Insolvency Frameworks for State and Local Governments

Insolvency frameworks stipulate rules and procedures to resolve debt in a prompt and orderly way. Such frameworks may serve to facilitate debt restructuring and the fiscal recovery even of subnational entities, including states and municipalities. They may even prevent subnational governments from sliding into insolvency. This paper identifies the benefits of setting up an insolvency framework for subnational governments, complementing existing budget rules and procedures. It analyses different design options of subnational insolvency frameworks by drawing on existing regimes for municipalities in Colombia, Hungary, South Africa, Switzerland and the United States as well as proposals for sovereign bankruptcy procedures in the literature. The paper also explores the main challenges for implementing subnational insolvency regimes and presents possible solutions.

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1. Introduction and main findings

High indebtedness of subnational governments (SNGs) can lead to serious peril, undermine their proper functioning and impair the provision of essential public services. By depriving governments of needed fiscal capacity, it may hinder their ability to cope with acute crises, such as the COVID-19 pandemic. Such indebtedness may also deter infrastructure financing and public investment and thus limit long-term growth. Most notably, increasing debt of a single subnational government can generate negative externalities for other SNGs and the central government by diminishing their creditworthiness and increasing overall borrowing costs. Excessive SNG debt levels raise the likelihood that a debt default leads to contagion, thus impeding all government levels from access to borrowing, and even threatening overall financial stability – as experienced by Argentina. The central government may be forced to bail out SNGs, which can risk triggering unsustainable fiscal policy by SNGs, if the possibility of bail-out encourages moral hazard behaviour. Notably, unforeseen “Black Swan” events, such as a pandemic, should not normally encourage such moral hazard, and may appropriately be dealt with by central governments.

Insolvency frameworks provide rules to resolve unsustainable borrowing in an orderly and prompt way, in an effort to deter bankruptcy and preserve crucial fiscal capacity (OECD, 2016). They define how to proceed when a subnational entity has gone bankrupt. They clarify how debt will be restructured, which public services will be maintained and what steps need to be undertaken to restore the financial health of the insolvent SNG. They stipulate the debtors’ and creditors’ rights and regulate third-party intervention. Insolvency frameworks serve to enable a fresh start and to promote a fiscal recovery of highly indebted governments. They may also underpin the commitment of upper-level governments to a no-bailout policy and thus may prevent subnational governments from piling up debt to unsustainable levels. However, only a few countries have established insolvency frameworks, but even these commonly apply only to the local or municipal levels, and only rarely to the provincial or state levels.[1]

This paper stresses the benefits of introducing insolvency frameworks for subnational governments and analyses existing frameworks in Colombia, Hungary, South Africa, Switzerland and the United States, and other frameworks discussed in the literature. It also provides options for designing and implementing a subnational insolvency framework intended to prevent subnational insolvency and facilitate a recovery from a budgetary crisis.

The main findings are:

- Budget discipline can be achieved by implementing budgetary rules and institutions, by balancing tax, spending and borrowing autonomy and by establishing a credible no-bailout system. In this regard, a well-designed subnational insolvency framework may have substantial merits. An insolvency framework may enforce existing measures to safeguard fiscal discipline. With a formal debt-restructuring mechanism in place, higher level governments can *ex ante* commit to a no-bailout policy inducing SNGs and creditors to take reasonable borrowing and financing decisions (the preventive function).
- Ultimately if a SNG is in severe budget crisis, the framework contributes to find *ex post* a timely solution to a subnational debt problem (the corrective function). It ensures clarity and minimises discretion from the outset. As a comprehensive statutory approach it is superior to *ad hoc* debt negotiations and contractual approaches, as it solves collective-action problems like hold-outs, which arise in debt negotiations.
- Based on an analysis of existing insolvency frameworks and approaches in the literature, several design options for subnational insolvency regimes can be extracted. How specific features are chosen, depends on which objectives are to be met: providing essential public services and enforcing fiscal adjustment and consolidation, deterring strategic default of an SNG, facilitating debt restructuring, protecting the contractual rights of the creditors and limiting interference with subnational sovereignty and constitutional rights. These objectives, particularly the provision of

essential services and enforcement of fiscal adjustment, assume a particular importance in the presence of exogenous crises, such as COVID-19, which may place particular strain on the fiscal capacity of SNGs.

- From existing insolvency regimes some lessons can be drawn. There is no one-size-fits-all solution. An insolvency framework has to take into account country-specificities (e.g. institutional and legal setting, social preferences) and to balance the different objectives. However, an effective and "balanced" framework that addresses the objectives mentioned above may include the following elements:
    - *Filing for insolvency*: The framework allows the debtor to file, which is approved by the court (regarding the sovereignty/constitutional rights), allows only a narrow set of eligibility criteria by applying the ultima-ratio-principle (deterring moral hazard) and grants an automatic stay on assets (facilitating debt restructuring).
    - *Debt restructuring*: It assigns the proposal right to the debtor and the veto right to the court (regarding sovereignty and creditors' rights), stipulates a simple majority rule in terms of number of creditors and a qualified majority rule in terms of claims (facilitating debt restructuring), gives priority to new interim financing (maintaining credit financing) and senior claims towards junior claims (preserving creditors' rights).
    - *Fiscal adjustment*: It foresees monitoring of subnational fiscal adjustments e.g. in spending and taxation as well as further necessary reforms by upper-level government (accelerating fiscal adjustment, deterring moral hazard) and stipulates sanctions in the case of non-adherence to the rules. This may also help to ensure adequate fiscal capacity in the face of future, unforeseeable shocks.
- Although the experience with existing insolvency procedures is quite positive, such insolvency frameworks may be difficult to implement in other countries. They may not be compatible with constitutional or sovereignty rights or require major structural and institutional reforms to be effective. Their introduction may lead to contagion effects to other government levels or even financial markets. They may also be opposed by lower-level governments and face strong lobbying by creditors, as political decision makers and creditors will be made responsible for the budgetary and financing decisions.
- Approaches such as opt-out/opt-in options, a minimalist framework for subnational amendments or gradual evolution, transition paths, central-government guarantees, conditional transfers or a debt-redemption fund may help to solve these implementation problems. However, these solutions may generate new trade-offs and disincentives, which may imply a departure from an effective subnational insolvency framework.

This paper proceeds as follows. Section 2 elaborates the motivation for implementing insolvency regimes for subnational governments – addressing subnational public finances and the measures and their limitations to prevent and cope with the indebtedness of subnational governments. Section 3 describes the design options for insolvency regimes and elaborates a general framework. Section 4 deals with the implementation of insolvency regimes – hereby addressing possible drawbacks and implementation problems, suggesting solutions and analysing trade-offs.

2. The case for subnational insolvency frameworks

2.1. Subnational finances

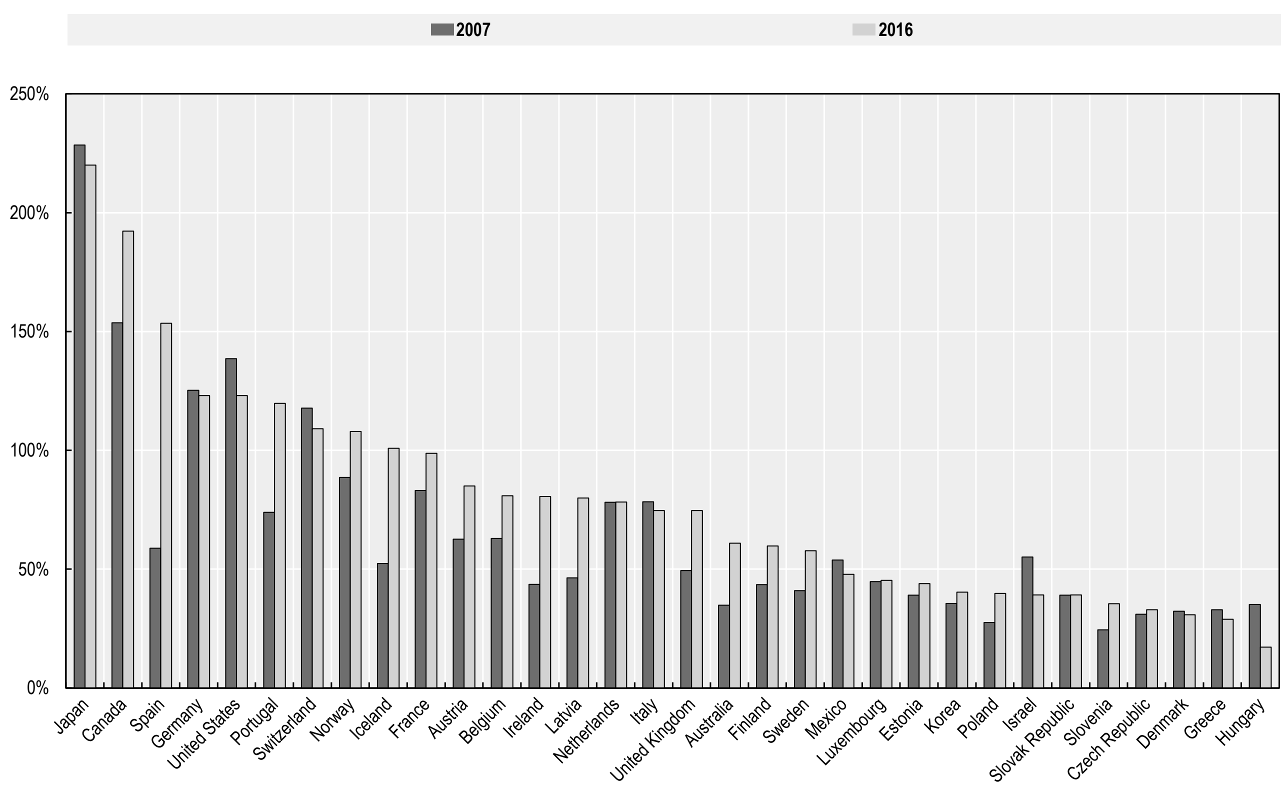
Subnational governments (SNGs) including state and local governments play a large role in public finances in many countries. In most, SNGs are responsible for the provision of essential public services (e.g. education, infrastructure maintenance, garbage collection, water supply). OECD-wide in 2014, SNGs accounted for 33% of total government spending and 19% of own revenue (from own and shared taxes and user fees) (OECD, 2016).[2] The gap between subnational spending and subnational own revenue – the vertical fiscal imbalance – is bridged by intergovernmental transfers or subnational borrowing.

SNGs incur low levels of public debt compared with the central government. In 2013, SNG outstanding debt represented on average only 13% of the GDP and 17% of total public debt in the OECD (OECD, 2016). Although the global financial crisis led to a sharp decline in local revenues and increases in demands for social and welfare programmes (scissors effect) in many countries, the deterioration in overall subnational balances was relatively small, due to federal stimulus packages and additional federal grants (Blöchliger et al., 2010).

