Chapter 1
Understanding the basics of Securitisation & Structured Finance

Meaning of Structured Finance

The terms "securitisation" or "securitization", and structured finance, are so commonly used together that it is impulsive to believe that the two are the same[1]. However, one should note that securitisation is a product or process, whereas structured finance is a technique or principle of designing a financial product. Securitisation falls in the broader periphery of structured finance.

Structured finance may be asset side or liability side. The term "structured finance" could be used both on the asset side of a financial entity as also on the liability side. The key idea, whether on the asset side or on the liability side, is to be able to structure a solution around the specific cashflow characteristics of a business. A traditional or plain vanilla financial product usually relies upon the generic balance sheet of the borrower entity, or on collateral. Take, for instance, typical lending products of financial institutions. One may think of standard small business loans, car loans, home loans, etc. being plain and standardised products. They have, by and large, standard tenures, LTV ratios[2], equated repayment structures, etc. On the other hand, the idea of designing an asset side product for a particular case, say a project or cashflows-based loan, will involve understanding the cashflows of the project, the needed time to commercialisation, the series of cash flows that ensue, etc. If a financial institution designs a project loan based on the cash flows of the project, it may be said to be a structured financial product or structured solution, in the sense that the solution has been structured for the specific cashflows of the borrower. In order to allow the financial institution special rights over the project assets and cashflows, it may require the project to be in some special purpose vehicle, and allow a schematic right over the cashflows of the project by way of a cashflow waterfall[3].

As a liability side product, structured finance looks at paying a liability from identifiable cashflows, or shift risk of cashflows. On the liability side of a financial institution, plain vanilla products may be loans, bonds, commercial paper, etc. Structured products may be securitisation, loan sales, risk transfer devices such using credit derivatives, partial credit guarantees, etc. Once again, these structured products are cashflow-based or risk-based. Thus, the key idea in structured finance is to structure, that is, tailor the financial product to align with cashflows, rather than just be based on the balance sheet of the issuer or borrower, or the collateral.

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[1] See, for instance, a noted author Steven Schwarcz in https://masonlec.org/site/rte_uploads/files/SCHWARCZ_Encyclopedia-of-Financial-Globalization-Elsevier.pdf "A threshold question is how securitization and structured finance differ, since the terms are often used interchangeably. In practice, most references to structured finance mean securitization."

[2] The loan-to-value (LTV) ratio is a financial ratio that compares the size of a loan to the value of an asset that is purchased using the proceeds of the loan. It is an important metric that assesses the lending risk that a lender carries by providing the loan to a borrower.

[3] Also known as a 'payment waterfall', the manner of allocation and appropriation of the cash flows of SPV, in a certain pre-determined order to priorities. This becomes important to provide different stakeholders in the cashflows, primarily the financier, a priority in the cashflows.

Structured finance products try to achieve bankruptcy remoteness, such that cashflows are not impacted by entity-level risks of the issuer. Structured finance refers to the modes of financing which are "not-conventional" or are "tailor-made" or "structured" to address specific desires of the parties. Given the fact that structured finance products are aligned with cashflow attributes, the financier will obviously need a predominant claim over the cashflows. Therefore, structured finance transactions often try to get rid of the bankruptcy risk of the issuer/borrower by devices such as special purpose vehicles, asset-backed financing, etc.

In this chapter, we will focus on securitisation as a case of structured finance, while also comparing it with some other liability-side structured finance products.

Five Features of Structured Finance

A liability-side structured finance transaction usually has the following broad features:

a) Pooling of assets;
b) Diversification of credit risks resulting from such pooling of assets;
c) Transfer of credit risk[4] from the originator (lender) to a third party, whether the investor or otherwise. The intention is to isolate or de-link the credit risk of the assets from the originator. *The transfer of risks may or may not result in raising of finance by the originator*;
d) Creating classes/tranches of liabilities backed by the asset pool and having different levels of risk;
e) Structured finance transactions are quite often capital market oriented. Thus, a structured finance transaction may involve transferring the credit risk of the originator to the capital-market. Risk transfers may also result in creation of a marketable instrument which makes the credit risk tradeable.

It is important to understand the underlying rationale for some of these features. Since, as we discussed, structured finance transactions are structured around the underlying cashflows, the volatilities associated with these cash flows will affect the financier or investors in the structured finance transaction. However, the transaction may aim at involving various investors, with varying preferences as to risk and returns. Hence, it is often useful to disintegrate the risk of the underlying cash flows into various slices, such that some investors are exposed to lower risk, while some have more risk. In order to achieve this slicing of risks, there has to be a pool of cashflows. A pool always implies diversification - that is, diverse and uncorrelated assets pooled together.

