

Agenda

Advancing economics in business

Seeking the rationale behind structured finance

While traditionally associated almost exclusively with balance sheet management by financial institutions, structured finance is now being embraced by an increasing number of companies in certain sectors as their financing method of choice. Yet the exact circumstances in which these complex financial arrangements make sense are not well understood. Maciej Firla-Cuchra sheds some light on a topic that is at the frontier of financial innovation

Structured finance represents a broad range of financing techniques typically involving debt securities with contractually amended cash flows from a certain group of assets. These assets are separated from the parent company, or synthetically created, and placed in a virtual, legal entity or a special purpose vehicle (SPV). In general, a large part of structured finance involves various forms of 'securitisation' with fairly standard features, as described below. Figure 1 shows a simple representative structure.

In the USA, of all structured finance products, the volume of asset-backed securities alone already represents over one-quarter of the corporate bond market. Moreover, the agency securities market, consisting of mortgage-backed securities issued largely by Freddie Mac and Fannie Mae, is now comparable in

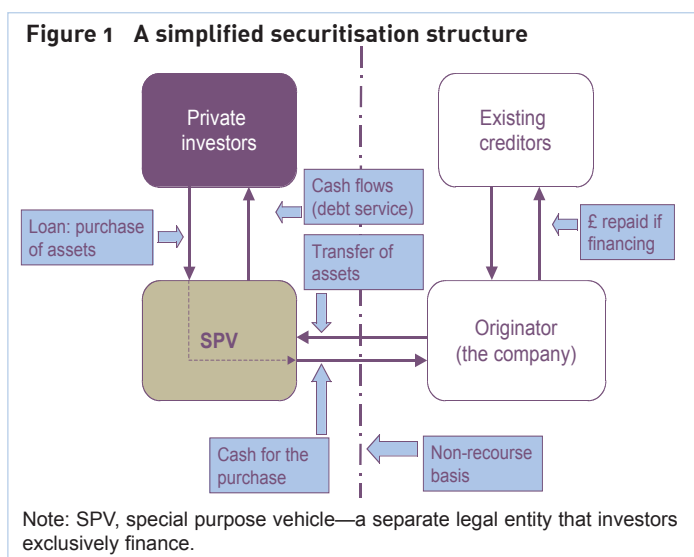
size to the Treasury market.¹ Similarly, European securitisation markets have witnessed an explosive growth, with the total issuance roughly doubling every two years since 1998.² The amount of asset-backed securities issued in the first quarter of 2003 in Europe surpassed the total for 1999, and the total issuance for 2004 has grown by over 30% on a year-by-year basis.³

Despite the fact that structured finance has become increasingly fashionable, the exact circumstances in which these arrangements add value are often confused. Explanations of how different types of structured finance—eg, monetisations or repackagings, as well as whole-business or future flow securitisations—add value are often misunderstood and do not withstand more detailed scrutiny. At the same time, both managers and investors, under some influence from financial

intermediaries, embrace structured finance products across an ever-expanding list of sectors. This article attempts to reconcile these contrasting observations and shed some light on the topic that is at the frontier of financial innovation.

Traditional securitisations in the financial sector

In the past, securitisations have been associated almost exclusively with balance sheet management by financial institutions. Broadly speaking, there are three primary scenarios where banks have been able to extract value with the help of structured finance. The first relates to the regulatory capital requirements. Subject to financial regulation, securitisations might allow banks to reduce the ratio of actual reserves held to the overall capital



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employed. This could be seen as problematic in as far as it is expected to endanger financial stability and increase risk exposure on an industry-wide scale (hence the regulation), but is likely to be beneficial to investors. However, it is the regulatory regime that has been adapting to securitisations with a better understanding of modern financial technologies. In fact, there is some evidence that the past regulations were too rigid in this respect, with current reforms including Basle II and new national regulations. If so, structured finance might simply be helping to create more efficient allocations around some previous regulatory hurdles.

Second, due to disintermediation and other market pressures, financial institutions, and banks in particular, have been forced to concentrate increasingly on origination and intermediary functions where they can create most value. Securitisations have become a panacea in this capital-constrained environment since financial institutions can continually raise external financing for their new assets by regularly shifting the newly generated loans off their balance sheets for a higher origination turnover. However, in the absence of specific balance sheet constraints, and with perfect capital markets, both of these activities would be unnecessary.

Third, and most recently, banks have been embracing traditional as well as synthetic securitisations for risk management and related credit risk-trading activities.⁴ This is likely to be value-enhancing where it adds liquidity and helps to achieve a more efficient allocation, which would have been impossible before due to, for example, absent markets.⁵ In this context, pooling and tranching of credit risks, as well as synthetically shifting credit exposure with the help of structured finance, have become part of routine business for many financial institutions. Similarly, the related activity of explicitly trading risk portfolios without any underlying assets has allowed for exposure profiles to be tailored to investor- or bank-specific circumstances with greater ease.

