

Securitization and Structured Finance: Legitimate Business Management Tools

By

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Introduction

The events and controversy surrounding the bankruptcy of Enron have led many to believe that securitization and structured finance serve no other purpose than deceit and deception. In reality, these are modern business tools that, when properly deployed, allow corporate treasurers to transfer risk, access alternative funding sources and capital markets, and maximally leverage a corporation's own expertise despite an inevitably limited capital base.

This article explains the basic components of structured finance transactions and the *sound* reasons for their undertaking from both an investor and originator perspective, and will also provide the reader with examples of different common structures. Section II of this document describes the basic mechanics and players inherent in nearly all securitizations and structured transactions; the remaining sections of this document will discuss examples of different types of structures. Section III discusses asset backed commercial paper (ABCPs) vehicles and the important reasons for their evolution. Section IV will dissect a project finance securitization, generally undertaken to specifically fund the project(s) in question. Section V will discuss catastrophe linked bonds , or "cats", as an example of a means of shifting a risk concentration away from the originator and towards investors in need of portfolio diversification.

Fundamental Components of Securitization and Structured Transactions

Certain structural features are common across all structured transactions. In each case, a separate entity is created in which a population of assets or cash flows can be isolated. Commonly called a special purpose vehicle or entity ("SPV or SPE"), the SPV then issues debt and/or equity instruments to investors

representing claims on the cash flows or assets isolated in the SPV. The SPV is often a trust or corporation whose establishment is in the best interests of both originator and investor.

A structure can be a “cash flow” or “synthetic” securitization vehicle. In a cash flow-based securitization, the ownership of the assets whose cash flows are to be securitized are actually transferred to the SPV. In a “synthetic” securitization, by contrast, the cash flows and/or economic exposure is transferred to the SPV through the use of a total return swap or some other derivatives transaction. The two are equivalent from a risk and return standpoint, but synthetic SPVs do not assume actual ownership of any assets.

From the perspective of the originator of a cash flow securitization, isolating the assets or cash flows in question in an SPV is often a necessary step to achieve sales accounting treatment under GAAP and thereby remove the assets in question from its balance sheet. From the investor perspective, isolating the assets/cash flows serves to insulate the transaction from the potential bankruptcy of the originator as well as its overall credit risk profile. In doing so, it allows the investor to take on the isolated risk in the transaction in question rather than the wider populations of risk that are probably inherent in direct equity or debt investments of the originator. In addition, if the obligations of the cash flow-backed SPV are to be more highly rated than the direct obligations of the originator, complete isolation from the risk profile of the originator will be requisite.

Two additional players are almost always present in each structured transactions, one to insure strict adherence to the prescribed terms of the deal, the other to manage funds movement and cash flows. These are the trustee and servicer, respectively. The trustee is an independent third party paid a fee and retained from the onset of the transaction to essentially act as an advocate for the SPVs security holders. The trustee monitors systematic reports by the servicer tracking asset or pool performance, takes in cash flows collected by the servicer,

and acts to monitor the entire transaction on behalf of the security holder and in relation to underlying legal indentures. Many structured finance transactions contain prescribed “trigger events”- specifically identified events or performance measurements that, when realized, may cause early liquidation or other actions to preserve the interests of the security holder. It is the obligation of the trustee to track deal performance, based on data provided monthly from the servicer, and take such actions as legal covenants in the structure require to preserve the interests of the SPV’s security holders. Similarly, the trustee will take in cash flows collected and forwarded by the servicer and pass them through to security holders, also as prescribed by terms of the underlying structure and supporting legal documents.

The servicer in structured transactions is often the originator of the assets in question. By way of example, assume a bank bundles a population of residential mortgages it has originated, conveys them to an SPV, and the SPV then issues securities representing the beneficial interests in the cash flows emanating from those mortgages. Most commonly the originator is also the servicer- in this case a bank. It allows the originator to enjoy fee income over the life of the transaction, and in this case also keeps the bank customer from realizing some party other than the bank has met its credit needs. That is, the mortgage obligor continues making payments to the bank monthly as required; the bank, however, passes them through to the trustee who, in turn, passes them along to the investor holding a security interest in the cash flow stemming from that pool of mortgages. Notably, should the servicer fail to perform as required in the legal documents, the trustee will be required to substitute another servicer so as to preserve the security holder’s interests in the deal.

