Methodology
Structured Finance Rating

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Summary

This methodology describes PACRA's approach to rating structured finance instruments, a relatively complex form of debt meant to mitigate risk using various assets. PACRA's assessment begins with the profile and background of the originator – the entity that requires financing. This is followed by studying the nature of the unique underlying assets along with their associated cash flows using a data heavy approach. This is followed by analysis of the payment and recovery risk. Usually, a "preliminary rating" is assigned first. Subsequently, when the transaction is legally formalized, the legal documentation is reviewed to incorporate the credit and legal implications of the transaction structure to arrive at the "final rating".

Effective Date: 1st July, 2020

This methodology updates and replaces "Structured Finance", last updated in June, 2019.

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0. Introduction

- Debt instrument market
- Key types of debt instruments

Introduction

0.1 Debt instrument market: Pakistan has a relatively small debt instrument market. Financing through bank loans is the preferred route for corporates, rather than utilizing capital markets to raise funding through issuing debt instruments like bonds. Therefore, when instruments are issued, they are plain-vanilla and secured by the assets of the company. Retail investors have also been tapped but generally the instruments are the domain of institutional investors – banks, mutual funds, and retirement benefit schemes. Instrument denominations and tenor also remain on the lower side. Given relatively small base and held to maturity stance of most investors, secondary market is yet to evolve in a meaningful platform.

0.2 Key Types of Debt Instruments: Key types of debt instruments are: term finance certificates (TFCs), commercial papers and Sukuk. These can be differentiated on the basis of: (i) maturity (money market vs. capital market debt instruments), (ii) issuing entities (government, financial institutions, corporates, etc.), (iii) markets in which they are issued (conventional vs. Islamic), (iv) accessibility (listed vs. privately-placed), and (v) security (secured, unsecured or subordinated). PACRA has evolved separate methodologies to cater to the distinct features of structured debt instruments, Sukuk, Basel III Compliant debt instruments and preference shares.

Debt instruments	• Securities with underlying contractual obligation owed by the issuer to make interest payments and principal repayments to the debt instrument holders (or "lenders") for the life of the debt instrument.
Structured debt instruments	• Debt instruments designed to cater to complex financing needs through securitization.
Sukuk	• Islamic debt instruments also referred to as "Shariah-compliant bonds".
Basel III compliant debt instruments	• Debt instruments issued by banks to enhance capital adequacy, based on regulatory requirement prescribed by the State Bank of Pakistan.
Preference shares	• Hybrid instruments sharing both debt and equity characteristics, with fixed-rate dividend and principal redemption agreement.

0.3 Structured finance instruments are relatively complex form of debt. The instruments are issued to transfer or carve out risk and improve marketability of underlying asset. This facilitates attracting investors to performance of a set of assets separated from the entity originating it. These are created through a credit enhancement process known as securitization. Securitization allows the entity in need of funds to separate assets from credit, performance, and other risks associated with the entity itself. Moreover, this process helps convert illiquid assets that cannot be easily sold to third party investors into liquid, marketable securities.

0.4 Securitization involves creating, combining, and recombining categories of assets and securities into new forms. Assets, loans, receivables (from a customer or a group of customers) are pooled and repackaged, underwritten and sold in the form of asset-backed instruments. The instruments or 'asset- backed securities' are collateralized or 'backed' by the pooled assets and are not considered general obligations of the entity that is in actual need of funds. The investor in an asset-backed security is entitled to receive a pass through of the timely payment of profit and principal on

the pooled assets. The rating agency, therefore, evaluates the cash flow from the purchased assets for repayment.

