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‘MARKET DISCIPLINE’, LENDING CEILINGS AND SUBNATIONAL FINANCE

by Elio Londero

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The ‘market discipline’ approach to subnational finance requires that moral hazard derived from the possibility of a central government bailout be made insignificantly small. Therefore, governments interested in following this approach and willing to abide by its rules should start by creating the conditions for a default and its resolution to be possible. This article discusses the use of lending ceilings as an instrument to allow the default without dragging in the central government.

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‘Market Discipline’, Lending Ceilings and Subnational Finance

Elio Londero[*]

I. INTRODUCTION

In recent years, significant attention has been devoted to decentralization, with the claim that by placing decision making power with those who are better informed and more directly accountable, it provides incentives for a better matching between government resource allocation and local needs, thus improving allocative efficiency (Oates, 1999).[1]

In many countries, greater interest in decentralization has coincided with a significant liberalization of the trade and capital accounts of the balance of payments. The new policy environment calls for greater attention to fiscal discipline, and thus to the subnational fiscal arrangement as a source of contingent liabilities for the central government (CG). Furthermore, greater reliance on market-based solutions has led to promoting the use of financial markets as providers of both financial resources and financial discipline for subnational governments (SNGs).

SNG investments require medium and long-term credit in order to better match the time profile of costs and benefits. But, if SNGs become excessively indebted, their CGs may be compelled to bail them out in order to avoid the political costs of SNG insolvency.[2]

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[1] The claims have not been free of controversy. Treisman (2000) provides a less optimistic view and empirical evidence in support of skepticism. Martinez-Vazquez and McNab (2001) conclude that the evidence of correlation between fiscal decentralization and growth ‘is mixed’ and ‘may not be entirely reliable.’ Bardhan (2002) reviews studies with emphasis on the role of local accountability.

[2] Following Fitch (2000) solvency is defined here as ‘inability to pay debts as they mature, or as obligations

Systemic risks to the stability of the financial system is another motivation for CGs to bail out SNGs and lenders. Aware of the moral hazard in the arrangement, the SNGs and their lenders may exceed prudent limits in the expectation of a bailout.

Bailouts can also be extended to favored political friends, regardless of any threat to financial stability. This type of bailout is very difficult to prevent, and the risks can only be mitigated by improving governance. However, the magnitude of the bailouts can be reduced by improving the institutional arrangement governing SNG financing.

In the Latin American experience, poor fiscal management by SNGs, socially irresponsible (although privately 'rational') lending levels to SNGs by domestic financial intermediaries (DFIs) and political complicity by CGs have led to bailouts aimed at preventing or covering the default of SNGs, and thus avoiding the ensuing costs to bankers, depositors, and beneficiaries of SNG services. SNGs obtained the loans, spent the money, and transferred the repayment to CGs. DFIs charged risk-based interest rates, but captured excess profits when CGs in fact guaranteed SNG obligations creating sizable liabilities for the CGs (see, *inter alia*, Dillinger and Webb, 1999a and 1999b; Nicolini *et al.*, 1999; Bevilaqua, 2000; Echavarría *et al.*, 2000). [3] In the end, transfers took place from those who paid the cost of financing the bailout (CG taxpayers, beneficiaries of CG spending) to DFIs and to those repaying the SNG debt (SNG taxpayers, beneficiaries of SNG spending).

Credit financing of SNGs by DFIs without creating contingent liabilities for the CG requires an institutional arrangement that makes this financing available, while simultaneously ensuring that SNGs are able and willing to repay the loans. Three types of solutions have been proposed for providing credit finance to SNGs: a public bank devoted exclusively to SNG

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become due and payable. A person may still have an excess of assets over liabilities, but be insolvent if unable to convert assets into cash to meet financial obligations.'

[3] There are technical reasons and political incentives to keep the bailout figures confidential. The CG does not want that the bailout becomes noticeable or suggest likely figures to other SNGs, and politicians want to benefit loyal SNG authorities without providing ammunition to their political opponents. Thus, bailouts are effected using a variety of hard to detect instruments. Gamboa (1997), Hernández Trillo et al. (2002), Bevilaqua (2000), Echavarría *et al.* (2000) and Hall et al. (2002) illustrate the cases of Mexico, Brazil, Colombia and Costa Rica.

financing, the establishment of borrowing constraints for SNGs, and market institutions.