However, as SNGs have less taxing power and draw on a much smaller revenue base than central governments, a better indication of their capacity to repay debt is given by debt relative to revenues rather than GDP. SNG debt is high as a share of SNG revenues and has increased in the majority of OECD countries, amounting to 80% on average in the OECD in 2013. In Canada and Japan, they even reached over 200% of subnational revenue. In addition, there is strong heterogeneity in subnational debt-to-revenue ratios within some countries. For example, in Germany subnational debt levels ranged from less than 30% of subnational revenue in Saxony to more than 450% in Bremen in 2012 (Vammalle and Hulbert, 2013; OECD, 2016).

Apart from the relatively stable fiscal position of many SNGs, some were hit hard by the global financial crisis. Subnational debt-to-revenue ratios increased dramatically in Spain and Portugal (Figure 14).

Figure 14. Ratio of subnational debt to own revenue



Note: Data for 2015 are used for Japan, Israel and Mexico; 2014 for Switzerland; revenue data are on an unconsolidated basis to ensure broadest country coverage.
Source: OECD (2020) and National Accounts database.

2.2. Drivers of subnational debt – the problem of soft budget constraints

High SNG indebtedness may be driven by institutional deficiencies (e.g. limited taxing capacity) or persistent structural problems where revenues from own sources and intergovernmental transfers are insufficient to meet the spending obligations. It may also be attributed to the existence of a soft budget constraint (Kornai, 1979 and 1986): if the central government is unable to credibly commit to a no-bailout policy in case of a subnational financial crisis, SNGs are likely to engage in moral hazard. Budget discipline may become lax, leading to excessive deficits, which in turn elicit transfers from central government.

A number of factors influence the likelihood of bailouts and the occurrence of soft-budget constraints. For example, regions might be “too big to fail” (Wildasin, 1997; Büttner and Wildasin, 2006), “too small to fail” (Goodspeed, 2002; Crivelli and Staal, 2013) or “too sensitive to fail” (Bordignon and Turati, 2009; von Hagen et al., 2000). Bailout expectations might be driven by political-economy factors such as the same party affiliation of higher and lower-level governments (Hernandez-Trillo and Smith-Ramirez, 2009). They may be affected by imbalances in the assignment of spending, revenue and borrowing autonomy. They are shaped by explicit or implicit bailout guarantees such as constitutional rules prohibiting debt enforcement against subnational assets or demanding solidarity in case of subnational financial distress (Rodden, 2003). Bailouts in the past may serve as precedents for future bailouts.

2.3. Options for preventing excessive subnational debt

The negative implications of excessive subnational debt call for various measures that safeguard and restore subnational financial discipline and address the problem of soft budget constraints.

Strengthening budgetary institutions

During the last decade, many countries have strengthened their budgetary institutions to restrict excessive subnational borrowing (OECD, 2016). Budgetary institutions are rules and regulations according to which budgets are drafted, approved and implemented. They include fiscal rules, procedural rules and rules regarding the transparency of the budget (Alesina and Perotti, 1996) and may be complemented by fiscal or intergovernmental councils and other arms-length agencies.

Strengthening budgetary institutions may contribute to subnational fiscal discipline – as empirically shown for the US states by Hagen (1991), Poterba (1994), Alesina und Bayoumi (1996) and Fatás and Mihov (2006). However, cross-country evidence for the positive relationship between the strength of budgetary institutions and subnational fiscal discipline is ambiguous (Fornasari et al., 2000; Jin and Zou, 2002). For example, in many cases strict rule enforcement is not achieved. Borrowing restrictions can be evaded by using sale-and-lease-back operations (Jorgen and Pedersen, 2002; Letelier, 2011) or by accumulating off-budget debt (Ahmad et al., 2004).

Balancing borrowing, tax and spending autonomy and aligning autonomy with responsibility

Excessive debt is not only facilitated by weak budgetary institutions and a high degree of borrowing autonomy. It is also due to imbalances between subnational spending, tax and borrowing autonomy, leading to a low degree of fiscal autonomy. These imbalances of fiscal autonomy and misalignments with responsibilities are predominant in so-called mixed systems, where SNGs have large spending and borrowing powers, exhibit little tax autonomy, and thus depend heavily on federal transfers (e.g. fiscal equalisation schemes, tax sharing arrangements, and other intergovernmental transfers).

This may force local government to debt finance their assigned tasks when revenues from taxes and transfers are not sufficient. It may also set fiscal disincentives. Other than in federal countries like Switzerland, or unitary countries like the United Kingdom where budget decisions are internalised by each jurisdiction, mixed systems like that in Germany create fiscal externalities allowing debt to be shifted to other jurisdictions (Blankart and Klaiber, 2006): SNGs draw on resources, which are not their own (the "common-pool problem") and expect to be bailed-out in case of an emergency. Then, they are likely to overspend, reduce tax-raising efforts and run large deficits.

Case studies from Italy (Bordignon, 2000), Argentina (Webb, 2003; Nicolini et al., 2002) or Germany (Seitz, 2000; Rodden, 2003 and 2005) as well as some cross-country empirical evidence (e.g. Rodden, 2002; Singh and Plekhanov, 2005) have shown that the existence of large vertical fiscal imbalances and a high degree of transfer dependency are related to less fiscal discipline. According to Bartolini et al. (2015), both subnational and central budget balances deteriorate with the declining degree of correspondence between subnational own revenues and spending. Blöchliger and Kantorowicz (2015) also show positive correlations between low fiscal coherence of constitutions, which includes imbalances in fiscal autonomy and a low degree of responsibilities, and negative fiscal outcomes.

Market discipline

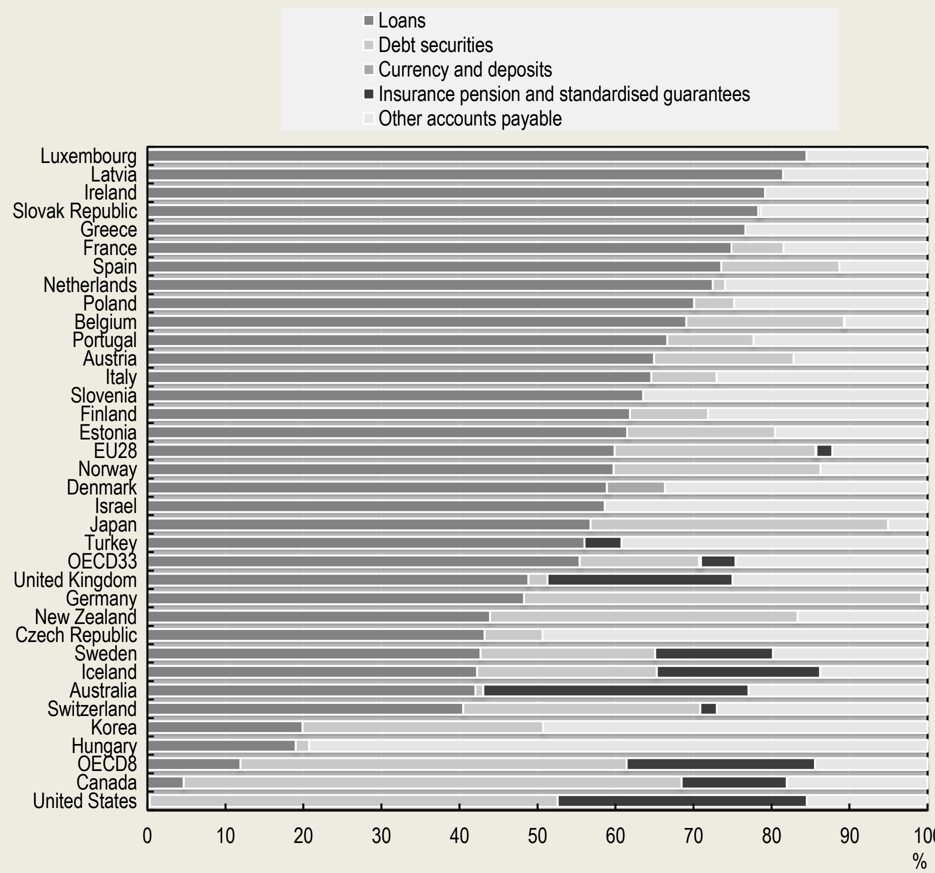
SNGs draw on different liabilities, including loans, government bonds, arrears to suppliers and pension liabilities (Box 21). Creditors like lenders and bondholders reward budget discipline with low borrowing costs and punish the deterioration of fiscal fundamentals. The higher creditors assess the risks of future defaults, the higher is the interest rate a subnational entity has to pay. Capeci (1994) and Bayoumi et al. (1995) confirm the disciplinary function of market institutions. They show for US municipalities that, when debt levels rise, bond yields increase first gradually at low and then rapidly at high debt levels. Above a certain debt level, credit becomes rationed.

Box 21. Types of subnational debt

The major part of subnational debt (75% of total debt on average in the OECD at the end of 2016) is financial debt, comprising loans and debt securities (e.g. government bonds). Debt securities are the predominant source of debt financing in federal countries such as the United States, Canada and Germany (over 50% in these countries, in the figure below). They are also widespread in some unitary countries such as Japan (38%), Korea (31%) and Norway (27%). However, unitary countries mainly use traditional loans from central government, public banks or commercial banks, which constitute a share of 60% (OECD33), compared with 24% on average in federal countries (OECD8).

A smaller part of SNG debt includes non-financial debt like the sum of other accounts payable (arrears, suppliers' debt, etc.) and pension liabilities (insurance pensions and standardised guarantees). Other accounts payable amount to 25% of the total debt and are important mainly in Hungary (79%), Korea (49%), the Czech Republic (49%) and Turkey (39%). Debt liabilities stemming from pension insurance or standardised guarantees also exist at the subnational level, especially in Australian and US states. In these countries, they account for 34% and 32% of subnational public debt, respectively.

Composition of subnational debt by liability type (2016)



Source: OECD (2018), OECD Subnational Government Structure and Finance database.

In many cases, the credit market does not function properly to limit excessive borrowing (OECD, 2016). Often adequate information about the borrower's outstanding debt and repayment capacity is not available. Moreover, in a number of countries, SNGs can draw on loans either from central government (Ireland, Slovak Republic) or from banks which are related to SNGs (Denmark, Finland, German municipalities). In this way, SNGs get privileged access to financing and do not compete with private borrowers. In case of positive bailout expectations, creditors may under-price subnational default risk. They grant highly indebted SNGs credit at preferential conditions, irrespective of their financial situation.

A number of empirical cross-country studies (Schuknecht et al., 2009; Sola and Palomba, 2015; Beck et al., 2016) show that the link between fiscal fundamentals and the cost of borrowing – indicated by the yield spread of SNG bonds – breaks down, if bailouts are explicitly provided or implicitly anticipated. While bailout expectations improve credit conditions for SNGs, they deteriorate the conditions of the central government. Jenkner and Lu (2014) provide evidence using Spanish data that – once a bailout is announced – default risk is transferred from the sub-sovereign level to the central government, simultaneously decreasing subnational risk premia and increasing sovereign ones.

2.4. The case for subnational insolvency frameworks

Commitment device for a no-bailout policy

The analysis has shown that strong and reliable budgetary institutions, balanced fiscal autonomy and its alignment with fiscal responsibilities, as well as market surveillance may prevent irresponsible budget policy. However, in many cases, policy measures have proved insufficient to constrain excessive public borrowing. Bailout prospects diminish the financial control by the credit market and the adherence of SNGs to fiscal rules. Instead of offering a bailout, one way to avoid a subnational budget crisis is to expose heavily indebted SNGs to bankruptcy, placing the debt burden on both the subnational government and its creditors – as long as it does not impose systemic risks on sovereigns or the financial market. In this regard, a subnational insolvency framework can be a commitment device that backs up a no-bailout policy.