1. Flow of Structured Finance Transaction

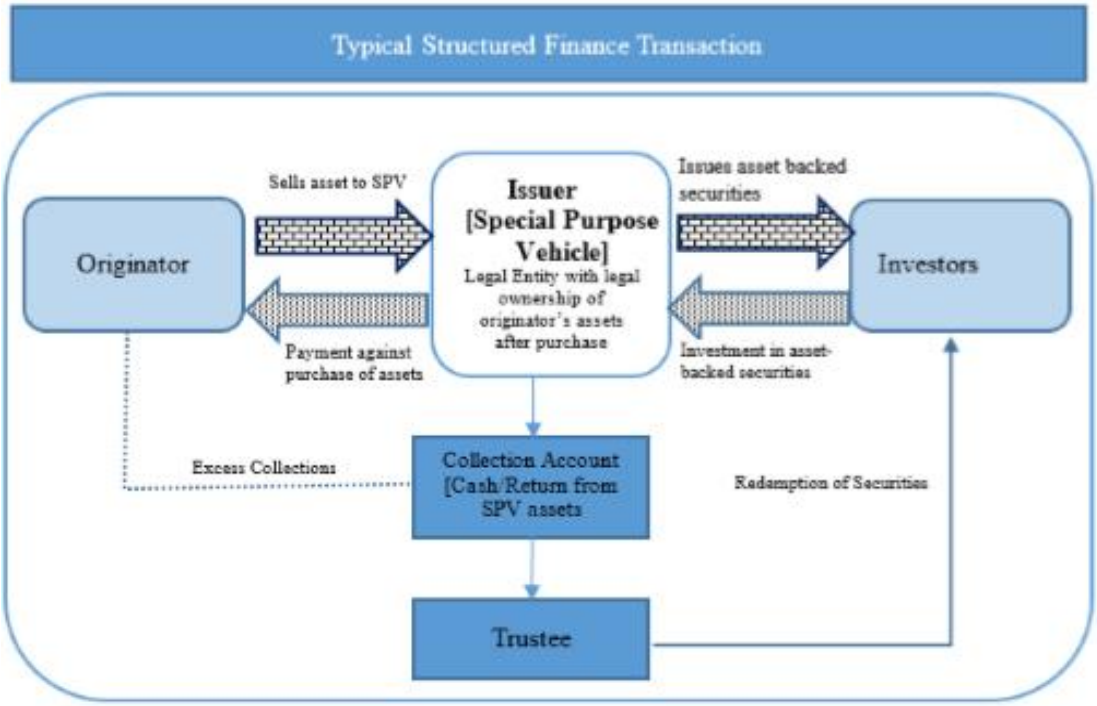
- Creation of SPV
- Structured finance transaction
- Types of structured finance instruments

Flow of Structured Finance Transaction

1.1 A typical structured finance transaction involves the following parties i) Originator – entity that actually requires financing, ii) Issue, which is an Special Purpose Vehicle - bankruptcy remote legal entity that issues debt securities. , iii) Investor – financier to the structured finance instrument, and iv) trustee – entity responsible for ensuring trust of the investors. The table below shows key structured finance terms as legally defined under various laws issued by Securities and Exchange Companies of Pakistan.

Terms related to Structured Finance Instruments defined under law	
Structured Finance Products	Structured Finance Products are the instruments resulting from the securitization transactions [Credit Rating Companies Regulations, 2016]
Investor	"investor" means a person holding any asset backed securities issued by a Special Purpose Vehicle under [The Companies (Asset backed Securitization) Rules, 1999]
Originator	"Originator" means a person who transfers to a Special Purpose Vehicle any assets in the form of present or future receivables as a consequence of Securitization [The Companies (Asset backed Securitization) Rules, 1999]
Securitization	"Securitization" means a process whereby any Special Purpose Vehicle raises funds by issue of Term Finance Certificates or any other instruments with the approval of the Commission, for such purpose and uses such funds by making payment to the Originator and through such process acquires the title, property or "future receivables" includes all such receivables against which income may accrue or arise at a future date [The Companies (Asset backed Securitization) Rules, 1999] right in the receivables or other assets in the form of actionable claims [The Companies (Asset backed Securitization) Rules, 1999]
Special Purpose Vehicle	"Special Purpose Vehicle" means a special purpose vehicle registered by the Commission for the purpose of Securitization [The Companies (Asset backed Securitization) Rules, 1999]
Future receivables	"future receivables" includes all such receivables against which income may accrue or arise at a future date [The Companies (Asset backed Securitization) Rules, 1999]
Trustee	"Debt Securities Trustee" means a person appointed as a Debt Securities Trustee by virtue of a Trust Deed [Debt Securities Trustee Regulations, 2012]

1.2 Issuance of a typical structured finance instrument takes the following steps: i) originator creating an SPV, executing a sale transaction of assets (either to carve out specific assets or entrap cash flows) with SPV, iii) SPV issuing structured finance instruments to investors, iv) SPV paying the proceeds of instruments as a payment for purchase of assets. Role of trustee is more critical once instrument is issued. It is trustee's responsibility to ensure all terms and conditions including the covenants are complied with and to timely inform the investors.



