Sovereign Debt Contracts

The Evolution of Euro Area Sovereign Debt Contract Terms: A Preliminary Examination

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Introduction[2]

The euro area sovereign debt crisis is over three years old and reforms are being instituted in an attempt to correct some of the problems that caused the crisis. This article investigates a key assumption that underlies one of the major policy reforms that has been put in place as a result of the crisis: the mandate that all euro area sovereign bonds, starting on January 1, 2013, begin using a set of contract terms aimed at solving collective action problems (CACs) among bondholders. That reform is supposed to make bail-outs less likely and to make private sector involvement (PSI) in future restructurings more likely. The hope is that the reform will discourage the weaker members of the Eurozone from over-borrowing on the expectation of a bail-out.

The question we are interested in is: why are these contract terms, the CACs, being mandated? Contract theory tells us that when a state mandates contract terms, this tends to reduce welfare. Sophisticated parties are generally better at deciding on the terms that best suit them than the state. The exception is where the parties, through their contracts, impose externalities on third parties. Hence, to understand why it made sense for the euro area governments to mandate contract terms for the debt contracts issued by their members, there has to be a story about how EMU states have an incentive to enter into contracts that produce negative externalities on their fellow EMU members.

What are those externalities? There has been little explicit discussion of this question in the recent policy debates. The answer, we believe, has to do with a frequently articulated narrative regarding the causes of the euro area sovereign debt crisis. According to this narrative, certain entrants to the monetary union, recognizing that the markets perceived them differently upon their gaining entry to the union, began to behave irresponsibly with respect to their borrowing. Given the strong economic interdependencies that the monetary union was sure to create, if an economic crisis hit one member of the euro area, its effects would necessarily be felt strongly by other members of the union as well. That meant that any nation which got into financial trouble would be more likely to receive external assistance from its fellow nations in the euro area, than it would have been prior to joining the monetary union. Based on the increased likelihood of a bail-out engendered by the formation of a monetary union, certain members of the union might have been tempted to go on a borrowing spree (Baskaran and Hessami 2011).

A monetary union and the close economic ties formed between its members as a result do not, however, make bail-outs inevitable. The richer nations in the union are typically going to be reluctant to provide bail-outs to their weaker brethren, especially if the latter have acted irresponsibly in getting themselves into trouble in the first place. Politicians in the richer nations will prefer weaker nations to settle their debt problems by asking for "bail-ins" from private creditors, rather than asking for taxpayer subsidies from the citizens of the richer countries in the union. Recognizing this, however, the weaker sovereigns and their creditors have an incentive to use the types of contract provisions in their debt instruments that make it difficult for PSI to occur. The classic example of such a contract provision is a requirement in a multi-creditor sovereign bond that does not allow for the payment terms of the bond to be modified unless every single bondholder agrees to the modification (Gelpern and Gulati 2013).

The particular form of the moral hazard we have articulated above, whereby countries choose to utilize harder-to-restructure provisions so as to raise the likelihood of a bail-out, may strike some as implausible. However, a

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[2] This essay is based on ongoing research on the evolution of euro area sovereign debt contract terms conducted with Frank Smets of the European Central Bank. Hence, when referring to the authors perspective, I often use "we". Responsibility for the conclusions drawn, however, is entirely mine.

version of this argument is probably the basis for CACs having been mandated for the euro area. To see why that is so, it helps to go back to a prior incarnation of CAC initiatives, from roughly a decade earlier.

During the period 1995–2002, a number of emerging market nations suffered debt crises and received bail-outs from the official sector (primarily the IMF). Policy-makers perceived there to be a problem of excessive bail-outs. The dominant narrative was one of moral hazard; that emerging market debtors were able to borrow excessively because their creditors were confident that there would be bail-outs in the event of a crisis. Moreover, part of the reason for the confidence in the possibility of bail-outs was that the debt contracts underlying the debt were such that forcing restructurings would have been extremely difficult (for models of these dynamics, see Dooley 2000; Eichengreen and Mody 2001). Inevitably, the bail-outs of the mid 1990s upset taxpayers who demanded a solution – one that would replace bail-outs with PSI. Policy-makers decided that one of the key barriers to PSI was the unanimity provision which was standard fare in sovereign bonds issued under New York law. After much debate, the solution that emerged was for the official sector to persuade emerging market sovereign debtors and their creditors to shift from using unanimity provisions to what are now known as collective action clauses, or CACs (Gelpern and Gulati 2007). These CACs are essentially clauses that allow for modification of a bond's payment terms with significantly less than unanimity among the bondholders (typically 75 percent).

