be subjected to more effective arms-length governance, with more scrutiny by multiple stakeholders.

There is a possibility that large RDFs at the subnational level could undermine a central government's efforts to achieve national fiscal adjustment or conduct countercyclical policy. This is related to the question of whether economic shocks affecting individual governments are correlated (common or synchronized shocks) or not (idiosyncratic shocks).

- ***If cycles are asynchronous and shocks idiosyncratic across individual governments***, individual subnational RDFs could be used in a way not necessarily supportive of national-level fiscal policies. This will be the case if decentralization is large enough to enable individual SNGs—the economically largest ones—to generate a strong fiscal impulse running counter to the fiscal stance being pursued by the central government. In such a case, an appropriately-designed pooled RDF could mitigate this problem (at least theoretically—there is no empirical example).

- ***If synchronized cycles and common shocks prevail across individual governments,*** a pooled RDF would offer no advantages over individual subnational RDFs. Individual RDFs (national and subnational) will support output stabilization and fiscal sustainability—since cyclical synchronization would mean that RDFs' deposits and withdrawals would sync, and by implication, subnational fiscal policies. Synchronization, however, would eliminate any savings from pooling resources and sharing risks.

Lessons for good options

A review of the U.S. experience offers the following lessons for the design and implementation of RDFs (Pew Charitable Trust 2014, 2017).

- ***Deposit and Withdrawals.*** *RDFs have worked best when deposits and withdrawals are determined by clear rules that identify measurable thresholds tied to revenue volatility owing to normal economic fluctuations driven by temporary events beyond the control of the fiscal authorities* (e.g. trend or potential economic or revenue growth). Such rules should be established in law. Their observance should be verified by an independent authority (e.g., an independent fiscal council) or by a qualified majority of the SNG's legislature. Ad-hoc and residual criteria should be avoided and so should rules delinked from economic or revenue conditions as well as those based on economic growth or revenue forecast errors.[10]

- ***Size.*** *RDF size should be consistent with the SNG's experience with volatility.* RDFs' size should depend on their susceptibility to sudden swings, which, on turn, depends on the volatility of SNGs' total revenues. SNGs with highly elastic revenues such as those reliant on non-renewable resource revenues would need to provision for a larger share of their total expenditures in their RDFs. RDF caps should be set once the optimal RDF size has been determined.[11]

- ***Investment.*** *RDF funds should be invested in liquid, low-risk assets.* This is to ensure that they are readily available in bad times.

- ***Reporting.*** *Detailed annual reports concerning level, changes, and investment out of RDF balances should be provided.* Transparency is an important instrument in assuring the public of good governance of SNG savings, and limiting inappropriate use.

Going beyond the U.S. experience, a key to enforcing fiscal discipline would be to prohibit bond-financed deposits into the RDF.

- ***Bond-financing.*** *To avoid a ratchet effect on debt dynamics, RDFs should be exclusively financed out of surpluses.* If bond-financed deposits into the RDF were allowed, this would undermine the RDF's function in enforcing fiscal discipline, since revenue shortfalls would continue to be financed by debt increases, and only timing of the debt issue would change (gross debt would rise when new bonds were issued to build up the fund, rather than during the shortfall when the fund is drawn down (see Balassone and others, 2007)). This pattern could repeat over time with gross and net financial liabilities gradually expanding.

Should Spain use rainy day funds…?

RDFs deserve some consideration as an alternative source of financing for regional governments:

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[10] To the extent economic or revenue growth forecasts differ from potential/trend economic or revenue growth, it may lead to deposits and withdrawals patterns that are not linked to normal economic fluctuations.

[11] In a full government asset-liability management framework, it would usually be optimal for a government to save beyond what it needs for an optimal RDF. In that case, the government should follow a tranched investment strategy, with the share of savings needed for the RDF remaining liquid and the rest of savings invested in longer-term higher-yield assets. (See Box 1 on savings funds in resource-rich countries.)

- ***Regions' revenues are highly cyclically sensitive.*** In Spain, regions' own revenues fall short of spending responsibilities, and resulting vertical fiscal imbalances are closed mainly through revenue-sharing of value-added and personal income taxes, which are subject to significant cyclical fluctuations. The ability to smooth spending would help stabilize output.

- ***Regions' market access during downturns has been severely curtailed and direct central government lending has been shown to increase moral hazard risks***. Since the global financial crisis, regions' access to market borrowing—as a means of smoothing spending in the face of cyclical downturn—has been much reduced. Instead, the central government has stepped in with direct lending to regions through emergency credit lines. Central government direct lending to regions has continued even as the economic situation is normalizing and it may arguably be contributing to raising moral hazard risks and sovereign debt service costs (Lledó, 2015; Jenkner and Lu, 2014). In this case, the liquidity provided by an RDF would be better than central government lending for smoothing spending, since it would do so while preserving SNG fiscal discipline and the fiscal sustainability of the general government.

…. And if so, how best to do so?

For Spain, individual RDFs for each region are likely to be the most pragmatic option. Recent evidence seems to indicate that Spanish regions have been affected mainly by common/symmetric shocks (Maza and Villaverde, 2005) and that business cycles across Spanish regions have been quite synchronous (Bandres et al, 2017). This reduces the case for pooling. Individual funds should allow regional governments to smooth public spending without undermining fiscal consolidation or stabilization efforts at the national level.

The RDFs should have clear criteria linked to the cycle, which in turn could cause RDFs to differ across regions. Deposit and withdrawal rates could, for instance, be tied to structural revenue thresholds that should be expected to vary across regions depending on their trend or potential growth and revenue elasticities. Different revenue elasticities would also call for differentiated RDF size targets. Spain's fiscal council (AIReF) could be put in charge of verifying compliance with deposit and withdrawal rules.

RDFs are likely to need to wait until regions' budgets are close to structural balance and debts to their medium-term targets, to ensure compliance with the EU and Spain's rules-based framework. If above-trend revenues in good times were entirely used for RDF replenishment and not to reduce outstanding debt, this could undermine Spain's efforts to comply with its commitments under the Stability and Growth Pact, and related annual nominal deficit, budget balance and debt rules. A related risk is that, to comply with RDFs' deposit rules, regional governments might resort to bond-financed deposits.

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C. Vertical Sharing of Government Revenues[12]

Among existing mechanisms in decentralized countries for sharing resources between central and subnational governments, which are the most satisfactory, in the IMF's opinion? Does any country have procedures that allow this sharing to be based on a reasonably objective measurement of the spending needs of different administrations?

Limits to subnational governments' capacity to collect own revenues require that revenue-sharing and other government transfers must be key pillars of any multi-level government. The principle is widely accepted that devolution of revenue-raising responsibilities to subnational governments (SNGs) is desirable because of important benefits associated with SNG autonomy.[13] Nonetheless, in practice in most countries, expenditure decentralization exceeds that of devolution of revenue-raising responsibilities to SNGs, due to numerous economic, distributional, administrative, and especially political obstacles to revenue decentralization. This leads to vertical fiscal imbalances (VFIs), which are substantial worldwide in both unitary and federal countries.

[12] By Teresa Ter-Minassian and Ivo Razafimahefa.

[13] Devolution of revenues to SNGs helps promote fiscal discipline and reduce the reliance on CG transfers and bailouts. It enhances efficiency as jurisdictions compete for mobile factors of production. It can increase overall general government revenue by allowing better exploitation of revenue sources that would likely be neglected by CGs. It improves fiscal predictability for SNGs. Finally, it fosters political accountability and conformity with local preferences due to the geographical closeness of SNGs to the final beneficiaries of the public goods and services. See, e.g., Ter-Minassian, 2015 and Fretes and Ter-Minassian, 2015 for details.