Finally, credit enhancements are often indigenous to structured transactions and securitizations (and in many cases, liquidity enhancement as well). Enhancements can be either externally provided by a third party- such as a monoline insurer providing a credit default guarantee- or may be “internal” to

the deal. In the latter case, some mechanism(s) is established in the deal design/engineering process to protect security holders from defaults in excess of anticipated levels.

The most common internal forms of credit enhancement include: a cash reserve fund against which losses are charged; overcollateralization- conveying more assets to the SPV than necessary to support the dollar value of debt or equity obligations in the SPV issued; and spread accounts. In a spread account, the difference between yield generated by the underlying assets in comparison to yield on the SPV's securities is captured and retained as a cushion to absorb losses from defaults in the underlying asset pool. Finally, senior/subordination in debt issued by the SPV is another common form of internal credit enhancement. In such a case, more than one class of securities is issued by the SPV, with some debt holders having higher priority in cash flow claims relative to others. Obviously, the more senior the debt, the less likelihood of experiencing any loss. Conversely, more junior claims on cash flows enjoy higher returns in exchange for a higher probability of delayed payments or default. Subordinated debt holders are acting in such a case as an enhancement to senior debt holders, absorbing more risk in order to provide greater certainty to senior security holders of asset performance as projected.

Asset Backed Commercial Paper Vehicles ("ABCPs")

Whether a securitization structure is cash flow-backed or synthetic, the program can be used as a funding mechanism, a risk management tool, or both. As an example of the former, ABCPs originated in the early 1980s and were designed by US commercial banks as a cost-effective means of providing financing to corporate clients where direct, on balance sheet lending, often because of bank regulatory capital charges, could not be provided on a cost effective basis.

With their sponsorship of ABCPs, major money center and regional banks created a conduit to which multiple corporate clients would convey accounts receivables they had originated. In turn, the conduit issued high grade commercial paper supported first by the underlying trade receivables, and secondarily by credit and liquidity lines issued by a bank or group of banks to insure the ability of the SPV to meet maturing paper regardless of cash flow or credit implications of the underlying receivables. Proceeds of commercial paper issuance acted to liquify the corporate client and pay for the receivables it sold to the conduit.

ABCPs can only be described as “win/win/win ” scenarios for all involved: the banks involved enjoyed fee income through a number of venues-acting as liquidity/credit enhancers, making markets in the related commercial paper, managing and monitoring the SPVs cash flows and credit risk profiles, and despite it all being “off balance sheet”, maintaining an important corporate customer lending relationship. The corporate customers in turn enjoyed cost effective financing and access to commercial paper markets, generally not possible on a direct basis because of credit rating considerations.¹ Commercial paper investors such as mutual funds enjoyed yet another diversified source of highest grade commercial paper in which to invest.

Project Finance Securitization

Project financing is generally associated with public infrastructure and capital intensive industries such as transportation, mining, oil and gas, or power generation. It is a market sector with explosively increasing demands that banks, insurance companies, and capital markets in less developed economies cannot begin to keep pace with. Project financing had traditionally been undertaken by

¹ Because of both internal and external credit enhancements, ABCPs nearly always issue commercial paper rated A-1/P-1. So long as the direct credit ratings of the third party liquidity and credit enhancers are of the highest categories, the CP issued by the SPV can be rated substantially higher than the direct rating assigned the receivables originator.

commercial banks in two phases- first, the construction/completion phase (generally up to 2 years), and then second as permanent financing with maturities ranging between 10 and 15 to 20 years. This second phase of financing is typically provided with step-up interest rates, intended to incent the borrower to prepay as banks generally prefer not to write such long dated loans in light of their shorter dated funding maturities. Notably, the expected lives of the underlying assets also generally extend well beyond the 15 or 20 year date, in many case for 40 to 50 years. The emerging market trend for dealing with this disparity has been found in structured finance- creation of an SPV that issues debt to be serviced by cash flows stemming from the underlying asset.

