



# Honoring sovereign debt or bailing out domestic residents? The limits to bailouts<sup>☆</sup>

Eric Mengus

HEC Paris, Economics and Decision Sciences Department, 1 rue de la Libération, Jouy-en-Josas 78 350, France



## ARTICLE INFO

### Article history:

Received 31 March 2016

Received in revised form 3 May 2018

Accepted 4 May 2018

Available online xxxx

### JEL classification:

F34

G15

G18

### Keywords:

Sovereign debt

Internal cost of default

Bailouts

## ABSTRACT

Why does a borrowing country not avoid the internal cost of default, an important driver of sovereign debt repayment, by implementing domestic sector bailouts? This paper investigates sovereign debt sustainability in a model where domestic and foreign investors optimally select their portfolios and the sovereign decides over its default and bailout policies. It shows that internal bailouts do not preclude sovereign borrowing when domestic private exposures to sovereign debt, direct or indirect, cannot be observed or inferred by the sovereign. In equilibrium, when these exposures are correlated with future liquidity needs, bailouts are less efficient to compensate domestic losses making repayment more desirable. “Opacity” on financial exposures is then a commitment device for sovereigns to honor their debts and thus may be welfare improving.

© 2018 Elsevier B.V. All rights reserved.

## 1. Introduction

Why do countries repay their debts? An often-discussed motive for a sovereign to honor its liabilities is to avoid the internal cost inflicted by a default on the country’s private sector: sovereign defaults do not only expropriate foreign investors, they also affect domestic residents and companies holding government securities if the sovereign cannot selectively default on foreign-owned debt.<sup>1</sup> Yet, this internal-cost-of-default theory of sovereign credibility rests on the premise that the sovereign cannot replicate a selective default by defaulting wholesale and by compensating domestic residents and companies.<sup>2</sup>

This ability to compensate domestic residents would require, however, to keep track not only of domestic *holdings* but also of all domestic *exposures* to domestic debt, both direct and indirect (CDS

and other derivative instruments, private sector exposures to foreign institutions or foreign subsidiaries that might be jeopardized by the default, etc.).

This paper investigates the role of imperfect domestic bailouts on sovereign debt credibility, when the sovereign cannot directly observe domestic exposures. More precisely, I derive conditions under which a country can borrow abroad in a model where domestic and foreign investors optimally select their portfolios and where the sovereign optimizes over default and internal bailout policies with only limited information on domestic exposures.

My main insight is that the trading of sovereign bonds relies on asymmetric information on the distribution of domestic exposures that has to be also endogenously correlated with future liquidity needs or productivity. In the event of a default, the resulting domestic losses would create internal disturbances and a misallocation of the country’s resources that are difficult to compensate for and, thus, pushes the government to honor its debt.<sup>3</sup>

Section 2 builds a model of internal costs of default. At date 0, the government needs to borrow money and issues bonds for

<sup>☆</sup> This paper was previously titled “Foreign Borrowing, Portfolio Allocation and Bailouts”.

E-mail address: [mengus@hec.fr](mailto:mengus@hec.fr).

<sup>1</sup> On the role of non-discriminatory defaults to trigger internal costs, see the contributions by Guembel and Sussman (2009), Broner et al. (2010), Broner and Ventura (2011), Brutti (2011) or Gennaioli et al. (2014) among others. Domestic output costs resulting from domestic exposures have been found to be quantitatively relevant to explain sovereign repayment. See Mendoza and Yue (2012) among others.

<sup>2</sup> An example of an – imperfect – bailout after a default is the so-called “corralito”, the bank deposits convertibility suspension decided in Argentina in December 2001.

<sup>3</sup> This is in line with recent findings that sovereign crises affect domestic production due to total factor productivity losses and not necessarily through factor employment, such as investment (see Mendoza and Yue, 2012; Sandleris and Wright, 2014; Wright, 2014, among others).

this purpose; the price of these bonds is endogenous and depends on repayment expectations. The country's private sector, described as a set of firms potentially needing cash at date 1 to finance a decreasing-returns-to-scale investment, as well as foreign investors decide whether to buy these bonds or to opt for a safe alternative abroad. At date 1, the government makes two decisions: whether to engage in (non-selective) default and, in case of default, whether to bail out the domestic sector. The efficiency of a bailout is limited by the government's available information about individual portfolio positions. Portfolio choices depend on the expectation of repayment and, for domestic residents, on the prospect of a bailout in case of default (Section 4). Conversely, the internal cost of default, and therefore the country's incentive to default and bail out, depends on past foreign and domestic portfolio allocations (Section 3). This results in a feedback loop between portfolio allocations and policies leading to a coordination problem among domestic and foreign investors.

Our first insight is that domestic bailouts do not preclude sovereign repayment (Section 5) if and only if the government's information on domestic exposures remains imperfect and if domestic exposures are heterogeneous and correlated with individual productivity.<sup>4</sup> repayment occurs when more exposed agents are also facing higher liquidity needs. If domestic bailouts increase *ex post* welfare by avoiding repayment to foreigners, they reduce repayment incentives. However, domestic agents have an incentive to over-report exposures to sovereign debt, constraining transfers to be imperfect. Finally, bailouts only provide a limited insurance against default to domestic residents. Therefore, when portfolios are heterogeneous, the misallocation of resources resulting from the default due to domestic holdings incentivizes the country to honor its debt.