Box 1. Characteristics of Revenue Sources for Subnational Governments

Subnational governments (SNGs) can get revenues either by own revenue assignments, by revenue-sharing with the central government (CG), or by other transfers from the central government.

- **Own revenues** are those on which SNGs have (possibly bounded) control on at least the level and structure of rates, and can be held politically accountable by their electorates for their revenue-raising decisions. See Annex 1 for the main options.
- **Revenue sharing**, which typically involves no constraint on the SNG's use of the shared funds, is primarily used to fill VFIs—the gaps between the spending responsibilities and own revenues of each level of government.
- **Other intergovernmental transfers**, in the form of block, special-purpose (generally earmarked), and capital grants are primarily used to finance specific sectors, spending programs, and investment projects, respectively. They are typically used by higher-level governments to fulfil other objectives, in particular to correct externalities among governments, or to promote specific types of expenditure at the local level, for example on services particularly sensitive from the national point of view.[1]Transfers can be mandatory or voluntary; this determines the degree of predictability for SNGs, the rigidity they impart to the CG budget, and their use for political influence. Some transfers require a matching contribution by the SNGs. Matching transfers are especially used to incentivize SN spending on programs that have significant positive spillovers on other jurisdictions.

It is useful to distinguish between ex ante and ex post vertical fiscal imbalances. VFIs should in principle be measured ex-ante, on the basis of the aggregate expenditure needs and revenue capacities of each level of government, given their spending and revenue assignments, rather than ex-post, on the basis of realized expenditures and revenues which embody different degrees of spending efficiency and taxing efforts. To the extent that revenue-sharing and transfers can be calibrated to fill *ex ante* VFIs, this avoids unfunded SN spending mandates while minimizing incentives for SNG "fiscal laziness"—weak efforts to raise revenue.[14] However, as discussed further below, this desirable measurement approach is quite difficult to implement in practice and, even in the most advanced countries, is carried out through a number of approximations.

Different countries choose different degrees of VFIs and different compositions of intergovernmental transfers. Broadly speaking, country choices regarding the respective

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[14] There is some debate in the literature on the issue of the inclusion or exclusion of revenue sharing and other grants in the calculation of revenue capacities. The case for inclusion is clear for shared revenues, including those from non-renewable natural resources, distributed on a derivation basis, as these resources both augment spending capacities of the recipient jurisdictions, and reflect differences in the distribution of the taxable bases. The case is more debatable for special-purpose grants, as they are tied to specific spending programs considered of national interest, and also frequently already fulfill a redistributive role.

shares of own revenues, shared revenues and intergovernmental grants in total SN revenues can be grouped into five different models (Box 2). The choice is influenced by a range of factors, including economic (e.g. the degree of regional disparities); institutional (e.g., the degree of legal autonomy of SNGs and their tax administration capacities); and political (in particular the power balance between the CG and the SNGs).

Box 2. Models of Composition of Subnational Revenues

Model 1. Low own revenues, high shared revenues, medium other transfers (examples: Argentina, Austria, China, Czech Republic, Germany, Mexico, Russia, and Turkey)
Model 2. Low or medium own revenues, low shared revenues and high other transfers (examples: Greece, Hungary, Korea, Netherlands, South Africa, and the UK)
Model 3. Nearly even shares of three revenue types (examples: Australia and Belgium)
Model 4. High own revenues, low or no revenue sharing, medium other transfers (examples: Canada, Finland, France, India, Norway, Sweden, Switzerland and US)
Model 5. High own revenues, high shared revenues, low other transfers (example: Brazil).

Revenue sharing arrangements

The basis of the sharing may be all revenues or a subset. Taxes with large, elastic, and mobile bases—such as income taxes—are typically assigned to the central government or shared with SNGs, but not assigned to SNGs as own revenues; consumption taxes are often appropriated by CGs or shared with SNGs, with only a few exceptions (Box 3). The exclusion of some taxes from the sharing arrangement can create incentives for the CG to increase such taxes, even when they have distorting features.[15]

The sharing formulas may be fixed or renegotiated periodically. Fixed formulas minimize uncertainty for the SNGs, but transmit to them cyclical fluctuations or the impact of discretionary tax policy actions by the CG. On the other hand, frequent renegotiations of the formula open space for political bargaining. To minimize the cyclicality of SN revenues, the sharing could be made on the basis of cyclically adjusted revenues or, at least, a moving average of them. Also, to avoid diluting the impact of counter-cyclical tax increases by increasing resources available to the SNGs for spending (or of tax cuts by reducing SN revenues and consequently spending), it would be desirable to exclude the yield of such measures from the revenues to be shared.

[15] Examples of this adverse incentive abound in Latin America (especially Argentina and Brazil).

Shared revenues are frequently distributed, at least in part, horizontally on an origin (so-called derivation) basis. When subnational governments can keep a share of the revenue raised in their jurisdictions, they have an interest in promoting business and market-friendly policies, as these would have a positive impact on local tax bases and thus on own and shared revenues. However, origin-based revenue sharing arrangements also compound the inevitable horizontal differences in own-revenue-raising capacities of SNGs. Therefore, they need to be complemented by equalization transfers. Another shortcoming of revenue sharing is the rigidity it can impart to macroeconomic management by the CG. For instance, if 50 percent of revenues is shared with subnational administrations, any required revenue adjustment would need to be substantially larger for the central government, as subnational governments may spend part or all of their shares.

Box 3. Revenue Sharing Systems in Selected Countries

- **Germany**: The revenue from individual income tax is shared by the federal government (42.5 percent), states (*Länder*) (42.5 percent), and municipalities (15 percent). Corporate income tax and capital yield taxes are shared equally by the federal government and the *Länder*. VAT is distributed between the federal government and the *Länder* on the basis of legislation approved by the *Bundesrat* (the national legislature representing the *Länder*). Municipalities are required to remit 15 percent of their business tax revenues to the federal government and *Länder*.
- **Australia**: the entire revenue received from the goods and services tax is assigned to the states on the basis of an equalization or "relativities" formula. States' equalization payments are reduced by an amount proportional to the share of the goods and services tax they receive.
- **Austria**: states receive 18.6 percent of VAT collections, and municipalities get 12.4 percent.
- **India**: the 12th Finance Commission recommended that the states receive 30.5 percent of the tax revenue collected by the central government. The shares that individual states receive depends on five factors: population (25 percent weight), distance from the state with the highest per capita GDP (50 percent), area (10 percent), tax effort (7.5 percent), and fiscal discipline (7.5 percent). These factors represent revenue and cost disabilities as well as expenditure needs.
- **Pakistan**: revenue from income taxes, sales tax, export duties on cotton, and excise duties on sugar and tobacco are shared by the federal (62.5 percent) and provincial (37.5 percent) governments. Revenues are distributed among the provinces based on population.