The proposals for CACs to be adopted were not initially received with enthusiasm by emerging market issuers, and particularly not so by the large issuers like Brazil and Mexico. For a number of years after the CAC proposals first emerged (around 1995), the major emerging market issuers showed little willingness to experiment with using CACs. Policy-makers and academics, therefore, had to wrestle with the question of why nations were not shifting to these new clauses and what needed to be done to push them in that direction. One of the responses to this question to emerge was that nations simply did not have the individual incentives to move to CACs because they and their creditors preferred a regime in which bail-outs would be provided (Haseler 2009). In essence, this is a moral hazard story. In other words, countries seeking bail-outs have an incentive to utilize tougher-to-restructure contract provisions than they would otherwise. Given this assumption, there was discussion of the need to mandate a CAC-like solution, since nations did not look like they would choose the latter voluntarily.

The effort to urge the big emerging market issuers to move (many of whom issued bonds under New York law) finally got off the ground in early 2003 when Mexico and Brazil began using CACs. This only happened, however, in the shadow of the threat of mandate via the IMF's proposal for a sovereign debt bankruptcy mechanism. By 2004, close to 90 percent of all new sovereign bonds issued under New York law contained CACs (Bradley and Gulati 2013).

Fast forward approximately a decade, and we have the euro area sovereign debt crisis. The reaction of euro area policy-makers during the first few years of the crisis was much the same as it had been in the mid-1990s with respect to emerging market debtors such as Mexico and Argentina – bail-outs were given to Greece, Portugal, Ireland, and Cyprus. Outcries from taxpayers followed, rising to decibel level with every bail-out-type action, especially among citizens of nations who believed that their countries were funding the bail-outs. In reaction to this anger over perceived subsidies and "moral hazard" concerns, policy-makers chose the solution that had worked a decade earlier with respect to emerging market sovereign issuers, CACs (Gelpern and Gulati 2007, note 2).

Starting on January 1, 2013, all new sovereign bonds issued by members of the Eurozone were to have a standard set of CACs resembling those that had been prescribed in New York a decade prior (albeit, with some enhancements). Policy-makers were clear about the message of this euro CAC initiative: in the future, there would be no automatic bail-outs; PSI would be part of the package (Gelpern and Gulati 2013).

What interests us is the assumption, in both the New York initiative of the previous decade and in the current euro area initiative, that the weaker sovereign issuers need to be constrained in terms of the contract terms that they utilize. As noted, as an economic matter, mandatory contract terms rarely make sense in the absence of some externality story. In this case, the externality story – had it been explicitly articulated, as it often was in the emerging market context a decade prior – was that the weaker issuers in the euro area had an incentive to use tough-to-restructure provisions so as to increase the likelihood of bail-outs from the richer nations.

A decade ago, when there was a debate over the need to impose CACs on emerging market issuers issuing under New York law, there had been no straightforward way to test the foregoing story. The formation of the EMU provides us with a natural experiment that should enable testing of this contract version of the debtor moral hazard story (DMH). If the DMH story holds, we should find that member nations – and particularly the weaker ones – reacted to their admission to the union by using contract terms that made restructurings more difficult and bail-outs more likely.

Using a dataset of sovereign bonds issued in the decades both before and after the formation of the EMU, we test the assumption that the weaker entrants to the EMU entered into tougher-to-negotiate contracts so as to increase the likelihood of bail-outs. Our test reveals differences in the types of contract terms used by EMU members before and after their entry to the EMU. However, the differences are diametrically opposed to the predictions of the DMH story. EMU entry corresponds to an increased use of easy-to-restructure provisions, not a reduced use. Rejecting the version of the DMH theory that we test does not imply that the DMH story is altogether wrong; DMH may have been operating via some other channel. The rejection does, however, raise the question of why the mandatory CACs were thought necessary.

Predictions

Assuming that EMU members, and particularly the weaker among them, realized that tougher-to-restructure provisions would help induce bail-outs, we should see the following two patterns in the data:

- Prediction 1: EMU entry will result in a move to tougher-to-restructure contract provisions in the relevant member's bonds.

- Prediction 2: prediction 1 is more likely to hold for economically weaker EMU entrants (those likely to be receiving bail-outs) than for stronger entrants (those likely to be providing bail-outs).

