

Why Are Sovereign Bond Contracts Sticky?
A View from Government Debt Managers

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Abstract

This paper investigates the causes of “stickiness” in sovereign debt contract terms that can facilitate sovereign debt crisis management. As part of the project, we interviewed [more than ninety] representatives of high-income and emerging market debt management offices and buy-side investment firms. Contrary to the prevailing view of debt managers and much of the sovereign debt literature, our findings suggest that near-term borrowing costs may not be the main driver of government debt managers’ resistance to contract change. Both debt managers and investors said that they had never negotiated the price of non-financial terms. Most significantly, they insisted that their reluctance to change contracts had little to do with the substance of any given term, but instead reflected a generalized desire to adhere to “standard” non-financial terms as closely as possible, apparently regardless of what that market standard entailed. When we sought to understand the causes of this preference for market standard, we found that debt management offices (DMOs) balanced multiple policy objectives in a competitive market and a hierarchical institutional setting. This setting, as well as a view of their mission that assigns much higher importance to financial development, market liquidity and stable price signals in peacetime than to contract flexibility in crisis times, creates strong incentives for debt managers to stick with the market standard, even when the standard might be suboptimal.

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I. Introduction

Contracts are unusually important in international sovereign debt markets, which have neither statutory bankruptcy nor supranational institutions with robust authority to override contracts in crisis. Perhaps as a result, attempts to reduce the incidence and severity of sovereign debt crises have often led to calls for standardized bond contract reform. Yet contract change has been excruciatingly slow, even when the status quo appeared inefficient, and even when there was a clear consensus in the policy community that changes would be desirable.

This “stickiness” of sovereign bond contracts is part of a broader phenomenon: a large literature shows that standard-form contracts resist change even when change is desirable and easy enough to implement. Theories to explain stickiness point to switching costs, multiple agency problems, learning and network externalities (Goetz & Scott 1985, Kahan & Klausner 1997) and, less commonly, to negative signaling (Spier 1992, Baker & Krawiec 2006).

Empirical work to date does not distinguish among these theories in a way that might shed light on the causes of stickiness in any given setting, or suggest ways to overcome it. A large-scale study of corporate bond covenants finds stickiness, and attributes it in large part to the lawyers and underwriters involved (De Franco et al. 2014).¹ An interview-based study of sovereign bonds focuses on the lawyers’ role in the development of a single covenant, and attributes that covenant’s stickiness to agency problems between lawyers and clients (Gulati & Scott 2013). For reasons we elaborate below, it is not obvious that sovereign and corporate bond covenants should behave the same. It is also premature to let the principals—debt managers and investors—entirely off the hook for the consequences of the contracts they sign.

Our project takes a different tack: we use in-depth interviews, but focus on principals rather than agents. We spoke with government debt managers for [twenty-two] countries, who oversee sovereign borrowing operations in the ordinary course, including the form and content of their countries’ bond contracts. We also interviewed current and former employees of [eleven] investment firms that buy international sovereign bonds.

Four themes recurred across these interviews: (1) Debt managers and investors alike expressed a preference for standard-form contracts, a preference so strong that the form’s content sometimes came across as secondary. (2) Debt managers did not normally list contingency planning for sovereign debt restructuring among their policy objectives, even though they described their mandates in public policy terms. Instead, most stressed the need to maintain government debt as a benchmark, so that public and private sector borrowers in their country could have steady capital market access. (3) Contract changes perceived as reacting to current events or academic

¹ The results are consistent with many boilerplate theories; the authors emphasize learning externalities, citing the corporate law literature.

fashions faced deep skepticism among debt managers, who described themselves as responsible for a product that may still trade in 10, 20, 30, or even 100 years. (4) Debt managers described their performance by reference to other countries in their cohort. Sovereigns in the same cohort targeted similar investors and faced broadly similar challenges. While cohorts were clearly arranged in a hierarchy, borrowers' and debt managers' status did not simply track sovereign credit ratings. Size of the debt stock, geography, market and policy experience all played important roles.

Our interviews highlight explanations for stickiness distinct from network and learning externalities that have dominated the literature. For instance, many debt managers cited a fear of signaling deviation from their cohort if they changed their contracts, especially in light of sovereigns' long time horizons and perceived responsibility for other borrowers in the economy. Such findings have tentative implications for sovereign debt policy, for contract theory beyond sovereign debt, and for the interpretation and design of bond pricing studies.

We heard repeatedly that governments made deliberate efforts to mute any potential price effects of contract change, for example, through coordination and tweaking other issuance parameters. Such interventions help explain why attempts to estimate the impact of non-financial contract terms on sovereign bond prices have produced weak and often-contradictory results. At the same time, our findings suggest that the more common endogeneity problem that has preoccupied the empirical literature – that issuers might depart from the market standard in response to unobserved country-specific features or events – may be less important.

II. Background

A. Why Worry?

A single word in a defaulted bond contract, fifty-five pages long and twenty years old, forced a nation of forty one million people to default on \$29 billion in new debt, and cut its government off from the international financial markets (Gilsinan 2014). The word “payment” was lodged in a clause named “*pari passu*” (“equal step” in Latin) in Argentina’s bond contracts. The meaning and function of the clause had been lost until the turn of the 21st century, and hotly debated since (Choi, Gulati & Scott 2017). Between the late 1990s and the Argentina incident in 2014, minority creditors had used *pari passu* in lawsuits to extract preferential settlements from Congo, Nicaragua, and Peru (Sturzenegger & Zettelmeyer 2006). Finance officials, bankers, and lawyers around the world denounced such opportunistic enforcement as disruptive, complicating the already-hard task of managing debt crises. But going forward, the solution was simple: governments could easily reduce their vulnerability to future attacks by deleting *pari passu*, or tweaking a word or two in it. Yet it took almost fifteen years from the first successful free-rider lawsuit for the clause to begin changing on a meaningful scale (Choi, Gulati & Scott 2017).

Two theories can explain *pari passu*'s persistence. Some scholars attribute it to eminently rational creditor worries about sovereign misbehavior and sovereigns' corresponding need to show commitment to repay (Bratton 2004, Kahan & Leshem 2017²). Most practitioners and scholars invoke stickiness, a tendency for suboptimal terms in standard-form contracts to endure even in the face of shocks, even when the cost of stasis is demonstrably high and change is simple as a technical matter (Financial Markets Law Committee 2005, Gulati & Scott 2013). The two explanations—commitment and stickiness—could operate in the alternative, but are not mutually exclusive.

If stickiness is a factor in sovereign debt contract design, understanding how it works is an urgent economic policy problem. There is no sovereign bankruptcy override, nor a supranational court that could impose its will on debtors and creditors. The International Monetary Fund (IMF) plays a significant but indirect and contested role in a subset of sovereign debt restructurings (Int'l Monetary Fund 2013, 2017). A small group of creditors armed with a contract clause, even one whose risks had been apparent for years, could hold an entire country and its other creditors hostage. If a sticky contract term delays or derails an otherwise-desirable restructuring, tens of millions of people could suffer.

Stickiness has been identified in standard-form contracts across many different areas of law (Rutledge & Drahozal 2014, De Franco et al. 2014, Smith & King 2009, Ben Shahr & Pottow 2006, Baker & Krawiec 2006, Boardman 2006, Kahan & Klausner 1997). At least half a dozen theories purport to explain why suboptimal terms persist, but the research so far has made only limited progress towards corroborating them.³ *Learning externalities* encourage waiting until the clause had been absorbed by the markets and the courts. *Network externalities* require coordination of contract changes across the relevant market ecosystem. Other theories include fear of *negative signaling*, which would penalize first movers (implying weaknesses in the existing debt stock), poor lawyering and similar *agency problems*, and simply the *high cost of switching* to new terms, which might make an imperfect contract good enough for a long time. Any of these theories—as well as the debtor commitment motive—could explain resistance to contract change in sovereign debt; however, there is not enough information to evaluate which (if any) is relevant in practice, and in what setting.

The sovereign debt context presents distinct challenges to the application of existing theories. For example, sovereign borrowers are complex, multi-layered political entities, which take considerable internal coordination. Political leaders, central bankers, finance ministers, and debt managers all have different mandates and different spheres of authority, which can lead their perspectives on contracts to

² Chabot & Santarosa (2017) make a similar argument when they report on the benefits to debtors of robust secured debt contract enforcement by the London Stock Exchange (LSE) more than a century earlier. Because their study involves systematic and collective enforcement by the LSE, rather than *ad hoc* enforcement by national courts of free-rider claims, the connection to the *pari passu* episode is indirect,

³ Gulati & Scott (2013) include a comprehensive literature summary in Chapter 3.

diverge. Furthermore, concern with spillovers has mobilized governments and international institutions to dislodge what they perceived to be suboptimal terms in sovereign bonds since at least the 1930s (Mallard & Sgard 2016). As treaty-based bankruptcy initiatives kept foundering (Hagan 2005, Rogoff & Zettelmeyer 2003), sovereign debt reform at the international level effectively became sovereign debt *contract* reform. All this is a far cry from the world of corporate CFOs that dominates stickiness research.