Influenced by the Latin American experience, this paper analyzes briefly, some of the limitations of these arrangements to prevent the generation of CG liabilities. Then, assuming that CGs favor a 'market discipline' arrangement for SNG financing (Lane, 1993), the paper suggests the use of lending ceilings as instruments to reduce the incentives for excessive borrowing by SNGs and for socially irresponsible lending behavior by DFIs. The presentation concentrates in financing by domestic banks and similar DFIs, touching only briefly on domestic bond markets and foreign financing.

II. PUBLIC BANKS

A solution instituted in several countries is that of a specialized public bank (Magrassi, 2000).[4] If professionally managed and free from political interference, if the arrangement provides access to SNG financial statements, if these statements are accurate, if SNGs do not borrow from other sources, and if the arrangement is able to ensure repayment, the public bank may provide adequate safeguards against excessive borrowing by SNGs. In fact, under the above assumptions the public bank would be in charge of managing a borrowing constraint established by the CG.

In practice, however, very few of these conditions hold. Asymmetry of information and the non commercial nature of SNGs reduce the banks' ability to assess them as borrowers. Preventing access to borrowing from other sources is difficult, since SNGs may have access to suppliers' credit and may not transfer funds retained in complying with withholding responsibilities. Finally, and perhaps most important, the political nature of the relationship between SNGs and CGs often allows for political influences to affect the public

[4] Not be confused with SNG-owned commercial banks (see Dillinger and Webb, 1999a). These banks have frequently lent to their owners beyond prudent limits, and then extracted a political deal that included a CG bailout. Bevilaqua (2000) illustrates the case of Brazil.

bank's lending and collection decisions. Excessive indebtedness by SNGs in the expectation of debt forgiveness creates contingent liabilities for the CG. These contingent liabilities become effective when the combination of periodic SNG fiscal crises and political considerations lead CGs to debt reduction/forgiveness programs (Hall et al., 2002).

Some federal systems of government may allow SNGs to borrow from domestic financial markets, thus practically eliminating the ability of CGs to control total SNG indebtedness through a public bank. Moreover, when commercial borrowing is possible the arrangement is subject to moral hazard, since commercial lenders would take into account the possibility of debt forgiveness by the public bank. In order for the arrangement to have the correct incentives, a default should be possible with minimum or no cost to the CG, and its resolution should impose significant costs to both the SNG and the lenders. However, this outcome would be difficult to achieve when a public bank holds a significant share of the SNG's debt, unless the law grants the public bank a preferred creditor status. Even then, the CG may face systemic risks due to the size of the SNG borrowing from DFIs.

III. BORROWING CONSTRAINTS

Another proposal is to allow SNGs to borrow from private institutional lenders subject to borrowing constraints. In complying with these limits, an SNG would reduce its probability of default and limit the total amount involved, thus reducing the expected cost of a CG bailout. The arrangement is based on the deterrent of the potential consequences for the SNG of violating the limit, and it would depend on the CG willingness and ability to enforce the arrangement.[5] The only incentive for DFI prudent lending behavior is the size of the expected losses. If the default happened under the debt limit, the arrears would be generally small and the legal system could resolve it without placing the public interest at risk or compromising

[5] In some federal countries borrowing by SNGs may be allowed by the constitution, making it difficult for the CG to institute and enforce borrowing constraints.

the stability of the financial system. If necessary, the CG bailout would be smaller.

However, if the borrowing constraint is only proportional to the size of the SNG, a large one could still put the system at risk. Systemic risk would depend on the number of DFIs severely affected, creating incentives to DFIs for having other lending partners with similar exposure in order to force a bailout in the case of default.

The single most important shortcoming of borrowing constraints is that they signal to lenders the CG concern about the fiscal performance of SNGs. Lenders interpret such concern as one for the fiscal consequences to the CG of an SNG default. Moral hazard is introduced into the arrangement, reducing or eliminating the incentives for DFIs to impose 'discipline' on borrowers.

Borrowing constraints are also difficult to enforce. First, because the CG would hardly have access to the true accounting and financial information,[6] and when it does it may be too late. Second, because when the constraint is violated the CG may be confronted not just with a financial problem, but with a political one as well. This is an important shortcoming of the borrowing constraint: violating it is the result of political behavior, which is difficult to control through the imposition of financial constraints on the politician, and the arrangement is even more difficult to enforce through the legal system.[7]

Finally, borrowing constraints target the borrowing behavior of SNGs, but not the behavior of lenders. The incentives provided to DFIs are also important, since a bailout would benefit both parties.