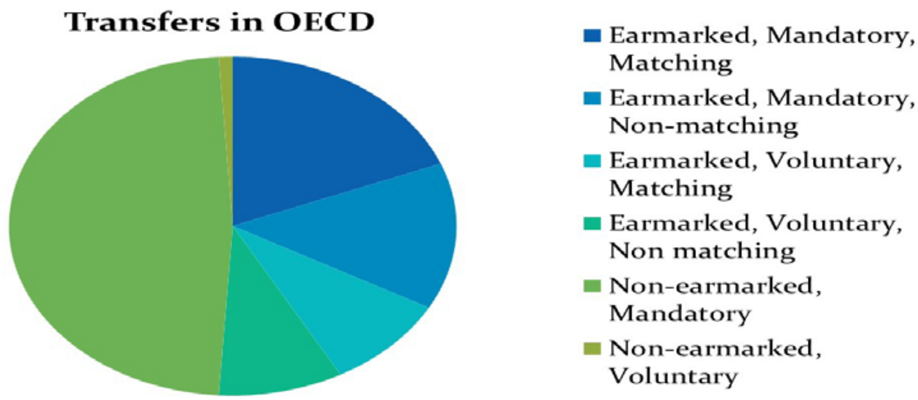
Country	Sharing basis	Authorization to change formula	Frequency of changes	Origin (O) or equalization (E)
Argentina	Various taxes	Congress	Variable	O
Australia	VAT	Federal and state parliaments	4 years	E
Brazil	Income taxes and VAT	Federal Congress (const. amend.)	None so far	E
Germany	Income taxes and VAT	Parliament	Variable	E
India	All federal taxes	Congress on recommendation of Finance Comm.	5 years	E
Italy	PIT, VAT, and excises	Parliament	Annual	O
Mexico	Income taxes, VAT and excises	Federal Government	Rare	O
Switzerland	PIT	Parliament	Once (2007)	E

Source: A main source is Rao (2007); thus, some of the information herein may need to be updated.

Intergovernmental grants

There are significant differences among countries regarding the mix of characteristics of intergovernmental grants. Chart 1 below shows the composition of transfers to regional governments in the OECD as a whole.

Chart 1. Characteristics of intergovernmental transfers in the OECD



Source: OECD Fiscal Decentralization database.

Equalization transfers

Most countries include the reduction of regional fiscal inequalities among their objectives in the design of inter-governmental transfer systems. In principle, equalization transfers aim to equalize the capacity of different SNGs to provide the goods and services of their responsibility at predetermined (generally the average) levels in terms of quantity, quality, and cost-effectiveness. However, the translation of this principle into practice is quite complex, as it involves a number of choices and trade-offs, which are significantly constrained by financial and human resources, and by data availability.

- **The main questions to be addressed in the design of equalization transfers are whether to**:

  - Equalize only revenue capacities or also spending needs
  - Equalize to an absolute or a relative standard
  - Use a vertical or a horizontal redistribution mechanism
  - Cap or not the total size of the transfer; and
  - Include or not shared revenues and other grants in the calculation of revenue capacities.

These questions are briefly discussed in what follows, with reference to some relevant country examples.[16]

Sharing based on revenue capacity

Most countries that utilize equalization transfer mechanisms include some indicators of revenue capacity in the horizontal distribution formula for the transfers. The accuracy with which such indicators measure revenue capacity varies significantly across countries, depending on the availability of data and technical capacities.

- **The most complex equalization system based on revenue capacity is the one used by Canada.** In this system, individual provinces' revenue capacities are calculated with reference to a representative tax system (RTS) that is essentially an average of provincial tax systems.[17] The entitlements of individual provinces are based on potential, rather than actual, revenues, a feature that avoids discouraging above-average tax efforts and rewarding below-average ones. The Canadian system is funded by the federal budget (vertical-type redistribution), on an open-ended basis, and is complemented by important block grants, which aim in part to compensate for the differences in provincial spending needs that are not taken into account in the (entirely revenue capacity-based) equalization system. Despite its conceptual sophistication and appeal, the Canadian system has been criticized for its complexity and related opacity to the average citizen, as well as for the fact that revenues from non-renewable resources are not included in the calculations. The desire for simplicity, and limitations to data and sometimes capacity, have led other countries to use more easily available macro-economic variables, such as regional GNP or personal income as proxies for revenue capacities.

Sharing based on spending needs

Formal equalization mechanisms based on spending needs are even more complex than that reflecting revenue capacities. They are practiced by relatively few countries, the most advanced being Australia (see Box 4). Spending needs vary across SNGs due to differences in both the demand for SN goods and services, and the cost of their provision. Specifically,

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[16] See Ahmad and Searle, 2007; Dafflon, 2007; Wilson, 2007; and Reschovsky, 2007 for more detailed discussions of methodological issues in the design of equalization transfers

[17] The specific calculation of transfer entitlements is made for each provincial revenue source (37 of them) by comparing the per capita revenue base of the province with the nationwide average, and multiplying the difference by the relevant nationwide (RTS) average tax rate. The entitlement will be negative if the province's estimated revenue potential so calculated exceeds the national average, and positive in the opposite case. The total equalization transfer entitlement for the province is given by the algebraic sum of the individual ones (with a floor of zero).

the demand for sub-nationally provided education, health and long-term care, and social assistance services is influenced by the size and composition of the population and by poverty and other social indicators, among others. The unit cost of providing public goods and services is affected by differences in: the quantity and composition of inputs necessary to produce the SN public service; factor or input prices; and physical characteristics, such as geographic (e.g. remoteness, insularity, mountainous nature) and other environmental factors. Population density also influences unit costs. Relatedly, economies of scale can also have a significant effect on the cost of delivering SNG services, since for services characterized by large fixed costs and relatively low operating costs, per capita costs decline as the scale of operation rises.

While, ideally, revenue sharing should be based on well-estimated spending needs, in practice, this requires extensive data availability. Three main methodologies can be used to estimate the cost of local public services:

- **Cost functions:** this methodology establishes the relationship between spending on a given public service, measures of output or outcomes, and other factors that have an impact on the relationship between spending and the level of public service provision. This methodology requires extensive data availability, including measures of public sector outputs/outcomes, and involves complex statistical methodologies.
- **Expenditure functions:** this methodology estimates directly the relationship between local government expenditures and cost variables. It does not require data on public service outputs/outcomes which are more difficult to collect. It is a reduced-form expenditure equation linking relevant cost factors to the expenditure needs of local governments for different functions.
- **Expert judgement:** when extensive data on public goods/services and their cost are not available, experts on the production of such goods/services in a specific sector can be requested to determine the set of inputs required to produce the outputs.

Equalization transfers based on absolute standards aim to ensure that each SNG included in the system has the capacity to provide a minimum standardized basket of services. Systems of this type are typically funded by upper-level budgets and by nature are open-ended (uncapped). To avoid the risk of significant budgetary overruns, it is important that the cost of the basket be carefully estimated, and that the choice of the minimum level be a prudent one. In systems based on relative standards (such as a nationwide average) typically SNGs below the standards receive positive transfers, and those above have to pay into the system. This is, for instance, the case with the German equalization criteria for the distribution of the *laender*'s share of VAT revenues and with the *Fundo de Garantia* in Spain. However, the system may also envisage asymmetric equalization, whereby SNGs below the average receive from the CG transfers sufficient to raise their capacity to the average (or a fraction thereof) and those below do not receive any transfers. This is for instance the case in the Canadian equalization system.

Box 4. Equalization of Spending Needs

Australia: The best example of a methodological approach to estimating expenditure needs that combines expert judgments with statistical analysis comes from Australia. The Australian grant equalization scheme allocates funds from the VAT to the states. The methodology used is of particular interest because it explicitly measures expenditure needs and because the basic grant equalization system has been in operation for several decades. The central goal of the grant system is to provide states with "funding from the Commonwealth such that, if each made the same effort to raise revenue from its own sources and operated at the same level of efficiency, each would have the capacity to provide services at the same standard" (Commonwealth Grants Commission 2002). The data and computational requirements of the system are huge, and its implementation is entrusted to a standing Commonwealth Grants Commission. The formulas and estimates of relevant parameters are reviewed, and amended as necessary, every five years to reflect evolving conditions.[1] The calculations are updated annually in the context of the budget cycle.