Investigations of stickiness in sovereign debt focus on lawyers (Choi & Gulati 2004; Gulati & Scott 2013). It stands to reason that those who draft contracts for their clients' signature are well-placed to drive change or resistance. Quantitative research in corporate debt finds some support for this view of the lawyers' importance (De Franco et al. 2014). Studying lawyers in sovereign debt is especially appealing because it creates a natural link to the larger corporate law literature: many of the same law firms are involved. On the other hand, it can lead to a single-minded focus on agency problems, obscure the distinct features of sovereign debt contracting, and preempt further inquiry into the principals' motives. Lawyer-driven explanations of contract stasis are also harder to reconcile with commitment theories, which are all about principals (sovereign borrowers) showing willingness to repay.⁴

This paper reports on interviews with principals, debt managers in [twenty-two] middle- and high-income countries, conducted between 2013 and [2017]. We also spoke with a different set of principals, investors in sovereign debt, at [eleven] firms in New York, London, and Singapore that range from very small specialized boutique fund managers to the largest global financial conglomerates. By comparing the parties' descriptions of the contracting process to their contracts and to the prevailing theories, we add to the empirical literature on stickiness and contract change. In addition, our approach allows us to delve into sovereign decision-making about contracts, which has been treated as a black box until now. In our account, debt managers emerge as a distinct set of actors, whose priorities and constraints may differ from those of the senior economic policy makers we studied before (Gelpern & Gulati 2006, 2013).

In this project as in the earlier ones, we report how key participants in the sovereign debt market talk about their contract choices. We do not claim that their stated reasons are the "real" reasons, but rather seek to identify common themes in their explanations of contract change and of the role that contracts play in sovereign debt

⁴ For example, if sovereign borrowers have meaningful say over what goes in their contracts, they might weigh their desire to commit by keeping their old lawsuit-prone *pari passu* clause together with their reluctance to change bond contracts in general, motivated by network or learning externalities. Their desire to avoid painful, protracted crises would go on the other side of the scale, pulling in the direction of contract change.

If lawyers ultimately determine what goes in a debt contract and if lawyers are congenitally risk-averse and resistant to change (Gulati & Scott 2013), it becomes harder to factor in the sovereign borrower's motives.

markets (Bewley 2002). Understanding how protagonists frame their decisions can guide further research and policy intervention in sovereign debt contracts.

B. *Celebrity Clauses*

Our interviews usually opened with two famous non-financial terms in sovereign bond contracts:⁵ the collective action clause (“CAC”), which allows a bondholder majority to bind the rest in a restructuring vote, and the *pari passu* clause, which promises creditors equal ranking. As we noted at the outset, the *pari passu* clause has been used successfully by holdout creditors in sovereign debt enforcement litigation. CACs can eliminate holdouts among bondholders under the same contract. CACs and *pari passu* have been repeatedly singled out by policy makers as central to the management of a sovereign debt crisis, and have been the object of concerted multilateral reform efforts for decades. We chose CACs and *pari passu* as our opening topic because we could be confident that all our government and market interlocutors would have at least some familiarity with the clauses and the theoretical case for reform. Each of them has had to decide whether to adopt or reject the latest version of CACs and *pari passu*, to consider how the adoption process might work, and to ask whether and how the new clauses might be priced.

CACs and *pari passu* were at the center of three recent waves of policy intervention in sovereign debt contracts: 2001-2003, 2010-2013, and 2012-2015. Each wave responded to market, policy, or judicial interpretation shocks: Argentina’s crisis and default in 2001, and the IMF’s ensuing proposal for a treaty-based Sovereign Debt Restructuring Mechanism (SDRM), the Euro area crisis in 2010, and the Greek debt restructuring, which coincided with successful enforcement against Argentina in 2012. Each wave brought a new version of CACs; only the third changed *pari passu*. The policy goal each time was roughly the same, making it harder for holdout creditors to disrupt the restructuring process, although adoption strategies and outcomes differed. Table 1 summarizes the developments; Appendix 1 contains further background.

Table 1:
Three Waves of Sovereign Bond Contract Reform

	Target Market	CACs	% to Amend	% to Hold Out	<i>Pari Passu</i>
1st Wave 2001-2003	New York, foreign law	Issue-by-Issue	>75-85% of each issue	15-25% of an issue	N/A

⁵⁵ We usually referred to documents for managed offerings at least partly marketed to foreigners, where we had access to English-language documentation. Debt marketed primarily to domestic audiences is normally governed by the issuer’s own law and rarely includes non-financial covenants in the contracts. The terms are typically contained in regulations, which tend to vary considerably among countries (Gelpern & Gulati 2013).

2d Wave 2010-2013	Euro area, foreign and domestic law	Two-Limb Aggregated*/Euro-CACs	>2/3 of all <i>and</i> >50% of each issue polled**	50-55% of an issue	N/A
3rd Wave 2012-2015	London, New York, foreign law	One-Limb Aggregated/ICMA CACs	>75% of all issues polled	No holdouts	Disavows ratable payment interpretation

*Uruguay and Argentina adopted versions of two-limb aggregation in 2003 and 2005, respectively, but other countries did not follow suit until the Euro area initiative. Two-limb aggregation used by these emerging market issuers had higher per-issue amendment thresholds, and required correspondingly smaller investment (33 1/3% rather than 50%) to secure a blocking position.

**Thresholds differ slightly for amendments adopted at bondholder meetings and by written resolution.

Table 1 highlights substantive differences among the three waves of reform and the distinct markets they targeted. The first wave was the most contentious, and the most symbolically important of the three. Successful official intervention in 2001-2003 followed the failure of similar efforts to promote CACs since the mid-1990s (Gelpern & Gulati 2006). While the market-wide shift to CACs in New York was greeted as revolutionary, the substance of the contract change might be fairly described as limited, even cosmetic. Under issue-by-issue CACs, a would-be holdout can avoid restructuring with a relatively small blocking position, acquired for pennies on the dollar.⁶ This is just what happened with Greek bonds governed by English law. On the other hand, CACs included in the latest model put forward by the International Capital Markets Association (“ICMA CACs”) eliminate the possibility of free-riding: all bond series polled are either restructured together, or not at all. The new *pari passu* clause included in the ICMA model would make individual enforcement harder. The third and most robust wave of contract reform drew little public controversy (Gelpern, Heller & Setser 2016).

According to a December 2016 IMF report, more than three-quarters of foreign sovereign bonds issued between October 2014 and November 2016 had adopted ICMA CACs (IMF 2016). These were overwhelmingly middle-income countries. Chile and Mexico were the only members of the OECD among the adopters. On the other hand, issue-by-issue CACs⁷ still dominated the outstanding stock of foreign-law debt, which stood at \$1.032 trillion in October 2016. Five per cent of all outstanding foreign sovereign bonds had no CACs at all, and had not altered the *pari passu* clause. Figure 1 illustrates.

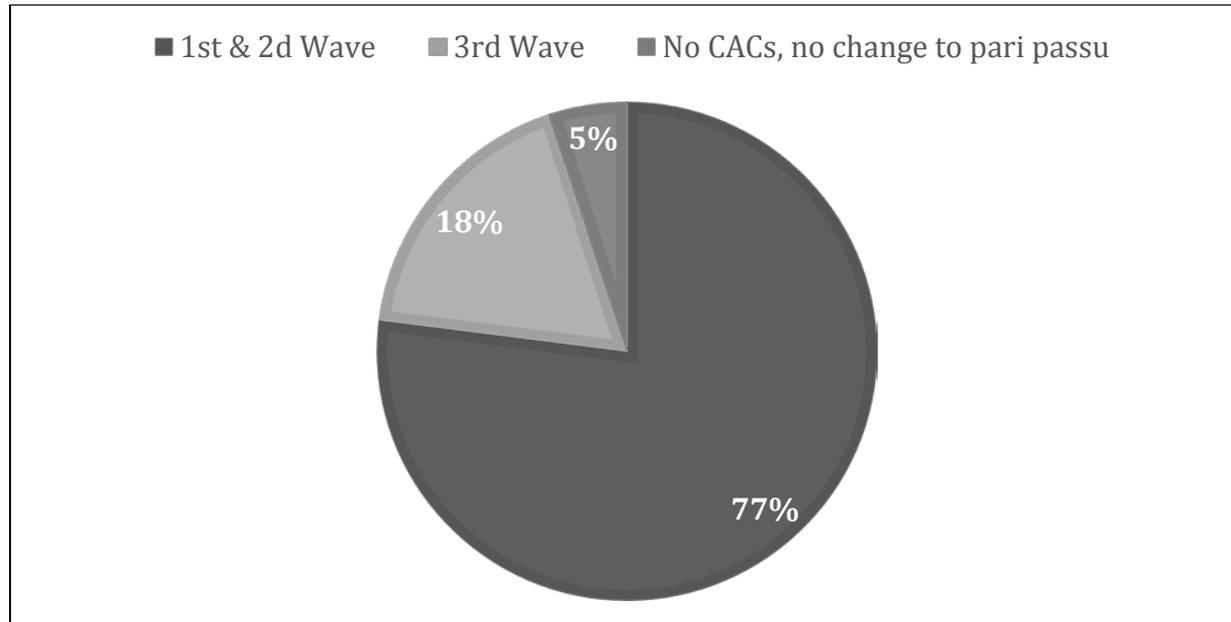
**Figure 1:
Foreign Law Sovereign Bond Contracts**

⁶ Issue-by-issue CACs can even make free-riding more attractive for skilled and committed players, by sweeping passive bondholders out of the way and boosting participation in the restructuring, which in turn creates a fatter target for enforcement litigation.

⁷ IMF data do not break out two-limb aggregated CACs from issue-by-issue CACs. However, since the data only cover foreign-law bonds and Euro area sovereigns issue overwhelmingly under domestic law, it is reasonable to assume that the bulk of 77% represents Mexico-style CACs.

(as a Share of Outstanding Stock of Foreign-Law Bonds, October 2016)

Source: IMF



After a spurt of early adoptions, IMF surveys reported a measly 1.7 per cent decrease in the volume of outstanding bonds with no CACs or older model CACs between July 2015 and October 2016. Thirty per cent of these old-model bonds, which remain relatively vulnerable to holdouts, do not mature for ten years or more.