The situation is not without its irony. Due to the difficulties in enforcing penalties, the borrowing constraint becomes an arrangement by which SNGs are entrusted with disciplining themselves for the partial benefit of the CG.

IV MARKET DISCIPLINE

[6] For examples of creativity in circumventing the rules see Ter Minassian and Craig (1997).

[7] Bevilaqua (2000) reviews the political considerations surrounding SNG bailouts in Brazil during the nineties.

A third proposal is to subject SNGs to the discipline of the market in the expectation that lenders would assess SNG ability to repay and lend only up to what is financially prudent. In a study on market discipline, Lane (1993) identified and analyzed four major conditions that the arrangement should satisfy in order to impose discipline on both sides of the transaction: (a) lending conditions respond to borrowing levels and the quality of borrowers, (b) lenders are able to obtain information regarding the financial situation of the potential borrower; (c) borrowers respond to higher prices by reducing borrowing, and (d) lenders do not believe that the borrower would be bailed out in the case of default.[8]

In many developing countries, as well as in some developed ones, the actual performance of financial markets in financing SNGs has cast doubts on the ability of real-life institutions to comply with these conditions (Ter Minassian and Craig, 1997). The experience, especially in developing countries, is one of SNGs increasing their indebtedness beyond their capacity to repay (given their social and political responsibilities), matched by irresponsible lending by DFIs. In fact, there are some major problems with the ability of markets to comply with Lane's four requirements.

First, as regards the quality of borrowers, Stiglitz (1998) noted that 'entrepreneurs with risky projects will be attracted to debt finance because they enjoy the full benefits of the upside risk while the downside risk is limited to the value of their collateral'. SNGs are particularly risky, since politicians have no assets of their own at risk other than their reputation. However, political reputation emerges from the benefits resulting from the borrowing, as well as from media management of the crisis, while finances can often be managed so that the crisis breaks under the next government; by that time attributing blame for the consequences is more difficult, and it is likely that those responsible have moved on. As regards governance, in a private firm good financial management translates into profits that guide stockholders voting decisions. In contrast, the benefits of SNG expenditures help

[8] Dillinger and Webb (1999a, 1999b) discuss the conditions required from the overall fiscal and financial arrangement for fiscal decentralization to work, and the experiences of Argentina, Brazil and Colombia.

to win elections, making the consequences of future SNG insolvency an insufficient incentive for present fiscal discipline. To create some incentives for good SNG behavior, voters would be required to (a) foresee and assess the penalties that the institutional arrangement would impose on them in the case of excessive indebtedness, and (b) have the instruments to act in a timely manner on such information. However, at the time of the election citizens may be still enjoying the benefits of overborrowing. Later on, the accountability of politicians is limited, and from a legal viewpoint they are difficult to prosecute and even more difficult to convict.

Second, in the case of private firms, the adjustment of lending conditions to borrowing levels is based primarily on the borrower's ability to repay, which is judged mostly on the basis of business prospects, an assumption of commercial behavior, and past record. In contrast, SNG authorities are not expected to behave according to profitability rules and politicians change frequently, limiting the ability of DFIs to rely for lending decisions on a behavioral model or on a repayment record.

Third, if private lenders intended to perform their screening role, they would face similar limitations in terms of access to information than the CG would face under the borrowing constraint. Asymmetry of information would increase the role of rationing, since banks would partially compensate the limitations of the interest rate by agreeing to 'detailed covenants governing the behavior of the borrower' (Stiglitz, 1998). In such circumstances, private lenders would provide very limited financing if they were to behave according to the 'market discipline' model.

Fourth, SNGs are not guided by the profit motive, and political institutions provide limited incentives for good financial performance. Therefore, there are fewer reasons to expect that SNGs would reduce borrowing in the face of raising borrowing costs. Borrowing at high prices may help further a political cause while transferring the costs to future generations. On the other side of the transaction, in lending to governments private lenders are not concerned with matching the time profiles of costs and revenues, because repayment

is not seen as dependent on revenue-producing investments.[9]

Finally, and perhaps most importantly, the greatest problem is not the information unavailable to lenders, but rather the information that is indeed available to them. Lenders look beyond the letter of the law and see the political nature of the CG-SNGs relationship and the responsibility of the CG in preventing a financial crash. Then they factor the implicit guarantee provided by the CG in their lending decisions. The political nature of the CG-SNGs relationships and the CG responsibility for the public role of the DFIs introduce moral hazard in the arrangement making it very difficult to enforce.