Project finance securitizations are generally undertaken by either the bank writing the long-term loan or the sponsor of the project itself as an alternative means of securing funds for the project. While the prevalent structure model to date has been to isolate individual projects in different cash flow SPVs, a few deals have been done where SPVs hold multiple diversified project loans or pieces thereof. In a typical structure, the SPV issues senior and subordinated debt to be serviced by cash flow emanating from the underlying project. For example, a power generation plant generally has a contract purchasing its prospective energy production before construction of the plant even begins. Commonly, the bank would provide financing through the construction phase. Once the plant is capable of generating cash flow, though, the forward purchase contract could then be conveyed to the SPV and act as the source of return for debt and equity investors. From the plant sponsors' perspective, structured finance can provide much preferred fixed rate financing rather than the floating, step up interest rate associated with classic commercial bank financing. From the bank's perspective, the mismatch between its short dated liabilities and the long term nature of the loan has been eliminated by the SPV prematurely retiring its

debt. Further, the bank now has funds available to again deploy in another project finance transaction.

Catastrophe Linked Securities, or “Cat Bonds”

We now consider a structured finance solution that serves more as a risk management tool than a mechanism for raising funds. Catastrophe linked securities emerged as a new class of structured transactions in the 90's, an outgrowth of the property and casualty insurance industry's need for greater reinsurance capacity following substantial losses stemming from Hurricane Andrew (1992) and the Northridge Earthquake (1994). From the investors' perspective, investing in Cat bonds presents an opportunity for enhanced returns in exchange for pure catastrophe risk, uncorrelated with other major risk classes such as equities markets. Investing directly in stock of the insuring corporation does not offer this same lack of correlation with other major asset classes.

Catastrophe insurance and cat bonds are generally written on an “excess of loss” basis. That is, losses are covered in excess of some identified threshold amount – known as the attachment point- and up to some predetermined maximum. An insurer may believe its balance sheet and income stream can handle up to \$150 million, but not more. In such a scenario, the underwriter may choose to transfer risk of losses in excess of \$150 million and up to \$250 million to a third party- the reinsurer-in exchange for passing through related premiums. As capacity in the reinsurance sector has not always been sufficient to fully absorb the degree of risk insurers wish to transfer, Cat bonds were developed to shift risk through the capital markets instead.

As in other structured finance transactions, a bankruptcy remote SPV is established that issues securities representing the risk of catastrophic loss in excess of some pre-defined level. These securities generally specify catastrophic risk of a single dimension and geographic region- e.g., California earthquake risk- but in some cases may represent a pool of diversified catastrophic risks across a number of geographic regions facing an insurer. The SPV then issues a

reinsurance contract to the insurer, thus providing the same reinsurance protection.

Most typically, the cash proceeds stemming from the SPV's securities issuance are invested in high quality fixed income investments such as US treasuries. This core portfolio serves as either the source of payments for insurance claims in excess of the specified attachment point, or acts as the source of principal repayment to bondholders. The coupon on the SPV's securities always exceeds the interest earned on the underlying collateral; this excess spread is funded by the insurer. Depending on the investor base targeted, some CAT bonds may provide for principal protection during the structuring process. In such a case, strips of US treasuries can be purchased at deal inception. In either case, the actual yield realized by investors will be conditional upon whether the insurer in question files a claim for losses in excess of the attachment point.

Conclusion

The examples provided show that structured finance transactions can serve a number of legitimate business needs. They often provide originators with access to capital markets when they lack sufficient credit quality and/or size to access those markets directly. They provide the originator with liquidity and funding as well as a risk transfer mechanism, allowing a business to retain risks it is comfortable managing and divest those risks outside its realm of expertise.

From an investor perspective, structured finance has allowed for a more widely diversified population of investment alternatives from which to choose, with varying degrees of credit, interest rate, or prepayment risks from which to choose. In short, when properly structured, these are legitimate transactions meeting important business and economic needs. The Enron transactions were

secular, unusual transactions designed to take risk rather than ameliorate it, entirely unlike the vast majority of legitimate structured finance solutions.

Author Biography

Barbara Kavanagh is a principal at CP Risk Management LLC, a risk management consulting firm based in Chicago. She specializes in credit risk measurement and management, structured finance and asset-backed securities, and risk management/measurement re-engineering. Formerly the senior credit officer of ABN AMRO's North American investment bank, she has over six years of global consulting experience with her current firm as well as the big five. She also was a senior executive inside the Federal Reserve for several years, dealing extensively with capital markets and structured transactions during that time. She also served as liaison between the Federal Reserve and derivatives exchanges, and was extensively involved in trading model evaluations and formation of public policy on trading securities and markets.