United Kingdom: Local governments in the United Kingdom receive an annual general-purpose transfer from the central government, known as revenue support grants. These grants are allocated to local authorities on the basis of an estimate of each authority's need-capacity gap. The expenditure need of each local government, known as its standard spending assessment, is calculated each year by the national government's Department of the Environment, Transport and the Regions. As in Australia, the methodology used to determine standard spending assessments is highly complex. The general approach is to determine spending assessments for seven local government functional spending categories: education, personal social services, police, fire protection, highway maintenance, "all other services," and capital financing. For each category, the spending assessments are determined by using a combination of statistical analysis and professional judgment to determine the magnitude of the "work load" (or alternatively the size of the "client group") receiving services and the effect of underlying characteristics of each local community on the costs of delivering public services.

Sweden: Fiscal equalization is an important part of Sweden's intergovernmental fiscal system. A basic principle of the Swedish system of local public finance is that all local governments should be able to operate on equivalent economic terms. To implement this principle, the intergovernmental grant system includes both a fiscal capacity and a cost-equalizing component. The system is not structured as a vertical equalization scheme, with a set of grants from the national government. Rather, municipal governments in favorable fiscal conditions send funds to municipalities in weaker fiscal positions. The cost equalization grant going to local government i is defined as the difference between the "standardized cost" in i and the national average cost. Costs are equalized for childcare, individual and family care, care of the elderly, primary and secondary education, streets and roads, water supply, and sanitation.

Japan: Municipal governments and prefectures in Japan receive transfer payments (officially called the local allocation tax) from the national government if their "basic fiscal needs" are larger than their "basic fiscal revenues." Basic fiscal revenues are a standard measure of local government revenue raising capacity, calculated by summing the products of local tax bases and a set of standard tax rates set by the national government. Basic fiscal needs are defined as the amount of money needed to provide a standard set of public services at levels prescribed by the central government.

Box 4. Equalization of Spending Needs (concluded)

Republic of Korea: The Republic of Korea provides its local governments with unconditional revenue through a program known as “ordinary local shared taxes.” The basis for the allocation is the difference between each local government’s “standardized fiscal needs” and “standardized fiscal revenue.” The purpose of the transfer system is to enable all local governments to supply minimum public services regardless of their fiscal capacity. The government calculates standardized fiscal needs, using a methodology that is similar to that used in Japan to measure “basic fiscal needs.” A much more disaggregated system is used to calculate fiscal needs, however. In Korea, fiscal needs are calculated separately for 48 functional expenditure categories. The results are then summed to arrive at the total standardized expenditure needs for each local government. Like the Japanese methodology, the Korean methodology adjusts average expenditure needs using a set of adjustment coefficients based on local government characteristics.

Hungary: The largest single source of revenue for local governments is unconditional normative grants. The formula used to allocate these grants among local governments consists of a large number of elements, most of which reflect a particular function of local government. The actual amounts allocated by each formula element are the product of the target population and a normative per capita spending amount.

Switzerland: Switzerland enacted in 2002 a major reform of its intergovernmental fiscal system, including new fiscal capacity-equalizing grants. It also included two new grant funds, designed to compensate some cantons for above-average costs over which they have no control. The first of these funds compensates for geographic factors and low population density; the second compensates for “different sociodemographic burdens.” The formulas are designed so that spending or taxing behavior of cantonal governments does not affect the distribution of the funds.

South Africa: the country uses a provincial equalization system (the Provincial Equitable Sharing System) that is based entirely on indicators of spending needs.[1] It does not attempt to equalize revenue capacities, since own revenues of South African provinces cover only a very small proportion of their expenditures. The system has seven components, each of which includes various needs indicators, partly overlapping across the components. The system does not make allowance for cost or efficiency differentials. Other countries utilize simpler needs equalization systems, based on fewer and more easily available indicators (such as income per capita; population concentration in urban areas; age profile of the population, etc). Experiences with such systems starkly highlight the trade-off between simplicity of the system and ease of

Annex 1. Own Revenues of Subnational Governments

Increasing own revenues of SNGs would be the most satisfactory way to fill a VFI. Given the positive characteristics of SNG own revenues, many countries are paying more attention to developing subnational tax bases. Hence, while not the focus of this note, it may be helpful to summarize good principles for own revenues.

SNGs' own revenues should preferably have the following characteristics: good revenue-raising potential; tax bases characterized by low mobility, low volatility, and a relatively even distribution across the national territory; not generating distortions, such as cascading, exporting to other jurisdictions, and predatory competition; low compliance costs for taxpayers; not requiring sophisticated tax administration capacity; and visibility which promotes accountability of SNGs authorities to their electorate.

Property and land taxes are typical subnational own-source taxes. Their base is immobile, so taxpayers cannot easily shift location to avoid taxation; they reflect the benefit principle, as local services (e.g., roads, transportation, parks) confer benefits on properties and increase property values; they allow subnational governments to determine the desired level of services and raise revenue to pay for that level (as the property tax base is relatively inelastic, maintenance of the tax yield may require discretionary policy changes of tax rates or valuations)—this makes the tax highly visible and establishes a clear accountability link for local politicians. Unfortunately, however this visibility is also a key reason for the unpopularity of this tax with local politicians. Another obstacle to a greater use of this tax is the administrative cost of maintaining comprehensive and up-to-date property cadasters.

Benefit taxes and surcharges are also important revenue sources for SNGs. The provision of local services (such as public utilities and local transportation) should be subject to user charges and fees; services with a local benefit zone (parks, roads) should be financed with local taxes; while goods and services with significant externalities should be financed with region-wide taxes or transfers. Surcharges or "piggy-backing" on central taxes—when SNGs have limited or no control over the specification of the tax base, but a bounded degree of control over the tax rates—allow SNGs to benefit from the capacity of the central tax administration.

Various other revenue handles can also meet the characteristics of SNGs' own revenues. SNGs can charge a property betterment and valorization tax for improvements to properties that have benefitted from public investment carried out by them. SNGs can also introduce green or environmental taxes; this can provide an innovative source of SNGs' own revenue as many of the negative effects of business activities on environment are localized. Furthermore, stamp duty can also help strengthen SNGs revenues.

Experiences with subnational VATs in practice have been limited and with mixed success.[18] VAT could in principle be a central-regional tax, administered by either level of government on a jointly determined base, but with each government level choosing its own

[18] Perry (2009).

rate (this is the so-called dual VAT). In practice, however, consensus on the definition of the base may be difficult to achieve; a lack of harmonization can increase compliance costs to taxpayers operating in different jurisdictions and can also result in tax wars across states.[19]

Enhancing own revenues can help promote fiscal accountability. Reliance on own taxes reduces the expectations of soft budget constraints. Hard budget constraints are key to incentivize adequate exploitation by SNGs of the tax bases assigned to them. Central governments should resist the temptation to centralize most revenues, and pro-actively assist SNGs in developing the capacity to administer effectively the revenues assigned to them. In principle, revenue decentralization should proceed at different speeds for different SNGs, in line with their evolving administrative capacities. Such asymmetric decentralization may however not be feasible from a political economy or legal standpoint.

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D. Subnational Fiscal Rules[20]

What are lessons based on country experiences about the design of subnational fiscal rules?