In the presence of an implicit CG guarantee, DFIs lend beyond prudent financial practices knowing that they will not be punished in a way that is commensurate with the expected gains in conducting the transactions.[10] Moreover, if DFIs start having arrears that are expensive to compensate by provisioning, owners have the tools to take their equity out, thus converting the situation into one of bankruptcy.[11] By the time supervisors audit the DFIs, their capital is negative and the CG cannot avoid the fiscal cost without significant losses to depositors in the same institutions the CG has the responsibility to supervise. In other cases, supervisory institutions do not identify the problems with sufficient anticipation, or when they do, political authorities fail to act promptly and appropriately. As a result, both political considerations and systemic risks lead the CG to bail out SNGs/lenders. As recognized by Lane (1993, p. 83), this may be the 'Achilles' heel of market discipline.'

Summing up, when lending to SNGs in the absence of moral hazard, financial intermediaries face significant obstacles in solving the problems originating with asymmetric information (Mishkin, 2000) and see their comparative advantages considerably weakened.

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[9] These characteristics limit the effects of increasing provisioning by DFIs. Additional provisioning would raise costs and thus interest rates, but SNGs may not be deterred by higher borrowing costs, particularly at the end of a political cycle.

[10] It is an interesting characteristic of the historical development of financial institutions that bankers are commercially liable only for their equity participation and asked to commit a small share of equity, while allowed to administer public money that is several times this equity.

[11] Low franchise values may exacerbate these situations.

First, they are unable to establish long-term relationships with SNG managers. Second, they have a limited ability to collect information from SNGs, to predict their financial behavior, and to limit risk taking by SNG borrowers by threatening to cut future lending. Finally, moral hazard in the arrangement eliminates or significantly reduces the incentives of lenders for monitoring these risky borrowers and for enforcing covenants to reduce repayment risk.[12]

A 'market discipline' approach should aim at creating the conditions that make an SNG default and its resolution *possible* without affecting the CG and imposing significant costs to borrowers and lenders. Then it would have transferred to lenders the responsibility of assessing SNG risk and of paying for their mistakes.

V. AN ALTERNATIVE: LENDING CEILINGS

A common characteristic of the preceding alternatives is that they concentrate on the government side of the transaction, without fully recognizing that the institutional arrangement cannot totally eliminate moral hazard. But, what is a CG to do *if committed to financing SNG through financial markets*? The answer lies, at least in part, in its ability to design fiscal and financial institutional arrangements that minimize the possibility of a bailout in the event of a default. To this effect, the arrangements should enable default and its resolution, and their design should recognize that there are two parties to a financial transaction and that the behavior of DFIs is privately rational. This approach should lead to switching the attention at least in part to DFIs.

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[12] In some countries, transfers from the CG are used by SNGs as collateral for their borrowing (Dillinger and Webb, 1999a). For the arrangement to be politically viable, the amount of transfers pledged as collateral should not exceed the amount that would allow the CG to enforce the rules (interrupt the financial flows and the associated services). Recent evidence from Latin America shows mixed results: Argentina enforced the rules during the 1990s (Dillinger and Webb, 1999a), and so did Brazil in 1999 (Bevilaqua, 2000); but Colombia (Echavarría, *et al.*, 2000) and Mexico (Giugale *et al.* 2000) did not. Note that this approach does not help develop DFIs ability to assess SNG risk.

The alternative considered in this paper is based on two plausible assumptions. First, that under the 'market discipline' approach DFIs should assess the risk. Second, that they will do so in the understanding that, if able to create the appropriate conditions, the CG would have to bail them out in the case of an SNG default. Since this moral hazard cannot be eliminated, it is the role of regulations to protect the CG by setting limits to DFIs' risk-taking behavior (Mishkin, 1997, 2000) by constraining their lending activities.

One means for setting these constraints is to impose ceilings on DFI lending to SNGs. These ceilings, which may be conceived as counterparts to borrowing constraints, should mitigate risks originating in (a) correlated events, (b) CG obligations to the public, (c) excessive concentration of lending, and (d) SNG cash flow problems.