The mere existence of an insolvency framework may signal that the upper-level government is likely to refrain from a bailout and reduces creditors' and debtors' moral hazard. Creditors might expect that its (subordinated) claims will lose value in case of a subnational insolvency. They are forced to scrutinise the creditworthiness of the SNG and price in the probability of subnational defaults and the possible debt discharge (e.g. through putting a higher premium on the borrowing rate). To avoid high borrowing costs, limited access to the capital market and/or the stigma of bankruptcy, the debtor may pursue a prudent fiscal policy. Hence, insolvency frameworks may serve to prevent SNGs from bankruptcy (the "preventive function"). They complement and enforce existing measures to safeguard financial discipline and to harden the budget constraint of SNGs.

Solving collective action problems

Moreover, in the case that a SNG cannot meet its obligations, insolvency regimes are a remedy of last resort to find a resolution to a subnational debt crisis (the "corrective function") in an orderly and prompt way. An insolvency framework facilitates debt restructuring and enables a fresh start. As a comprehensive approach, it is superior to *ad hoc* and often chaotic negotiations and contractual approaches like collective action clauses (Box 22). An insolvency framework may include all creditors' claims ranging from those of government employees to bond holders. If designed predictably and transparently, it generates legal and procedural certainty for all parties involved in case of a subnational fiscal crisis.

Above all, it serves to solve collective-action problems like hold-outs arising in the debt-negotiation process. Debt restructuring may involve extending the maturity of debt and reducing the amount of interest and principal payments. In the case when a creditor minority is able to block a majority, the minority may strategically hold out from agreeing to a reasonable restructuring plan in the hope of recovering payment on the full contractual claim or obtaining more favourable terms. This might even induce willing creditors to vote against a restructuring (McConnell and Picker, 1993). Consequently, hold-outs reduce the value of the other creditors' claims. They create substantial delays in finding a solution to the debt problem and prevent a rapid recovery.

The hold-out problem may particularly be an issue for SNGs whose debt is held by a large number of bond investors rather than by single banks, as is the case in US states (Conti-Brown, 2012). The US subnational debt does not consist of loans, but mainly of debt-securities (e.g. government bonds) (Box 3). Changing payment terms of the bonds (e.g. maturity date, coupon, repayment of a bond) in general requires unanimous consent among bondholders. Due to the high number and the diverse and constantly changing identities of the bondholders, this can hardly be achieved (Schwarcz, 2011).

Box 22. Collective action clauses

Contractual approaches such as collective action clauses (CAC) can help to mitigate the collective-action problem. They permit modifications in payment terms with the consent of a qualified majority of bondholders, but they have some limitations (IMF, 2014). Firstly, CACs are not always included in bond indentures (Schwarcz, 2004). CACs are commonly used for sovereign bonds under English and New York law (Andritzky et al., 2016). They also have been mandated for all newly issued government bonds of euro area countries since 2013 according to Art. 12 of the ESM Treaty. However, relatively few state bonds have included CACs (Schwarcz 2011). States could insert these provisions ex post into bond identures – but an agreement with the creditors might be difficult or costly to reach. Exchanging existing bonds with bonds of supermajority voting might require changes in the payment terms (Schwarcz, 2004). Secondly, as CACs operate on a series-by-series or agreement-by-agreement basis, the majority principle may hold for a specific bond issuance, but not for the aggregate. Hence, a debt-restructuring agreement might still fail, if one group of creditors or bondholders cannot achieve the requisite majority. A possible remedy is a modification in the voting procedures of CACs (e.g. “single limb’’ or “’two-limb” voting procedure)* (IMF, 2014). However, these changes might take time to become a significant part of public debt contracts (Fuest et al., 2016). Above all, CACs apply only to bonds. They do not solve equity concerns and collective-action problems arising among both bondholders and other creditors (Krueger, 2003).

Note: *A “single-limb” voting procedure requires only a single vote calculated on an aggregate basis across all affected bond series. A “two-limb” voting procedure additionally differentiates among different types of creditors.

Insuring against harmful effects and enhancing transparency

Apart from its corrective and preventive function, an insolvency regime also serves as insurance device against long-term negative effects of exogenous shocks such as sharp decreases in public-service levels (Adalet McGowan and Andrews, 2016; Liu and Waibel, 2008). A restructuring of debt, such as rescheduling or even a partial cancellation negotiated between debtors and creditors, allows the SNG to recuperate from this adverse event without being forced to make unreasonable decisions on spending cuts and tax increases. Debt repayment may be postponed until economic conditions improve.

Furthermore, insolvency regimes can enhance the transparency of the finances of subnational entities. Fiscal transparency is an integral part of many existing insolvency frameworks (Liu and Waibel, 2008), as filing for insolvency requires SNGs to disclose all fiscal and financial information, which is often scrutinised by independent third parties.

2.5. Existing insolvency frameworks and regulations on debt resolution

Measures for coping with subnational financial distress

For coping with subnational financial distress, countries rely primarily on budget rules and budget institutions to restore the financial health of subnational governments. Table 9 provides an overview of the measures of selected countries (for more detail see Herold, 2018: Table A.1.)[3]. In most countries, some form of consolidation plan has to be elaborated that defines expenditure cuts and tax increases. Measures also involve some intervention by higher-level governments, which, for example, monitor the implementation of consolidation plans and approve subnational borrowing decisions. In some countries, higher-level governments can put an SNG under forced administration – as found in some states in Germany. The state government can appoint an administrator to take over some or all tasks of a municipality, as long as the measures mentioned above turned out to be insufficient. In Denmark, non-compliant local governments may in principle face sanctions (e.g. penalties), though they are rarely imposed in practise. SNGs may also be assisted by transfers. For example, in the Netherlands, financially troubled municipalities (so called Article 8 municipalities) may receive supplementary grants, if revenues are significantly and structurally insufficient to cover necessary outlays. The Spanish government may provide (liquidity) transfers to Autonomous Communities and Local Corporations.

Table 9. Overview of rules dealing with financially distressed municipalities and states in selected countries

	Insolvency frameworks		**Debt-enforcement rules**		Other rules dealing with SNGs in financial distress			
	Comprehensive insolvency framework	**Private insolvency framework**	**Single debt enforcement rules**	**Prohibition of debt enforcement/ insolvency proceedings**	**Specific transfers**	**Implementation of consolidation plans**	**Intervention by higher level government**	**Sanctions**
Belgium regions	○	○	○	○	○	●	●	●
Denmark	○	○	○	○	○	●	●	●
Germany local	○	○	○	(●)	●	●	●	●
Germany *Länder*	○	○	○	●	●	●	●	○
Korea	(●)	(●)	○	○	●	●	●	
Netherlands	○	○	○	○	●	●	●	
Norway	○	○	○	●	○	●	●	
Spain local	○	○	○	○	●	●	●	●
Spain states	○	○	○	○	●	●	●	●
Switzerland local	●	○	○	○	●	●	●	●
Switzerland cantons	○	●	○	○	○	●	●	○
Turkey	○	○	●	○	○			

Note: ○ not existent/ not applied, ● existent/ applied, (●) Korea: applicable for subnational public companies, Germany local governments: applicable only if specified by state law.
Source: OECD Fiscal Network – Survey on subnational debt resolution. See for more detail Annex A, Table A.1.

Only few countries provide regulations that deal with subnational insolvencies. Many countries, such as Denmark and Australia, have not developed any rules dealing with the resolution of debt in case of a subnational fiscal crisis. In Germany and Norway, insolvency proceedings against assets of the states (Germany), counties and municipalities (Norway) are even prohibited. In these countries, municipalities and states or counties cannot be declared insolvent.[4] Other countries, like Austria, explicitly allow debt enforcement against municipal assets, but do not have specific rules on how to proceed in case of an insolvency (Nunner-Krautgasser, 2013). In Turkey, municipalities may not become subject to bankruptcy proceedings but to debt enforcement according to the Code of Debt Enforcement and Bankruptcy (1932). In Switzerland, the personal and corporate insolvency law is applicable for the cantons and regions. Instead, Swiss municipalities in financial distress may become subject of an insolvency framework – as outlined below.

Box 23. Existing municipal insolvency frameworks

A prominent example is the Chapter 9 procedure in the United States deriving from the Bankruptcy Act 1938, which was adopted during the Great Depression, which led to multiple municipal defaults. At that time many municipalities had issued bonds for debt financing. Defaulting municipalities were faced with the hold-outs in debt negotiations. The primary aim of the Act was to deal with this collective-action problem arising in debt negotiations (McConnell and Picker, 1993; de Angelis and Tian, 2013).

The origin of the regulation in Switzerland dates back to the 19th century, when a few financially distressed municipalities had to be bailed out by upper-level governments. At that time, insolvency rules had been developed but not implemented. Further attempts of regulating insolvency were made during the economic crisis of the 1930s to prevent creditors from getting into trouble because of subnational defaults. But it was not until 1947 that the Federal Law on Debt Enforcement of Municipalities and other Corporations of Cantonal Public Law was adopted under the pressure of banking institutions and insurance companies (Schaltegger and Winistörfer, 2013).

The need for regulation of insolvencies in Hungary, Colombia and South Africa is attributed to systemic and institutional changes. The Hungarian Municipal Debt Adjustment Law was enacted in 1996, a few years after the disintegration of the former Soviet Union that led to the economic and political transformation of the country. In 1990, new regulations for local governments came into force that permitted unregulated subnational borrowing and resulted in sharp public-spending increases. With the macroeconomic downturn in the mid-1990s, many local governments were in severe financial difficulty and received central government grants to stay afloat. The aim of the insolvency regime was to limit moral hazard stemming from the bailout precedents and thus to restore local fiscal discipline and to allow the development of a credit-rating system (Jókay, 2013).

Colombia underwent a rapid decentralisation process, which started in the 1970s and accelerated in 1991. SNGs were granted more responsibilities for public-service provision and relied on increasing transfers by the central government. Hence, incentives to raise own resources and to safeguard fiscal discipline were weak. Rising debt and expenditure levels induced the Colombian government to pass several laws that aimed at overcoming institutional and regulatory shortcomings and to discourage excessive spending and borrowing. One of these measures is the provision of a debt-restructuring mechanism defined in the Law 550/1999 and complemented by Law 617/2000 (del Villar et al., 2013).

In South Africa, after the fall of apartheid, municipalities experienced key changes – the central-government guarantee of local debt was abolished, and municipal boundaries were redrawn (combining black and white, poor and wealthy urban communities). As finances of the amalgamated municipalities deteriorated, extensive inter-governmental grants were provided, limiting the need to borrow. South Africa's motivation behind the Municipal Financial Management Act 2003 was also to provide a comprehensive framework to its SNGs that regulate municipal finance and borrowing and thus to develop a capital market for municipal finance (Liu and Waibel, 2008; Brown et al., 2013).