Sub-national fiscal rules have become a widespread tool to promote fiscal responsibility and strengthen fiscal policy coordination across government levels. More than 90 percent of advanced and emerging market economies have adopted at least one subnational (SN) fiscal rule (Table 1). Fiscal rules are one of several alternative frameworks used in multi-level governance systems to counter subnational governments' (SNGs) propensity to run persistent deficits or take fiscal positions inconsistent with national-level fiscal policy (Box 1). Subnational fiscal rules emerged as a compromise between a more centralized approach that involved direct controls by the center and more decentralized approaches relying on intergovernmental fiscal pacts and financial market discipline.

Table 1. Subnational Fiscal Rules in Selected OECD Countries

SNG	Budget balance	Expenditure	Revenue	Debt [1]
Australia states	X		X	X
Australia local			X	X
Belgium states	X		X	
Belgium local	X		X	X
Brazil states		X		X
Brazil local		X		X
Canada provinces	X			
Canada local	X		X	X
Chile			X	X
Czech Republic	X		X	
Denmark	X	X	X	X
Germany states	X			X
Germany local	X			X
Italy regions		X	X	X
Italy local	X		X	X
Korea	X	X	X	X
Mexico states				X
Mexico local				X
New Zealand	X	X	X	X
Poland	X			X
Spain states	X	X		X
Spain local	X	X		X
Sweden	X	X		
Switzerland cantons	X			
Switzerland local	X			
Turkey		X	X	

1/ Debt rules include limits on borrowing and debt service.
Source: Blochliger, 2012

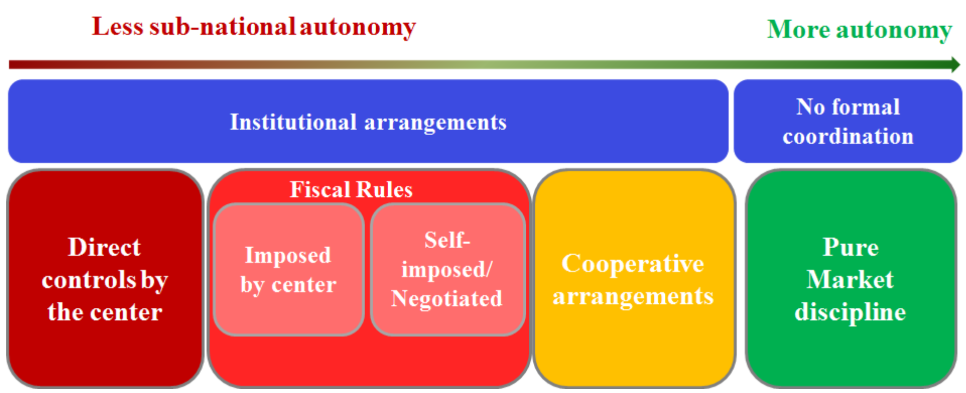
[20] By Teresa Ter-Minassian and Victor Lledó.

Box 1. Guiding Subnational Fiscal Policy—Fiscal Rules and Alternative Frameworks

Subnational fiscal rules have been adopted mainly to limit discretion in SNG fiscal policy, with a view to promoting subnational fiscal discipline and strengthening coordination across government levels. The need to impose constraints on SNGs arises from their propensity to run persistent deficits (deficit biases) and to steer fiscal policy in the opposite direction to the center. SNG deficit biases reflect, in turn, their greater reliance on non-tax sources such as intergovernmental transfers and loans to finance their spending. Intergovernmental transfers to SNGs—the bulk of which may come from resources paid by taxpayers in other jurisdictions—lead them to not fully internalize the marginal cost of public spending and thus to overspend and under-tax (the *common-pool problem*). SNGs' limited reliance on taxation also increases bailout expectations, leading to overborrowing (the *moral hazard problem*). On the other hand, reliance on own taxes, while curbing common-pool and moral hazard problems, may result in *coordination failures* if, hit by different shocks, SNGs raise (reduce) taxes in an unsynchronized way. This may result in fiscal stances at the subnational level that do not coincide with the policy set at the national level to meet fiscal sustainability or stabilization objectives.

Sub-national fiscal rules are one among several frameworks in multi-level governance systems created to promote sound fiscal policies. They can be classified in terms of the degree of fiscal autonomy granted to SNGs (Figure 1). At one extreme, there are arrangements where *direct (administrative) controls* by the center prevail. Such arrangements are associated with the lowest degree of SNG fiscal autonomy and tighter budget constraints. At the other extreme is *financial market discipline*, usually relied upon by countries where SNG fiscal autonomy is high and with no formal coordination across government levels. Fiscal rules together with cooperative arrangements are in-between these two extremes. Unlike direct controls, rules-based fiscal frameworks are imposed on intermediate fiscal objectives, perhaps allowing additional flexibility through the adoption of cyclical adjustments or escape clauses for large macroeconomic shocks and natural disasters. Cooperative arrangements provide the highest degree of fiscal autonomy among non-market-based institutional arrangements, as SNG can renegotiate their fiscal targets on a regular basis. They rely on intergovernmental fiscal bodies to set and monitor fiscal targets across government levels.

Box Figure 1: Multi-Level Fiscal Frameworks



Box 1. Guiding SN Fiscal Policy: SN Fiscal Rules and other Frameworks (concluded)

Shortcomings of the other approaches explain the growing popularity of SN fiscal rules:

- **Financial Market Discipline**. International experience demonstrates that the preconditions for effectiveness of stand-alone market discipline are quite demanding. They include: a consistent record of no bailouts of SNGs in financial difficulty; no privileged access of SNGs to credit; well-developed, competitive financial markets; adequate transparency and reliability of the SN fiscal accounts; and early responsiveness of SN politicians to market signals (Ter-Minassian and Craig, 1997). Thus, while reliance on market discipline on provincial borrowing has worked relatively well in countries like Canada, where these preconditions are largely present, in other countries, including some major emerging markets, it has not prevented excessive SNG borrowing, leading eventually to financial difficulties and even debt crises.

- **Controls and Cooperative Arrangements.** While both systems have had different degrees of success in different countries and at different times, they have frequently permitted the emergence of soft budget constraints on the SNGs in countries applying them. This is because both types of arrangement involve significant discretion, thus opening scope for politically-driven bargaining between the CG and the SNGs. Also, administrative types of controls generally have been difficult to enact and enforce in multi-level governance systems, as these become more decentralized or change to federations.

Lessons learned

The main lesson from country experiences is that the effectiveness of SN rules depends crucially on their design and their implementation. Lessons in both areas are summarized below, with some comments on implications for Spain.

Design of subnational rules

Most countries choose a mix of rules rather than relying on a single rule. Fiscal rules are set to target objectives. Specifically, budget balance rules aim principally to ensure short-term macroeconomic stability; debt-based ones privilege ensuring longer-term fiscal sustainability; expenditure or revenue rules primarily aim to control the size of government; so-called golden rules (which prohibit current fiscal deficits) aim to safeguard public investment. Since most countries have a mix of objectives regarding subnational finances, they choose a mix of rules, as can be seen in Table 1 above. Expenditure rules or rules targeting the non-interest or current balance (as opposed to the overall balance) should be complemented by a debt rule, as by themselves they cannot ensure longer-term sustainability. Care must be taken to ensure that the numerical targets chosen under multiple rules are mutually consistent. Consistency between debt and budget balance rules is particularly important.

A clear specification of numerical targets is key for effectiveness of the rules. The distribution of the rules' numerical targets among the different levels of government (vertical distribution) and within each level (horizontal distribution) should be explicit in the laws setting out the rules.

- The vertical distribution of flow variables (budget balances) should be determined taking into account the degree of vertical fiscal imbalances and the level and composition of intergovernmental transfers.
- Targets on stock variables (the public debt) need to consider the initial debt levels of each level of government, as well as the targeted paths of their respective balance targets.
- Realistic expenditure rules should take into consideration how the composition of expenditures of the different levels of government may affect their spending dynamics.