Correlated events that affect the repayment ability of all or most SNGs may introduce systemic risk if DFIs have a high share of their portfolio in SNG debt. The first-best approach to mitigating this type of risk is to reduce the probability of occurrence of the events (e.g., expenditure stabilization instruments), and the instruments to do it are often in the domain of the CG. The residual risk would lead to a ceiling on DFIs' total portfolio in SNGs. This ceiling would be such that a default by SNGs due to correlated events (e.g., a reduction of transfers from the CG) would not introduce systemic risks requiring a CG intervention. The ceilings' design should be based on studies of the determinants of SNG revenue and expenditures.[13]

The ghost of an implicit CG guarantee is probably the most difficult risk to eradicate. There may be no other way of eliminating it that than letting one or more SNGs default and then allow the resolution process to settle the claims, thus forcing the SNGs and the DFIs to pay the costs of their bets. However, making the default financially possible is only one of the conditions for its occurrence. Since there are political costs to the CG for not bailing out the DFIs and their overindebted SNGs, the institution of financial constraints should be accompanied by increasing the political costs to the CG for providing a bailout in the event

[13] If the events affecting the repayment ability of SNGs are predictable, these studies may also be used to design mitigation measures and make variable ceilings possible

of default. These costs may be increased by greater transparency and fiscal rules that generate additional costs to the well-behaved SNGs (so they oppose the bailout). Strong legal institutions that facilitate fast resolution of the situation and emphasize shared responsibility are also essential.[14]

In order to make the resolution *possible* without financial costs to the CG, the ensuing financial costs to the parties should not create political costs that cannot be absorbed by the CG and should not exceed the financial costs that can be absorbed by the DFIs without creating a systemic risk.[15] The imposition of ceilings on total lending by DFIs to any individual SNG makes compliance with the financial condition possible.[16] These ceilings would be complementary to any overall limit on total DFI exposure to SNGs.

While these lending ceilings may already exist for private sector clients and related parties (the absence or laxity of which has created problems for the financial sector in more than one country in Latin America), SNG ceilings may need to be more restrictive in order to take into account that politicians do not behave as private firms, and that they are inherently more risky borrowers in the absence of a CG guarantee. It should also be noted that ceilings are established to protect the CG from DFIs behavior; that is, the ceilings are established to allow the SNG to default and let the DFIs and the SNG pay their cost shares in the resolution. Therefore, the size of these ceilings should not be related to the size of the SNG, but to the size of the DFI, thus eliminating or significantly reducing the liabilities that could be created for the CG through the DFIs when dealing with an SNG insolvency situation.

An important feature of ceilings on individual-SNG debt, accompanied by adequate resolution procedures, is that they increase risk for private lenders. By reducing lenders'

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[14] These are often ignored, essential parts of the arrangement under a 'market discipline' approach.

[15] Note that there may be further losses by non-institutional and unregulated institutional investors. There is a spectrum of DFIs and it is a matter of judgment which ones should be subject to the ceilings (e.g., pension funds). See below.

[16] SNGs may be able to borrow through public enterprises or autonomous agencies. If these organizations are not financially independent from the SNGs – e.g., prices are below total costs, or transfers to the SNG are possible – their borrowing should be included under the ceiling.

exposure to SNGs, ceilings reduce the probability of creating a systemic risk and make the resolution of an SNG insolvency possible without involving the CG. Therefore, these ceilings would increase DFI incentives to assess SNG risks, and reduce their incentives to engage in less than arms-length relationships with SNG politicians. *Ceteris paribus*, the more susceptible to DFI and SNG pressures a CG is, the lower the ceilings should be.[17]

If there is a sufficient difference between the total and the individual SNG ceilings, DFIs may only be able to increase their SNG exposure under the global SNG ceiling by increasing the number of SNG customers. By so doing, DFIs would end up with more diversified (less risky) SNG portfolios.

Another advantage of lending ceilings is that violations are more likely to be sanctioned by the DFI supervisor, since it would be easier to assess penalties on a DFI for violating a regulation than to prosecute a politician for violating a borrowing constraint or a DFI for irresponsible lending. The greater the independence of supervisory institutions in carrying out their functions, in conducting preventive and remedial actions, and in assessing penalties, the stronger the message to DFIs would be that they would have to pay for the costs associated to their mistakes. The overall consequences of individual lending decisions remain subject to the scrutiny of the DFI supervisor, who could recommend special provisioning in the face of potential SNG problems. In order to exercise such authority, the DFI supervisor should develop the specialized skills required for the analysis of the SNG share of the DFI's portfolio.[18]

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[17] Calavita, Pontell and Tillman (1997) describe the relationships between financiers and politicians during the US savings and loan crisis. Kroszner and Straham (2000) show how links between financial sector lobbies and legislators affect the voting of the US Legislature on financial sector reform. For a broader historical view see Cassis (1992, 1994).