So in essence, we are able to understand the rationale for each of these features:

- **Why pooling**: to achieve diversification.
- **Why diversification**: because tranching or slicing of credit risk will not be effective unless there is diversification. If there is a single asset or single loan as the subject matter of the transaction, the risk of the asset is the same as the risk of the obligor - which is entity risk and not cashflow risk.
- **Why transfer or legal isolation of the assets**: So as to achieve bankruptcy remoteness or independence from the default risk of the issuer.
- **Why tranching**: First, tranching addresses the risk-return needs of different investors. Second, and perhaps more importantly, tranching or cashflow prioritisation helps to create right over

[4] Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. Source: BIS (Principles for the Management of Credit Risk, September 2020) - https://www.bis.org/publ/bcbs75.htm

cashflows which are different from the risks of the aggregate cashflows. That is to say, there is a segment or slice which is less risky than the whole, because the claims of that slice have been prioritised.

- **Why capital market orientation**: Structured finance has often been associated with an alternative funding base. The sharp risk of institutional investors such as fund managers has created an opportunity for placing structured finance instruments from out of the traditional system of lenders. These instruments are created as "securities" for ease of transactions.

Why Structured Finance?

Structured finance appeals to both non-financial and financial corporations. Structured finance may be used as a source of funding, a mode of risk transfer or simply as an instrument for earning income from repackaging structured instruments.

Structured Finance as a source of Funding

The primary reasons for raising funds via structured finance are as follows:

Potential for reducing funding costs

The cost of funding depends on the credit rating assigned to a debt obligation issued by an entity. In the case of a corporate bond, the rating will depend on the credit quality of the corporation or the issuer. In the case of a structured finance transaction, there is an arguable independence, at least from the credit risk perspective, from the issuer. Hence, the rating agencies may assign a rating to structured finance instruments based on the risks of cashflows, the extent of risk mitigation devices or credit enhancements present in the transaction, etc.

Therefore, one of the motivations for structured finance is the ability to achieve ratings higher than the rating of the issuer. If the instruments have better ratings, they are obviously placed at a cheaper cost.

Yet another reason for expecting lower cost of funding is the potential ability to achieve higher leverage, by reducing the issue's equity contribution in the funding.

Diversifying funding sources

Structured finance transactions provide an alternative source of funding to the borrowers. As we understand, structured finance transactions are customised on need-basis, hence, provide financing solutions even in the cases where the traditional funding modes fail or find no investors.

Achieving off-balance sheet financing

A traditional advantage of structured finance has been the ability to put assets and liabilities off-the-balance-sheet. However, this advantage has been significantly reduced by accounting standards which have laid stringent conditions for off balance sheet treatment. If the conditions are satisfied, the financing may still be off-the-balance-sheet.

Structured Finance as an instrument of risk management

Structured finance is one of several corporate risk management tools. One of the basic features of structured finance is to transfer the credit risk from the originator to a third party. In several instances, along with transfer of credit risk, there is also a transfer of other risks such as interest rate risk, prepayment risk, etc.

The risk transfer may be achieved either by directly transferring the assets that contain the risk, or synthetically, i.e., by merely transferring the risk without transferring the asset itself. Usually when structured finance is used as a mode of funding, the transfer of risk happens as a result of transfer of the asset itself. In cases where funding is not a requirement, synthetic transfer of risks is done[5].

In both the cases, the originator's risk is transferred to a third party, hence, helping in reducing the risk held by the originator.

Structured Finance as an income generating instrument

While the primary motive of using structured finance is either to raise funds or manage/transfer risks, secondary benefits may be derived by repackaging the structured finance instruments. Collateralised loan obligations (CLOs), collateralised debt obligations (CDOs) and repackaging of structured products were quite popular in the run-up to the Global Financial Crisis. The crisis took the sheen off these products, but CLOs are clearly regaining their lost ground.[6] CLOs help the structurer to buy loans from other originators, repackage them into a securitisation transaction and gain a value, in form of either asset management fees and/or equity returns, in the process.

Use of Structured Finance in different financial products

Securitisation

This is the most common form of structured finance. In simple words, securitisation is the process of converting financial assets into marketable securities. As mentioned in Vinod Kothari's *Securitisation: Financial Instrument of the Future*[7]*:*

> *Securitization in its widest sense implies every process that converts a financial relation into a transaction.*
>
> *In the sense in which the term is used in present day capital market activity, securitization has acquired a typical meaning of its own, which is at times, for the sake of distinction, called asset securitization. It is taken to mean a device of structured financing in which an entity seeks to pool together its interest in identifiable cash flows over time, transfer the same to investors either with or without the support of further collaterals, and thereby achieve the purpose of financing. Though the end-result of securitization is financing, it is not "financing" as such because the entity securitizing its assets is not borrowing money but selling a stream of cash flows that was otherwise to accrue to it.*

