

Project Finance CDOs After the Credit Crisis

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Lack of money is the root of all evil - George Bernard Shaw

While it is unlikely that Mr. Shaw had infrastructure finance in mind as he uttered this quote, much ink has been recently spilled and anguish expressed regarding the current constriction in capital markets for infrastructure finance.

It may well be distressing for the affected market participants, but an objective observer might wonder why so much concern exists for such a seemingly "fragile" financing paradigm. After all, it appears that available and successful infrastructure finance requires an extraordinarily narrow set of precedent conditions.

Perhaps it is time to reconsider the traditional long-term contract-supported bank/construction and capital markets/term financing paradigm that predominates our infrastructure finance model and, in particular, closely examine additional intermediation possibilities to "expand" the necessary conditions precedent for infrastructure finance.

In this regard, one relatively modest segment of the much-maligned world of collateralised debt obligations (CDOs) has continued to demonstrate its viability and utility despite the recent credit crisis - namely, project finance CDOs. This article will briefly review project finance CDOs and discuss why they are an attractive potential solution to the difficulties of obtaining finance for infrastructure projects.

As Infrastructure Journal readers know, a CDO is a securitisation structure that repackages the credit risk associated with an underlying portfolio of bonds or loans. CDOs backed by bonds are sometimes called collateralised bond obligations (CBOs), and CDOs with loans as the primary type of underlying collateral are known as collateralized loan obligations (CLOs).

Of course, CDOs or Residential Mortgage Backed Securities (RMBS), especially subprime RMBS have been widely criticised regarding their role and function that is seen by many as the centre-ground of the recent credit crisis. As a result, and despite the fact that the market has not seen a RMBS CDO since the beginning of the credit crisis, there are several efforts to subject CDOs to substantially expanded regulation raising the real risk that this financing tool may not be available in the future. Before the project finance CDO "baby" is thrown out with

the RMBS CDO "bathwater", it is crucial to understand the potential uses and benefit of project finance CDOs.

Project finance CDOs are simply CDOs backed by project loans, bonds, or lease collateral and are particularly appealing as vehicles via which project lenders can synthetically refinance their project finance portfolios. Because project finance CDOs provide investors with access to a diversified portfolio of project finance debt obligations, project lenders can find it easier to refinance by selling to such a CDO than if each specific credit exposure had to be individually sold or refinanced.

As such, the sale of a project finance portfolio enhances the seller's opportunity to undertake additional project finance business with favoured existing clients or new borrowers. Additionally, project finance CDOs enable financial institutions to manage their exposures (to particular countries, industries, and creditors), potentially enabling them to achieve better economic results than they could if they sold the loans in secondary transactions.

From an investor's perspective, investment in CDO securities of project finance CDOs provides diversification and other portfolio management benefits, including a low correlation to typical corporate bond portfolios held by most institutional investors. The tranche structure of CDOs, moreover, enables investors to determine their preferred risk/return investment because an investment in the junior tranches of a CDO represents a more leveraged exposure to the underlying CDO portfolio and correspondingly greater risk for the stated return.

For managed CDOs, the manager can be selected on the basis of demonstrated expertise and via typical fee arrangements for managed CDOs, will be highly incentivised to effectively manage the project finance CDO.

Project finance loans, leases, and other debt obligations are viewed as attractive assets for CDOs because they have higher assumed recovery rates and shorter recovery periods than comparably rated corporate debt obligations. This allows project finance CDO securities to be issued at a correspondingly lower cost as less credit enhancement is required to obtain the same credit ratings. This effectively "expands" the arbitrage opportunity for such CDOs.

The higher assumed recovery rates and shorter recovery periods of project finance debt are primarily attributable to the tighter covenants and events of default under typical project finance documentation. These assumptions are intuitively reasonable and, most importantly, the rating agencies concur with them, even though there appears to be no great weight of authoritative research to support these assumptions.

As one might expect, applying the rating-agency requirements for diversification to a project finance portfolio can present certain challenges, including whether diversification is effectively provided across industries and/or countries, for which there usually is little (if any) empirical evidence and which, accordingly, requires educated judgments. For example, are loans to

power projects in Brazil and Argentina effectively diversified, given the substantial interaction between the energy sectors in these two countries?