In sum, bond contract reform proceeded in fits and starts, and took a long time even after problems with the old contracts had been identified, and international officials intervened to coordinate a shift. This history is consistent with existing stickiness theories—but does not preclude the possibility that debtors and creditors had other good reasons to reject changes to CACs and *pari passu*. We sought to use our interviews with debt managers to tease out the range of possible reasons.

In particular, we knew from prior research that virtually everyone involved in any the three waves of contract reform worried that new terms would raise borrowing costs for sovereigns. Expectations of a price penalty could easily justify resistance to reform, all else equal. Both CACs and modified *pari passu* clauses could make crisis management more orderly and, by definition, make default less painful. The specter of debtor moral hazard, a temptation to default strategically or stop trying to prevent a crisis, would lead creditors to charge sovereigns adopting new clauses a higher interest rate. Although pricing studies find scant and contradictory evidence of price effects, as we detail in Appendix 2, even unsubstantiated worries could be a barrier to change.

The following Part details the results of our interviews, most of which were conducted between 2012 and 2017. We begin by explaining our approach, and describing relevant aspects of the debt management ecosystem, including the debt management offices (DMOs) and their personnel. We then proceed to discuss our interlocutors' views on contract pricing, contract change, and the role of contracts in sovereign debt management.

III. The Interviews

The accounts below draw on [twenty] office interviews with [sixty-five] finance officials responsible for debt management, and [eleven] interviews with [seventeen] investors in New York, London, and Singapore. They also reflect numerous contacts on the margins of industry, policy and academic gatherings—including lengthy conversations with current or former debt management officials from three countries not included in the office visits. All but five of the office interviews were conducted jointly by two of the three co-authors. We typically requested meetings by email using our academic affiliations and a reference from a mutual professional acquaintance. We promised not to identify our interviewees or attribute their remarks. Most of the office interviews took between one and two hours, with two to eight people participating in addition to us.

With debt managers and investors alike, we introduced our interest in contracts, contract change, and contract pricing, citing examples from our own work on current issues we thought might be of interest to them—such as the latest wave of CAC reforms or the crisis in Venezuela, depending on the audience. In most cases, we drew debt managers' attention to what appeared to us as inconsistencies in the formulation of their own or another government's bond contracts. We also mentioned the results of recent pricing studies, which showed, for example, a small reduction in yield or no penalty for countries adopting new CACs or *pari passu* clauses. We made no attempt to hide our own views on the subject, including the fact that one of us was skeptical of the sovereign debt contract pricing studies to date, while another co-authored a handful of them.

For the most part, we encouraged an informal conversation, interjecting periodically to clarify and follow up. We sought to maintain essential consistency among interviews by asking each time what factors drove contract change in the past, what it would take for our interlocutors to change their contracts going forward (or, for investors, to buy bonds with new contract terms), how they went about implementing contract change, and their views on the relationship between contract terms and the price of sovereign bonds.

In addition to the interviews conducted for this project, we revisit some of the material collected between 2005 and 2012 for earlier articles using the same general approach (Gelpern & Gulati 2006, 2013). This includes interviews with senior

national and multilateral economic policy officials, investment bankers, investors, and lawyers.

A. Conversations with Debt Managers

For this project, we sought to find government actors who made decisions about the form and content of sovereign bond contracts in the ordinary course. Within sovereign governments, cabinet-level officials normally oversee debt management policy pursuant to legislative delegation. However, finance ministers stay out of drafting minutiae, and are at best vaguely familiar with the daily life of sovereign bond terms in the market (Gelpern & Gulati 2006, 2013). Debt managers design and implement their governments' borrowing programs, sometimes with periodic legislative approval. They often enjoy significant autonomy in day-to-day operations, including routine decisions about contract terms. Debt managers are the presumptive point of contact with outside bankers and lawyers. As their governments' emissaries to the financial markets, debt managers are also a source of information about the markets for their bosses.

DMOs in most countries are part of finance ministries. Examples include countries as diverse as Brazil, Finland, France, Israel, Italy and Mexico. Beginning in the late 1990s-early 2000s, DMOs in a growing number of countries secured more independence in policy implementation; some have separated from the finance ministry (Datz 2008). Sweden lays claim to the world's oldest independent DMO, established as a distinct legal entity in 1789; Ireland's National Treasury Management Agency is more typical, reorganized in 2014 as an entity separate from the finance ministry. In a few countries, such as Denmark, debt management is conducted by the central bank on behalf of the government. The debt management function is sometimes divided among the finance ministry, the central bank, and an administrative agency or bureau. Canada, Germany, Slovakia, the United Kingdom and the United States all have aspects of their debt management in two or more government offices. Organizational charts and legislation generally offer incomplete guidance to the allocation of decision-making authority.

Some DMOs perform a range of services for the government, such as fiscal agency and asset management; others focus narrowly on government borrowing. Debt managers tend to describe DMOs as comprising front, middle, and back-office operations, mirroring the organization of financial institutions with which they interact. The front office is responsible for investor relations; the middle office designs transactions and risk-management strategies; while the back office is responsible for settlement. Where the DMO incorporates research and legal functions, they reside in the middle office. DMOs range in size from less than twenty to over a hundred.

Debt managers as a group are often regarded as technocratic, conservative, and a tad boring within the economic and financial policy community—even though DMO heads have relatively high status in some countries, where the position can be a valuable stepping stone in a public official's career. DMO heads are usually sub-

cabinet-level officials, with status anywhere between assistant secretary and office director in the United States. Most come either from economic or financial management positions within the government, from central banks, or from large financial institutions, with background in government securities trading. Since the late 1990s, DMOs have sought to attract more staff with market experience, pay more competitive salaries, and adopt more market practices—aggressively competing for investors and putting a greater emphasis on communications (Datz 2008, IMF 2014). Nonetheless, it is not uncommon to hear unflattering comparisons between risk-averse, narrow-minded DMOs and central bank staff, with reputations for engaging in cutting-edge research and openness to out-of-the-box, state-of-the-art economic policy thinking.

Debt managers interviewed for this project came from countries whose sovereign debt ratings ranged from SD to AAA at the time of our meetings. Outstanding debt stock ranged from less than \$60 billion to more than \$15 trillion, and from 35% to 135% of GDP. [Eleven] were members of the Euro area. [Four] were EU members that did not use the euro as their currency; [four] were non-European emerging market economies; [three] were non-European high-income countries. Of the offices we visited in person, the borrowing countries' per capita GDP ranged from approximately US\$10,000 to over US\$60,000 in 2013.

In most cases, our initial meeting request was addressed to the DMO head and described our project as focused on debt contracts, contract pricing, and contract change. We usually met with either front or middle office officials, including the DMO head or deputy head in all but [two] of the interviews. The number of DMO staff in our meeting ranged from two to ten. Most meetings included at least one person with a graduate degree in economics; in at least [four] cases, our interlocutors had specialized training in econometrics. In most cases, in-house lawyers were either present in the meeting with the debt managers, or met with us shortly thereafter. Although all of the DMOs had retained outside lawyers, these were not in our meetings. We have interacted with some of these lawyers independently before and after the interviews, though we never discussed the fact or contents of any DMO interviews with their outside counsel.

Debt managers come across as a cohesive community. They get together several times a year, in regional subgroups and at broader conferences hosted by the IMF and the World Bank. Debt managers across the rating and income spectrum said that it was important to meet with their counterparts from other countries to discuss common challenges and market developments—as a rule, DMO gatherings did not come across as technical assistance by the rich for the poor.⁸ Many debt managers appeared to know one another well, in person and by reputation.

⁸ Most of the gatherings in which we participated while researching this article involved representatives of rich, middle-income, and poor countries mixed together, or only rich and middle-income countries. An earlier event hosted by the UN Conference on Trade and Development (UNCTAD) had a different feel about it, with debt experts from middle-income countries and the United Nations conveying best practices in debt management to officials in very poor countries.

1. “We Think of Ourselves as Standard”

Every one of our interviewees was aware of recent and ongoing CAC and *pari passu* debates, though their familiarity with the operation of contract terms varied widely. Once we established a threshold level of comfort with the contents of the contract, we asked some of the debt managers about particular terms. We pointed to recent shifts and variations in language, especially if they appeared unusual next to those of similarly rated issuers.

In one exchange with debt managers for a top-rated European issuer, we asked why the government’s recent English-law Medium Term Note (MTN) Program contained detailed commitments to recognize and compensate creditor committees in the event of default, and barred the government from offering differential inducements to bondholders in a restructuring vote. The same contract lacked such basic investor protections as cross-default and negative pledge covenants.⁹ Without cross-default, creditors must sit helplessly and watch others seize the debtor’s scant attachable assets. Without negative pledge, creditors have no recourse if the government decides to sign away its tax revenues as collateral for new borrowing. On the other hand, failure to provide for a creditor committee in a debt contract does not prevent creditors from forming one in default. From the perspective of commitment theories, this government’s creditors had chosen a very strange way to protect themselves from sovereign misbehavior.

Neither the DMO head nor the in-house lawyer could remember negotiating the terms that had puzzled us. Their general recollection was that in 2004, the European Union had made a “political decision” to include CACs in foreign-law bonds (one of the many ripples of the first wave of contract reform). At the same time, the market group ICMA had put forward model CACs, including the committee clause. The government adopted the model clauses on the understanding that they were standard in the market, but left the rest of its contract untouched. The debt managers might have gotten a question or two from market participants about negative pledge over the years (no one remembered for sure), but felt no pressure to change contracts in response.