Insolvency cases

Existence of subnational insolvency frameworks

The effectiveness of insolvency frameworks can be determined with regard to its corrective function by reviewing some cases. Fewer conclusions can be drawn for their preventive function (this is an area for further investigation).

The Hungary-Municipal Debt Adjustment Law was applied to 38 filings (1996-2010). About half of them were caused by projects related to overinvestment, imprudent borrowing and rosy projections of operating expenses and revenue. The law has established a clear no-bailout rule, minimising moral hazard. It is transparent and clear, so that no disputes concerning procedures arose in any of the cases. The local assemblies co-operated with the court and the trustee in each bankruptcy procedure. No assembly was threatened with dissolution or a new election. Vital public services were maintained in each case. However, insolvency rules may have turned out to be too strict for both the debtors and the creditors. Many municipalities that met filing criteria did not file for bankruptcy (although obligatory). The non-transparency of the accounting system (cash-based) makes it difficult to detect insolvency. Lenders and suppliers were also reluctant to initiate the insolvency procedure as they feared to lose their claims. In consequence, debt restructuring was often settled informally outside the insolvency procedure, possibly to the detriment of the other creditors (Jókay, 2013).

Switzerland experienced only one insolvency case. At the end of 1998, after having piled up debt amounting to CHF 346 million due to wrong investment decisions the Swiss municipality Leukerbad became insolvent (Uebersax, 2005). The municipality was placed under forced administration. The municipal government as well as certain creditors sued the Canton Valais (Wallis) for having failed its supervisory duties. They claimed that the Canton should, as a consequence, take over the debt. In 2003, the Federal Supreme Court dismissed the claims. It decided that the law does not stipulate the cantonal liability for the obligations of the municipality. In consequence, creditors accepted a debt relief of 78% of their claims. The Canton Valais provided a guarantee of CHF 30 million (Jochimsen, 2007; Feld et al., 2013). Every year, Leukerbad has to repay CHF 1.3 million (Teevs, 2013). Within a decade outstanding debt was reduced significantly (to CHF 13 million at the end of 2013) which corresponded to the municipal average in the Canton Wallis (Tagesanzeiger, 2014).

Besides the rehabilitation of Leukerbad, the application of the insolvency procedure generated further positive effects. It triggered the development of a differentiated rating system for the cantons and some municipalities as well as reforms in accounting standards at the municipal and cantonal level (Blankart and Fasten, 2009). Most importantly, the verdict in 2003 established a credible no-bailout policy and restored the functioning of the capital market: With the court's decision, the cantons were relieved from backing their municipalities facing serious financial problems. As a result, cantonal yield spreads decreased significantly and the link between cantonal risk premia and the budgetary position of the municipalities in the canton was cut (Feld et al., 2013).

From 1980 to 2016, 305 petitions under US Chapter 9 were filed. General purpose municipalities constitute only a small part (17.5% of those from 1980-2007). Most filings involved municipal utilities, special purpose districts or other public agencies of a state. Chapter 9 turned out to be effective to restore financial viability when unsustainable debt positions were due to a one-time event, mostly by wrong investment decisions, for example by Orange County, California and Westfall, Pennsylvania. It was ineffective when the financial problems were the result of structural problems and systemic budget problems involving the erosion of the tax base, loss of manufacturing jobs and a decaying infrastructure (e.g. Prichard, Alabama and Vallejo, California). One reason is that Chapter 9 has little impact on the fiscal adjustment process and does not launch deeper administrative reforms (McConnell and Picker, 1993). It might even aggravate the financial situation, for example by increasing administrative costs, for instance, by retaining legal and financial professionals, complying with court requirements or negotiating with creditors (De Angelis and Tein, 2013).

The largest municipal bankruptcy filing in US history is that of Detroit, Michigan. Having accumulated debt amounting to over USD 18 billion (USD 26 000 per inhabitant), Detroit filed for insolvency under Chapter 9 in July 2013. By the end of 2014, after 16 months, Detroit emerged from it. In November 2014, the court approved the debt restructuring plan that had been negotiated with bondholders and pensioners. According to the plan, liabilities will be reduced by USD 7 billion. Creditors experienced a substantial haircut of 80% on their claims, while pensions were cut only slightly. Fees to lawyers, consultants and financial advisors related to bankruptcy resulted in total to more than USD 150 million. In conclusion, the insolvency proceeding of Detroit enabled a fresh start. It launched an administrative restructuring process and attracted new industries and capital (Geissler, 2015).

In May 2017, the US territory of Puerto Rico declared insolvency. Its liabilities amounted to USD 122 billion in total (USD 35 000 per inhabitant and 124% of GDP[5]) – consisting of USD 74 billion in bond debt and USD 49 billion in unfunded pension obligations (Williams Walsh, 2017). As a result of failed debt negotiations Puerto Rico was submitted to the bankruptcy like procedure as set out in the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA). The law has received much criticism (Box 4) which raises the question about the optimal design of insolvency regimes.

Box 24. A current case of subnational bankruptcy: Puerto Rico

In May 2017, Puerto Rico became subject of a bankruptcy-like restructuring process stipulated in Title III of PROMESA – the Puerto Rico Oversight, Management and Economic Stability Act. It is the first time that an American state or territory has filed for bankruptcy proceedings. As Chapter 9 is not applicable to a US territory like Puerto Rico, the US Congress enacted PROMESA in June 2016. It established an oversight board of external experts with wide-reaching powers and a process for restructuring debt and other measures in order to overcome the Puerto Rican debt crisis. The new law has attracted much criticism (Dayen, 2017; Stiglitz and Guzman, 2017). One concern is that Title IIII of PROMESA is substantially different from Chapter 9 rules – especially in assigning powers to the parties involved in the debt-restructuring process. Under PROMESA, the Puerto Rican government will have fewer rights than a municipal government under the Chapter 9 bankruptcy procedure (e.g. concerning the right of filing, negotiating with the creditors, making a restructuring proposal).

Proposals of subnational or sovereign insolvency frameworks

In the literature, some proposals for subnational insolvency frameworks can be found which specifically address the level of state governments. Schwarcz (2002) proposes a general model law of a subnational debt restructuring mechanism based on US corporate and personal bankruptcy law that could be enacted in other countries. Explicit approaches for the US states are provided by Schwarcz (2011), Skeel (2012) and Feibelmann (2012), applying the US bankruptcy law to the state level. An insolvency framework for the Swiss cantons is elaborated by Waldmeier (2016).

Moreover, an extensive literature exists which deals with bankruptcy procedures and debt restructuring for sovereign states. The literature may also be applicable to the states and provinces in federal countries which exhibit a high degree of sovereignty and, like national governments, rely predominantly on debt financing through government bonds. The most prominent model is the Sovereign Debt Restructuring Mechanism (SDRM) developed by Anne Krueger in 2001 – a formal IMF controlled mechanism for an orderly restructuring of unsustainable sovereign debt. It was extensively debated, refined (Krueger, 2003; IMF, 2002; 2003), but finally failed to be implemented. Related work was done by Raffer (1990) and Schwarcz (2000; 2004), Bolton and Skeel (2004), and Paulus (2002; 2009).[6] The fiscal crisis in Greece and the establishment of European Stability Mechanism led to a resurgence of discussions of sovereign debt restructuring mechanisms. An application of the SDRM to the euro area is proposed by Gianviti et al. (2011). Other approaches envisaging an orderly debt restructuring mechanism for the euro area are provided, for example by Fuest et al. (2015) and Andritzky et al. (2016).

In the following section, the existing insolvency regimes in Colombia, Hungary, South Africa, Switzerland and the United States as well as the approaches suggested in the literature are analysed to provide options for designing and implementing a subnational insolvency framework

3. Designing insolvency frameworks

3.1. Differences between public and corporate insolvency

Insolvency frameworks for SNGs follow the same rationale as personal and corporate insolvency regimes. They stipulate rules and procedures to deal in an orderly fashion with an entity in financial distress. Subnational insolvency frameworks show some similarities with private ones, but differ from corporate ones in some aspects:

- The aims of corporate insolvency frameworks are to recover money owed to creditors (e.g. by repossessing collateral assets of debtors), to rescue the business and to restore its viability through restructuring the liabilities of viable firms. They may also serve to permanently wind-up a failing firm through liquidating the assets and facilitating an orderly exit (Adalet McGowan and Andrews, 2016). In contrast, subnational insolvency regimes, like personal bankruptcy regimes, focus solely on restoring the viability of the subnational entity and enabling a fresh start. A subnational entity cannot be dissolved like a company and continues to exist.
- While the main objective of corporate insolvency regimes is to differentiate between viable and non-viable firms and to balance the rights of debtors and creditors, subnational insolvency frameworks primarily focus on protecting the core functions of the subnational entity. Many public services need to be provided publicly so that a certain service level can be guaranteed. In particular, in case of the provision of local public goods (e.g. security, fire services) markets tend to fail because of the free-riding problem. Hence, in the restructuring process claims by government and employees (including pensioners) are often given priority over other claims (e.g. from creditors, suppliers). Only a limited number of assets can be seized in order to maintain elementary public services, while a wide range of assets can be sold in a private sector insolvency.
- SNGs face the difficulty to accurately value their assets and to identify the triggering status of insolvency. In contrast to private and corporate insolvencies, subnational insolvencies often cannot be determined by simply comparing assets and liabilities. Some SNGs use cash rather than accrual accounting (see Irwin and Moretti, 2020, in this volume). Others are protected against the seizure and sale of assets. In many cases, the assessment of insolvency has to involve a complex analysis of present and future cash flows based on a number of assumptions.
- Subnational frameworks must have regard to the sovereign powers of SNGs and the democratic rights of the citizens. This constrains for example the creditors' right to initiate the insolvency procedure and reduces the possibility of third party intervention into the debt restructuring and the adjustment process. While in many countries (e.g. Germany, France, United States) creditors may file for corporate restructuring and liquidation procedures (Adalet McGowan and Andrews, 2016), most subnational insolvency proceedings can only be initiated by the debtor.

3.2. General design features

Procedures and objectives

Regarding the different features of insolvency frameworks, existing regimes differ substantially due to cross-country differences in social attitudes and preferences, legal traditions, institutional settings and historic developments. Though, all insolvency frameworks stipulate rules determining how to proceed in the following steps: *i)* initiating the insolvency procedure, *ii)* carrying out the debt restructuring procedure, and *iii)* achieving fiscal adjustment.

In the first step, the framework determines the triggering criteria which need to be fulfilled to file for insolvency. It assigns the right of filing (to debtor, creditor, or higher level government). It determines which institution (e.g. court, higher level government) is involved in the assessment of filing and whether a stay on assets is granted to the subnational entity. Second, for carrying out the debt settlement process the procedures assign the right of proposal (e.g. debtor, creditor, trustee) and the right to veto the proposal (e.g. court), identify the order of claims, stipulate the creditors' voting rights according to which the proposal is accepted and define the seizable assets or the essential services to be maintained. Third, the debt restructuring procedure is often accompanied by a fiscal adjustment process, which might involve third party intervention to put in place reforms and restore viability.