For these reasons, it is unusual to find project CDOs where the loan collateral consists solely of project loans in a specific industry. Indeed, rating agency criteria tends to penalise CDOs that are excessively concentrated in one industry. Fortunately, infrastructure includes several industries and the benefits of applying CDO technology to infrastructure loans as a part of broader project finance securitisations are sufficiently pronounced that the general project CDO framework merits discussion.

A. Project Finance CLOs

CLOs collateralised by project finance loans can be either cash or synthetic CLOs. In a typical cash CLO, the SPE purchases whole loans or loan participations, with the cash to finance the purchase of those loans raised by issuing liabilities collateralised by the loan assets. In a synthetic CLO, by contrast, the SPE acquires exposure to the underlying loan portfolio synthetically through the sale of credit protection on that reference portfolio.

The earliest project finance CLOs were cash securitisation structures in which the SPE purchased the loans (or loans participations) as collateral for the CLO note issues. Project Funding Corp. I (PFC I), for example, was one of the earliest such cash project finance CDOs that closed on March 5, 1998. Sponsored by Credit Suisse First Boston, PFC I issued about US\$617 million in debt and equity securities collateralised by a portfolio of about 40 loans made primarily to US projects.

Other cash project CDOs have included Project Funding Corp. II (2000) - also based on project loans made by Credit Suisse - and Project Securitisation Company I (2001), based on an international portfolio of project loans made by Citibank. More recently, Lusitano Project Finance I Ltd. (closed in December 2007) was based on 20 pan-European infrastructure asset exposures of Banco Espirito Santo. Lusitano I was a mixed-asset CLO in which the majority of loans were converted into listed securities (probably for related exemptions from withholding tax) prior to their acquisition by the SPE issuer. The SPE purchased the remainder of the loans directly.

Most of the project finance CLOs in the last five years have been synthetic CLOs in which exposure to the underlying loans is acquired through the SPE's sale of credit protection on those reference loans using credit default swaps. The first such transaction was Essential Public Infrastructure Capital Plc (EPIC) deal that closed in late 2004.

The reference collateral portfolio in EPIC was a portfolio of 25 public infrastructure loans originated by Depfa Bank PLC worth £391.7 million. All loans were part of either the UK's Private Finance Initiative (PFI) or Public Private Partnership (PPP) programme. Any individual PFI or PPP project is a public infrastructure or works project housed in a separate SPE and

financed by private sector funds under a special government-granted concession arrangement with the SPE.

EPIC involved the issuance of £32.05 million in six classes of floating-rate notes by the SPE Essential Public Infrastructure Capital PLC. To collateralise those securities, the SPE purchased £32.05 million in Schuldscheine - essentially a type of credit-linked note (CLN) - from KfW Förderbank (KfW), the infrastructure lending unit of Kreditanstalt für Wiederaufbau (KfW). The reference portfolio to which the CLNs were indexed was the £391.7mn Depfa project loan portfolio.

KfW invested the CLN issue proceeds in marketable securities and then sold credit protection to Depfa on the first £32.05 million of losses in its reference loan portfolio. With no events of default, the Schuldscheine paid interest to the SPE equal to the interest earned on the low-risk collateral plus the CDS premium collected by KfW.

In the event of a default, principal and ninterest on the Schuldscheine could be withheld to fund CDS payments up to the face value of the FRNs issued by the SPE and Schuldscheine issued by KfW. The Schuldscheine were issued in six classes that were exactly matched in size and subordination to the six classes of FRNs issued by the SPE. In addition, KfW also sold protection to Depfa on the £355.7mn XS £32.05mn super-senior piece of its reference loan portfolio, hedging that super-senior swap by entering into a mirroring CDS as the credit protection purchaser with Ambac Assurance.

When the EPIC transaction closed, Depfa had over €3 billion committed to European PPP loans. In addition, Depfa's infrastructure loan book included significant extensions of credit to Japan and North America. As such, the EPIC transaction provided Depfa with capacity relief that enabled the bank to make additional project loans without jeopardizing its AA- rating or putting undue stress on its liquidity position. In addition, EPIC enabled Depfa to reduce its risk-weighted assets by about €500 million. That reduced the bank's regulatory capital requirement and increased its return on equity on its infrastructure finance portfolio^[1].

In Standard & Poor's view, EPIC "established a template for future deals..."^[2] And, indeed, subsequent synthetic deals closely followed the EPIC template, including Stichting Profile (2005), EPIC II (2006), and Boadilla Project Finance (2008). In the first Boadilla Project Finance transaction, Banco Santander transferred a portfolio of 51 pan-European credit exposures to utilities, infrastructure, and PPP/PFI loans.