Brave new world of corporate securitisations

There is generally less understanding as to how securitisations can add value in the corporate world. Unlike financial institutions, corporations do not face regulatory capital requirements or mandatory reserves; balance sheet management is considerably simpler, if necessary at all, and they rarely face size constraints with respect to their balance sheets. This is because corporates do not continually generate new assets in the course of their business activity, with the exception of a limited amount of receivables (to be financed net of payables). Despite these differences, securitisations among non-financial firms have been growing rapidly,

particularly in the UK, due to its favourable legal regime. This growth has been strong, especially in the case of regulated utilities such as water, electricity and, to some extent, infrastructure and transportation assets because of their asset characteristics.

A common justification for securitisations offered by arrangers is the claim that securitisations add value by allowing for higher leverage, or that they lower the overall cost of capital (and hence increase the company value), or both. These are two sides of the same coin: gearing and the cost of capital are closely related since the same or lower cost of risky debt with increasing leverage must imply some new value creation. Nevertheless, it is well known that no value is created by increasing leverage in the absence of specific, positive financing externalities correlated with the level of debt to equity. Examples of such externalities include tax shields on debt (assumed to be absent in the case of equity), which render higher leverage preferable from the net return point of view when considered on their own. Other factors, however, might act in the opposite direction—for example, bankruptcy costs (assumed to increase with greater leverage) might render lower leverage preferable, other things being equal.

In reality, there are many potential externalities that might affect the company-specific, 'optimal' leverage aimed at by chief financial officers to minimise the cost of capital. The theoretical and empirical studies on capital structure have explored these factors in great detail, but if their net effect in a particular case is that higher leverage could increase the company value (eg, via debt tax shields), securitisations, if conducted efficiently, are among the best tools to achieve this efficiently. Although greater leverage is likely to be the indicator of externalities, some of the savings may arise simply from the ability to achieve a higher, optimal level of leverage than would be feasible in a non-structured approach. The first best, in these cases, would be simply unavailable without the securitisation technique.

Nevertheless, it is difficult to explain why leverage *by itself* could result in the lower overall cost of capital, except for market inefficiencies and risk transfers. First, securitisations, while resulting in higher leverage, might appear to reduce the cost of capital purely due to some risk being transferred from one group of investors to another. For example, if assets sold to the securitisation vehicle are underpriced, some of this value might be recuperated to equity holders at the cost of 'old' creditors. Second, potential market inefficiencies must not be ignored—for example, the process of tranching being an integral part of securitisations is at least partly designed to exploit incomplete (missing) markets and market niches as well as to arbitrage market differences.⁶

Securitisations, managerial discretion and corporate opaqueness

It would be naive, however, to believe that securitisations can be explained away by the arbitrage of market inefficiencies, not least because transaction structures exhibit consistent patterns under differing market circumstances. In fact, the cost of capital under securitisation may be lower with higher leverage because creditors might be willing to receive a lower rate of return due to several fundamental factors:

- reduced agency costs and business risks;
- reduced uncertainty and asymmetry of information;
- reduced bankruptcy costs and enhanced recovery rates.

For the same reasons, companies with limited access to capital or seeking to enhance the return on assets might use securitisations to tap capital markets. The above is not an exhaustive list and other factors often play a critical role in closing some transactions, but these reasons consistently influence investors' decisions.

Reduced agency costs and business risks are grouped together above because they both relate to creditors' concerns about firms pursuing risky, expansionary, or exploratory business strategies that may not be in creditors' best interests, while instead benefiting equity investors or satisfying managers' private goals. In this respect, securitisations limit managerial discretion and managers' ability to pursue their own objectives at the cost of creditors. In fact, managers might be keen to impose these constraints on themselves in order to make their corporate policies advertised to creditors credible. This is unlikely to be costless: imposing rules and controlling cash flows inhibit the exploration of new business opportunities, new markets or products, or potentially better investments. For this specific reason, most of the assets being securitised (such as receivables or utilities' cash flows) are characterised by the low value of managerial discretion, and the high risk of free cash-flow mismanagement.

According to leading investment banks, structured finance represents a trade-off between limiting covenants and freedom of management to manage the business aggressively. By agreeing to strict covenants, managers eliminate business risks associated with potential new, uncertain ventures or market expansions, mergers, restructurings and plain perquisites. As a result, with respect to the securitised assets, the management is subject to a 'complete' contract, which specifies in detail every aspect of the business and every step on the cash-flow path. This argument has been put forward formally for the first time in a model by Cuchra (2002):

Securizations of [eg] receivables (...) have a low value of the forgone call option on managerial discretion: there is arguably not much more that management can efficiently do to enhance the value of those assets after receivables have been generated, performance of such receivables being essentially outside of management's control. On the other hand, the opportunity to misappropriate the revenue from these assets, when held together with all other assets of the company, might be significant and profitable for the management, if it can use it to finance more risky projects.⁷

This shows why assets such as the transmission or distribution networks in the utility sector—characterised by stable cash flows, simple technology, and established business models—might be attractive from a securitisation point of view. That is, securitisation might lower the overall cost of capital in these cases, in contrast to the fast-growing, innovative business areas where limiting managerial discretion could be costly. The UK water sector is one prominent example of the former, alongside electricity transmission and distribution networks. Some innovative structures that can be adopted in these sectors include the following popular solutions.