[18] If the constitution allowed for state/provincial banks to legally operate outside federal regulations, thus making ceilings to become inoperative for these banks, the deposits taken by them should not be guaranteed, and the public should be constantly informed about it, unless state banks renounce such right. State banks that are not required to comply with federal regulations become a source of systemic risk and should be treated as such by federal regulators. In these cases, any DFI exposure to a state bank should fall under the respective

Finally, better governance of SNGs requires preventing cash flow problems resulting from mismatches between payments due and revenues. This type of problem may be created by one politician contracting an excessive amount of short-term debt under the ceiling that would have to be repaid by the next government within a very short period of time.[19] Since politicians cannot be expected to refrain from transferring costs through borrowing, DFIs should be constrained on the amount of short-term lending to SNGs and on the time profile of their total SNG exposure. Such considerations would suggest more stringent borrowing limits be imposed before elections.

A slightly different approach that combines market discipline with lending ceilings is that of using rating agencies (RAs). If the assessment of SNG risk by DFIs cannot be trusted, that of specialized RAs could replace it. DFIs would then face a risk-weighted overall SNG ceiling, as well as individual-SNG lending ceilings according to SNG ratings issued by these RAs.[20] In this approach, RAs should be assessing the repayment probability of borrowers, and not the collection probability of lenders. Otherwise, RAs would factor in the implicit CG guarantee that they see through the glass of the law. McKinnon (1997) suggests that such is the case with the Canadian provinces: RAs see no 'fiscal separation' and rate provincial bonds accordingly.[21] Seitz (2000) reports on a similar situation in Germany after a Constitutional Court ruled that the Constitution 'aims at establishing homogeneity and equalization of living standards throughout Germany' to be achieved by 'mutual support'

SNG ceiling.

[19] There would still remain time profile mismatches created by one politician trying to transfer costs to future politicians without the associated benefits. Note that this is not a prerogative of SNGs; for example, CGs may use long-term debt to finance current expenditures. The solution would require the introduction of intertemporal, noncommercial rationality in what are intrinsically commercial transactions.

[20] Rather than additional provisioning, since price incentives would no get the desired response from politicians.

[21] Mc Kinnon (1997) proposed two necessary conditions for preventing CG liabilities when SNGs have access to market finance: monetary separation and fiscal separation. There is monetary separation when the government has no access to money creation to prevent a default. There is fiscal separation when the SNG is unable to shift the burden to a higher-level government that would rescue it or that does not have monetary

among states and the federal government.

There are, however, some problems associated to third-party rating of the repayment probability of borrowers. First, RAs may be perceived as working for the ultimate payer, the CG, which in turn would be perceived as the implicit guarantor of the financial transactions. Second, when faced with repayment problems DFIs may claim that they should not be the only ones responsible, since someone else's incorrect assessment of the risks or incorrect determination of weights for risk-weighted ceilings also played an important role in the outcome. Taken together, these two characteristics reintroduce moral hazard into the arrangement. Third, and remembering that ceilings must be related to the size of the DFI (rather than the size of the SNG), regulators would have an increased workload since they would have to translate SNG-DFI combinations into ceilings for each DFI.

Another shortcoming is that only SNG past performance can be rated. As regards governments, it is perfectly possible for a good historic performer with relatively high indebtedness based on that performance to be followed by a poor financial performance leading to default. This could also happen with a for-profit institution when there is a change in management, but in the case of SNGs it is much more likely to occur, since the profit motive does not guide the behavior of political authorities. Therefore, to prevent CG liabilities, the maximum total lending to an SNG with the best rating should not exceed the amount that makes the SNG default possible. In other words, the ceiling should make the losses to the DFIs affordable to them. But then, what would be the advantage of using RAs rather than establishing DFI-based ceilings and allowing DFIs to manage risk?

There may also be problems with the timeliness of information. If RAs do not frequently update ratings (and regulators the associated ceilings), SNGs and DFIs may still manage to perform irresponsible transactions. The situation would be more risky if RAs do not generate their own information and have to depend on the SNGs making their financial data public, and doing it in an accurately and timely manner.

As any other agent in the arrangement, RAs should have incentives to behave as

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separation.

desired. If they provide inaccurate ratings, or if they engage in questionable dealings with governments, there would be practically no costs to them other than reputational. That raises the question of the price of such reputation and whether it could be paid by a large SNG, or by the CG when trying to promote its favorite governor. Finally, recent practices by RAs have raised concerns about possible conflicts of interest (The Economist, 2001).