Insolvency frameworks have to balance different and conflicting objectives. These objectives are (Liu and Waibel, 2008):

- Providing essential public services and setting in motion the adjustment of public finances (e.g. spending and taxation) and other fiscal or structural reforms;
- Deterring strategic default of the SNG;
- Facilitating debt restructuring (e.g. interest reduction, maturity extension, debt relief) and solving collective action problems;
- Protecting the contractual rights of the creditors and thus maintaining access of the SNG to the capital market;
- Limiting interference with the authority of democratically elected local officials and constitutional rights.

Subjects of the insolvency procedure

Subnational entities that can become subject of a subnational insolvency procedure may comprise subnational governments as well as subnational agencies such as public companies or public-private partnerships. In Hungary, South Africa and Switzerland, only local governments, municipalities or similar entities (e.g. parishes) are subject to these insolvency laws. In Colombia also parts of the decentralised service delivery sector that is not monitored by any sectoral superintendency (administrative authority)[7] are covered by the law. The US rules define a municipality to be "a political sub-division or public agency or instrumentality of a State". This broad definition includes state-sponsored or controlled entities that raise revenues through taxes or user fees to provide public services (e.g. school districts, hospitals, sanitary districts, public improvement districts, bridge authorities) (United States Courts, 2017; Jones Day, 2010).

Court and higher-level government involvement

Three different kinds of insolvency frameworks can be distinguished – depending on the role of the courts, higher level governments or other authorities in the procedure (Liu and Waibel, 2008; 2010):

- In pure judiciary frameworks the court has wide-ranging decision-making authority in the whole insolvency process. For example in Hungary, the court decides whether a municipality is eligible for filing for insolvency, gives consent to the crisis budget and appoints a trustee which leads and supervises the bankruptcy and reorganisation process.
- In administrative procedures, higher level governments determine the status of being bankrupt, carry out the debt restructuring procedure and take control of subnational finances. An administrative procedure is used in Colombia because the judicial system does not always function well. Bankruptcy procedures for SNGs are led by the Superintendency of Corporation (SOC) in co-operation with the Ministry of Finance and Public Debt. Switzerland also follows an administrative

procedure though the courts are also involved: the determination of insolvency, the management of the creditors' meeting and the setting up of a supervisory commission for fiscal intervention is done by the cantonal bankruptcy authority.

- In hybrid insolvency systems both the court and the administration are involved in the debt restructuring process. For example, in South Africa and the United States the bankruptcy court approves the petition to file for bankruptcy and the debt distribution scheme, which sets out how debt will be restructured. The elaboration of the restructuring plan as well as fiscal adjustment is either left to the municipality itself (United States) or to an administrative authority (South Africa).

Under an administrative procedure system, debt settlement and fiscal adjustment may be reached faster than under a judiciary procedure, especially in countries with an underdeveloped court system. The disadvantage of administrative systems compared with judiciary systems is that SNGs might expect the higher level government to provide additional public funds and thus increase the risk of moral hazard. Moreover, they may be less immune to political pressures and discretionary decision-making and tend to be more biased in favour of one or the other parties involved than judiciary procedures. Hybrid frameworks might be superior because they combine both systems. As the court has the final decision on the debt distribution scheme or debt adjustment plan, it can be assured that the outcome is fair and equitable for all parties, assuming an efficient legal system.

3.3. Initiating the insolvency procedure

Trigger and eligibility criteria

Various criteria can be applied, when deciding, whether debt restructuring proceedings should go ahead. The trigger which is used by any existing insolvency framework is the necessity of the municipal entity to be insolvent. But different definitions of insolvency exist. In the United States, municipal entities are insolvent when they are unable to pay their debt now and in the future. In Switzerland and South-Africa municipalities have to show that they are unable to fulfil their bond obligations. In general, these relatively open definitions of the insolvency status require a careful examination of the financial situation of the local entity. This may involve a multi-year analysis of available reserves, ability to reduce spending and raise taxes, and legal opportunities to postpone debt payments (McConnell and Picker, 1993). For this purpose, Swiss municipalities have to hand in a detailed explanation of the financial situation when filing with the administrative authority. South Africa regards additional indicators that might reveal serious financial problems and persistent material breach of financial commitments. In contrast to these countries, Colombia and Hungary apply more specific indicators of insolvency. For example, Hungarian municipalities may file for insolvency when an invoice is not disputed or paid within 60 days of the due day.

Furthermore, the South-African, Swiss and US frameworks follow the ultima ratio principle. In Switzerland, a municipality can only apply for bankruptcy, if all reasonable measures have been exploited and have failed to avoid bankruptcy. In South Africa, debt restructuring is the last option of a multi-step procedure of an early warning system and a mandatory fiscal intervention by the provincial authority. It requires that in accordance to the financial recovery plan set up during provincial intervention, all assets not necessary for effective administration or basic service provision have been liquidated and all employees have been laid off, except those affordable in terms of projected revenues. According to the Chapter 9 rules, the municipality must have shown pre-filing efforts to work out financial difficulties and come up with good faith solutions with the creditors.

In the United States, to apply for Chapter 9, a further requirement that accounts for state sovereignty has to be fulfilled: the municipality must be explicitly authorised to be a debtor by state law. In 2012, only 12 states give full authorisation, 12 conditional authorization (attaching further preconditions), 3 limited authorisation (applying only to a subset of municipalities) and 23 give no authorization to file under Chapter 9 (Spiotto, 2013).

The definition of the eligible criteria may be crucial for meeting creditors' claims, providing public services and preventing debtors' moral hazard. They should give a clear notion of the incidence of insolvency and eligibility for an insolvency procedure, so that creditors and local government can take appropriate actions sufficiently early to cope with their financial difficulties. Applying a simple indicator – as used in Hungary – may have the benefit to be transparent, but it may have the disadvantage to be an imperfect proxy for the actual debt servicing capacity of the subnational government, which is influenced by financial, institutional, economic and political constraints (Weder di Mauro and Zettelmeyer, 2010). It also can be easily misused for strategic default.

Eligibility criteria which involve a thorough assessment of the financial situation seem better for indicating the real need of an insolvency procedure. They also should signal to the SNG and the capital market that insolvencies are the remedy of last resort, and thus should demand efforts by the local government to solve the debt crisis – as stipulated in the South-African, Swiss and US law. This reduces the risk that a municipality files for premature insolvency (Type one error). However, triggering criteria must also assure that the insolvency procedure is not initiated too late, e.g. when policymakers gamble for a resurrection (Type two error) (Andritzky et al., 2016). A delay might harm service delivery to the citizens, undermine a fair settlement of creditors' claims and unnecessarily delay subnational fiscal recovery.

Right to initiate the insolvency procedure

Insolvency frameworks can be initiated by the debtor, the creditors, higher level government or other authorities. Filing can be voluntarily or compulsory. In most countries the debtor files voluntarily with the bankruptcy court (United States, South Africa) or the relevant authority (Switzerland). In Hungary, the municipality is obliged to apply for insolvency with the county court, when it fails to meet its obligations. The Hungarian framework also allows the creditor to petition the court. In the case of Puerto Rico, unlike Chapter 9, Title III of PROMESA designates the oversight board to file on behalf of the territory with the district court.

The argument for debtor's filing is that the debtor knows best the true financial situation and the severity of indebtedness. A voluntary rule would not intervene with sovereignty rights, but a mandatory rule or a creditors' right as regulated in Hungary would do. Hence, many proposals for sovereign bankruptcy regimes permit the debtor to initiate the insolvency procedure (Berensman and Herzberg, 2009).

However, a mandatory filing – advocated by Bolton and Skeel (2004) – can be justified by the argument that subnational decision makers which fear to lose their reputation might be inclined to delay the procedure, as in sovereign debt restructuring. Applying an involuntary trigger may increase the chances of a more timely bankruptcy proceeding. It may motivate SNGs to avoid financial difficulties and renegotiate creditors' claims ex post. For these reasons, Feibelmann (2012) proposes an involuntary bankruptcy procedure for the US states which is initiated by the federal government: The federal government should force a state into bankruptcy, if it is likely to need substantial support or threatens the national financial and economic stability.

Granting creditors the right to initiate the insolvency procedures gives creditors more power in the insolvency procedure possibly reducing the costs of subnational borrowing, but also bears the risk of failed timing of the procedure of conflicting interests among creditors. Bolton and Skeel (2004) suggest for sovereign proceedings to be initiated by the creditors that the filing decision requires some minimum percentage of creditors to prevent that a minority overrules a majority.

Assessment of insolvency and conducting the debt restructuring process

The assessment of the SNG's eligibility as well as the management and supervision of the debt restructuring process are important parts of the insolvency procedure as they have far-reaching implications on the progress and the outcome of the procedure. Whatever institution (court, trustee, administrative authority) is involved in the process, it should have the necessary prerequisites of independence, impartiality and competence (IMF, 2003a; Berensmann and Herzberg, 2009).

In all existing frameworks, assessment of insolvency is left to a third party such as the (bankruptcy) court (United States, Hungary, South Africa), the cantonal bankruptcy authority (Switzerland) or the Fiscal Affairs Department (Colombia). In Switzerland, a commission of experts may assist in assessing the financial situation of the municipality.

In Hungary, South Africa, Colombia and the United States, once the petition is accepted, the court or administrative authority appoints a trustee to lead and supervise the debt restructuring process. The bankruptcy court in the United States or the SOC in Colombia serves to enforce the insolvency rules and adjudicates disputes between the debtor and creditors. Apart from existing institutions, creditors and debtors may also set up an *ad hoc* arbitration commission that conducts the debt restructuring process and to settles disputes. This may be particularly relevant in sovereign bankruptcy proceedings (Raffer, 2000; Paulus, 2002) where suitable independent supra-national institutions are missing.

Stay on enforcement and cessation of payment

Filing for insolvency may trigger a stay on enforcement for the period of debt restructuring. A stay implies that all legal proceedings by creditors are suspended and that the debtor's assets cannot be attached. In this way, the parties involved in debt restructuring get some breathing space to reorganise debt and to negotiate in good faith, while not being distracted by law suits. The suspension of obligations prevents creditors from undertaking enforcement measures (rush to the court house or grab race) (Sturzenegger and Zettelmeyer, 2006; Thomas, 2004), especially when asset attachment is not restricted (Schwarcz, 2002). As it ensures that no creditor would receive payments from the debtor or would be allowed to seize assets at the expense of the other creditors, it also contributes to an equitable treatment of the creditors and preserves the final value available to all creditors (Berensmann, 2003b).

Most existing insolvency frameworks as well as many proposals foresee a stay on enforcement. In the United States and Hungary the stay is triggered automatically. In South Africa, the municipalities can apply for a stay of all legal proceedings for a period of a maximum of 90 days. In Switzerland, the authority can temporarily cease debt enforcement, if it does not deteriorate the financial position of the creditors. However, creditors may claim for continuation. Apart from that, the activation of a stay may also be subject of an affirmative vote of a (qualified) majority of creditors (IMF, 2002).