That said, it must be recognized that in most countries the vertical distribution of numerical targets is frequently influenced by non-economic factors, including in particular the relative balance of political power of the various levels of government.

Differentiating rules across jurisdictions may be unavoidable to compensate horizontal imbalances, but should preferably be a transitional arrangement. Countries typically face a dilemma of whether the targets should be equal for all jurisdictions within each level of government, or should be differentiated and, if so, on the basis of which criteria. If a country has in place an effective system of equalization of revenue capacities and spending needs, there is no case for differentiated balance and debt targets (although a transition period may be necessary with differentiated targets, if SNG fiscal positions differ greatly when the rule is introduced). Given the difficulties (both technical and political) of putting in place well-functioning equalization systems, some countries choose to compensate structural horizontal imbalances among SNGs through differentiated numerical targets under the existing fiscal rules. However, the determination of differentiated targets is generally quite contentious, and ends up being subject to frequent renegotiations, making a rules-based system more similar to negotiated arrangements.

The coverage of the rules should be appropriately comprehensive. Coverage should encompass all public sector entities (e.g. public enterprises heavily dependent on transfers from SNGs) and events (e.g., granting of guarantees under PPPs or other arrangements) that can significantly affect the subnational finances. In practice, coverage tends to fall short, allowing SNGs in many countries to use public enterprises or PPPs to circumvent the rules, with adverse consequences for their finances over the longer term. At a minimum, if subnational public enterprises, PPPs, and other contingent liabilities are not covered by the rules, the fiscal risks entailed by them should be identified, estimated to the extent possible, and disclosed in the SNGs' budget documents.

For durability, the rules need to be adequately flexible. The most pragmatic approach to giving some, but not limitless, flexibility, is to include clearly specified escape clauses for exceptional circumstances. These clauses should specify the nature and magnitude of shocks to be accommodated; the period during which the rule would be relaxed or put into abeyance; a path of return to full observance of the rule; and responsibility for activating the clause and monitoring its implementation. Existing rules vary significantly in terms of the degree of discretion given to governments to invoke the clause, as shown in Table 2**.**

Table 2. Examples of Escape Clauses

Argentina	Higher expenditures allowed in social and economic emergencies as determined by law.
Brazil	Escape clauses exist for a real GDP contraction of 1 percent and natural disaster, but can only be invoked with congressional approval.
Germany	The budget rules allow for exceptions, if adopted by a majority of the members of Parliament, in case of a natural disaster or exceptional emergencies. Adoption of exceptionally higher budget deficits, however, needs to be accompanied by an amortization plan.
India	The escape clause in the fiscal rule law (FRBMA) allows the government not to comply with the targets in exceptional circumstances "as the central government may specify".
Norway	Temporary deviations are allowed in the event of extraordinary changes in the value of the Government Pension Fund.
Pakistan	Escape clause exists for reasons of national security and natural calamity.
Panama	Real GDP growth of less than 1 percent. In that case, adjustment of the 1 percent of GDP deficit ceiling to 3 percent of GDP in the first year and then gradual transition to the original ceiling within a 3-year period.
Sri Lanka	Exceptional circumstance clause exists.
Switzerland	An escape clause exists: Parliament can approve by supermajority a budget deviating from the rule in "exceptional circumstances."

Source: IMF's Fiscal Rules database.

Adjusting target variables for the cycle is a good idea in principle, but not always possible to implement. There is substantial empirical evidence that procyclical fiscal behaviors are among the main sources of financial difficulties, and sometimes debt crises, at all levels of government (Balassone and Kumar, 2007). Fiscal rules targeting the budget balance unadjusted for the cycle can lead to procyclical fiscal behaviors, by not requiring saving above-trend revenues during booms and requiring budget cuts during downturns (Bohn and Inman, 1996; Rodden and Wibbels, 2010; and Blochliger, 2012). This argues for the adoption of structural budget balance rules. A number of countries, notably in the EU, have moved in this direction.

However, the difficulties of estimating structural balances are even more significant at the sub-national than at the national level. Most countries do not have reliable and timely estimates of regional or local output, even less of output gaps. Using national indicators of the cycle as a proxy can be adequate when the cyclical shocks are reasonably evenly distributed across the national territory, but this is not always the case. Some countries use rainy-day funds to reduce procyclicality in fiscal policies at the SNG level (see Note I.B on rainy day funds). Expenditure rules can also help avoid pro-cyclicality during cyclical booms.

Implementation requirements for effective SN rules

Empirical evidence shows the impact of SN fiscal rules on fiscal performance to be mixed and largely driven by weaknesses in implementation and enforcement (Box 2). The main requirements for sound implementation of SN fiscal rules can be summarized as follows.

- **Rules need an appropriately robust legal basis, supported by adequate political and societal consensus**. A strong legal foundation for a fiscal rule can significantly improve the prospects for its effective and sustained observance, because it raises the cost of its non-enforcement or abandonment, thereby enhancing its credibility. This argues for enacting fiscal rules through legal instruments stronger than ordinary laws that could be modified by a subsequent budget law. In many countries, legislation enacting fiscal rules requires a qualified majority for its approval or modification. In some countries, the rules are even included in the Constitution. The higher the level of the legislation establishing a fiscal rule, the more important is that it transparently include adequate elements of flexibility, in particular well-designed escape clauses. In federal countries, the states' constitutional autonomy may require SN rules to be enacted through state laws or constitutions.

- **The capacity of SNGs to implement fiscal rules largely depends on the state of their public financial management (PFM) systems**. SNGs often lag behind their respective CGs in the quality of their PFM. This is typically the case in smaller local governments. But, frequently even regional governments, especially in poorer or more peripheral regions, lack the capacity to prepare well-articulated and reasonably reliable medium-term budgetary projections, and to monitor the execution of their annual budgets on a timely basis. The CG has an important role to play in many countries in promoting and supporting improvements in budgeting, budget execution, accounting, and reporting systems at the SN level.

- **The legislation enacting the fiscal rules should clearly specify the responsibilities for monitoring SN compliance with the rules, and SN reporting requirements to allow such monitoring on a timely basis**. In most countries, the monitoring responsibility is given to the national Ministry of Finance. In some federal countries, a monitoring role may also be attributed to an intergovernmental fiscal council, in which the regional governments, and possibly representatives of the local governments, participate. In countries that have instituted independent fiscal councils, these councils are also frequently given some responsibilities to assess the likelihood of the SNGs' complying with the relevant fiscal rules, and to monitor and report on such compliance.

- **A frequent hindrance to an effective monitoring of SN compliance with the rules are differences in accounting standards and practices among SNGs**. Whenever feasible in the light of possible constitutional constraints, the CG should ensure that common accounting regulations, preferably in line with international public accounting standards, are enacted for all levels of government (possibly with simplified regimes for small local governments). A number of EU countries have made significant progress in this direction, as have some emerging markets (e.g. Brazil and Mexico).

- **The effectiveness of SN, as well as national, fiscal rules hinges critically on the enforcement mechanisms supporting them**. Such mechanisms should have a solid legal basis; their application should be non-discretionary and time-consistent; and the penalties envisaged should be severe enough to act as deterrent to non-compliance… but should not be unrealistic, which could ultimately lead to their non-application. Penalties are typically of a financial nature, e.g., in the form of withholding of CG transfers to non-complying jurisdictions, but occasionally also entail the personal responsibility of the relevant officials. Several countries have tightened the legal framework for enforcement in recent years, but the actual application of sanctions remains limited to date (Blochliger, 2012).

