



Collective action clauses: How do they affect sovereign bond yields? [☆]



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ABSTRACT

We study the effects of the adoption of collective action clauses (CACs) on government bond yields by exploiting secondary market data on sovereign bonds quoted in international markets from March 2007 to April 2011. CACs are assessed security by security. Using a panel data approach, we find a U-shaped effect of CACs on yields according to the credit rating of the issuer. While the impact is negligible for the highest ratings, a significant yield discount emerges for mid-range ratings, which is smaller for bad ratings and possibly insignificant for the worst ratings. This relationship appears fairly robust across a number of checks. This evidence may reflect the fact that CACs are valuable because they help with orderly restructuring unless the perceived probability of default is too small. Nevertheless, at low ratings, this effect can be weakened by an increasing risk of moral hazard.

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1. Introduction

Collective action clauses (CACs) are contractual provisions that, inter alia, allow a qualified majority of bondholders to change the terms of a bond in a way that is legally binding for all bondholders.² CACs are by no means a new instrument for the regulation of debtor–creditor relationships (Weidemaier and Gulati, 2012): some similar contractual provisions were already present in English corporate bonds as early as in the 19th century, and were later also applied to sovereign bonds issued under the jurisdictions of the UK, Luxembourg and Japan. By contrast, CACs have long remained uncommon in the US. The resurgence of interest in CACs began in the 1990s, when they were suggested as a device to curb the need for unpopular public bailouts (Group of Ten, 1996), as another option to the statutory approach, which would implement

a treaty-based mechanism for coping with unsustainable debts (Krueger, 2001). However, CACs only became common in the US after an important issuance by Mexico in 2003, possibly because they were preferred to the statutory approach as more market-friendly and easier to implement (Roubini and Setser, 2004; Eichengreen, 2003).

Whether and how CACs impact sovereign bond yields is essentially an empirical issue, as contrasting effects can be surmised from a theoretical point of view. On the one hand, CACs help creditors' coordination, limit disordered default, curb holdout risks, hinder prisoner dilemma outcomes and reduce delays detrimental both to the debtor and to the majority of creditors. Thus, as CACs should be valuable ex-post if a default occurs, the market may acknowledge their value through a yield discount.³ On the other hand, CACs represent a limitation on individual bondholder's rights with respect to unanimous clauses, and they can reduce the incentive for the issuer to fully repay the debt by enabling opportunistic declaration of default. According to this argument, by making a default easier, CACs might also make it more likely. This ex-ante moral hazard channel should tend to increase the yields demanded by the market.⁴ Ghosal and Thampanishvong (2013) formalise the

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² Examples of collective action clauses include those stating the majority that has to agree to change the payment terms; those requiring a minimum threshold to initiate litigation or accelerate the bond; those allowing a qualified share of bondholders to prevent acceleration ("deceleration clauses"); and those stating whether and how bondholders strictly related to the issuer should be excluded from the computation of the quorum ("disenfranchisement clauses"), among others.

³ Kletzer (2003) shows that CACs improve efficiency in lending and repayment, thus improving welfare relative to unanimous consent clauses. The benefits of majority restructuring through collective action clauses have also been modelled by Eichengreen et al. (2003), Weinschelbaum and Wynne (2005), and Fernández and Fernández (2007).

⁴ The moral hazard channel has been theoretically formalized by Weinschelbaum and Wynne (2005), among others, while the issue has been empirically investigated by Esho et al. (2004). Dooley (2000) and Cline (2001) also argue that CACs may encourage opportunistic behaviour.

trade-off that may arise between ex-ante incentives for the debtor and the ex-post benefits of creditor coordination: while the former tend to increase yield, the latter tend to reduce yield when compared to unanimity clauses.

Since the end of the 1990s, a relatively large number of papers have empirically addressed the relationship between the adoption of CACs for sovereign bond issues and their yields. As yet, no consensus has emerged on the sign of this linkage or even about the conditions under which such a relationship could exist. Indeed, disagreement among authors arises even as to the methodology that should be followed when conducting the empirical analysis and regarding the nature and structure of the dataset. This is a rather problematic situation, as one of the largest experiments in the field – the inclusion of standardised mandatory CACs in all new euro area sovereign bonds beginning in January 2013⁵ – is being implemented.

In this context, the goal of this paper is to take advantage of various lessons learned, related to both methodology and datasets, and to offer a broader approach to testing the relationship between the adoption of CACs and bond yields. We exploit a dataset spanning from March 2007 to April 2011 with yields on 292 securities listed on major international markets. Thanks to a new feature added by Bloomberg, we are able to determine for each bond whether or not a CAC is in place, overcoming one of the main pitfalls of many earlier studies, which relied on the bond's governing law of New York or London as a proxy to gauge CACs adoption. The sample is large enough to allow us to focus on sovereign bonds, enhancing comparability. We choose not to enlarge the dataset with corporates, which could give rise to spurious correlations. Our study encompasses a relatively large number of countries at various stages of development, thus focusing not only on emerging market issuers as done in most previous studies.