Contract terms

Sovereign bond contracts tend to be heavily documented and contain a wide array of terms. Our interest is in a subset of contract terms: and specifically, those terms whose presence makes it more or less likely that the sovereign debtor in question will immediately face a crisis unless a bail-out is provided. A simple example is the contract term specifying the grace period. What the grace period does is to give the debtor a certain amount of time (that can range between zero and 90 days) to cure any inability that it may have had to make payments on the pre-specified dates of payment. Sovereigns with longer grace periods have more time to work out their debt problems on their own, and are less likely to need bail-outs to stave off a full-blown crisis that might impact their partner nations in the union. The DMH model would predict a reduction in grace periods as a function of EMU entry.

We report results on seven key contract terms that impact whether a sovereign in crisis is likely to have the space to work its way out of that crisis or not (less space = bail-out more likely). These are the contract terms that are particularly relevant in the first stage of a sovereign debt crisis. At this stage, creditors have not yet pulled the plug and the sovereign may be able to find interim financing from private sources to stave off the necessity of defaulting. However, whether or not the sovereign is able to find interim financing depends on what kinds of contract terms it has agreed to. We refer to the terms that either give or take away the sovereign's flexibility in the pre-default stage as *´flexibility terms´*.

There are, of course, other contract terms that are also relevant to tackling a sovereign crisis – terms impacting restructuring and litigation.[3] Due to space constraints, we do not report those results here; but the basic story remains the same.

Flexibility terms

i. Grace period*:* the grace period is the time that a debtor has to cure what are called "technical defaults." If the technical default – which can range from a failure to pay coupon amounts on time (serious) to a failure to fulfill a promise to list the bonds on a particular exchange (not as serious) – occurs, the debtor has the grace period to remedy the breach. We code two grace period variables; one for principal and the other for interest.

ii. Negative pledge: debtors in trouble find it difficult to get creditors to lend to them. One way for a troubled debtor to buy time is to grant security interests in its key

[3] Some of the basic results on these other contract terms (albeit from a significantly smaller dataset) are reported in Choi, Gulati and Posner (2012).

assets to creditors. A negative pledge clause is a promise by the sovereign *not* to borrow on a secured basis unless the security interest being granted to the new creditor has the same rank as the debt with the negative pledge. We code the negative pledge clause in terms of its presence.

iii. Pari passu: the *pari passu* clause is similar to the negative pledge clause. Although its meaning is disputed, some important courts have interpreted the clause as a bar on preferential payments by the debtor to one creditor over another in the event that the sovereign is in default. The presence of this clause, therefore, constrains a debtor in crisis who wishes to preferentially pay certain important creditors crucial to its functioning and delay payments to others who might be less crucial. We code the *pari passu* clause for whether the version used is one vulnerable to the above mentioned court interpretation or not.

iv. Cross default: the cross-default clause also constrains troubled debtors in terms of their options when faced with a crisis. As noted above, a debtor in financial difficulties seeking to keep afloat typically wants to be able to choose which creditors to default on and which ones to keep paying. The cross-default clause constrains this ability in that it links the various debts instruments of the debtor together by saying that a default on one instrument will constitute a default on the others. We code the contracts for the presence of a cross-default clause.

v. Acceleration: an acceleration provision speeds up a debt crisis and constrains the debtor's ability to work its way out of problems. The provision gives the creditor, under certain conditions (for example, where the debtor has not paid its required coupon payments), the right to declare that all of the future payments it is due be accelerated to the current date. As a result, the debtor's ability to get out of the crisis diminishes. Acceleration provisions typically range between an individual right of acceleration to a collective right of 25 percent. Creditors have the most power and debtors the least, where each creditor has the individual right to accelerate the debt. We code the provision in terms of whether it gives creditors the individual right.

vi. Reverse acceleration: if a reverse acceleration provision is present, it specifies that the initial acceleration can be reversed if a majority of creditors agrees. We code reverse acceleration in terms of its presence.

vii. Tax gross up: sovereigns have the power to tax. For a sovereign in a debt crisis, taxing payments owed to bondholders would be an easy way to reduce its obligations. A tax gross-up clause promises that the debtor will reimburse the amount of the tax. We code for the presence of a tax gross-up clause.

Data

Our dataset covers contract terms in sovereign bonds over the period January 1, 1990 to January 1, 2011. For the period 1990–2011, we have over 1,300 bonds issued by over 75 sovereign issuers. Of these, there are roughly 600 bonds for the euro area sovereigns.