The main advantages of the stay are that it facilitates debt restructuring and prevents opportunistic behaviour by single creditors. However, protecting the debtor from creditors' legal actions may encourage moral hazard. It may also interfere with creditors' rights. Thus, limiting the duration of the stay (like in South-Africa) and giving the creditors a veto right (Switzerland) appear reasonable. This may accelerate the restructuring procedure and balance the rights of the debtor and the creditors. Limiting the stay on enforcement to certain types of claim (e.g. non secured claims) may also be less intrusive into contractual rights than a standstill. Payment to public employees (e.g. teachers, firemen, police), suppliers and services could be continued so that public service provision is not impaired (Schwarcz, 2002). In this regard, Bolton and Skeel (2004) advocate a targeted stay applicable solely to asset seizures, so that ordinary litigations (which do not interfere with the restructuring process) can be continued.

3.4. Debt restructuring features

Proposal right and veto right

The assignment of both the proposal right and the veto right is decisive for the outcome of the debt negotiation. According to Tsebelis (2002), the outcome is likely to be biased to the party that has the power to present a proposal. Assigning the debtor the proposal right may give priority to maintain public services.

Granting proposal power to the creditors respects creditors' property rights but might induce collective action problems. Under Chapter 9 the debtor has the right to propose the debt adjustment plan, while under PROMESA the oversight board has this right. In Hungary it is the task of the committee appointed by the debtor (and led by the trustee). The South African framework even grants the trustee the right to draft the debt settlement proposal.

To restore balance between the different interests of the debtor and the creditors, it seems reasonable to assign a neutral third party the veto power. Most frameworks (United States, Hungary, South Africa) require the confirmation of the debt restructuring plan by the court. In Switzerland, the voting decision of creditors (proposal right is not defined by the law) has to be approved by the bankruptcy authority. Alternatively, an ad hoc arbitration commission could also perform this task. In some proposals of sovereign debt restructuring a (neutral) ad hoc arbitration body or committee elected by the debtor and creditors shall finally rule on a debt restructuring solution (Raffer, 1990; Paulus, 2002). Anyhow, if an efficient judiciary exists, the restructuring proposal should be confirmed by the court rather than by an administrative body or an ad hoc arbitration committee. A confirmation by the court would increase the binding effect of the proposal for all parties involved. It would also legitimise intervention into property rights especially when debt discharge is agreed and ensure that this is fair and equitable (Waldmeier, 2014; Liu and Waibel, 2008).

Voting rule

Frameworks may define the voting process and the voting rules to get the creditors' consent to the debt restructuring proposal. They may state an unanimity rule, a simple majority rule or a qualified majority rule. They may refer to all existing claims or differentiate between certain classes of claims.

In all countries, except South-Africa, creditors vote on the debt restructuring proposal. In the United States, the adjustment plan needs to be accepted by half in number and two-thirds in amount of each class of claims that is impaired. Similar voting rules can be found in the Hungarian and Swiss frameworks or are favoured in the proposals for subnational and sovereign debt restructuring (e.g. Schwarcz, 2000 and 2011). In Colombia, voting on the proposal is less transparent and clear. Different voting rights are assigned to the different classes of creditors e.g. pension fund claimants get an extra 25% voting weight added to the principal of their recognised claim (del Villar et al., 2013). An agreement becomes binding when it is accepted by an absolute majority of the votes.

It is indispensable to define a clear, transparent and equitable voting process, as it speeds up the completion of the restructuring process, reduces the uncertainty of the outcome of insolvency procedures, and respects the creditors' property rights. Using a simple majority rule in terms of the number of creditors accelerates finding a restructuring solution compared with a qualified majority or unanimity rule. However, it seems reasonable to complement the simple majority rule in terms of numbers of claims by a qualified majority rule in terms of volume. In this way, creditors holding the majority of claims cannot be overruled. Applying a majority rule to each class of voters may also serve to safeguard creditors' rights.

A majority rule may reduce the risk of the hold-out problem compared to an unanimity rule, but it does not eliminate it – especially when a veto right to each class of creditors is provided. Chapter 9 includes a mechanism to tackle the hold-out problem which is also favoured by Paulus (2002) and Bolton and Skeel (2004). It provides the court with the so called "cram-down" power: The court can confirm the plan under certain circumstances (e.g. if it contributes to a fair and equitable outcome), even when it is rejected by one class. Then the adjustment plan becomes binding on a dissenting minority.

Priority of claims

Frameworks may differentiate between different types of claims and may define which type of claim may receive preferential treatment. Priority rules may reflect country-specific equity preferences such as protecting the labour force or outcomes of labour bargaining, granting social security benefits and maintaining public service levels. These objectives have to be traded-off against preserving access to new borrowing and maintaining liquidity as well as protecting contractual rights. Furthermore, frameworks could either lay down a detailed or a vague definition of priority of claims. A clear priority order may increase legal certainty for settling competing claims. It may reduce settlement disputes and accelerate the restructuring process, but it may also reduce the incentive to come ex ante to a debt solution with the creditors.

Irrespective of the priority order, frameworks should guarantee that creditors holding the same class of claims are treated equally. This rule is explicitly stipulated in the frameworks of Switzerland, Hungary and the United States. Yet, in the existing frameworks different priority rules can be found. Wages and pension contributions, tax and other government claims get preferential treatment in Hungary and Columbia and are even exempted from debt restructuring in Switzerland. In South Africa, priority is given to secured claims. In Colombia, secured creditors have the option to take the collateral or to include the claim in the restructuring process. Unsecured claims are mostly paid last.

Contrary to the Hungarian and Columbian law, the US Chapter 9 does not define a concrete payment order which provides some degree of flexibility to determine a priority structure. The treatment of secured and unsecured claims is given by the requirement of a cram down that a plan is fair and equitable. Accordingly, holders of secured claims receive at least the value of the securitised property. Those with unsecured claims often lose out (McConnell and Picker, 1993). They only receive “what they reasonably can expect under the circumstances” (Jones Day, 2010).

Different approaches exist how to classify new and senior debt. Under the US Chapter 9, priority can be given to debtor-in-possession-financing, i.e. new financing obtained for the debtor’s restructuring from the credit and capital market. Without this priority, due to the lacking creditworthiness of the debtor, creditors may not grant fresh capital, which is necessary for maintaining critical government functions (Schwarcz, 2000; 2002). Then higher level governments may be forced to step in as a lender of last resort. Furthermore, the debtor might be induced to play a Ponzi-type game substituting old liabilities with new ones. However, interim financing which is exempted from debt restructuring or receives preferential treatment should be limited to the amount necessary for fulfilling basic government tasks (Berensmann and Herzberg, 2009) and to reasonable trade debt needs (Bolton and Skeel, 2004).

There are several arguments for preferring senior debt to junior debt. This is for example granted by so called absolute priority principle in private US bankruptcy proceedings which may also be applied to US municipalities. Bolton and Skeel (2004) propose a first-in-time-rule according to which unsecured claims should be classified in terms of their emission dates. The older the claim, the higher is the priority. Giving priority to senior debt promotes budget discipline. It accounts for the fact that later creditors were better informed about the fiscal situation of the SNG and were better able to price in the probability of default by demanding higher risk premia than earlier creditors (Blankart and Fasten, 2009). Finally, it reduces the risk of debt illusion, i.e. new debt reduces the asset value of former creditors (Fama and Miller, 1972).

Seizable assets and essential services

Insolvency frameworks may stipulate *ex ante*, which kind of assets can be sold and which service level needs to be maintained. Defining the seizable assets or essential services may affect municipal services, raise sovereignty concerns and influence financing which implies a trade-off. On the one hand, a municipality has to be left with as many assets as are necessary to fulfil its constitutional tasks. On the other hand, the more “insolvency mass” is available for the creditors, the lower are ex ante the costs of credit financing.

The seizable assets or essential services can be defined either in detail or more vaguely. With a clear-cut definition or a catalogue of seizable assets and essential services the outcome is more predictable. A clear definition leaves less room for manipulation than a fuzzy definition where assets may be shifted between different accounts or non-essential assets may be declared essential. However, it may not be practical, as it reduces the possibilities to adjust to a changing environment.

Definitions of non-seizable and seizable assets can be found in the Swiss, South African and Hungarian regulations. In these rules, neither assets that are essential for public service provision nor tax revenue can be seized. A clear definition of essential services is only provided by the Hungarian framework, which lists 27 items.

Dismissal and sanctions

It might be useful to stipulate an early termination of the insolvency procedure or other sanctions in case the SNG or the creditors deter debt restructuring or do not comply with the framework's rules. Sanctions enforce insolvency rulings and make the agreement binding for the parties involved.

All regulations except the Swiss law foresee an early dismissal of the insolvency procedure or other sanctions when a municipality does not adhere to the rules or breach contract. In Hungary, sanctions may comprise fining the mayor for delaying the initiation of the debt adjustment process or dissolving the city council for not finding an agreement within a certain time frame. Even criminal and civil prosecutions can take place (Jókay, 2013). The South African framework provides sanctions (e.g. dissolution of the city council), when the municipality does not adhere to a fiscal recovery plan elaborated during state intervention. In the other frameworks, the debt restructuring plan is declared null and void, if the debtor fails to comply with it. Then the debtor is burdened with his original debt.

The threat of an early dismissal may contribute to facilitate the debt restructuring process. Specifying time frames as in Hungary may push the SNG to find a timely debt solution. Sanctions on missing fiscal adjustments like in South-Africa accelerate the process of budgetary and fiscal reforms and deter strategic default. However, the sanctions or a dismissal may conflict with sovereignty or raise constitutional issues and make it more difficult to maintain public service levels.

3.5. Fiscal adjustment and consolidation features

Fiscal adjustment

Debt restructuring should be accompanied by fiscal adjustment. It may involve expenditure cuts, tax increases and the raising of new income sources, but also include structural reforms (e.g. enhancing the efficiency of public service provision). Hence, fiscal adjustment may serve to rectify fiscal mismanagement and overcome structural problems, mitigate the negative effects stemming from an adverse exogenous shock, and thus hasten the fiscal recovery of a municipality. It also serves to deter debtors from running into insolvency. Furthermore, fiscal adjustment allows a better distribution of the burden of a debt crisis. It assures that both the creditors and the taxpayers share the burden of the debt restructuring. Nevertheless, the scope of fiscal adjustment is limited. Preserving basic municipal functions precludes deep expenditure cuts. An increase in taxes rates may also erode the tax base as citizens and businesses could leave the subnational entity (voting with their feet) (Blankart and Klaiber, 2006).

The existing insolvency regimes require some form of fiscal adjustment. Switzerland has included specific fiscal adjustment rules in the insolvency law. In South Africa and Colombia, debt restructuring rules are part of or are complemented by a fiscal adjustment framework. In most frameworks, the approval of insolvency depends on pre-filing efforts of the municipality to adjust the budget and to restore financial health (South Africa, Switzerland and the United States).

The US Chapter 9 framework gives the municipality in bankruptcy the power to assume and reject executory contracts (contracts that are yet to be performed) and unexpired leases. The municipality can suspend burdensome non-debt contractual obligations including collective bargaining agreements, and thus remove substantial budgetary costs stemming from employee payroll compensation and other employee benefits (United States Courts, 2017; de Angelis and Tian, 2013). The rejection of non-feasible contracts may help to facilitate financial recovery, but it may undermine necessary reforms and encourage strategic filing.