Some previous studies (e.g., Becker et al., 2003) have stressed the need to use secondary rather than primary market data, as a way to mitigate instances of endogeneity, structural breaks and omitted variable bias. We follow suit compiling our dataset with secondary market yields taken monthly, for a total of 50 time periods. The exceptional market patterns that occurred throughout the sample should make it easier to identify any effect of CACs on yields. The bulk of our empirical analysis consists of the estimation of a panel model. This is a relatively novel approach in this area of the literature, as most previous papers focused on a snapshot at a certain time. The extension of the period under scrutiny offers two clear advantages: (i) it renders the analysis less dependent on the idiosyncrasies in the data at any specific point in time and (ii) it allows us to check whether and how the link under examination has evolved with market developments (e.g., the impact of downgrading the country issuing the bond).

The results of this study show that credit ratings do matter for the impact of CACs on yields. The inclusion of CACs lowers most yields for bonds whose issuers fall in the middle of the rating scale. For very good ratings, no statistically significant difference in yields is observed to result from the use of CACs, while for bad ratings the yield discount is smaller than that for mid-range ratings, to the point of becoming insignificant for the lowest ratings. This relationship appears to hold across several robustness checks.

These results suggest several points. First, the ex-post beneficial effect of CACs for orderly restructuring is, indeed, valued by the market, but it requires the probability of default to be non-negligible. The lack

of this characteristic helps to explain why CACs do not seem to have any effect for the best-rated countries.

Second, the effectiveness of the ex-ante moral hazard channel is likely to be affected by the issuer's rating. One of the greatest costs of default for debtors willing to maintain access to markets is in terms of reputation and the risk of being denied access (see, among others, Eaton and Gersovitz, 1981; Sturzenegger and Zettelmeyer, 2006). These constraints are much weaker for poorly-rated debtors, who have a low reputation anyway and are typically less reliant on international bond markets for funding. In this respect, Reinhart and Rogoff (2009) remark that poorly-rated countries usually have less access to international bond markets, because their funding sources mainly consist of subsidies and loans from the official sector, and they also have a higher propensity to debt repudiation. Consistent with these characteristics, the market might exhibit greater moral hazard fears about CACs for poorly-rated countries.

Third, issuers in the middle of the rating scale are afforded the largest discount by the market because the probability of default is concrete, but the incentive for the debtor country to meet its obligations and maintain access to international markets is sufficiently high. Fourth, there is no evidence, irrespective of ratings, that the use of CACs increases borrowing costs: even for the worst rated issuers, we find that yield-increasing components never significantly overwhelm the yield-decreasing components.

The rest of the paper is organised as follows. In Section 2 we review the empirical literature on the effect of collective action clauses on bond yields; in Section 3 we present the dataset and highlight some descriptive statistics. Section 4 reports the econometric analysis of the panel data and comments on the main findings, while Section 5 addresses several issues related to sensitivity analysis. Finally, Section 6 summarises the conclusions of this work.

2. Literature review

Previous studies of the effect of collective action clauses on bond yields employed a variety of approaches, with respect to either the methodology or the dataset used. Subsequent research was often motivated by criticisms of the pitfalls of previous works, either from a methodological point of view, in the area of sample-construction, or both.

The first systematic study on the yield effect of CACs is attributed to Tsatsaronis (1999), who considered primary market data on a variety of international sovereign bonds issued after 1990. As information on CACs was not available at the bond level, the governing law of issuance was used as a proxy, i.e., all bonds issued under UK governing law were assumed to be endowed with collective action clauses, while those issued under US governing law were not, in accordance with the common practices in those countries. The author finds some evidence that CACs measured in that way imply greater yields, but the observed difference is not statistically significant. Eichengreen and Mody (2000) assess the impact of CACs on borrowing costs, recognising potential problems of selection in the choice of governing law (used, as was normal in the first strand of the literature, as a proxy for the very presence of CACs). To cope with this issue, the authors apply an instrumental variable approach where a multinomial logit is estimated in the first stage. Using the same proxy-dummy for CACs and primary market data for a wide set of bonds including corporate bonds, they find that CACs reduce the interest burden for more credit-worthy issuers, arguing that well-rated borrowers may benefit from issuing bonds subject to renegotiation-friendly governing law. In a later article Eichengreen and Mody (2004) focus on different sub-samples according to the rating group of the issuer: they find that CACs reduce yields for well-rated issuers but raise them for poorly-rated issuers, suggesting that for the latter the moral hazard risk implied by CACs outweighs than any benefit.

Becker et al. (2003) point out a number of pitfalls stemming from the use of primary market data, arguing that secondary market data should be preferred. They observe that the handling of endogeneity in

⁵ The main features of the CACs associated with euro-area government bonds are consistent with the common features used under New York and English law. The introduction of standardised CACs aims to create a uniform legal impact in all euro-area countries, despite differences between legal systems and traditions, in order to preserve a level playing field. The detailed legal arrangements for the inclusion of CACs in euro-area government securities have been developed by the EU's Economic and Financial Committee via the Sub-Committee on EU Sovereign Debt Markets. The work of the Sub-Committee was finalised in March 2012, following consultations with market participants and other stakeholders. Aggregation clauses are included, allowing several securities issued by the same euro-area country to be considered together in negotiations.

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