Market standard was a serviceable explanation for some of the contract terms, but it also raised new questions. Publicly available data showed that committee clauses had indeed become common in English-law, but not in New York-law, emerging market sovereign bonds. Including committee terms in 2011 could be described as in line with market standard in this issuer’s market (London), though not for top-rated European sovereigns like this country. Moreover, this issuer did not follow other aspects of the 2004 ICMA model, such as requiring unanimous creditor consent to change governing law. The ICMA model also did not—but our hosts’ contract did—

⁹ A cross-default clause allows creditors to trigger default remedies under their contract if the debtor breaches a different contract. A negative pledge clause restricts the debtor’s ability to pledge assets to secure other debt.

prohibit the debtor from bribing bondholders to vote for a restructuring. In other words, contract text suggested creative lawyering, customization, and potentially complex trade-offs (which remained, on the whole, quite favorable to the sovereign), even as the principals described a single-minded drive to simplicity and standardization: “We must follow the market practice. ... The bottom line for me, what do we want to create – something simple. ... We think of ourselves as standard.”

Every debt manager we met voiced a similar sentiment. Officials with one government, so popular with investors that it was struggling not to borrow, nevertheless stressed the imperative for their contracts “not to stick out.” Debt managers for an emerging market that had the opposite problem, borrowing continuously in half a dozen markets to keep refinancing risk at bay, described their goal as “international standard, language accepted for an issuer like us.”

Although in theory everyone was willing to vary contracts to manage risk and save on borrowing costs, we got a very strong sense that giving covenants a prominent place in a government’s debt strategy would be perceived as peculiar, even unseemly. We explicitly asked some debt managers whether they would consider hiring particular lawyers because they were known for designing contracts that help sovereigns manage debt distress. Even debt managers who had recently and repeatedly switched law firms rejected this possibility. This was simply not how contracting worked in this industry. A well-regarded former debt manager for a large emerging market summarized the norm thus: “There is strawberry flavor. You might like chocolate [or] plain vanilla ... but ...” To this trained economist, government bond reality was a Soviet-era ice cream cart, which bore little resemblance to contract theory’s vision of a California ice cream parlor.

2. *What Would It Take for You to Change?*

a) *A New Adoption Puzzle*

Beginning in October 2014, IMF shareholders charged its staff with promoting the adoption of new, super-aggregated ICMA CACs and narrowed *pari passu* terms designed to rule out Argentina-style hold-up games. As part of this mandate, staff collected data on new issuances and surveyed debt managers in member countries (IMF 2015, 2016). They found that the pattern of adoption in this third wave of contract reform differed from its predecessors, which had been held up as the model for the new initiative. First, there appeared to be no first-mover problem. After contract reform was first mooted in a 1996 official report, it took years of cajoling, another crisis, a new and intense drafting-cum-arm-twisting campaign, and the threat of a sovereign bankruptcy treaty for Mexico to lead a market-wide shift to very modest CACs in 2003. In 2014, the ink had barely dried on the IMF executive board and Group of 20 endorsements of ICMA CACs before adoptions began in countries as different as Kazakhstan, Vietnam, and Mexico. In further contrast to 2003, the diffusion process slowed down in 2015: as noted earlier, the stock of bonds with no new CACs dropped by less than 2 per cent over sixteen months (IMF 2016).

IMF surveys revealed a mix of switching cost consciousness and general apprehension among non-adopters. Governments with established medium-term note programs or “shelf” registration, where a single umbrella contract governs multiple bond issues spanning years were reluctant to mess with the umbrella document. They did not see the need to pay lawyers, slow down the issuance process, and risk hurting the fungibility (and hence liquidity) of debt securities with identical financial but different legal terms—all for the sake of insuring against a very remote contingency. On the other hand, most of the governments that launched new issues or established new continuous borrowing programs did change their contracts (IMF 2016). The rate of adoption was higher in New York (89 per cent) than in London (80 per cent), an effect IMF staff had earlier attributed to Mexico’s prestige among Latin American issuers in the New York market (IMF 2016, 2015). Small and infrequent sovereign borrowers in London told IMF staff that they had no use for the principal innovation of ICMA CACs, the ability to aggregate many issues in a single voting pool: they had too few bonds to aggregate.¹⁰

We visited the DMO for a large non-adopter in the IMF survey, as well as several other DMOs that had not borrowed in the survey time frame, but told us that they were not rushing to embrace the latest model clauses. They highlighted uncertainty about the path of standardization in general, and choosing a standard that would be appropriate for them in particular. One debt manager, a seasoned professional with a highly-rated, high-income borrower outside the Euro area, wanted to wait for market practice to solidify: “Let them fight their fights. When the lawyers settle ... they have the fights, we copy.”¹¹ Debt managers for countries in line for Euro accession struggled with its potential implications for their contract choices: if they decided to join the monetary union, they might have to switch to Euro-CACs later. In the worst-case, they could end up with three different versions of CACs in their bond contracts, sowing confusion and impairing fungibility.

None of the reasons cited by non-adopters went to the capacity of the clauses, old or new, to help with crisis management. Of course they could have worried about the merits privately, consistent with the commitment theorists’ admonition against making default less painful. However, the wonky, technical reasons for rejecting change as such, which were given to us and to the IMF staff, were detailed, independently plausible, and consistent with stickiness.

b) *“We Love the Euro-CACs!”*

The political mandate for Euro-CACs had caught Euro area debt managers by surprise in 2010; two years and endless implementation headaches later, many still struggled

¹⁰ This is a particularly odd argument, since these countries aspired to continuous market access, which would presumably result in multiple issues down the line.

¹¹ The latter part of the statement referred partly to the recent history of with Euro-CACs, enshrined in the ESM treaty just as the new, improved ICMA CACs surfaced on the international policy horizon (see Appendix I).

to see the value of any CACs for their governments. As international officials contemplated a third wave of contract reform in 2012, Euro area representatives made clear that they would not revisit the Euro-CACs. In working group sessions for what became ICMA CACs, in private meetings and in public fora, they fumed about having sunken countless hours and euros into their clauses only to face the prospect of a new market standard. By then, European politicians' zeal for contract reform had subsided, while the debt managers were well-equipped to resist. "Reopening the grave" of contract reform was not in the cards for them.

For contract reformers outside the Euro area, Euro-CACs were a headache. The U.S. Treasury, the IMF, and others aimed the new initiative at foreign-law debt of risky sovereigns, perceived as vulnerable after the holdout victories against Argentina. Most Euro area sovereign debt was governed by local law and could be changed with or without CACs.¹² International officials were not about to spend scarce political capital on European contracts, but found themselves in a politically awkward place, since their new initiative could be read to imply that Euro-CACs were inferior. To diffuse the awkwardness, official rhetoric stressed that Euro-CACs and ICMA CACs were for different bonds and different borrowers.

In some meetings, non-European participants jokingly sought to pre-empt endless soul-searching over the Euro area predicament with a boisterous refrain, "We love the Euro-CACs!" In the 1990s or early 2000s, emerging markets representatives might have bristled at some of the exaggerated efforts to coddle Euro-exceptionalism. In 2012-2014, emerging market debt managers were mostly amused. One said that European officials' gripes about the new CACs made them sound like the fellow who had just paid a fortune for the last iPhone model, only to see the new one come out the next day.

This implicit rivalry between Euro-CACs and ICMA CACs was notable because it was non-substantive. No one argued that Euro-CACs would be more useful to a sovereign in crisis, or that, compared to Euro-CACs, ICMA CACs might dilute sovereign commitment to repay. The unspoken sense was that the newer model would probably work better—after all, it was designed to solve specific problems with the older models. ICMA's leadership, the involvement of other investor trade groups, and extensive market consultations, all ensured a measure of balance between issuer flexibility and investor protections (ICMA 2014, 2015). Yet change was still costly as such (Goss 2014). Switching was out of the question if the old clauses were good enough, as Euro-CACs were. Official pronouncements now oscillated between arguing

¹² Greece was a prominent exception, since it exchanged its local-law debt for foreign-law debt as part of the 2012 restructuring. On the other hand, most of its debt was now official. While its old local-law bonds had no CACs, Greece had simply legislated a majority amendment feature for its bonds on the eve of restructuring (Zettelmeyer et al. 2013). In a bizarre reversal, when concerns about French and Italian exit from the Euro area flared up in 2016-2017, some analysts suggested that Euro-CACs could act as a constraint on the sovereign's ability to restructure under domestic law (Mediobanca 2016, Morgan Stanley 2016).

that different issuers should have different contract terms, and insisting that investors did not differentiate among different flavors of CACs:

The markets want to see that we have the latest standard forms. Aggregate CACs are now part of the standard; but it does not matter whether those are Euro CACs or ICMA CACs or Greek CACs or Bolivian CACs. Please don't try to make us change our clauses again. We already went through that with two years of meetings . . .

This position finds some support in the sovereign debt ecosystem. For example, a Bloomberg bond covenant screen used by many investors simply reports whether a bond issue has any CACs (Fig. 2 below). A buy-side investor and a trade group representative reportedly tried but failed to get a covenant service to distinguish between different kinds of CACs (for example, specifying "ICMA CACs" or "Euro-CACs" instead of "Yes/No")—suggesting that the service provider did not foresee sufficient demand for the information to warrant additional investment.

Figure 2: A Bloomberg Covenant Screen

BTPS 1 ¼ 12/01/26		Covenant/Default Information
Type, Collateral Information		Covenants
Type of Bond		Negative Pledge
Collateral Description		Change of Control
Use of Proceeds		Fundamental Change
Additional Proceeds		Limit of Indebtedness
Grace Period for Mis		Cross Default
Step Provision		Negative Covenant
Step Trigger		Certain Sales of Assets
Tefra C		Restriction on Activities
Tefra D		Debt Service Coverage Ratio
Erisa		Free Cash Flow To Debt Service Ratio
		Restrictive Covenant
		Merger Restrictions
Events of Default		Limitation on Sale-and-Leaseback
Missed Filings		Limitation on Subsidiary Debt
Percentage of Bondholders		Restricted Payments
Litigation		Ratings Trigger
		Collective Action Clause
		Material Adverse Change Clause
		Force Majeure
Notes		Yes

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2016 Bloomberg Finance L.P.
 SN 336018 EST GMT+6:00 H221-3391-2 06-Dec-2016 11:32:25

Even as they argued that CACs did not matter, officials from several Euro area DMOs asked for updates on the adoption of ICMA clauses, particularly the new *pari passu* formulation. While the ESM treaty bound Euro area governments to adopt substantively identical CACs, it did not address *pari passu*. Sovereign borrowers were free to change that clause using ICMA's model or any other. The debt manager quoted in the previous paragraph said a few short moments later, "Okay, we may put in the new *pari passu* clauses, but don't ask us to go back to CACs. That was horrible."