There are some potential shortcomings to the use of market discipline with lending ceilings as well. First, SNGs could exhaust their allocations in the more regulated system (e.g., deposit-taking institutions) and resort (with or without complicity) to less regulated or unregulated sources. These less regulated sources would in turn obtain additional financing from the DFIs, thus indirectly increasing the DFIs exposure to SNGs to levels above the ceilings. Therefore, an effort should be made for the exposure of less regulated lenders to SNGs to be covered by the rules, since the purpose of the ceiling is to make the default possible. Regulations may require SNGs to publish all of their debts, but this approach may entail the same information problems faced by borrowing constraints. Instead, regulations may require less regulated lenders to disclose to their creditor DFIs any exposure to SNGs, subject to the penalty of automatic subordination of undeclared exposures. Then, the DFIs should be required to include their indirect SNG exposures under their own ceilings, thus protecting the deposit-taking institutions. Under a 'market discipline' approach, transparency in information should not be just mandated. The appropriate incentives should be in place for agents to act with transparency in their own benefit. Beyond any consideration to help risk assessment, under the market discipline model it would be the DFIs and the less regulated lenders' responsibility to monitor the amount of risk they are willing to take *in the absence of a bailout,* and pay for the consequences. It would then become a policy decision whether to protect those unable to protect themselves.

Second, in the face of borrowing limitations, SNGs may resort to other sources of financing originated in their role as payroll withholders – for example for pension funds or health insurance. Lending ceilings will not cover these secondary sources of financing, and alternative instruments should be designed to deal with them. The information on such

arrears, however, should be public since it would be important to DFIs in assessing SNGs' financial situations. The CG may also wish to take into account the public nature of these funds and decide to grant priority to these claims in the case of default. Given such priority and asymmetries in information, SNGs may have to assess the advantages of having independent financial administration of these services in order to avoid reduced access to DFI financing.

A third shortcoming results from their flexibility. Lending ceilings would be normally established by regulation, and thus could be adjusted as lenders and borrowers show a more responsible financial behavior. This would reward more fiscally responsible SNGs, but it would simultaneously create the risk of an irresponsible CG relaxing the constraint for political purposes. This is another reason for an independent regulator. But, again, it would be very difficult for any institutional arrangement to protect the taxpayer from a CG decided to sponsor irresponsible fiscal behavior by SNGs.

Another shortcoming of lending ceilings is a result of their very nature. They would be designed to protect depositors and/or taxpayers from the systemic effects of an SNG-default by making the default and its resolution possible, and thus costly (but affordable) to lenders. Therefore, ceilings would not protect small private owners of SNG debt (e.g., bondholders) who would be exposed to risks that they are ill equipped to assess. Ceilings are intended to encourage risk assessment by lenders, a task that only institutional lenders are normally able to perform. Investing in SNG bonds through accountable institutional investors would better protect individual lenders. Whether regulations should cover these DFIs is a matter of preference, and more related to the general policy towards private savings management. A case can certainly be made for protecting savings in pension funds due to the public nature of the consequences, but it is far from obvious that private, professionally-managed investment funds, should be subject to these ceilings. However, regulations could require them to publish their SNG exposure.

Thus far, only domestic financing of local SNGs has been considered. However, there could be foreign financing of local SNGs, as well as DFIs financing of foreign SNGs. SNG

access to foreign markets, often times an issue with constitutional foundations, presents problems of a different nature. A key aspect is whether markets are unable (or foreign governments unwilling) to separate SNG risk from CG risk. If there is no separation, an SNG default would affected the CG rating, creating an incentive for the CG to prevent an SNG default, and thus for the bailout. Since foreign lenders are outside the purview of the national regulator, the CG would be limited to establishing incentives or limits to SNGs. If there is risk separation, an SNG default is primarily the problem of the foreign authority, which could consider foreign SNG lending ceilings for its DFIs. The existence of lending ceilings and the occurrence and orderly resolution of SNG defaults would provide incentives for risk separation, although at some initial short-run costs for the CG.[22]

Domestic regulations should cover DFI lending to foreign SNGs, treating it in the same manner as local SNGs. Whether special allowances are made for particular cases, like treating certain SNGs on an individual risk basis (e.g., internationally rated municipalities), would have to be decided by the regulator, and these cases are more likely to be related to DFI investments in foreign bonds than regular loans. But lending to across-the-border SNGs may carry a similar level of risk than lending to a domestic one, since the neighbor's CG may be more interested in saving the domestic DFIs.

Finally, no regulation would be able to prevent a political decision in favor of a bailout. Lending ceilings would only make the political decision of enforcing market discipline possible, and in the event a bailout reduce its cost.