Boadilla 2008, in turn, issued seven tranches of notes in an aggregate principal amount of approximately €74 million ranging from AAA-rated to unrated. Notably, Banco Santander retained the super-senior risk on the reference portfolio. A second Boadilla transaction (Boadilla Project Finance CLO 2009-1) occurred in December 2009 - well into the worst of the recent credit crisis - and in this transaction Banco Santander bought credit protection on a portfolio of infrastructure, PPP/PFI and renewable energy-related project exposures in an initial amount of over €304 million and up to €750 million. Boadilla 2009 issued two tranches

in an aggregate principal amount of about €100 million. Boadilla 2009 was structured to permit additional exposures to be added to the related reference portfolio.

B. Project Finance CBOs

The closing of the WISE 2006-1 transaction in 2006 marked the first project finance CDO based on project finance bonds rather than loans, making it the first project finance CBO. Specifically, WISE 2006-1 was based on exposure to 31 bonds, all of which were wrapped by monoline insurance companies rated AAA at the time. In the WISE 2006-1 structure, the WISE 2006-1 PLC SPE issued £63.75 million in three classes of floating-rate notes.

The proceeds of the note issuance were invested in high-quality collateral to support the sale of protection to Dexia Crédit Local on a reference portfolio consisting of the 31 infrastructure bonds. The WISE 2006-1 transaction was referred to as a "double default" structure because investors were exposed to losses only if both the underlying project bond issuers defaulted and the monoline insurer(s) wrapping the bonds also defaulted.

In September 2008, the third EPIC transaction closed, with £58 million in notes collateralised by the sale of protection on 19 bonds issued by U.K. utilities or public infrastructure entities. Like WISE 2006-1, the notes were wrapped by then-AAA-rated monoline insurers.

C. CDOs and the Credit Crisis

Most of the significant 2007 and 2008 losses occurred on structured credit products with exposures to subprime mortgages or mortgage-backed securities. Nevertheless, the entire CDO market has suffered from "guilt by association." New issuance of both CDOs and CLOs plummeted in 2008, as investors fled the CDO market and widening credit spreads made the opportunity for yield arbitrage impossible as a practical matter.

However, with the limited exception of subprime RMBS CDOs (where there was a clear risk management failure), the CDO structuring process is time-tested and conceptually sound. The notion that the risk of an asset portfolio can be allocated across different securities based on their depth of subordination is, after all, a basic tenet of corporate finance. Every time a corporation decides to issue subordinated debt (in lieu of senior debt), that security issuer makes a risk allocation decision that is fundamentally the same as the design principle underlying CDOs.

Nevertheless, the price of any security depends on both supply and demand considerations. At the date of this writing, the "uncertainty premium" that generally overhangs the CDO markets is still significant. New issues are slowly coming to market, but new CDO and other structured credit issuance remains well below levels observed in the years preceding the credit crisis. As long as the general repricing of risk and aversion to structured products vexes the market, the issuance of new CDOs and CLOs will likely remain significantly depressed.

Conclusion

The recent credit crisis and the resulting dislocation in CDO and other structured finance markets has (hopefully) only temporarily curtailed appropriate and value-added infrastructure finance activity. In particular, as I have attempted to describe, project finance CDOs remain a very promising and beneficial financial tool that might serve an important function of increasing investment capital available for infrastructure finance.

In wake of the recent credit crisis, banks now have less capital and a more conservative risk appetite and, accordingly, are likely to be more reluctant to underwrite expensive projects without some confidence that the risks of those projects can be effectively managed.

Project finance CDOs are an efficient means of facilitating risk transfer for banks. By bundling multiple project risks in a single portfolio whose risks are borne primarily by non-bank investors, project finance CDOs can facilitate extensions of project credit that might otherwise be impossible in the current market environment, release "precious" bank regulatory capital for redeployment and permit banks to "fine-tune" their project finance exposures. In turn, investors benefit from a tranching structure with attendant risk/reward choices and, in some cases, from capable and properly incentivized CDO management.

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NOTES:

[1] Standard & Poor's, "Case Study: Depfa's Securitization of its PFI Loans," RatingsDirect (April 28, 2005).

[2] Standard & Poor's (April 28, 2005), op. cit, at 6.

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