1.3 Although all structured finance instruments are asset-backed, the nature of assets may vary. Following are prominent types of such instruments:

Type of Asset-backed (Structured finance) Instruments	
Collateralized debt obligations	Pools of commercial loans to corporates or small and medium-sized enterprises and pools of corporate bonds
Mortgage-backed securities	Pools of residential/commercial mortgages that may consist of a single property or a group of properties financed by a single borrower, or a pool that combines numerous loans from different borrowers secured by diverse properties
Future flow Securitization	The future cash flows from pools of assets such as export receivables, telephone net settlements and airline receivables or flows from financial assets such as credit card voucher processing receivables, trade payments rights or worker remittances.

2. Rating a Structured Finance Instrument

- De-linking credit profile of originator
- Evaluation of Asset risk, payment risk and recovery risk
- Two stage rating opinion; at the initiation of transaction – preliminary and final
- Notching criteria as per coverage against repayment structure

Rating a Structured Finance Instrument

2.1 Structured finance instruments have three key attributes that define the risk i) pooling of assets (that directly or synthetically generate cash flows), ii) delinking of credit risk of the originator (no recourse), and iii) tranching of liabilities. The risk analysis of any structured finance instrument focuses on three broad areas: i) Asset Risk, ii) Payment Risk, and iii) Recovery Risk.

2.2 PACRA's risk assessment starts with basic understanding of the originator. The Rating agency reviews the policies and procedures by which the assets to be securitized are originated. Most of the times originators would be the ones servicing the flow of funds so that normal business transactions with customers remain less disruptive. Although the credit profile is delinked from actual securitization, the rating agency needs to understand the background of the originator and the industry in which it operates and will be looking for the company to demonstrate at a minimum the following: i) a clear strategy for meeting financing needs, and ii) an understandable and realistic motivation for securitization.

2.3 **Asset Risk**: The second step is understanding the nature of underlying assets or pool of assets for each structured finance instrument. These are unique and so are the cash flows. PACRA believes a securitization is impacted by the performance of asset portfolio more directly than a company would be when the assets remain on its balance sheet. Asset risk primarily focuses on quality of past cash flows to ascertain expected cash flows. Likely changes in cash flow pattern in response to entity specific, industry wide, or economic changes is given key importance and incorporated in cash flow analysis. This is a data heavy analytical approach since it required analysis of past trends and future projections of cash flows. PACRA looks for a set of data that provides understanding of underlying pool of assets. The dataset varies depending on the asset class to be securitized, but generally provides information on characteristics of the asset pool. PACRA solicits data to better understand an asset pool's historical performance, including delinquencies, defaults, recoveries, and prepayments. For many types of assets, the most easily securitizable portfolio consists of a homogeneous pool, ideally with a diversified customer base that generates a stable and predictable cash flow. Homogeneous pools are groups of receivables that have largely similar characteristics. PACRA reviews customer concentrations in a portfolio. The outstanding exposure to each customer is compared against a pool's total outstanding obligations, with special attention placed on those representing sizable contribution in a portfolio. The credit quality of those customers is reviewed and the impact of their default analyzed in terms of the ability of the remaining portfolio to meet the obligations to the investors.

2.4 **Payment Risk**: Once quality of cash flows is ascertained, adequacy of cash flows is analyzed. This is also data heavy. It focuses on actual coverages against redemption schedule of structured finance instrument. PACRA assesses timing of cash flows vis-à-vis payment terms. PACRA develops a base-case portfolio performance expectation, which represents the anticipated performance of a portfolio under a non- stressed economic scenario. This base case is run through stress scenarios at each desired rating category. For the purposes of credit enhancement, the agency considers liquidity issue and payment priority. The stressed scenarios would represent minimum cushion available. To assess credit enhancement appropriately, PACRA should be able to accurately project what percentage of cash flows from a pool of assets may not be available due to extended nonpayment to meet repayment obligations to investors. Some securitization transactions are impacted by the potential that customers make prepayments, repaying their obligations ahead of schedule. The analysis incorporates an understanding of which customers are most likely to prepay and for what reasons. In case of financial institution, repayments received on a loan portfolio are generally used to cover floating, short- term liquidity needs, funding additional loans or paying short-term liabilities. Liquidity managers typically have access to a range of cash inflows and are therefore able to cover liquidity needs even if expected loan payments are not received. In contrast, when this same loan pool is securitized, the cash flows from the loans are the only monies available to meet fixed repayment