- **The effectiveness of enforcement mechanisms is likely to be greatly enhanced if they are supported by explicit requirements to correct deviations from the rule within a reasonable, pre-specified time period.** A good example in this respect is provided by the national Swiss "debt brake" rule (Danninger, 2002). A similar mechanism is envisaged in the constitutional revision introducing a structural balance rule in Germany.

- **Finally, the effectiveness of SN fiscal rules is also likely to be enhanced by adequate public transparency requirements and media coverage**. Such features strengthen the electorates' appreciation for responsible SN fiscal conduct, and consequently the incentives for SN politicians to comply with the rules.

Intergovernmental fiscal arrangements and SN rule effectiveness

A sound overall design of intergovernmental fiscal arrangements is important to minimize risks of SNGs' non-compliance with fiscal rules. The main flaws in such arrangements that can undermine the effectiveness of the rules are briefly summarized here.

- **Unclear assignment of spending responsibilities.** Overlapping spending responsibilities make it difficult for voters to know which level of government is responsible for provision of various public goods and services, or to penalize SN officials who provide them poorly by not re-electing them. This weakens incentives for SN spending efficiency and fiscal discipline and compliance. Moreover, overlapping spending responsibilities frequently result in duplication of functions and related waste of fiscal resources. Unfortunately, many countries make extensive use of concurrent spending responsibilities, making it difficult to avoid expenditure overlaps in those functions.

- **Large vertical fiscal imbalances.** Heavy dependence of SNGs on transfers reduces their fiscal responsibility and political accountability to their electorates. Although both the choice of appropriate tax handles to be devolved to the SN level, and the building of adequate SN capacities to administer devolved taxes are complex tasks, a significant capacity of SNGs to raise own revenues at the margin is crucial to avoid the emergence of SN soft budget constraints, and therefore to minimize risks of SN non-compliance with fiscal rules. Several empirical studies (e.g. Eyraud and Lusinyan, 2011; Escolano and others, 2012; Hernandez de Cos and Perez, 2012; and Kotia and Lledó, 2016) have found evidence that large vertical imbalances, resulting from limited tax autonomy and related heavy transfer dependence, have negative effects on SN fiscal balances.

- **Inappropriate design of inter-governmental transfers (1): discretionality.** From the standpoint of minimizing risks of SN non-compliance with fiscal rules, it is important that inter-governmental transfers be formula-based, since, as mentioned, discretionality creates scope for political favoritism and bailout expectations. The formulas should be transparent, based on factors that cannot be manipulated by SNGs, and their correct application should be easily verifiable.[21]

[21] See Boadway and Shah, 2007 for a comprehensive review of issues related to the design of transfers, including the practical difficulties of avoiding or neutralizing strategic behaviors of the recipients of formula-based transfers.

- **Inappropriate design of inter-governmental transfers (2): unfunded spending mandates.** The overall level of intergovernmental transfers should be adequate to cover the ex-ante vertical fiscal imbalances, taking into account SN fiscal capacities and spending needs, so as to avoid unfunded spending mandates. The latter weaken SN incentives for both sound public expenditure management, and overall fiscal discipline, as SN officials can blame inadequate transfers of resources by the CG for their failure to meet spending responsibilities or to run balanced budgets. The transfer formulas should also ensure a degree of horizontal redistribution among SNGs consistent with the country's tolerance of regional disparities. Failure to do so often leads to political and social tensions that can undermine the fiscal responsibility and sustainability especially of poorer regions, ultimately requiring bailouts by the CG.

- **A prolonged history of SN bailouts by the CG.** International experience shows that repeated CG bailouts of SNGs in financial difficulty because of their fiscal indiscipline encourage moral hazard in SNGs and weaken their incentives to comply with fiscal rules. This is especially the case when such bailouts are not accompanied by appropriate and firmly enforced fiscal and structural conditionality (see note I.1 on CG management of SN debt crises for details).

Assessing Spain's SN fiscal rules: some preliminary considerations

This section presents some preliminary considerations (based on IMF staff's understanding of their main features) on how current SN fiscal rules in Spain conform to the criteria for effectiveness outlined in the previous section.

Design issues

Spain replicates features of the EU fiscal framework into its own multi-level framework. In doing so, SN fiscal rules set out in the Ley Organica de Estabilidad Presupuestaria y Sostenibilidad Financiera (LOEPSF) of 2012 are consistent with the rules applying to the general government (GG) in the current EU fiscal framework.[22] SN fiscal rules under the LOEPSF aim to foster all three objectives envisaged under the EU fiscal framework, namely macroeconomic stability (the structural budget balance rule); medium-term fiscal sustainability (the debt rule); and stabilization of the size of government relative to trend GDP (the expenditure rule).

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[22] The EU framework, however, does not specify a required vertical or horizontal distribution of the GG targets; therefore, it could in principle allow a different apportionment of these targets both across government levels and within each level.

Box 2. Empirical Evidence on the Effectiveness of SN Fiscal Rules

A growing empirical literature has started to assess the effectiveness of fiscal rules on subnational fiscal performance helped by new databases and indices. This literature has benefitted from the systematic compilation of fiscal rules and their characteristics, including numerical limits and specific design and implementation features. Such features have usually been summarized through indices trying to measure the strength of a given rule. Indices set up by the European Commission (EC), OECD, and IMF stand out:

- **EC**. This index is obtained by applying random weights to five indicators that rate, respectively: (1) the statutory base of the rule; (2) the flexibility of the targets; (3) the nature of the bodies in charge of monitoring and enforcing the rule; (4) the mechanisms of enforcement; and (5) the media visibility of the rule (EC, 2012).
- **OECD**. This index rates fiscal rules based on four main criteria, reflecting the following objectives: (1) restraining the growth of the public sector; (2) promoting allocative efficiency; (3) ensuring debt sustainability; and (4) promoting resilience to exogenous shocks (Blochliger 2012).
- **IMF.** Similar, to the EC index, the IMF index scores different types of national and supra-national rules for characteristics such as legal basis, coverage, enforcement provisions, and supporting institutions (e.g. use of medium-term budget frameworks; role of independent fiscal councils) but for a broader sample of 70 countries (Schaechter and others, 2012).

Empirical studies to date of the effectiveness of SN fiscal rules, using the above-mentioned indices, have yielded mixed results. Escolano and others (2012) find little or no evidence of the effectiveness of SN fiscal rules on SNGs' fiscal performance in the EU countries. Similar results are found by Blochliger (2012) for OECD countries, based on simple correlation analysis. EC (2012) finds limited effectiveness of rules targeting the budget balance, but a more pronounced one of rules targeting the debt. In contrast, Kotia and Lledó (2016) find that stronger fiscal rules improve SN fiscal balances.

These mixed results probably reflect the fact that, as highlighted above, the effectiveness of rules hinges crucially not only on sound design but also on consistent implementation and firm enforcement, as well as on other features of inter-governmental fiscal arrangements, some of which are relatively weak in some of the countries analyzed in the studies.

The impact of the global financial crisis on Spain's public finances may require revisiting the numerical limits under the fiscal rules. These rules clearly specify the distribution of the steady-state limits for the structural budget balance and the public debt, and the permissible rate of growth of primary spending for all public administrations. The goal is for the steady state to be achieved by 2020. Given current debt levels, the debt limits for the CG and for the CCAAs as a whole seem unlikely to be complied with by the 2020 deadline. This may require reviewing numerical limits under this rule or extending the transition period to the steady-state.