Such willingness to consider a new *pari passu* clause runs counter to the view that all change is toxic, and begs the question—what would it take for debt managers to change their contracts in the absence of a political mandate?

c) *Helmet Head*

To reiterate, the debate over how to talk about different generations of CACs in public was not about the merits. Similarly, no one suggested that a country like Germany would be penalized for using ICMA CACs in place of Euro-CACs if it chose to do so—at the time of our interviews, people paid to lend money to Germany; it could probably borrow with dead ferrets for contracts. The question was whether ICMA CACs or *pari passu* were a big enough improvement on the *status quo* to justify the cost of reopening the boilerplate. Lawyers' fees aside, what exactly was this cost?

A debt manager for one small, highly rated Euro area sovereign in the process of changing its *pari passu* clause as part of a new MTN program, offered the following comment on an IMF conference presentation:

They posed the question—would you add CACs? Would you add a seatbelt to your car? But for a very safe driver, it is like saying “wear seatbelts and a helmet” ... Would you buy a bond from a very strange guy, sitting in a building wearing a helmet?

In theory-speak, this was a complaint about having to get insurance coverage for an improbable event and about being forced to wear a dunce cap despite belonging to a higher class of borrowers (*compare* Spier 1992, Pottow & Ben-Shahar 2006). The debt manager was already paying lawyers to redraft the *pari passu* clause as part of the government's periodic documentation review. He was under no direct pressure to adopt ICMA CACs, since he was bound to use Euro-CACs. He did seem to chafe at the idea that some technical contract terms had become meaningful and salient, and now he had to worry about the signaling implications of a contract fad for which his kind of borrower had no use.

Arguments for substantive differentiation came with equal force from the other end of the credit spectrum. A lawyer for Ivory Coast, which rejected CAC reforms in a \$1 billion, 13-year bond and kept its first-generation issue-by-issue CACs, told a trade magazine that the ICMA standard was not universal, and that in any event, it did not bind his client:

This is obviously a constructive proposal from an important market player, but it isn't a standard that has to be followed by everyone ... The CACs in this new deal were based on those in [Ivory Coast's] first transaction, which in our experience with past transactions worked pretty well (Myles 2015).

After observing that “there were no holdouts in Ivory Coast's previous restructures,” the lawyer said that the new bond issue “demonstrates the need to customize CACs

for any particular deal and issuer, and that ICMA's proposal is a model rather than a template." (Myles 2015) The quotes echoed the talking points used by ICMA CAC proponents trying to mollify Euro area officials: different countries require different contract standards ... except that Ivory Coast was precisely the kind of risky borrower under foreign law that ICMA CAC advocates sought to target. The lawyer—a partner with a big international firm who had been involved in designing model CACs and knew how they worked—offered no affirmative theory of Ivory Coast's special needs, nor how they might have been met by its old CACs. The fact that the government had restructured multiple times in recent past implied that its CACs were more likely to be used than, for example, those of its helmet-wearing European counterparts.

Resistance to change in Ivory Coast might have implied that investors worried about abuse, and wanted to constrain the government with limited CACs. The record-setting tenor of the issue in the Sub-Saharan African context suggests a possible trade-off: investors would give the government the comfort of a 13-year refinancing horizon, but only under relatively rigid, restructuring-proof contracts. That said, none of these trade-offs were articulated in public or in private, and pure stickiness remains a possibility, if a slim one.

In defending its CACs, Ivory Coast did not cite investor preferences or price concerns. None of the people involved in the offering could recall any discussion over how many basis points it might have cost the government to keep or toss its old CACs. As explained to us, the only consideration was a desire to "keep the prior standard documentation because the deal needed to go through without those involved getting distracted with arguments about legal terms"—not to differentiate Ivory Coast from Mexico, Vietnam, or Kazakhstan.

The imperative was to deprive non-financial terms of all signaling potential, to make them invisible. "Legal" terms were a distraction from the main task.

d) Four Words

Although they often describe their colleagues as passive and powerless when it comes to sovereign debt documentation, buy-side investors did pay attention to the precise wording of ICMA CACs as adopted; some of them even demanded and got change. A 2015 incident involving Mexico is notable both for countering the stereotype of investors as sheep, and for investors' insistence that their rebellion against Mexico was not even about Mexico.

When it launched its ICMA CACs in November 2014, Mexico was lauded as market leader, international standard-setter, and all around superstar—much as it had been in 2003 (Sobel 2016). Back in 2003, Mexico tried to obscure any potential price effects of its pioneering CACs by choosing the tenor of the bond so it would be hard to compare with the benchmark (Salmon 2003).¹³ In 2014, Mexico issued a \$2 billion

¹³ The consensus in Washington, New York, and Mexico City was that the government suffered no price penalty in 2003, though no one could tell for sure (Gelpert & Gulati 2006).

benchmark bond with ICMA CACs; it was rewarded when it was more than twice oversubscribed and broke the record for the lowest interest rate on a 10 year Mexican government bond (Diaz de Leon Carrillo 2016). Moreover, Mexico's November 2014 issue went beyond ICMA CACs in a several ways. It used a trust indenture in place of a fiscal agency agreement to bolster bondholder coordination, and replaced ICMA's "woolly" London-style language with what Mexico's lawyers described as a "homespun" New York-style version of the same CAC.

In early 2015, an in-house lawyer with giant bond investor PIMCO pointed out in a public forum that one of the investor safeguards in Mexico's homespun riff on ICMA CACs was missing four words, which could make it vulnerable to abuse by the sovereign (Scigliuzzo 2015). Market participants and commentators bent over backwards to clarify that they were not worried about Mexico's *bona fides*, but rather about the lesser credits that would surely copy Mexico's contracts. This was reasonable: by the time of PIMCO's complaint, four other Latin American sovereigns had already used Mexico's contracts as a model; in late spring of 2015, it became the basis for ICMA's New York model CAC. After initially brushing off the concern as a drafting detail and maintaining its substantive intent in line with the ICMA model, Mexico amended its indenture to insert the four missing words to and "resolve the ambiguity" in May 2015 (United Mexican States 2015).

We pressed debt managers and investors to specify what abuse market participants had in mind when they raised concerns about Mexico's contracts. Was it the risk of opportunistic default by Latin American governments? The answer was no. Investors did not suggest that contract terms such as CACs would raise the probability of default; instead, they worried that in the event of a default, a clever lawyer might use the words in an opportunistic way to force an unduly aggressive restructuring, increasing loss given default. For Mexico, market consensus viewed default as highly improbable, and loss given default was just too remote to project. However, Mexico had become the model for sovereign borrowers across the Western Hemisphere. For some of these borrowers, default was more likely than not. Here CACs mattered.

Three aspects of this incident are significant. First, it shows that investors and debt managers know how to read their contracts even when the language is novel, and know how to change contracts when they decide they care. Second, it was evidently impolitic to suggest that contracts guided sovereign behavior, particularly for investment-grade issuers like Mexico. For upstanding sovereigns, contracts *should not* matter. Third and related, no one suggested that Mexico would have suffered a price penalty if it had refused to insert the four missing words in its ICMA CAC. Nonetheless, Mexican debt managers saw the November 2014 contract as a big investment—like a home renovation that might happen, at most, once a decade—where the four missing words looked more and more like a chip in a prominently placed window. Contrary to some conspiracy theories that had begun circulating in the market, Mexican debt managers insisted in private and in public that the omission was substantively unimportant to them, but highly distracting and a bit embarrassing, nonetheless. These officials were loath to taint their model contract and compromise

Mexico's status as a leading standard-setter. Fixing the chip signaled market leadership as well as commitment and willingness to repay, and—crucially—shut off the chatter about legal terms. It allowed debt managers to return to debt management, which was *not* about contracts. In the words of a leading figure in Mexico's 2003 contract shift,

Both debtors and creditors like having a set of contracts, and proceed to issue. Impractical to make the issue of contracts. . . . [Settling procedural terms like CACs] allows us to focus on the substantive issues of the transaction—issues, rights, options. This is what the market participants want.¹⁴

3. *How Much Is This Clause?*

Neither the debt managers nor the investors we interviewed could recall a single instance where price overtly figured into the choice of non-financial contract terms. The DMOs kept in constant touch with a network of trusted market contacts, met with investors, and continuously weighed trade-offs between near-term costs and long-term debt management objectives. Such trade-offs simply excluded CACs and *pari passu*, and, for that matter, negative pledge, cross-default, and creditor committee clauses. Both sides said that investors either bought the debt or they did not; they did not charge a penny here, a penny there for individual covenants. One investor with a firm known to read contracts and engage with the official sector, observed: "I have never seen price come into a conversation about clauses. The price is the price. Either you take it, or you don't." Debt managers said the same: "Investors see credit and yield, and they either like it or don't like it. If they like it, they will buy it."¹⁵

Debt managers seemed both interested in and deeply skeptical of academic pricing studies. An early mention of contract pricing as a research subject drew a resigned, "Good luck with that!" from the debt office head for a top-rated Euro area issuer. We took it as a prompt to move on, but not before reporting on a study that seemed to show a savings of ten basis points for this issuer from including Euro-CACs in its debt. Every one of the five people sitting across the table to find the idea wildly implausible. They asked methodological questions, for example, whether the study compared sufficiently similar bonds (it did). In turn, we wanted to know whether the DMO or any other part of the government had done pricing studies of its own, which might cause our hosts to doubt the results we shared (it had not).