It is a structured finance device, in which an entity seeks to pool together its interest in identifiable cash flows over a span of time and transfer them to a separate entity, specially created for the purpose. The separate entity is usually referred to as a Special Purpose Vehicle (SPV) or Special Purpose Entity (SPE). The SPV/ SPE holds the pool of cash flows and uses these identifiable future cash flows or assets to pay

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[5] For detailed discussion on 'Synthetic Securitisation', please refer to Chapter 3

[6] The European Commercial Bank (ECB) noted sharp increase of CLO issuances and the credit quality of the underlying loans deteriorating significantly and the leverage of high-yield corporates increasing in search for yield, in its Financial Stability Review May 2019 - https://www.ecb.europa.eu/pub/pdf/fsr/ecb.fsr201905~266e856634.en.pdf

[7] Chapter 1, Part 1 of *Securitisation: Financial Instrument of the Future,* by Vinod Kothari, 2nd Edition

off its investors over time, either with or without the support of further collateral. Thus, the transaction achieves the purpose of funding, but in a unique way - by sale of assets. Though the end-result of securitisation is financing, it is not "financing" as such because the entity, securitising its assets, is not borrowing money but selling a stream of cash flows that was otherwise to accrue to it.

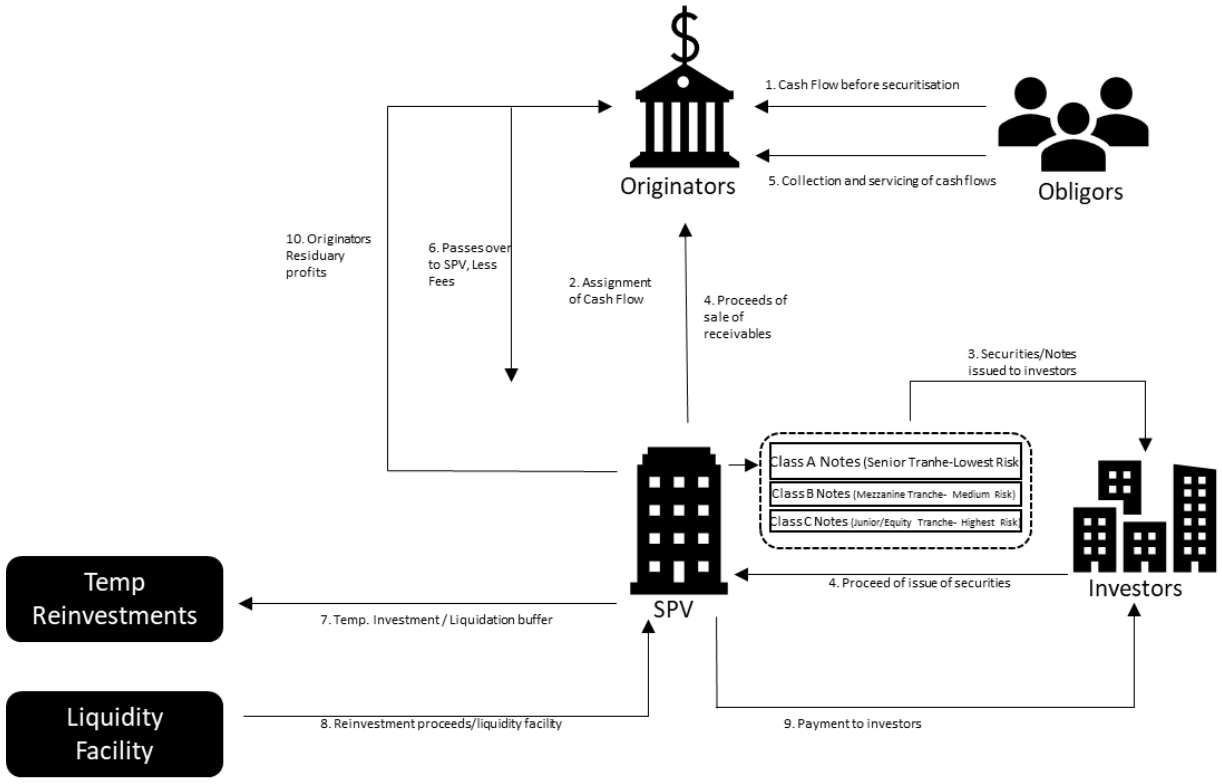
Securitisation, as the name implies, has a capital market window. The idea is to create security and take the asset out into the market. In other words, the idea is to move funding from the banking world to the investment-banking world.