obligations. Delinquencies and defaults increase the cost of securitization to originators, as credit enhancement and liquidity facilities are put into place to cover potential cash shortfalls when expected payments from the assets are not received. For this reason, clearly understood trends in delinquencies and loss exposures are important to managing the securitization. Whether the originator is a financial institution or a corporate, PACRA attempts to quantify the magnitude of ultimate losses in a portfolio caused by defaults. The level of rating would be dependent on quantum (asset risk) and sustainability of coverages (payment risk) against the commitments during life of instrument.

2.5 Recovery Risk: In structured finance instruments, investors would have the "underlying asset" as the only recourse available in case of non–payment. In case of deficiency in cash flows, the investors retain complete recourse to underlying assets. However, they have no recourse beyond those assets to underlying issuer. Thus evaluation of legal structure, liquidation and loss in case of default are important analytical factors.

***Legal Structure and documentation review**: The purpose of this review is to assess the credit and legal implications of the transaction structure. As part of this review, issues considered include inter alia transferability of assets; bankruptcy remoteness of SPV; taxation issues including transfer tax, stamp duty and withholding tax; and regulatory issues. When rating a securitization transaction, particularly in an industry with no previous securitization transactions or examples in the proposed asset class, an understanding of the legal environment is vital. PACRA has found that the legal ability to transfer assets and attached security to a third party can often be constraints to securitization. Most securitizations rely on a "true sale" of assets where ownership cannot be challenged in the event of the originator's bankruptcy.*

***Liquidation and loss (Recovery) Analysis:** The purpose of this analysis is to understand the characteristics and behavior of the assets concerned under given stressed scenarios where cash flows would be unlikely to meet the required payments. Loss given default is of key importance. Once legal structure is evaluated, expected realizable value from the SPV's assets is calculated. Based on marketability and market conditions some haircut is applied to assess expected loss in case of payment default and liquidation by investors.*

2.6 Assigning the rating: Most of the time, the originators will approach PACRA with proposed structure of the transaction. PACRA assesses all the draft documents and proposed structure and assigns a "preliminary rating". Once the transaction is legally formalized, the rating team is obligated to review the legal documentation. In case of material variation form the original proposed structure, the Rating Committee may decide for a lower or higher "Final" rating.

2.7 Challenges faced while Rating Structured Finance Instruments: Availability of reliable and standardized data in the rating process of structured finance instruments is of paramount importance. The availability of data is typically the major impediment in the rating process. This is because the data required for the on-going management of an asset pool is frequently different to that evaluated in the standard entity/instrument rating process. Securitization may call for data in formats not previously captured by a company's systems. Recreating historical data for existing assets using new parameters is time-consuming and can be a major cause of delay. However, companies that bring their information systems in line with the data requirements of such transactions find that the process can be completed efficiently.

3. Surveillance

Surveillance

3.1 Once an instrument is issued, PACRA continues to play a role in the securitization throughout the life of the transaction. The agency's dedicated team provides a valuable tool for investors by monitoring and reporting on the performance of the rated securities. In this regard, relationship with trustee of each instrument is established. Each profit and principal payment is confirmed from the trustee. The surveillance frequency depends on payment terms and frequency of payments. However, a formal review is undertaken once in every six months.

4. Regulatory Regime for Structured Finance Transactions

Regulatory Regime for Structured Finance Transactions

4.1 Structured finance transactions, wherein Special Purpose Vehicle (SPV) is created, are governed under "The Companies (Asset backed Securitization) Rules, 1999 issued by Securities and Exchange Commission of Pakistan. These rules require SPVs to be registered with SECP, meet the conditions and abide by respective obligations.