The officials in this meeting and many similar ones we had in other countries made very clear to us that ten basis points was a significant, action-forcing price difference to them. If they thought they could save one tenth of one per cent in borrowing costs by tweaking a covenant, they would consider it very seriously. Yet the idea that a benefit of this magnitude could come to a rich country from changing a CAC simply

¹⁴ In a 2012 interview, a European debt manager similarly described CACs as "procedural" terms.

¹⁵ This debt manager said that investment bankers might raise documentation questions that he would refer to the lawyers, but said they did not determine deal outcomes.

had to be wrong, so surely wrong that it was not even worth checking the numbers—these results apparently told them more about the studies than about the CACs.¹⁶ We got a softer version of this sentiment from an emerging market debt manager and former central bank researcher: “the quantitative techniques we have today do not allow us to identify the impact on price” when default is remote. This official was no stranger to quantitative methods, and had no shortage of interest in the subject: he had a doctorate in economics from a prestigious U.S. university, while his government had been following the price implications of CACs for years. If he thought he could get useful information out of academic pricing studies, he would have invested in them. Like many of their counterparts in other countries, our skeptical Euro area hosts described Euro-CACs as a political intervention from on high, over which debt experts had no control. The obligation to adopt Euro-CACs was enshrined in the ESM treaty, which made the price question beside the point.¹⁷ Officials also implied that investors were smart enough to know that terms like CACs did not affect their repayment prospects at the tippity-top of the credit spectrum.

On the other hand, three debt managers in the Euro area described palpable if indirect costs of adopting CACs. Their explanation of these costs had nothing to do with debtor incentives or payouts in default; it was all about arcane operational details. Some governments’ bonds trade in separate (stripped) principal and interest components. For technical reasons—as opposed to any market preference for bonds with or without CACs, we were told—stripped interest components from otherwise identical bonds with and without CACs were not considered fungible in the market. According to several debt managers, the shift to CACs effectively broke up what had been big and liquid issues into smaller ones, which traders found less desirable. In response, governments adjusted their coupon payment schedules, which in turn required them to keep more cash on hand, not invested and generating income. Debt managers experienced the cost of holding cash to offset potential loss of liquidity as an immediate, tangible cost of CACs.¹⁸ What they described was not so much a cost of CACs as a cost of change, which (taking DMOs at their word) did not depend on contract substance.

Small differences in credit quality and prospects might help explain the difference between the first DMO position, that non-financial terms like CACs could not possibly impact its borrowing costs, and the second group, where contract terms could hurt government debt liquidity on the margins, and had to be neutralized using other issue parameters such as coupon payment dates. Both groups characterized CACs above all as an irritant—useless at best. Their accounts stood in contrast to the high-minded theoretical concerns about chaotic default and debtor opportunism that had

¹⁶ The head of the debt office later asked for the details of the study. We shared it, but have not heard back.

¹⁷ One might wonder whether, if the DMO became convinced that CACs came with a price benefit for this issuer, the government might be more open to considering other contract changes.

¹⁸ When a well-regarded European debt manager raised similar fungibility concerns with CAC debt at a multilateral forum, policy and research staff at the multilateral institution privately said that they had no idea what the concern was about. In contrast, several other debt managers nodded when she spoke.

dominated market, academic and policy discussions for decades, and that had been advanced to explain the results of various pricing studies. Moreover, the costs of contract change described by some DMOs, costs they tried to mask, were not the sort that academic pricing studies have sought to uncover.

Investors in the primary markets wanted to see “a standard package” of non-financial terms; debt managers wanted to supply it. In practice, “standard package” was an ever-evolving approximation, and—as Mexico’s four missing words illustrate—had to be shaped at critical moments for the sake of the market, or the asset class as a whole. Negotiations over market-wide shifts in sovereign bond contracts were not between the parties, nor between their agents (lawyers and underwriters), but rather between market participants (debtors and creditors) and policy actors not normally involved in the contracting process. These outsiders had to show that proposed reforms would not disrupt the sovereign bond market, or impair the functions of the sovereign bond contracts as benchmarks and base assets in financial systems.

When policy makers sought to change market practice in this way, demand for price estimates and pricing studies of particular clauses shot up. Once a market-wide shift was under way, as in the emerging markets after 2003 and in Europe after 2013, the utility of pricing studies for market participants and outsiders alike declined. The experience with Euro-CACs attests that the cost of undoing large-scale, salient changes is perceived as prohibitive. Smaller-scale variation might continue and might be of interest to the market participants, but their impact on price is harder to detect. The next large-scale change might not come for a decade, when the relevance of data from the last round would inevitably be questioned.¹⁹

4. *Guardians of the Curve*

What is the life of sovereign bond contracts in the decade between official reform campaigns? What do debt managers do once they have settled “procedural” terms like CACs? To begin answering this question, we return to way in which debt managers described their mandate.

(i) *Public Goods*

The idea of government debt as a public good is old. Much of what we heard on our DMO pilgrimage were variations on Alexander Hamilton’s 1790 Report on Public Credit, that properly managed public debt was a public good. In every interview, we heard a version of the following observation, made in response to a question about a debt manager’s decision to borrow in foreign currency:

¹⁹ European debt managers, their advisers, and observers repeatedly said that studies of bond term pricing in the emerging markets were irrelevant to Europe, both because they involved “a different kind” of borrower, but also because they were just too old.

We are a sovereign. We have a responsibility—we are not the only one [affected] by this choice. It was wrong for the United States to abandon the 30-year bond.²⁰ As a sovereign, we have an obligation, a moral obligation to support the local market.

The speaker was an experienced debt manager for a troubled economy. He described his mission as a mix of financing the budget, refinancing and long-term risk-management, developing domestic financial markets, and helping domestic firms gain access to capital at home and abroad. With these goals in mind, his priority was to build and maintain a thickly populated, actively traded yield curve.

A simple yield curve is a plot of interest rates against residual maturities. At any given time, the debt manager's goal is to have a large enough stock of bonds at key points on the curve, so that their prices are easy to find and relatively stable. It is especially important to have large and successful "benchmark" issues at key maturities, such as 10-year bonds. A proper yield curve allows the government to diversify its investor base, which might include short-term, opportunistic buyers and traders alongside banks, pension funds and insurance firms, which have longer time horizons.

The debt manager we have just quoted regularly issued bonds in half a dozen different currencies, even though the government kept its assets in only two. Even more unusually, this DMO sought to maintain a yield curve in each of these currencies, both for the government's own sake, and for the sake of domestic firms borrowing abroad. Having yield curves in multiple currencies could facilitate borrowing by domestic firms in those currencies, since their debt is normally priced as the government's cost of funds plus a risk premium. On the other hand, committing to maintain a yield curve in multiple currencies is a big undertaking. At any given time, the government must issue enough debt to support active trading. If it does not, its debt prices might become volatile, which would backfire and harm private borrowers as well—with no stable benchmark, they might have to pay more to borrow, or might not be able to borrow at all.

The government might occasionally design instruments to mobilize a segment of local savings, manage specific risks, feed particular risk appetites, or target certain foreign investors.²¹ Smaller and riskier issuers in Europe and in the emerging markets had a better sense of who their investors were than did wealthy, stable economies. Apart from domestic regulated investors subject to reporting requirements, it is hard to know who holds government bonds at any given time, because they trade actively. Managed issues, which are more common among smaller and weaker credits, yield information about primary buyers (they see "the book" of orders); however, secondary market buyers may be different. Debt managers with less sure market access try harder to identify their audience, using a mix of surveys and informal

²⁰ Referring to the U.S. Treasury's decision to stop issuing 30-year bonds in 2001, reversed in 2006.

²¹ Inflation-indexed bonds were the most prominent specialized product, well-established in many countries by the time of our study, but still the focus of research and innovation across the credit spectrum.

market soundings. This information helps them design more bespoke, opportunistic issues aimed at particular buyers.

In 2014-2015, almost every debt manager we met was preoccupied with tapping public sector savings in Asia. Many told us about Asian reserve managers' preference for U.S. dollar assets (a function of the creditors' savings and currency policies); several cited this investor preference as the sole reason they borrowed in dollars. We also heard about reserve managers' asset allocation rules, and, more curiously, their requirement for meeting issuer representatives in person, which put the debt managers on the road for much of the time.

Most of the institutional features we describe here are entirely consistent with textbook guidelines for public debt management (IMF 2014). However, what goes without saying among debt managers can have unexpected implications for the study of sovereign bond contracts. For example, if the borrower's priority is to populate a segment of its yield curve, the decision to borrow, the form of borrowing, and even the price might precede contract design. The government and its advisers might decide what it needs to do to achieve this objective, including the target price range, and only then go to the lawyers to document the deal. Similarly, if a sovereign must sell its debt to an Asian central bank, it might design an entire issue to appeal to a single buy-and-hold investor, and combine it with a risk management strategy, such as a series of currency swaps, whose cost would not be reflected in the price of the bond. The bond covenant package here would reveal little about market appetite for any given clause.

A debt manager with a government hard-hit by the European financial crisis described the laborious process of rebuilding his investor base segment by segment. This is precisely where we would have expected to find heavy negotiations over non-financial contract terms. Yet our host could not recall a single instance where an investor or deal manager offered him the option of issuing with different clauses on different terms. Markets either bought a given price, or they did not—throwing in a different CAC would not help. To change the outcome, a debt manager for a distressed economy might have to offer a qualitatively different instrument—for example, one denominated in a different currency, or seen as part of an entirely different market—that might even belong on a different yield curve. At a certain point, the impact on sovereign debt function in the national economy may be too great.