These bonds were obtained from three sources: Thomson One Banker, Perfect Information and Dealogic. The companies producing the data earn fees as a function of the contracts that their customers download. That means that our dataset is weakest for those nations for whom investors are so confident that they are not interested in the details of the contracts. We consequently have little data on countries like Germany, for example. The dataset also under-samples locally issued bonds.

Below we report a set of before-and-after comparisons of the incidence of key contract terms (Table 1 and 2). First, we examine all of the original entrants to the EMU, plus Greece (that joined shortly thereafter). Second, to focus in on the effects on the weaker EMU members, we eliminate the AAA rated nations from the analysis. To enable us to control for global trends in contract drafting practices in all three tables, we report a comparison table for the rest of the world in each case (excluding the AAA issuers). However, we are unable to report data for the very strongest issuers – Germany, Netherlands and France – because their contracts do not feature in our databases.[4]

We use 1999 as the breakpoint in our analysis, despite the fact that the EMU was officially formed in 2000, because it was fairly certain that the EMU would be formed as of 1999.

[4] We also exclude more recent entrants – Estonia, Slovakia, Slovenia and Cyprus. They entered the EMU too recently for there to be sufficient data available for analysis.

Results and analysis

Flexibility terms

We examine seven different contract terms that can impact the amount of flexibility that a sovereign has to manoeuver its way out of a crisis (one of the contract terms, the grace period, has two aspects – so we have eight variables). Sovereigns who, by contract, have restricted their own ability to do things like grant preferred status to new lenders or to tax bond payments that they owe, have necessarily restricted their flexibility to deal with a financial crisis. The prediction, in line with the DMH story, would be for the weaker and systemically important nations to respond to their entry to the EMU by utilizing tighter (less flexible) terms.

Tables 1 and 2 report the results for the eight flexibility terms. Table 1 begins with the eight original EMU entrants plus Greece.

Column two in each table reports the direction of the shift one would expect to see under the DMH model. Let us take the grace period that sovereigns enjoy for making delayed payments of principal (Table 1). Under the DMH model, one would expect nations and their creditors to seek reduced grace periods. Hence, the prediction in column (1) is "Decrease." Moving on to columns (2) and (3), we can see whether EMU entry correlated with downward shifts in the grace period. What we see is an upwards shift in the grace period, instead of the predicted decrease. Columns (4) and (5) report the shift that occurred over the same period for the rest of the sovereign debt market on which we have data (excluding the EMU members).

Going down the rows of Table 1, we see the same pattern for the next three variables. Those variables are the grace period for interest payments, the acceleration rights of creditors (whether individual or collective), and the reverse acceleration rights of creditors (whether individual or collective). We see significant shifts in the opposite direction to that predicted by the DMH model. Columns (4) and (5) also reveal that these shifts mirror the general shifts in the market. Overall, as far as the first four provisions are concerned, the DMH model fares abysmally.

Nevertheless, we cannot reject the presence of a DMH effect altogether, because there appears to have been, at the same time, a general market shift. We know from other research that the global market was hit by significant shocks over the same period of time (the Asian crisis of 1997–98 and the Argentine crisis of 2000–01), which did produce general shifts towards more flexible contract terms for sovereign debt instruments (see, for example, Choi, Gulati and Posner 2012). From the results on the first four variables, all we can conclude is that the DMH effect, if present, was not strong enough to counter the general trends in the market.

The next four variables are the negative pledge, *pari passu*, cross default, and tax gross-up clauses. At a first glance, a similar picture emerges as that seen for the first four provisions. For two of the variables (negative pledge and cross-default) the shifts are significant and

Table 1

Flexibility provisions: original members plus Greece

	DMH predictions	Eight original plus Greece		General market practice (excluding the super-safe issuers)	
		1988-1998	1999-2011	1988-1998	1999-2011
		(n=307)	(n=329)	(n=185)	(n=565)
	(1)	(2)	(3)	(4)	(5)
Grace period for principal	Decrease	15	19***	17	21** ‡‡
Grace period for interest	Decrease	18	22***	19	22**
Acceleration (individual right or not)	Increase	94%	69%***	51%	33%*** ‡‡
Reverse acceleration clause	Decrease	0%	16%***	19%	46%*** ‡‡
Negative pledge clause	Increase	84%	66%***	95%	95% ‡‡
Strong *pari passu* clause	Increase	2%	11%***	46%	61%*** ‡‡
Cross default clause	Increase	60%	45%***	78%	88%** ‡‡
Tax gross-up clause	Increase	65%	64%	100%	99% ‡‡

***p<0.001; **p<0.01; *p<0.05; two-tailed tests for bonds issued during 1988–1998 and 1999-2011.
‡‡p<0.001; ‡p<0.01; †p<0.05; two-tailed tests for nine Eurozone member countries and the "general market".