- Whole-business securitisations, where the entire business is subject to the securitisation regime. This is based on the assignment of a fixed and floating charge over the entire regulated part of the business (loosely speaking, these 'charges' can be understood as certain legal rights over key assets). This is equivalent to an explicit pledge of these regulated assets to creditors.
- Equity securitisations, where creditors' claims are inserted in the cash-flow path between the parent and some of its cash-flow-generating assets, which are separated from the rest of the firm. The claims are then financed by dividends from these assets after debt at the operating level is serviced. This set-up would typically involve the presence of a financing intermediary representing a cash-flow 'drain' on the path between the SPV and the originator (in Figure 1).

Another important reason for corporate securitisations is transparency and a high degree of information disclosure, clearly valued by creditors and hence likely to lower the cost of capital. In contrast to corporate financing of an opaque firm with multiple units, the exposure of securitisation investors is clearly defined by the profile of assets in the SPV. In traditional financing, multiple creditors implicitly exchange complex put options on their capital, but securitisation creditors do not participate in this web of mutual obligations. Instead, they occupy a contractually specified position in a well-

defined seniority structure, while being provided with extensive, detailed and independently verified information about assets they sponsor. Since the SPV assets are carefully specified and subject to a detailed statistical analysis, the associated information risks are reduced. To put it simply, investors are willing to pay for the reduction in uncertainty and information asymmetry between themselves and the management.

Clear associations of claims and assets present in securitisations also reduce bankruptcy and recovery costs.⁸ The importance of this point can hardly be underestimated. Creditors' troubles start and end in the recovery process, which is typically costly, often arbitrary, complex, and characterised by significant delays. Given these problems, collateralised debt issues attempt to strengthen the link between creditors and some specific assets (the collateral), but they do not exclude these senior creditors from costly bankruptcy proceedings, or from the company restructuring. Neither can collateral give the creditors the 'true control' over cash flows and assets in the 'bad' times, as is often assumed in the case of standard debt contracts. While such contracts are wrongly perceived as offering a contingent allocation of control over company assets, securitisations move specific assets and their creditors outside of this

problematic corporate realm—to the boundary of a firm where such assets cannot be legally reached by others—instead of tying them closer to the company.⁹ This requires a formal, legal recognition of the assets' shift as a 'true sale'—the issue at the heart of the discussion on securitisation feasibility in any legal regime and, more broadly, on the definition of a corporate entity.

Is it worth it?

Despite all the potential benefits listed above and even in cases where the most common legal problems can be easily solved, the entire securitisation set-up might prove to be simply not worth it. Costs associated with setting up an independent legal entity, the public verification process (rating), custodians, lawyers, paying agents, and arrangers (the lead managers) all render securitisations among the most expensive financial contracts of all. Net of all these expenses, only some companies are likely to benefit substantially from these financing schemes. A careful analysis of costs and benefits is therefore necessary, but is rarely provided in practice, with arrangers typically more concerned about whether the issue can actually be placed at a reasonable cost to the issuer.

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¹ Sources: Thomson Financial Datastream, European Securitisation Forum, J.P. Morgan Securities, Dealogic Bondware.

² Ibid.

³ Ibid.

⁴ Typical synthetic securitisations consist of portfolios of purpose-built credit derivatives matching specific risk profiles or exposures and traded as an independent counterparty.

⁵ 'Absent markets' refer here to arbitrage opportunities where new securities were created with no close substitutes existing before their introduction.

⁶ Tranching refers to splitting an issue into several securities with specific characteristics. For an empirical study of these issues, see Cuchra, M. and Jenkinson, T. (2005), 'Why are Securitisation Issues Tranched?', Department of Economics Working Paper 255, Oxford.

⁷ Cuchra, M. (2002), 'Financial Contracting at the Boundary of a Firm', Department of Economics, University of Oxford.

⁸ This argument is formally made by Skarabot, J. (2001), 'Asset Securitization and the Optimal Structure of the Firm', Stanford University, mimeo.

⁹ For details, see Cuchra, M. (2002), op. cit.

If you have any questions regarding the issues raised in this article, please contact the editor, Derek Holt: tel +44 (0) 1865 253 000 or email d_holt@oxera.co.uk

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