Methodologies for ensuring compliance with the structural budget balance rule at the subnational level should be clarified. The translation of the structural balance requirement into nominal budget balance objectives for the CCAAs is done each year through a proposal of the Ministry of Finance, reviewed and approved by the CPFF. The AIReF could review whether the methodology for such translation is well established, transparent, and consensual between the CG and the CCAAs.

A temporary differentiation of annual budget balance targets may have to be considered. There is considerable debate on how appropriate are equal targets for SNGs in different initial fiscal positions. This question has, of course, strong political connotations. From a purely economic standpoint, the answer would seem to depend on whether the differences in fiscal balances and debt are structural in nature, reflecting in particular substantial variance across regions in revenue-raising capacities (at similar levels of tax effort) and/or in spending needs (at similar levels of efficiency) inadequately offset by the current system of intergovernmental transfers. In such circumstances, a case could be made for differentiated targets until the structural differences can be significantly reduced.

The risks stemming from the incomplete coverage of SN fiscal rules should be addressed. In line with EU practices, the rules do not cover SN SOEs that receive less than half of their revenues from the government, as well as contingent liabilities from PPPs and other guarantees. The fiscal risks related to such exclusions should be properly identified, quantified, and disclosed in subnational fiscal reports.

Consideration should be given to limiting direct lending by the CG to regions. The no-bailout clause (art. 8 of the 2012 law) does not apply to direct lending by the CG to the CCAAs. This has allowed a substantial increase in such lending (which is recorded below the line, as acquisition of financial assets, in the CG accounts) in recent years. Although the lending is accompanied by conditionality, in the form of CG's negotiation of adjustment programs with the supported CCAAs, compliance with such programs has been relatively weak, and moral hazard has increased. The extensive use of such lending has de-facto made the rule-based system of control of SN borrowing similar to one of administrative controls, with the above-mentioned potential shortcomings of such systems.

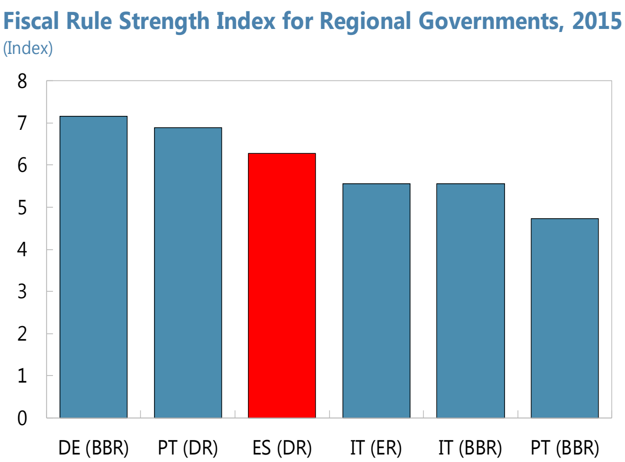
Implementation issues

SN fiscal rules fare relatively well in terms of several implementation features. The legal basis of the rules is robust; escape clauses are clearly specified; and there is provision for a transition period. Also, procedures for monitoring and enforcement, including graduated corrective measures and ultimately sanctions in the event of SN non-compliance, are spelled out in detail in the LOEPSF. The CPFF and the CNAL provide fora for vertical and horizontal inter-governmental dialogue and coordination, as well as for peer pressure for compliance with the rules. Compliance is also subject to external scrutiny by the independent fiscal council (the AIReF), whose reports have significant weight in the media. As a result, Spain's SN fiscal rules stand up relatively well in international comparisons, using the strength indices described in Box 2 (Figure 1).

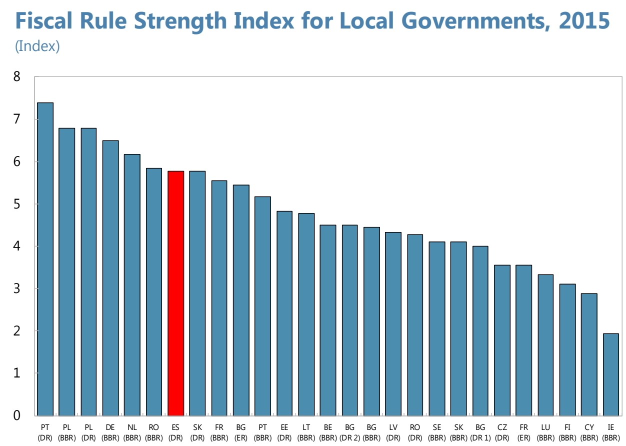
Nevertheless, there is room for improvement in some areas. In particular,

- While SN PFM systems, especially at the regional level, are generally adequate, there is scope for strengthening SN capacities to prepare well-articulated and realistic medium-term budgets.
- There remain some differences in the accounting rules and practices of different CCAAs, a fact that hinders the comparability of their budgets and fiscal statistics.
- The corrective mechanisms and sanctions for non-compliance envisaged in the LOEPSF have not been applied so far; over time this could undermine the credibility of the rules.

Figure 1. Spain—Strength of SN Fiscal Rules



Sources: European Commission, Directorate-General for Economic and Financial Affairs.



Sources: European Commission, Directorate-General for Economic and Financial Affairs.

The effectiveness of SN fiscal rules would benefit from reforms in Spain's intergovernmental fiscal system aimed at strengthening subnational tax autonomy. Spain's intergovernmental fiscal system, and consequently the effectiveness of its fiscal rules, would benefit from a reduction of the vertical fiscal imbalance through increased revenue-raising autonomy at both the regional and local level, and from some improvements in the intergovernmental transfer system. In addition to their likely positive impact on the efficiency, quality, and stability in the provision of subnational goods and services, such reforms could have the bonus—for the reasons above—of increasing compliance with the SN fiscal rules; and, in doing so, fostering greater SN fiscal discipline and promoting fiscal coordination, the two key objectives that led to their introduction. The upcoming reports of the two Commissions on intergovernmental reforms should offer an opportunity for careful consideration by the authorities of options in all these areas.

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II. ORIGINAL REQUESTS *(EN ESPAÑOL)*

1. Una de las consecuencias de la reciente crisis en España, en lo que se refiere a las finanzas autonómicas, ha sido que una parte relevante de la deuda de las Comunidades Autónomas ha pasado a manos del Estado. ¿Existen otros países en los que esto haya ocurrido? ¿Qué ha pasado con esa deuda? Si ésta se ha condonado en todo o en parte, ¿ha tenido consecuencias negativas detectables sobre los incentivos de los gobiernos subcentrales para mantener la disciplina fiscal?

2. ¿Cuál es la valoración que hace el FMI de la experiencia internacional en materia de Fondos de Estabilización (Rainy Day Funds)? ¿Cómo se han diseñado estos Fondos en otros países y qué opciones han funcionado mejor? ¿Se recomienda la utilización de este instrumento en el ámbito de la financiación autonómica en España? Si es así, ¿En qué términos o bajo qué condiciones se considera que serían de utilidad en nuestro país? ¿Cómo podrían articularse?

3. Dentro de los mecanismos existentes en los países descentralizados para ajustar verticalmente el reparto de recursos entre el Gobierno Central y las Administraciones Subcentrales, ¿cuál o cuáles de ellos funcionan de forma más satisfactoria en opinión del FMI? ¿Existen en algún país procedimientos que permitan realizar ese reparto sobre una base razonablemente objetiva de medición de las necesidades de gasto de las distintas administraciones?

4. ¿Cuáles son las principales lecciones de la experiencia comparada para el diseño de reglas de disciplina fiscal a nivel subcentral?