While corporate bonds would have been the simplest case of a capital market funding device, securitisation creates legal preference for investors - by isolation of assets. It creates a class of investors who may claim to have a bankruptcy-remote right over the identifiable cashflows. Therefore, in situations of stress of the issuer, these investors may hope to be better off than secured lenders who are exposed to the general assets of the issuer. This may be because the assets in the securitisation pool will be available to meet the claims of the investors, without being affected by any prior or conflicting claims[8].

In addition to creating a legal preference, securitisation also makes use of structured finance devices to create financial preference to a certain class of investors over others, thereby resulting in securities having different classes, and hence, different ratings. Thus, the whole exercise of securitisation is to create a hierarchy of interests.

Structure of a typical securitisation transaction

The concept of securitisation can be better understood by understanding the process of securitisation. Let us look at the following example of a basic securitisation transaction to understand the process:



[8] At the same time, if the specific cashflows forming part of securitisation pool turn out to be risky, the investors will not have the right of claiming their investment from the issuer.

Figure 1: Graphical representation of a typical securitisation structure

In the above transaction structure, the process of securitisation works as follows:

1. The originator (lender) has extended certain loans to borrowers or obligors. The originator then identifies a pool of receivables which it intends to securitise. The identification of the pool is not done by cherrypicking the loans; it is done by setting selection criteria, which are designed to ensure that the loans in the pool are by and large homogenous.
2. The originator creates an SPV, which is in the form of a trust (or, as in certain jurisdictions, company, LLP, LLC, or any form of entity that is lightly regulated and may be thinly capitalised).
3. The pool of receivables is transferred to the SPV. Assuming the pool of receivables to be INR 1,000 crores (meaning, the principal outstanding on the date is as much). Let us assume the weighted average rate interest on the loans in the pool is 8.55%.
4. The SPV holds the pool and issues securities on the strength of the pool. That is to say, the pool cash flow receivables will be used on a mutually exclusive basis to repay investors of such securities.
5. The SPV raises a funding of INR 1000 crores against the securities issued in Step 3 above, and uses this money to pay the originator for buying the pool.
6. The originator itself, often, acts as the 'Collection and Servicing Agent' (C&S agent) or 'Servicer' for the SPV. The Servicer, in the present case, the originator himself, collects the cash flows, for making payments on behalf of the SPV, with or without reinvesting the same before distribution.
7. In typical simple securitisation structures, there is no reinvestment or recycling of the cashflows collected by the SPV (via the servicer).What is collected, using the waterfall mechanism, is passed through to the investors against the securities subscribed by them (See Step 9). This is why, the securities issued in a securitisation transaction are also known as Pass-Through Certificates or PTCs[9], meaning thereby that the investors in these securities have a proportional, structured interest in the pool of receivables, to claim a pass through of the cashflows.
8. There are two additional components in the diagram above - a reinvestment, and a liquidity support [Steps 7 and 8]. Reinvestment implies that some (in some structures, the whole) of the cashflows are retained at the SPV level and reinvested in some nearly-risk-free modes of reinvestment. This creates a cash buffer (called Cash Reserve) which may be used to absorb short term deficiency in cash flows.
9. **[This is an addition that should not confound a basic understanding - therefore, skip this if you want to avoid confusion.]** Some structures (replenishing structures, CLO/CDO transactions) permit the transaction to reinvest the cashflows. A replenishing structure will reinvest the cashflows to buy further receivables during a particular period. A CLO/CDO transaction may be a "managed" transaction that permits the manager to continue to churn the cashflow in buying loans during a particular period.
10. The amount collected, as described in items 6 and 8 above, are used to pay off the investors.
11. Month on month, the interest and principal received from the loans, after paying the servicing fees of the Servicer, are used to pay the stipulated coupon and principal repayment to the investors. However, we may understand that the weighted average cost [weighted average, because the PTCs would be different classes, and will carry different rates of interest, going up as we move down the ladder] of the PTCs will still be lesser than the weighted average rate of interest in the pool of loans. This is based on the simple principle that there is a net interest

[9] Since the pass-through certificate is a very specific structure, it is helpful to refer to the securities resulting out of the securitisation process as either asset-backed securities, or mortgage-backed securities, or securitisation notes.

margin in all refinancing transactions. This excess of the interest cash inflows over the service fees, expenses and coupon payments to PTCs, is called Excess Spread.

12. Note the Excess Spread is solely excess of interest - hence, sometimes also called Excess Interest Spread. There is no chance of an excess principal, as the loan pool having principal outstanding of Rs 1000 crores will not pay any excess principal.
13. Depending on the structure, this Excess spread may be allowed to flow back to the originator [Step 10 in the diagram] either month on month, or may be retained and released at some later point. The essence is, eventually, the left over cash is recaptured by the originator, in some legally permitted form or the other.