Fiscal intervention

Fiscal intervention may contribute to enforce fiscal adjustment. It can be exerted by the court and/or an administrative authority. Fiscal intervention by a (competent and independent) third party may accelerate the fiscal adjustment process and fiscal recovery of the subnational entity. As it deprives political decision makers from financial autonomy, it sanctions the political failure, which led to the subnational bankruptcy. Fiscal intervention is even useful from a political economy perspective: third parties can take unpopular decisions more easily without fearing the consequences by the electorate.

Some frameworks give the higher governmental authority extensive rights to supervise fiscal adjustments and to intervene in subnational policy making (South Africa and Switzerland). According to the Swiss law, in case the municipality is in severe fiscal distress, the bankruptcy authority can mandate a supervisory commission to decide on behalf of the municipality on budget restructuring, spending cuts, tax increases, the selling of assets or on raising new income sources. In South Africa, a municipal government has to be subject to mandatory fiscal intervention before it can apply for debt restructuring. Then, an administrative authority elaborates a recovery plan to be implemented by the municipality, recommending changes to the budget and revenue raising measures of the municipality.

However, fiscal intervention by a third party may interfere with sovereignty. Hence, the US Chapter 9 guarantees that state sovereignty is recognised by the courts: day to day activities of the municipality are not subject to court approval. The control of the municipality is explicitly reserved to the states (Liu and Waibel, 2008).

3.6. Conclusions for an effective design of insolvency frameworks

Objectives and corresponding elements

Given country-specificities and trade-offs, no one-size-fits-all optimal framework exists. The design of the subnational insolvency framework and choice of the different features should be consistent with the broader cultural, economic, legal, constitutional and social context of the country (Canuto and Liu, 2013). It should also take into account a country's priorities for achieving different objectives.

Table 10 provides a detailed overview about how the different features of insolvency regimes need to be designed to meet the different objectives. In order to maintain essential services and facilitate fiscal adjustment, the framework should provide for a wide definition of non-seizable assets, sanctions in case of missing adjustments and fiscal intervention by the upper-level government. The two latter features may also serve to deter moral hazard – as well as triggering criteria which apply the "ultima ratio principle". Beneficial to facilitating debt adjustment are features which grant a temporary stay on enforcement, stipulate a cram-down rule and define a clear and detailed payment order. Creditors' rights are best protected when triggering criteria are defined restrictively, the veto right is assigned to a neutral third party and a wide range of assets can be seized. Ensuring that constitutional and sovereignty rights are respected, calls for strict eligibility criteria as well as a limitation on asset attachment and policy intervention.

Drawing on these features, existing frameworks set different priorities. Chapter 9 gives more emphasis to facilitating debt adjustment, in particular deterring the collective action problem, and safeguarding constitutional rights than the other countries, but puts less emphasis than other frameworks (Hungary, South Africa and Switzerland) on safeguarding public services and promoting fiscal adjustment.

Table 10. Overview of objectives and corresponding features of insolvency frameworks

	Essential public services and allowing fiscal adjustment	Deterring strategic default	Facilitating debt adjustment and deterring collective action problem	Protecting creditors' rights and maintain credit financing	Respecting constitutional rights
Type	**Administrative or hybrid framework**	**Judicial or hybrid framework**	**Administrative or hybrid framework**	**Judicial or hybrid framework**	**Hybrid framework**
Filing	Mandatory filing of debtor		Mandatory filing of debtor	Allowing creditors to file for municipal insolvency	Voluntary filing of debtor
Eligibility criteria	Less restrictive triggering criteria	**Restrictive triggering criteria applying the ultima ratio principle**		**Restrictive triggering criteria applying the ultima ratio principle**	**Restrictive triggering criteria applying the ultima ratio principle**
Stay	Granting a temporary stay and temporary cessation of payments		**Granting a temporary stay and temporary cessation of payments**	Limiting stay on enforcement to certain classes of claims	
Proposal right		Assigning proposal right to the creditors/ third party or assigning veto right to a neutral third party	Assigning veto right to a neutral third party	**Assigning proposal right to the creditors or assigning veto right to a neutral third party**	Assigning proposal right to the debtor
Voting rule			**Applying a simple majority rule or stipulating a cram-down-rule**	Applying at least a majority rule in each class	
Priority of claims	Priority to labour claims and government claims	Priority to creditors' claims	**Defining a clear and detailed order**	Priority to creditors' claims, priority to claims from interim financing	Priority to labour claims and governmental claims
Seizable assets	**Restrictive range of seizable assets**	**Wide range of seizable assets**		**Wide range of seizable assets**	**Restrictive range of seizable assets**
Dismissal/ Sanctions	**Sanctions for missing fiscal adjustments**	Sanctions for missing fiscal adjustments	**Dismissal or sanction for deterring debt restructuring**	Dismissal or sanction for deterring debt restructuring and fiscal adjustment	
Fiscal intervention	**Wide-reaching governmental intervention**	**Wide-reaching governmental intervention**			**Limited governmental intervention**

Note: Cells in bold = most relevant for meeting the objective.

A subnational model framework

Though there is no-one-size-fits-all solution, some general conclusions can be drawn from the existing insolvency regimes to develop a rudimentary model framework. Unlike the country-specific proposals of Waldmaier (2014), Schwarcz (2011) and Skeel (2012), the model proposed here abstracts from compatibility with specific constitutional law.

The basic approach is:

- *Filing:* SNGs may commence voluntarily the debt restructuring proceeding by filing with the court (administrative, bankruptcy or constitutional court) or an administrative authority. The court or administrative authority approves the petition after having scrutinised the eligibility criteria.
- *Triggering:* Triggering criteria are applied that define the status of insolvency and implement the ultima-ratio-principle: First, the SNG must be insolvent i.e. not able to meet its financial obligations now and in the future. Second, it must have taken all possible measures to prevent insolvency (e.g. fiscal adjustment efforts, fiscal reforms, submission under upper-level control, negotiations with creditors). The SNG is required to disclose all information about its fiscal and financial situation and pre-filing reform efforts.
- *Automatic stay:* A stay on assets is granted automatically. It does not impair the SNG's ability to to pay its employees and to pay for services that are essential.
- *Proposal and veto right:* The SNG proposes a debt restructuring plan to the creditors to be further elaborated and negotiated in an iterative process, until consent is reached. With the court's final approval the plan becomes binding on all creditors (if applicable).
- *Voting rule:* The debt restructuring plan is approved by a simple majority of votes in terms of number of creditors and by a qualified majority in terms of claims in each class.
- *Seizable assets:* Seizable assets are defined according to the country's specific preferences.
- *Priority of claims:* The priority of claims is defined according to the country's specific preferences. Nevertheless, non-secured claims should be prioritized according to seniority. New financing should be exempted from debt restructuring and fully serviced.
- *Fiscal intervention:* The incumbent government stays in office. The administrative authority controls subnational fiscal adjustment policy.
- *Sanctions:* In case the SNG delays deliberately the progress of debt restructuring and fiscal adjustment, the SNG is sanctioned (e.g. by early termination of the procedure, intervention by higher level government, dismissal or new elections)

These general features can be amended and adapted to fit country-specificities. For example, unitary countries could give more emphasis to the role of administrative authorities (e.g. higher level governments). Federal countries might follow a more judicial procedure by strengthening the role of the courts. For reasons of constitutionality and sovereignty it might be necessary to omit or weaken some features that may undercut substantially subnational autonomy or other constitutional rights (e.g. interference by higher level governments). Abstracting from these modifications, the model outlined above balances the different objectives. Table 11 applies the results from Table 10 to the model framework. It suggests that all objectives are met.

Table 11. Objectives and corresponding features of the subnational insolvency model framework

	Public services, fiscal adjustment	Deterring strategic default	Facilitating debt adjustment	Protecting creditors rights	Respecting constitutional rights
Filing	•				•
Eligibility criteria		•		•	•
Stay	•		•	•	
Proposal right			•	(•)	•
Voting rule			•		
Priority of claims	depends on country-specific choices				
Seizable assets	depends on country-specific choices				
Dismissal/Sanctions	•	•	•		
Fiscal intervention	•	•			

Note: • fully applied, (•) partly applied – depends on the assignment of veto right to the court.

4. Implementing insolvency frameworks

4.1. Limitations and drawbacks

Incompatibility with constitutional and sovereignty rights

Insolvency frameworks have several limitations. One argument is that subnational insolvency frameworks might be incompatible with constitutional or sovereignty rights – especially when dealing with insolvent states. In federal countries such as Switzerland, the United States and Germany, each state is a sovereign authority, with their own legislative, executive and judicial powers. Any interference of central government such as intervention of a higher level government into subnational fiscal policies or the imposition of sanctions on subnational decisions makers in case of non-compliance with the rules may conflict with their constitutional rights.

On the other hand, it can also be argued that an insolvency framework – as curative instrument – may even be necessary for enabling financially troubled SNGs to exercise their sovereignty rights. Insolvency regimes chosen voluntarily and allowing temporary intervention into sovereignty rights might be legitimate, if the principle of proportionality is taken into account and federal basic principles are not violated (Waldmeier, 2014). Nevertheless, implementing an insolvency framework may in many cases require substantial constitutional changes. If these change existing constitutional rights, consent by a qualified majority of the SNGs may be needed.

Lacking institutional prerequisites and structural reforms

Insolvency cases have shown that the implementation of insolvency regimes often needs to be preceded by major structural and institutional reforms in order to enhance the responsibility of SNGs for their fiscal policy and enable SNGs to adapt fiscal policy to changing environments. Hence, tax and spending powers have to be assigned in a way to achieve fiscal equivalence. Any explicit and implicit bailout guarantee has to be ruled out. Effective subnational control institutions as well as transparent budgeting and reporting systems have to be created. Without fixing fundamental institutional and structural deficiencies, insolvency frameworks would be of limited use for achieving long-term financial health. They would serve only to curb the symptoms of political and institutional failures in the short run – thereby imposing high costs on tax payers and creditors (Levitin, 2012).

Lack of a transitional regime change

Introducing an insolvency regime faces the difficulty that it implies an immediate regime change – shifting from a state in which the central government will back SNGs to a state in which insolvencies become more likely. Without having any further rules or arrangements of transition in place which allow the agents involved (e.g. creditors, investors, SNG, central government, voters, industry) to gradually adapt to the new circumstances, the introduction (or even its announcement) of an insolvency regime may lead to disruptive reactions by the agents. This may end up in a situation worse than before.

For example, in case of high subnational indebtedness, implementing an insolvency framework may bear the risk of contagion to other governments and the financial market. It reduces the creditworthiness of SNGs holding a large amount of debt, increases their refinancing costs and increases the likelihood of insolvency. A possible default in one SNG may undermine the creditors' confidence in all SNG debt, and thus worsen overall borrowing conditions for SNGs. Defaulting on loans and bonds may also pose systemic risks when they affect banks. These may be transmitted to other institutions and governments and may result in market turbulence or even the collapse of the credit market.