All the debt managers we met took a long view of risk management, one that was focused on market risks, such as interest rate, currency, and liquidity. They went to great lengths, and paid money to preserve options for *refinancing*—hence the effort to keep multiple investor groups fed and watered at all times—but would not do the same for *restructuring*. Government debt managers also seemed to invest a lot more in their relationships with primary dealers, firms contractually obligated to buy and sell their bonds and maintain market liquidity, than in their bond covenants (Sadeh & Porath 2016)

One explanation for this view of risk management might be that sovereign default inevitably triggers a political crisis, which brings a new cast of characters onstage (Borensztein & Panizza 2008). In crisis, politicians tend to make the big restructuring decisions. A mix of time-inconsistency and agency concerns might account for debt managers' reluctance to pre-commit to restructuring terms, and a particular restructuring process ... unless it is "standard" for a country like theirs.

(ii) *Friends and Rivals*

Our interlocutors were, of course, competitors. This was most visible when they mentioned their efforts to borrow from public asset managers in Asia. Smaller, less frequent issuers put tremendous effort into making sure that sovereign wealth funds would not confuse them with their peers, would know where to find them on the map, and would appreciate their sterling policy mix and investor relations.

We were surprised that issuer size came up more often than any other factor as a status marker and a debt management constraint. This is not to suggest that credit ratings did not matter—they did. However, at least in theory, a poorly rated country can climb up the ratings ladder quickly. A small country cannot become big unless it embarks on a path of conquest (which would be beyond a debt manager's remit). Size affected liquidity, investor interest, and market access at all times. When we asked our interviewees to name their peers, they were usually economies of comparable size and credit quality. These were also their closest competitors, literally vying for the same hedge fund or central bank dollar.

Debt managers compete on price. One described learning that a peer country paid five basis points more than expected, and changing his own issuance parameters in response. He also insisted that contract terms would not figure into his competition strategy. Competing on contracts would be detrimental in the long term, fragmenting the debt stock making contract terms salient in the ordinary course.

The depth and sophistication of domestic financial markets also helped determine a government's place in the debt management ecosystem. A debt manager for a country with a relatively small banking system, mostly foreign owned, contrasted his position with that of countries that had big domestic banks, insurance and pension firms, and capital markets. He implied that, if all else fails, other governments could tap domestic financial institutions as a captive audience. In contrast, our host recognized he had few options in crisis: "We saw a storm was coming. We were on top of the hill, no tree, no house ... whom do we call when [markets close]? Do we lean out the window and scream for help?" Issuers such as this work harder to cultivate diverse foreign investors, since building domestic markets takes years.²²

²² Ceding control over one's currency put a government in a distinct peer group and made contracts relevant where they might not have been before. A debt manager for a wealthy, highly rated country described large Euro area governments such as Germany and France as sub-sovereign borrowers, and compared Euro area periphery governments such as Greece and Portugal to corporations. He

Debt managers' baseline contract objectives were to have the same covenants as their peers and competitors—muting their signaling power, rather than amplifying it. Traveling up the status ladder meant having covenants matter less. At the top of the ladder were big sovereign borrowers that could sell debt in their own currency at auctions with no contracts at all, to foreign and domestic residents alike. Their debt was, in effect, information-insensitive, or immune to adverse selection problems (Dang 2015). Contract irrelevance was an element of information-insensitivity, and a generally held aspiration. According to a Euro area debt manager, “We try to make sure investors do not care.”

B. A Word from Investors

Debt managers consistently told us that a key part of their job was gauging and responding to investor preferences, and that their choice of contract form was highly responsive to any investor sentiments. We reached out to investors, who, like sovereigns, are parties to the sovereign debt contract, to balance and verify some of what we heard from the debt managers.

We visited with [eleven] investment houses that buy and sell sovereign bonds. These investors range between the big institutions that have buy-and-hold strategies and those who only buy in distress scenarios. We spoke with more than [two dozen] analysts and money managers at these firms, and asked them about contract change, contract pricing and the role sovereign debt contracts play in their work. The answer mirrored what we heard from the DMOs, but went a step further. Even famously aggressive hedge funds told us that outside distress scenarios, they never bought or sold bonds as a function of the specific contract terms in a bond. Outside periods of official intervention and ferment, all they check is whether the bonds roughly satisfy the “standard form” for legal terms; for the most part, their focus is on the financial terms and the country's macroeconomic prospects (“the economics”).

At this point in the interview, one of us would explain that we were puzzled by this story about the unwavering preference for the standard form and irrelevance of contract details. We had the helpful examples of Greece, Argentina, and Venezuela, for which we had graphs showing how the markets (presumably including the investors across the table from us) had in fact been distinguishing between bonds with stronger and weaker contract terms in the months immediately prior to the expected restructuring. Surely this difference had to be felt in the primary market, even if it were muted. Investors responded by pointing to discontinuity and market fragmentation. If the vast majority of investors used sovereign bonds as safe assets (for example, for hedging risk in their portfolios), then sovereign distress would

suggested that the monetary union above all was what made CACs matter in Europe. Some of our interviews coincided with the Greek referendum in the summer of 2015, when risks to the monetary union were palpable. Against this background, debt managers outside the Euro area were quick to count their blessings for being able to print and borrow in their own currencies. Those on the inside took pains to show that Greek troubles had nothing to do with them.

prompt investors to sell *en masse*. Internal rules, contractual promises to their investors, and regulations can all force panic asset sales. Distressed debt specialists who care about contract terms only enter at this point, when prices are dropping precipitously, and long after all the contract terms had been decided.

We pushed back, observing that this account failed to connect the preferences of primary market bond buyers and those of distressed asset buyers in crisis. If the distressed asset buyer were willing to pay a premium for bonds with the old *pari passu* clause, this premium should feed through to the primary market issuance, and maybe even contract negotiations. A handful of investors responded by emphasizing the limited market for distressed debt. We paraphrase one such account from a distressed fund manager below:

At the end stage, there are going to be two sets of investors holding these (distressed) sovereign bonds. On the one hand, there will be the big institutions that were not able to unload them in time or were not allowed to because their government pressured them not to sell. On the other, there will be the distressed debt specialists, like us. And even among us there are big differences—some of us can pursue aggressive legal strategies and others cannot. The number of bonds that a fund playing the aggressive litigation strategy is willing to hold is small—an Elliott Associates [the fund that succeeded against Peru and Argentina, among others] can effectively play its game with a small fraction of the bonds, so that it makes sense for the others to pay it to go away. An institutional investor cannot be sure he would be able to sell all of his bonds with good contract terms to an Elliott-type fund at the end.

It is possible that we were being spun. Distressed debt investors might want to discourage big institutions from delving into contract terms and litigation theories for fear of competition. On the other hand, we heard sufficiently similar descriptions of a discontinuous, fragmented market from the large firms and from the debt managers, to believe the account is at least plausible.

IV. Conclusions

This paper set out to investigate the causes of stickiness with respect to two non-financial terms of sovereign debt contracts, collective action clauses and the *pari passu* clause by using interviews with representatives of [twenty-two] debt management offices, including high-income and emerging market issuers. We sought to check what we learned in conversations with the debt managers by conducting further interviews with buy-side investors.

In the economics literature on sovereign debt, a starting hypothesis would be that debt managers are reluctant to adopt CACs and *pari passu* clauses that reduce the cost of debt restructuring out of fear that contract innovation of this type may raise their borrowing costs. In this hypothesis, debt managers are short-sighted, preoccupied with minimizing the immediate borrowing cost, to the detriment of broader policy

objectives such as the prevention and management of debt crises. Fear of short-term costs might provide a powerful motive to resist contract changes, even if pricing studies indicate that the fears may be overblown, and even when contract changes are in the ultimate interest of the issuer.

Almost everything we heard in our interviews flatly contradicts this story. Time and again, debt managers told us that near-term price repercussions were not the main reason why they were reluctant to change non-financial contract terms. In many cases, no price repercussions were expected from such changes. Both debt managers and investors insisted that they had never negotiated the price of non-financial clauses—not even in the early-mover issues, where some debt managers and their investment bankers had worried about price effects. Most significantly, our interlocutors insisted that their reluctance to contemplate contract change had little to do with the merits of any given term, but instead reflected a generalized desire to adhere to “standard” non-financial terms as closely as possible, often *regardless* of what that market standard entailed.

The critical question is what explains this attachment to “standard.” At this stage of cracking the stickiness puzzle, we heard several stories, which were not mutually exclusive. Price considerations, the desire to signal a firm commitment to repay, and the rejection of debt crises as a contingency within debt managers’ planning purview all resurface as essential to the explanation. But they do so in a rather different way than the starting hypothesis suggests.

First, a signaling motive of sorts appears to be an important driver of the reluctance to depart from market standard, at least among the high-rated issuers and those that aspire to join that group (which includes most). Debt managers are conscious of their government’s position in a hierarchy of borrowers. At the top of that hierarchy are borrowers whose ability and commitment to repay are so widely accepted that non-financial contract terms are simply irrelevant. By sticking to market standard, however clunky and inefficient, issuers signal that they belong to that group. Just like individuals may signal their importance by being fashionably late, issuers signal quality by scorning the fine tuning of non-financial contract terms.

This explanation is rather different from the traditional signaling motive discussed in the economic literature, where issuers have private information about their likelihood to repay. Retaining contract terms that expose them to disruptive litigation in a debt restructuring, especially after the extent of disruption was made clear in a case like Argentina’s, would signal a high propensity to repay, and hence should lead to lower borrowing costs. Debt managers and investors rejected this view, as noted earlier, as narrow and short-termist.