Source: The author.

Table 2

Flexibility provisions: excluding the AAA countries

	DMH predictions	Eight original plus Greece minus the AAA		General market practice (excluding the super-safe issuers)	
		1988-1998	1999-2011	1988-1998	1999-2011
		(n=209)	(n=248)	(n=185)	(n=565)
	(1)	(2)	(3)	(4)	(5)
Grace period for principal	Decrease	13	19***	17	21** ##
Grace period for interest	Decrease	17	22***	19	22**
Acceleration (individual right or not)	Increase	96%	68%***	51%	33%*** ##
Reverse acceleration clause	Decrease	0%	16%***	19%	46%*** ##
Negative pledge clause	Increase	94%	67%***	95%	95% ##
Strong *pari passu* clause	Increase	2%	15%***	46%	61%*** ##
Cross default clause	Increase	93%	61%***	78%	88%** ##
Tax gross-up clause	Increase	98%	85%***	100%	99% ##

***p<0.001; **p<0.01; *p<0.05; two-tailed tests for bonds issued during 1988–1998 and 1999-2011.
##p<0.001; #p<0.01; ǂp<0.05; two-tailed tests for nine Eurozone member countries and the "general market".

Source: The author.

in the opposite direction to that predicted. For the third variable (tax gross-up) there is no change, whereas the DMH predicts a downward shift. For only one variable of all eight of the variables examined so far (whether there is a strong *pari passu* clause), does the shift occur in the predicted direction of flexibility reduction. Again, there is little support for the DMH story.

When we look at the last two columns in Table 1 for these last four variables, however, the story grows more interesting. Here, for three of the four variables (negative pledge, cross-default and tax gross-up) there is *no* change in the general market patterns.[5] However, when we look back at the EMU entrants, we see significant changes, *towards greater flexibility,* for two of the four variables, namely negative pledge and cross-default. The important point here is that the shift cannot be explained by a general market trend towards more flexible contract terms.

The predictions of the DMH story, however, should work differently for countries of different size and strength. Therefore let us firstly consider the case of the strongest credits – the AAA credits. These nations are those who, if there is a crisis, are likely to be in the position of having to provide a bail-out, rather than receiving it. In other words, their contract terms are unlikely to be affected by EMU entry. So, in Table 2, we report results after excluding the AAA-rated nations from among the first nine. Luxembourg, Austria and Finland are the three nations that are excluded in this case.

[5] For the fourth variable, *pari passu*, we see that the EMU trend follows in the same direction as the market trend.

The rejection of the DMH model gets stronger once we take out the AAA-rated nations. For seven of the eight variables in Table 2, there is a shift in the opposite direction, as predicted. If we then eliminate the variables for which the direction of the shift is the same as that for the general market, we are left with three contract provisions: the negative pledge, the tax gross-up and the cross-default clauses. With all three, the size of the shift is now bigger than in Table 1 (and toward flexibility; instead of towards constraint as the DMH would predict). In sum, the rejection of the DMH story is stronger when we move towards the nations that are supposed to be at the heart of it.

Implications

One understanding of the euro CAC initiative is that it was aimed at solving the DMH problem. That is, its goal was to push the system towards making sovereign restructurings easier and, therefore, reducing the need for public sector bail-outs. The data, however, reveal scant support for the DMH story, at least not the version of it that might justify the euro CAC initiative. The reality is that many of the most vulnerable euro area sovereigns shifted a long time ago to bond contracts that were remarkably easy to restructure. The ease with which the Greek 2012 restructuring occurred illustrates this point. By mandating CACs in all euro area sovereign bonds, these sovereigns are going to find it harder to conduct PSI operations in the future, not easier. Moreover, to extend that logic, CACs may have made bail-outs more likely, not less.

Assuming that our findings can be generalized, however, one implication is that the effort that has been exerted over the past few years in designing and executing the euro CAC initiative has been wasted in that it largely focused on solving a problem that did not exist.

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