Our second insight is that, *ex ante*, the heterogeneity of domestic portfolios and its correlation with future liquidity needs endogenously arises in equilibrium when anticipating a country's repayment. *Ex post*, this exacerbates the inability to accurately target transfers and further improves the country's credibility, thus confirming the *ex ante* anticipation of repayment. In addition, domestic bailouts also provide residents with some liquidity insurance and thereby further bolster domestic holdings of risky government securities, even by risk-averse domestic agents. This additional risk-management effect may actually boost the country's access to international borrowing.

In the end, this paper argues that sovereign repayment arises as a way to avoid the misallocation of resources that would result from a default. In contrast, this misallocation can only be imperfectly resolved by the sovereign through domestic bailouts due to portfolio non-observability. As a result, sovereign credibility would then be enhanced by domestic interbank or OTC derivatives markets or any form of indirect exposures to the sovereign's debt associated with a large and opaque dispersion of these exposures.<sup>5</sup> In conclusion, domestic "financial fragility" (e.g. the potential domestic contagion of losses) and "opacity", if costly *ex post*, are desirable *ex ante*.

### 1.1. Related literature

Foreign borrowing has been the object of a large literature (e.g. Eaton and Gersovitz, 1981; Bulow and Rogoff, 1989; Hellwig and Lorenzoni, 2009). The impact of reneging on domestic agents goes back at least to Cole and Kehoe (1998), where a sovereign default

sends a negative signal to domestic agents, who in turn adapt their behavior, making the option of default less worthy.

This paper is more directly concerned by the effects of non-discriminatory defaults leading to internal costs of default. On the one hand, this literature has investigated why defaults may be non-discriminatory between domestic and foreign bondholders, as Broner et al. (2010) who emphasize the role of secondary markets. On the other hand, this literature has investigated the effects of such non-discriminatory defaults on the defaulting country. In a nutshell, Guembel and Sussman (2009) consider the political economy cost of internal redistribution; Brutti (2011) analyzes the role of domestic firms' liquidity needs and provides evidence on the association of sovereign debt liquidity crises; Gennaioli et al. (2014) show that banks' domestic debt holdings can lead to an internal cost of default and, thus, play the role of a commitment device for sovereign debt.<sup>6</sup> I contribute to this literature by investigating the role of imperfect internal bailouts in shaping internal costs of default.

For the drop in domestic output due to TFP losses and resource misallocation, Mendoza and Yue (2012) offer an alternative explanation: being excluded from international capital markets, the government cannot compensate credit constrained domestic firms that rely on foreign inputs after a default, forcing them to use imperfect domestic substitutes. Yet, their explanation hinges on the assumption that the country cannot save abroad after defaulting, as in Bulow and Rogoff (1989), and that the government cannot intermediate domestic private financing needs. By contrast, this paper shows that misallocation can result from a default even when the government can rescue domestic firms.

This paper's main concern is the connection between bailouts and international capital flows as, for example, Schneider and Tornell (2004). Their emphasis is, however, on the effects of external bailouts - that is, bailouts of foreign investors - while this paper emphasizes the role of domestic bailouts on domestic sovereign borrowing. As Farhi and Tirole (2012), Philippon and Skreta (2012) and Tirole (2012), this paper argues that bailouts are costly because of asymmetric information and investigate the implications for sovereign debt repayment. It is also related to Nosal and Odonez (2014) who highlight uncertainty as a commitment device. Finally, this paper is a special case of Mengus (2017) where bailouts take the form of asset purchases.

## 2. The environment

Consider a two-period model of a small economy.<sup>7</sup> This economy is populated by a government and a continuum of domestic entrepreneurs. The rest of the world consists of foreign investors. There is a single tradable and non-storable good. I denote by  $t = 0, 1$  the two dates. Foreign investors and domestic entrepreneurs trade sovereign bonds issued by the government and I assume that the resulting exposures are not observable by the domestic government.

### 2.1. The agents

#### 2.1.1. Domestic entrepreneurs

Domestic entrepreneurs are risk-neutral and make decisions so as to maximize utility  $u(c_0, c_1) = c_0 + c_1$  where  $c_t$  is their date- $t$  consumption.

There is a mass  $1 + \nu$ , with  $\nu \geq 0$  of entrepreneurs. Each entrepreneur  $i$  receives an endowment of 1 unit of good in period 0.

<sup>4</sup> With perfect information, the government would always default and perfectly bail out domestic residents. Unobservable but homogeneous portfolios would also allow the government to perfectly bail out domestic residents, as it would have easily sufficiently accurate information.

<sup>5</sup> Of course, OTC/opaque markets have costs in terms of prudential monitoring of banks; but it is interesting to note that transparency has this unintended negative consequence to reduce sovereign credibility.

<sup>6</sup> See also Basu (2009), Bolton and Jeanne (2011), Simon (2012) or Popov and Horen (2015). Finally, Mengus (2013) establishes a general connection between foreign debt sustainability and domestic fiscal policies. See also Arteta and Hale (2008) or Borensztein and Panizza (2009) and Panizza et al. (2009).

<sup>7</sup> The finite horizon rules out trigger strategies/loss of reputation motives for sustaining debt repayment, as in Eaton and Gersovitz (1981).

Download English Version:

<https://daneshyari.com/en/article/7363792>

Download Persian Version:

<https://daneshyari.com/article/7363792>

[Daneshyari.com](https://daneshyari.com)