VI. CONCLUSIONS

This paper reviewed some of the solutions proposed to provide credit financing to SNGs through DFIs with special attention to the propensity of such solutions for creating contingent liabilities for the CG. It showed that asymmetric information among the CG,

[22] Separation is affected by CG authorization of SNG foreign borrowing.

SNGs and DFIs, and misaligned incentives for conducting commercial transactions between SNGs and DFIs due to moral hazard, are likely to lead to excessive borrowing and a higher probability of default by SNGs. In the face of default, the political nature of the relationship between the CG and the SNGs, and alleged systemic risks for the financial system, would lead to a bailout.

The 'market discipline' literature has emphasized the role of lenders in imposing discipline on borrowers. However, the experience of many developing countries, and of some developed as well, is that (a) it is difficult to remove moral hazard from the arrangement on a long-term basis, thus making lenders as much a part of the problem as borrowers, and (b) that it has been difficult to impose discipline on lenders. The most important incentive for lenders to behave according to the 'market discipline' model is that of having to pay for their lending mistakes. For this incentive to exist, a government committed to using 'market discipline' has to create the conditions for making an SNG default and its resolution possible.

This article discussed lending ceilings for institutional lenders on overall SNG exposure, and on individual SNGs, as instruments to make a default possible, and thus create one of the conditions necessary for financial markets to play a 'disciplining' role. Given their objective, ceilings should be established relative to the size of the lender, be dimensioned so that cost allocations from resolving an SNG insolvency situation do not exceed the political costs that can be absorbed by the CG and the financial costs that can be absorbed by the DFIs, and take into account the time profile of debt. Lending ceilings would facilitate the decision of allowing the default by making it less costly. By facilitating the default, they would increase the incentives for better financial performance by both the SNGs and the DFIs. These ceilings would distinguish between individual and overall SNG exposure, and due to the political nature of the clients they would be expected to be more restrictive than normal concentration limits. Properly designed, lending ceilings would encourage SNG-risk diversification and facilitate enforcement in the case of violation.

Social welfare oriented, market-driven institutions require that monetary costs be imposed on those responsible for the creation of harmful effects. If such costs are not

incurred, markets are not able to impose 'discipline.' However, nothing can make the financial system immune to the irresponsible, but mutually beneficial behavior of DFIs and politicians. Incentives will not work in the desired direction until the CG *effectively refrains from intervening in SNG defaults and their resolution, and lets the parties involved pay the costs*. Lending ceilings would only make defaults possible. Central government independence from politically powerful actors is required for allowing a default to actually happen. Achieving such independence may require that other equally powerful political actors make the use of public resources to bail out SNGs and DFIs costly for central government authorities.

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SUMMARY

The ‘market discipline’ approach to subnational finance requires that moral hazard derived from the possibility of a central government bailout be made insignificantly small. Therefore,

governments interested in following this approach and willing to abide by its rules should start by creating the conditions for a default and its resolution to be possible. This article discusses the use of lending ceilings as an instrument to allow the default without dragging in the central government.

ZUSAMMENFASSUNG

Ein “Marktkonformer” Ansatz zur Financizerung Federaler oder Lokaler (Sub-Nationaler) Glaeubiger verlangt, dass der “moral hazard” Effekt eventueller zentralstaatlicher Schuldenerlasse unsignifikant klein gehalten werden muss. Entsprechend, staatliches Interesse, diesen Ansatz zu verfolgen und seine Reglen zu befolgen, sollte damit beginnen, Konditionen fuer eine erklaerte Zahlungsunfaehigekiet (Bankrott) und Schuldnerabwicklung zu schaffen. Der Artikel beschreibt (diskutiert) die Nutzung von Kreditlimits als Instrument, welches erklaerte Zahlungsunfaehigkeit (Sub-Nationaler Glaeubiger) ermoeglichen wuerde, ohne die Zentralregierung in den Prozess hineinzuziehen.

RÉSUMÉ

L'approche de "discipline de marché" appliquée au financement des collectivités locales implique que le risque moral lié à la possibilité d'un sauvetage financier par le gouvernement central soit réduit au strict minimum. Ainsi, les gouvernements intéressés à adopter cette approche et prêts à en respecter les règles devraient commencer par mettre en place les règles associées à un défaut de paiement et à sa résolution. L'article traite du recours au plafonnement des prêts comme instrument pour permettre un défaut de paiement sans intervention du gouvernement central".