The desire to signal quality, to associate the sovereign with a desirable borrower cohort, went far beyond pricing a given issue. This begs the question, however: why would issuers want to signal quality, if not to affect price? The answer may be that they are concerned with building a reputation that helps them reach multiple

objectives: stable market access, liquidity, and the ability to issue at a range of maturities. Low borrowing costs matter as one of several desirable attributes of a stellar reputation, but only over time and as part of a resilient debt structure overall; costs do not drive contract choice directly.

Second, price may motivate “love of standard,” but not through the channels emphasized in the sovereign debt literature, which focus on commitment. Rather, debt managers are concerned about the consequences of changing contracts for the fungibility of successive bond issues – with adverse implications for market depth, liquidity and market access, as well as pricing.

Third, the caricature of the debt managers as narrow-minded, cost-minimizing technocrats is clearly wrong. Debt managers do, in fact, profess high-brow policy objectives, but not of the kind that would require tinkering with non-financial contract terms – just the opposite. Debt managers express a responsibility for providing stable pricing benchmarks, by building a yield curve that is as long and complete as possible, based on highly liquid bond markets. Frequent contract changes run counter to this objective, because they obfuscate price signals, and detract from the main policy objective that debt managers describe as their core responsibility: to create deep bond markets for the government and other borrowers, rather than improve debt contracts for the unlikely eventuality of a debt crisis.

In sum, DMOs balance multiple policy objectives in a competitive market and a hierarchical institutional setting. This setting, as well as debt manager priorities that assign much higher importance to financial development, market liquidity and stable price signals in peacetime than to contract flexibility in crisis times, generates strong incentives to stick with the “market standard,” even when this standard is suboptimal when viewed in isolation. For policy makers who want to improve non-financial contract terms, the implications are clear: contract changes should be rare, carefully thought through, and internationally coordinated. To avoid delay, the market standard as a whole must change, in a way that minimizes the need for further changes in the foreseeable future. Otherwise, calls for contractual improvements may fall on deaf ears until a painful crisis disrupts the *status quo*.

References
[to be completed]

Appendix 1

CACs and *Pari Passu*, the Back Story

Although both CACs and *pari passu* had figured in policy initiatives as early as the 1930s, contemporary focus on the two dates to the mid-1990s (Weidemaier et al. 2016). CACs had long been standard in English-law bonds, but not in New York-law bonds, which required each bondholder to consent to restructure. CACs rose to prominence in New York after the Mexican “Tequila Crisis” of 1994-1995, which prompted a \$50 billion international rescue loan to avoid a disorderly bond default. The rescue was politically unpopular among creditor governments, and sent them in search of ways to avoid bailouts in the future.

Despite its impressive intellectual pedigree tracing back to Adam Smith (Rogoff & Zettelmeyer 2003), a bankruptcy treaty for governments was rejected as unwieldy, a political nonstarter. Contract reform to promote “orderly restructuring”—amending bonds by majority vote—emerged as the leading alternative (Eichengreen & Portes 1995, Group of Ten 1996).

Also in the mid-1990s, holdout creditors sued Nicaragua and Peru, insisting that the sovereign borrowers’ promise of *pari passu* treatment gave them the right to be paid in full, while those who agreed to restructure got their pennies on the dollar (Sturzenegger & Zettelmeyer 2006). In 2000, the free-riders collected a handsome payout from Peru, conditionally validating the legal theory.²³ The lawsuit showed that holdouts could use contracts creatively to sabotage debt restructuring, and became the predicate for reform initiatives (Krueger 2001, Taylor 2002, Hagan 2005). Counterintuitively, the *pari passu* litigation did not prompt revision of the *pari passu* clause. Instead, it helped fuel a new push for CACs and bankruptcy, in the form of the SDRM at the IMF.

Three waves of concerted official intervention followed, which resulted in three distinct generations of CACs, and a reformed *pari passu* clause.

The 2001-2003 wave brought the adoption of CACs in New York law bonds. Mexican, Brazilian, and other large emerging market officials had vocally opposed the SDRM for fear that it would be seen as facilitating default and would raise their borrowing costs (Setser 2010). The same countries used the same arguments to push back against CACs. However, as SDRM persisted on the international policy agenda, Mexican finance officials came to accept CACs as the much-lesser evil, and sought to use them to preempt continued talk of SDRM. In February 2003, Mexico became the first country to issue a New York-law bond with CACs in a public offering. Mexico’s CAC that made it possible to amend financial terms of a bond issue with the approval of 75 percent of outstanding principal of that issue; its initiative earned Mexico

²³ Both the courts and the legislature in Belgium, where the successful enforcement action was lodged, have since rejected it.

gushing praise from U.S. officials, multilateral institutions, market participants, and the financial commentariat. Mexico kept control over its own contract terms, got credit for killing SDRM, and cemented its place as a market leader. Other middle-income countries adopted similar CACs over the next several years.

After the Greek debt crisis erupted in late 2009, European leaders sought to create an emergency lender for the Euro area. To reduce potential for moral hazard associated with the new European Stability Mechanism (ESM), the leaders also agreed to create a legal framework for “private sector involvement” in crisis resolution (PSI)—or debt restructuring. Markets tumbled at the mere mention of PSI in the October 2010 “Deauville Declaration” by the leaders of France and Germany. A European sovereign bankruptcy treaty was off the table for the moment; instead, the authorities settled for a new version of CACs, or “Euro-CACs,” which lowered voting thresholds compared to Mexico, and added an aggregation feature. Voting pools could now include more than one bond issue, but restructuring would require two votes: one issue-by-issue, and another across the entire voting debt stock (hence the term, “two-limb aggregation”). Under the ESM treaty, Euro area states committed to include substantively identical CACs in their domestic and foreign bonds beginning in 2013 (Gelpern & Gulati 2013).

The third wave of contract reform responded to the Greek debt restructuring and the apparent success of holdout lawsuits against Argentina. Ahead of the restructuring in March 2012, the Greek parliament retroactively inserted a novel stock-wide majority amendment mechanism in Greek-law bonds, but it could not do the same for foreign-law bonds. The Greek-law bonds were restructured with no holdouts, while almost half of the English-law bonds held out and got paid—even though they had issue-by-issue CACs (Zettelmeyer et al. 2013). Meanwhile, U.S. court rulings against Argentina, detailed earlier, refocused attention on the risks of *pari passu* (Gelpern 2012, 2014). Working groups of officials, lawyers, bankers and academics began meeting in April 2012, and took more than two years to reach consensus on reforming CACs and *pari passu* (Sobel 2016). The initiative culminated in the release of new model CACs and a modified *pari passu* clause by the International Capital Market Association (ICMA) in August 2014. Third-generation CACs were loosely modelled on the Greek legislation, and could be used to restructure multiple bond issues with a single vote (“one-limb aggregation”). The new *pari passu* clause explicitly disavowed the payment interpretation used against Argentina. The Group of 20 and the IMF, which had been part of the group designing the clauses, quickly endorsed the new model (Int’l Monetary Fund 2014).

Appendix 2

Do Non-Financial Contract Terms Affect Bond Prices?

Beginning in the early 2000s, a growing empirical literature has sought to answer the question whether bond contracts that include **collective action clauses** are priced differently from those that do not (see Haeseler 2009 for a survey). One of the first and best known papers (Eichengreen and Mody 2004) found that lowering the CAC vote from 100% to roughly 75% hurts poorer countries but seems to help richer countries. Their interpretation is that when the promise to repay debt is not very credible, committing against debt renegotiation helps lower borrowing costs, while taking away benefits from increased flexibility may dominate any credibility effect in countries whose credibility of repayment is high regardless of the precise non-financial contract terms. Other studies have found the reverse (that CACs benefit particularly sub-investment grade bonds, see Bradley and Gulati 2014), while yet other studies have found other patterns such as a U-shaped pricing curve (Bardozetti and Dottori 2014). The introduction of CACs in Euro area sovereign bonds does not seem to have had any effect on prices (Große Steffen and Schumacher 2014). In contrast, Carletti et al (2016), using data from the Venezuelan debt crisis, find that bonds with 75% CACs traded at significantly higher yields (by about 150 basis points) than otherwise similar bonds requiring unanimity. Overall, our reading of the literature is that the price effect of CACs is zero, weak, or inconsistent except in near-default situations, when the presence of CACs makes bonds significantly cheaper. At that point, however, countries may be unable to issue any bonds, with or without CACs.

There are fewer studies of *pari passu clauses* than of CACs, perhaps because it did not draw attention until cases in Brussels (2000) and New York (2011-12) both gave the clauses meaning and provided the possibility of testing for pricing effects. In particular, the cases suggested that a particular form of the *pari passu* clause opened a new avenue for the judicial enforcement of sovereign debt repayment. As with the CACs, however, consistent and significant price effects of these clauses have been to discern (Bradley et al 2006, Gulati and Scott 2013, Ahmed and Alfaro 2017).

Researchers have been somewhat more successful in identifying consistent price effects of **governing law**. A sovereign that borrows under its own law has more leeway to expropriate the value of the creditors' investment (by asking its legislature to change the law); this should generally be reflected in higher yields. Several studies have found that local-law sovereign bonds do indeed cost governments more than similar bonds governed by foreign law (Choi et al 2011, Chamon et al 2015, Nordvig et al 2015). Furthermore, the balance between flexibility and commitment seems to operate in the direction economic theory would predict—countries with high levels of credibility (strong domestic legal institutions and historic triple AAA ratings) get no pricing benefit from issuing under foreign law, while weaker issuers do get a pricing benefit. This said, the empirical research on governing law provisions is more recent and as of this writing consists mostly in unpublished working papers.