5. Regulatory Requirements for Rating of Structured Finance Instruments

Regulatory Requirements for Rating of Structured Finance Instruments

5.1 SECP has laid down Credit Rating Companies Regulations, 2016 for the Credit Rating Agencies. For rating of structured finance instruments, the Regulations requires the rating agency to disclose in case of structured finance products, information about the originator like its name, its principle business, its brief financial and operating position for the last five years, nature of defaults and delay, if any, in repayment of any financial obligation during the last five years, nature and value of assets backing the instrument, detail of guarantee, if any, or any other additional security arrangement, transaction structure, collection mechanism etc.

6. Differentiating Rating Scale

Differentiating Rating Scale

6.1 To differentiate between rating scale of plain vanilla debt instruments and structured finance instruments, the letters "sf" (Structured Finance) is being added as suffix to PACRA's standard rating scale.

Structured Finance Rating

Structured Finance rating reflects forward-looking opinion on credit worthiness of underlying instrument; more specifically it covers relative ability to honor financial obligations. The primary factor being captured on the rating scale is relative likelihood of default.

To distinguish the rating of structured finance instruments from plain vanilla debt instruments, the letters "sf" (Structured Finance) are added as suffix to PACRA's standard rating scale.

Scale	Definition
AAA (sf)	**Highest credit quality.** Lowest expectation of credit risk. Indicate exceptionally strong capacity for timely payment of financial commitments
AA+ (sf) **AA (sf)** **AA- (sf)**	**Very high credit quality.** Very low expectation of credit risk. Indicate very strong capacity for timely payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A+ (sf) **A (sf)** **A- (sf)**	**High credit quality.** Low expectation of credit risk. The capacity for timely payment of financial commitments is considered strong. This capacity may, nevertheless, be vulnerable to changes in circumstances or in economic conditions.
BBB+ (sf) **BBB (sf)** **BBB- (sf)**	**Good credit quality.** Currently a low expectation of credit risk. The capacity for timely payment of financial commitments is considered adequate, but adverse changes in circumstances and in economic conditions are more likely to impair this capacity.
BB+ (sf) **BB (sf)** **BB- (sf)**	**Moderate risk.** Possibility of credit risk developing. There is a possibility of credit risk developing, particularly as a result of adverse economic or business changes over time; however, business or financial alternatives may be available to allow financial commitments to be met.
B+ (sf) **B (sf)** **B- (sf)**	**High credit risk.** A limited margin of safety remains against credit risk. Financial commitments are currently being met; however, capacity for continued payment is contingent upon a sustained, favorable business and economic environment.
CCC (sf) **CC (sf)** **C (sf)**	**Very high credit risk.** Substantial credit risk "CCC" Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon sustained, favorable business or economic developments. "CC" Rating indicates that default of some kind appears probable. "C" Ratings signal imminent default.
D	Obligations are currently in default.

Outlook (Stable, Positive, Negative, Developing) Indicates the potential and direction of a rating over the intermediate term in response to trends in economic and/or fundamental business/financial conditions. It is not necessarily a precursor to a rating change. 'Stable' outlook means a rating is not likely to change. 'Positive' means it may be raised. 'Negative' means it may be lowered. Where the trends have conflicting elements, the outlook may be described as 'Developing'.

Rating Watch Alerts to the possibility of a rating change subsequent to, or, in anticipation of some material identifiable event with indeterminable rating implications. But it does not mean that a rating change is inevitable. A watch should be resolved within foreseeable future, but may continue if underlying circumstances are not settled. Rating watch may accompany rating outlook of the respective opinion.

Suspension It is not possible to update an opinion due to lack of requisite information. Opinion should be resumed in foreseeable future. However, if this does not happen within six (6) months, the rating should be considered withdrawn.

Withdrawn A rating is withdrawn on a) termination of rating mandate, b) the debt instrument is redeemed, c) the rating remains suspended for six months, d) the entity/issuer defaults., or/and e) PACRA finds it impractical to surveill the opinion due to lack of requisite information.

Harmonization A change in rating due to revision in applicable methodology or underlying scale.

Surveillance. Surveillance on a publicly disseminated rating opinion on structured finance is carried out on an ongoing basis till the maturity of the instrument or cessation of contract. A comprehensive surveillance of rating opinion is carried out at least once every six months. However, a rating opinion may be reviewed in the intervening period if it is necessitated by any material happening.