Halstead et al. (2004) have shown that the unprecedented announcement of bankruptcy of Orange County in December 1994 had wide-ranging spillover effects on municipal bonds, municipal bond funds and bank stocks. The announcement resulted in significantly negative abnormal returns for municipal bond funds without direct exposure to Orange County and for non-Orange County municipal bonds. Contagion also spilled over to the common stocks of investment and commercial banks that dealt in or used derivatives. Similar contagion effects even may arise with the introduction of insolvency regimes in a situation of high subnational indebtedness without providing for further transitional arrangements or rules.

Political economy issues

The implementation of insolvency regimes could fail for political economy reasons as well. Due to the uncertainty about the consequences of its implementation – especially the risk of contagion and profound structural and federal reforms–, SNGs may oppose the implementation of an insolvency framework. Apart from that, another main reason for their refusal is that it may impose a system change to a no-bailout-system – redistributing the debt burden from third parties back to the debtor (and creditors). SNGs can now be held liable more easily for their budgetary policy by the voters, reducing the leeway for opportunistic behaviour.

In addition, political decision making may be negatively affected by the creditors lobbying strongly for maintaining the status quo (Schwarzc, 2004). In the past, they have been profiting from good financing condition of the SNGs which were guaranteed by the solvency of the upper-level governments. Under an insolvency system, they have to renounce on the simple investment option with secure returns and instead face the risk that assets might become devalued or written-off.

4.2. Possible solutions and their trade-offs

Voluntary or flexible implementation

A simple remedy to the problem of constitutionality and the unwillingness of SNGs to implement a subnational insolvency law is to design a framework, which gives the SNG sufficient freedom of decision in determining the debt restructuring and fiscal adjustment process. A possible solution may be to let the subnational government decide *ex ante* whether the insolvency rules stipulated is applicable in case of a financial crisis or not – similar to the state's authorisation for filing for Chapter 9 ("opt-in" option). Another approach may be to integrate an "opt-out" option into the framework – as considered by Bolton and Skeel (2004) for sovereign states – that allows the state to exit from the framework. In both cases, those not covered by the insolvency framework might set up their own rules or, if not, might end up with an ad hoc debt restructuring in case of insolvency. In order to grant legal certainty to creditors and to avoid disincentives of the SNG, the decision to implement insolvency rules need to be taken when introducing the insolvency law. Governments may opt-in or opt-out even at a later date, but only if they adhere to the budget rules.

The positive side of this proposal is that the SNG is free to decide on the application of an insolvency regime – trading-off the negative effects of the potential loss of sovereignty with the advantages of being part of the uniform insolvency framework. The negative side is that this voluntary framework may not eradicate negative incentives. Those not submitted may still speculate on being bailed out by the central government or other third parties.

Hence, an alternative is a flexible approach, which makes the implementation of some insolvency rules mandatory for SNGs based on common standards and regulations. For example, a common minimalist framework could be defined, laying down the general rules and principles of the insolvency procedure, similar to the approaches of Schwarcz (2004 and 2011). The minimalist framework is then completed by subnational law defining the specific features of the debt restructuring process.

The flexible approach may also respect sovereignty rights and reduce the reluctance of SNGs to implement detailed rules on debt restructuring. In addition, it would guarantee some minimum requirements to effectively address the moral hazard and the hold-out problem. At the same time, it can be tailored to the special needs of the SNG. However, the existence of diverse subnational insolvency regimes may reduce transparency and make it more difficult for creditors to evaluate the outcome of possible insolvency proceedings and thus to price subnational debt. In addition, an insolvency regime may be created that induces lenient decision-making in favour of the debtor.

Gradual or lagged implementation

A solution to avoid disruptive effects and also to overcome the reluctance of political decision makers is to gradually implement a bankruptcy law and to embed it into existing rules and institutions – similar to the suggestions by Nunner-Krautgasser (2013) and Schwarcz (2004). A starting point may be to first stipulate rules that allow debt enforcement against some assets of a SNG. At a later stage, general procedural rules and principles are developed in a minimalist framework. Complex material questions (e.g. priority of claims, essential services, seizure of assets, sanctions, fiscal intervention) are gradually implemented later.

A lagged implementation of an insolvency regime as proposed by Fuest et al. (2016) for the euro area may be another solution. The authors suggest to define today (taking advantage of the reform window) an insolvency procedure, which becomes effective at a certain date in the future. In addition to that an explicit transition path is stipulated, including further measures to allow for phasing-in of the new rules.

The merit of these two approaches is that the diverse agents (SNG, investors, creditors) are not faced with a *fait accompli*. They have time to adapt to the new rules. The benefit of a gradual implementation is that the framework is left deliberately vague, when it is introduced. This allows the various actors involved to act under the "veil of ignorance". In particular, it leaves scope for further adjustment according to the changing environment and upcoming needs. Instead, a lagged implementation provides predictability. The agents know already what the framework will look like. Then, the transitory phase enables them to make policy adjustments before the insolvency framework enters into force. The drawback of both approaches is that they bear the risk of getting stuck or not being finalised which may generate legal uncertainty.

Central government guarantees or conditional transfers

Another option for dealing with weak subnational finances and fragile financial markets is to foresee the provision of guarantees or conditional transfers by the central government during a transitory period. This approach was followed by Colombia. In the first six months after the implementation of Law 550, the central government guaranteed 40% of the restructured debt, if the SNG met certain conditions (e.g. approval of fiscal programmeme, agreement on restructuring plan). A 40% guarantee was also offered to entities for their adjustment lending from commercial banks or international development banks. An SNG may even receive a 100% guarantee of new loans to finance adjustments for achieving the spending limits set out in the law (del Villar et al., 2013).

The provision of conditional transfers or federal guarantees may not only provide necessary liquidity to insolvent SNGs. It might generate political consent and reduce the risk of contagion, when introducing an insolvency regime. Through conditionality, it may help the implementation and adherence to fiscal rules. Nevertheless, it may still increase the risk of moral hazard, if the time period is set too long. Pressure by politicians, society and investors may force decision makers to prolong the bailout guarantee or turn it into a permanent mechanism which would undermine subnational reform efforts.

Establishing a debt redemption fund

In case of severe subnational indebtedness, it might be necessary to hive off existing liabilities in order to avoid adverse market reactions. Konrad (2008) suggested establishing a common debt redemption fund which takes over and pools existing subnational debt. The central government provides an explicit guarantee for the debt accumulated in the fund – also including liabilities from common bonds that are issued for refinancing. SNGs are obliged to redeem their share of transferred debt (including interest payments) over a certain period of time. They are only liable for creditors' claims arising from new borrowing. Only these claims may become subject of the insolvency procedure in case of bankruptcy. A historic example is the so-called *Erblastentilgungsfonds* established in 1995 in Germany for incorporating the debt of the former GDR (Wissenschaftliche Dienste des Deutschen Bundestags, 2013).

The creation of a debt redemption fund may have several merits. It reduces the debt burden of highly indebted SNGs and facilitates their financial recovery, as maturities are extended and interest payments are reduced. It safeguards property rights of creditors' claims and avoids possible market disturbances, resulting from the introduction of an insolvency regime. Linked with the insolvency regime, it diminishes speculation on a future bailout. The establishment of a debt redemption fund may have several drawbacks. While highly indebted governments may profit from lower interest rates for the refinancing of outstanding debt, fiscally responsible SNGs may face worse financing conditions. Their interest rates may increase. Furthermore, centralisation of processes and tasks to the federal level are often difficult to reverse (The German Council of Economic Experts, 2011). Hence, there is also the political risk that the redemption fund meant to be temporary may be turned into a permanent institution which would undermine the functioning of an insolvency regime. Finally, the establishment of a debt redemption fund even poses new questions such as how to prioritise senior and new claims.

An alternative to a common (mandatory) debt redemption fund is to establish voluntary liability agreements between SNGs (with or without the involvement of the central government), which may be similar to the deposit protection fund established in the banking system (Konrad, 2003). The notion is that a SNG may voluntarily transfer debt in a commonly agreed fund under the joint liability of the participants. The SNG may be committed to fulfil certain regulatory requirements (e.g. meeting financial key figures, following consolidation paths). In case of non-compliance with these rules, the SNG would be excluded. The approach would increase budget discipline of the subnational governments and control by the creditors, but bears also the risk of separation between high and low-debt SNGs. SNGs with low debt levels and a high creditworthiness may have a low incentive to participate – leaving only highly indebted SNGs to pool their debt.

Conclusion on approaches solving the implementation problem

The approaches mentioned above may contribute to overcome the limitations of establishing an insolvency regime. All may help to reduce the opposition of subnational decision makers, creditors, and other agents concerned to introduce such a system. Integrating an opt-in or opt-out option or defining a minimalist framework to be further specified by subnational law may respect the sovereignty principle. A gradual development of insolvency frameworks, the definition of transition paths, the provision of central government guarantees, or the establishment of a debt redemption fund may limit the risk of disruption arising with the "regime change". However, these solutions implicate a departure from the "balanced" insolvency regime. Most approaches may induce moral hazard (especially central government guarantees) or limit transparency and legal certainty (especially flexible solutions). Thus they diminish the effectiveness of insolvency frameworks in preventing bankruptcies and achieving a fast fiscal recovery.

In this regard, a delayed implementation could be a good option. It is associated with low disincentive effects and a high degree of clarity, provided that the timetable is credibly firm. In terms of practicability, solutions that include a minimalist framework may be preferable to the other solutions as they are easier to implement. In addition, they permit adjustments according to changing environments or specific subnational needs. However, delaying the implementation of a defined framework or implementing a minimalist model that is gradually developed to a comprehensive framework may have short-term adverse repercussions on subnational borrowing availability and costs. In case of a severe budgetary crisis these approaches may not be sufficient to avoid contagion. Then, the temporary provision of guarantees by the central government may be needed to calm markets. Conversely, the establishment of a debt redemption fund seems less feasible than the other approaches, as it adds further complexity to the difficult task of designing an effective insolvency regime.

Importantly, the negative effects of the adoption of a subnational insolvency framework are most likely to be minimised, if it is accompanied by any needed reform of subnational borrowing controls, and structural weaknesses of the intergovernmental fiscal relations system.

Note

1. One recent exception being Brazil's 2017 Fiscal Recovery Regime (Regime de Recuperação Fiscal), which provides breathing room for heavily indebted states with liquidity problems through a grace period on the debt administered by the central government, and demands fiscal adjustment measures to bring them back to a fiscal sustainable path (Fernandes and Santana, 2018; IMF, 2019).

2. OECD-averages are unweighted averages.

3. Selected countries include Belgium, Denmark, Germany, Korea, Netherlands, Norway, Spain, Switzerland, and Turkey. They responded to a survey on subnational debt resolution of the OECD Fiscal Network.

4. In Germany, state laws prohibit insolvency proceedings against municipalities but allow limited debt enforcement against some municipal assets.

5. IMF's World Economic Outlook database: USD 99 468 billion for GDP and 3 470 million for population.

6. A comparison of these sovereign insolvency approaches is provided by Berensmann and Herzberg (2013).

7. The institutions that are covered by laws and decrees other than Law 550 are private and public health providers, organisations that manage funds from the General System of Social Security for Health, and providers of public services in water, sewerage, electricity, fuel gas, basic public telephone distribution and mobile in rural areas. In insolvency cases of such entities, the concerned (sectoral) superintendency takes possession of the entity to ensure that the services continue to be provided.

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