METHODOLOGY

SECURITY BROKER ENTITY

An opinion on the credit worthiness of a Securities Broker.

Content

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The Pakistan Credit Rating Agency Limited

www.pacra.com

0. INTRODUCTION

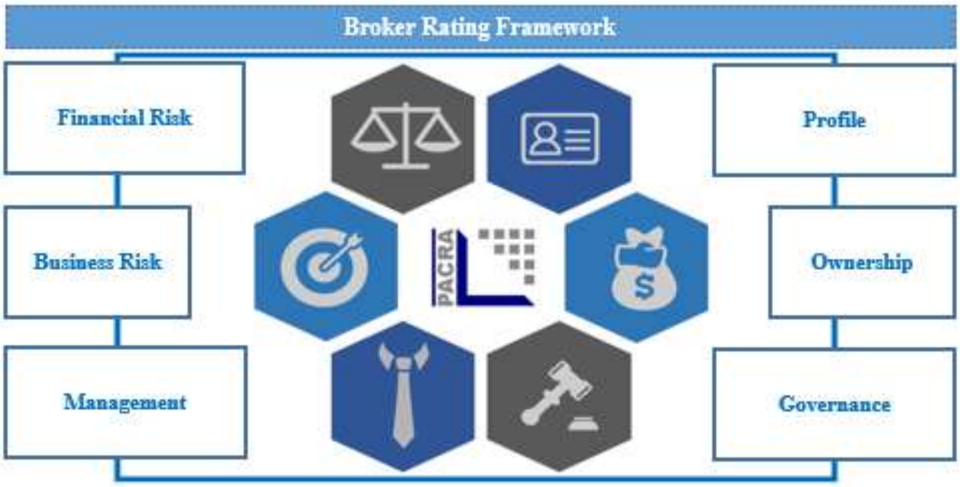
- *Scope*
- *Rating Framework*

A sound financial ecosystem is critical for functioning of any economy. It is defined by interaction of providers of funds - savers, users of funds - borrowers, financial institutions, and regulators. This system ensures smooth flow of funds between savers and borrowers; wherein, financial institutions provide platform for their interaction. Regulatory oversight safeguards the sanctity of this system. Like all systems, financial system has its own set of challenges. The most prominent being "Risk"; the risk that some participant may not be able to meet its commitments. All participants do their best to manage this risk to maximize their return. This is not possible unless we have independent information on this risk. Here comes expertise of rating agencies, providing independent opinion on credit risk. Flow of funds is only possible when the provider of funds has confidence that user of funds will be able to return these in a timely manner and as committed. Ratings help build this confidence. A higher rating means higher likelihood of timely repayment compared to a low rating. Our ratings are forward-looking and reflect our expectations for future financial and operating performance. However, historical results are helpful in understanding patterns and trends of a company's performance as well as for peer comparisons.

0.1 Scope: This methodology applies to securities brokers. These are regulated primarily by Securities and Exchange Commission of Pakistan under the Brokers and Agents Registration Rules 2001. SECP issued final Securities Brokers Regulations, June 2016. Out of the total 309 brokers as at Dec-16 most of brokers are private limited and only few are listed companies (36). The firm, to undertake brokerage business, needs to be a TREC holder of an exchange, participant in CDC, a clearing member of NCCPL, and registered with SECP. In the latest regulations, SECP has created a distinction between Trading, Trading and Self Clearing and Trading and Clearing brokers. Separate set of regulations apply to each category including minimum capital, net worth and minimum net capital balance.

0.1.1 A brokerage firm provides services mainly brokering (equity, fixed income, and commodity); deals in listed and unlisted equities; provides and helps provide leverage products (Margin Trading System, Margin Financing, and Securities Lending and Borrowing); few of the brokerage firms are also engaged in advisory and underwriting. For underwriting, the brokerage firm needs to be registered with SECP as underwriter under the Underwriter Rules, 2015.

0.2 Rating Framework: PACRA bases its analysis of financial institutes on a number of quantitative and qualitative factors, the most significant of which are covered below. No one factor has an overriding importance or is considered in isolation and all the factors are reviewed in conjunction.



0.2.1 The quantitative factors helps in achieving objectivity in the rating process while the qualitative side helps in establishing the sustainability of the relevant factors in the foreseeable future. Neither all factors can be quantified nor do quantitative values portray the whole story. PACRA, therefore, seeks to employ a best combination of both and would stick to it to ensure comparability on historical as well as synchronic basis.

0.2.2 The basic precepts of this rating methodology is understanding of the business model of the financial institute (and the inherent risks), the strategy of its management, local macro-economic environment, and developments happening in the industry. The relevant positioning of the financial institute, established in comparison with relative peers in the industry, is a key consideration under this methodology to reach a final rating for a financial institute.

0.2.3 While our rating process does not include an audit of a financial institute's financial statements, it does examine the control environment to establish to which extent they accurately reflect a financial institute's financial performance and balance sheet integrity. We make adjustments where necessary to make a financial institute's financial data comparable with those of its peers. In order to carry out adequate analysis of a particular financial institute, it is helpful to establish a "peer group" of comparable financial institutes. Short-term and long-term ratings are based on an entity's fundamental credit characteristics, a correlation exists between them (see PACRA's Criteria document "Correlation between Short-term and Long-term Rating Scale").

1. PROFILE

- *Structure*
- *Background*
- *Operations*

1.1 Structure: PACRA evaluates the legal structure of the entity. Legal status determines the level of expected stability. In cases where the entity is a large financial institute and has a complex business structure, there are unique challenges in evaluating credibility of the entity. PACRA considers the characteristics of the entity as at times entities are run as family concerns despite legally structured as public limited company. Meanwhile, the level of perceived stability gradually increases from a private entity to a listed entity. However, unnecessary complex structures when compared to asset size, scale and peers of the same industry would have an adverse effect on the credit scoring of the entity.

1.2 Background: PACRA looks at the progress of the entity from its historical past in order to understand the evolution of the entity from where it stood to where it currently stand at. The background of the entity helps PACRA in assessing how and through what means the entity has achieved the desired expansion. However, it also help PACRA in establishing the scope of work in terms of its complexity.

1.3 Operations: The assessment of operations of the entity depends on the type of the industry and the stage the business is in. Here PACRA reviews the diversity, geographic spread of operations, and diversification of major borrowers and lenders. Later, PACRA places the entity within its relative universe to evaluate critical factors that provide competitive advantage. Size may be an important factor if it confers major advantages in terms of operating efficiency and competitive position.

2. OWNERSHIP

- *Structure*
- *Stability*
- *Business Acumen*
- *Financial Strength*

2.1 Structure: The assessment of ownership begins with an in-depth study of the shareholding mix in order to disentangle structure of the ownership. Key factors that are considered for this purpose, inter-alia include, i) shareholding structure which includes whether the individual own the entity directly or indirectly, ii) foreign or local shareholders, iii) whether the entity is owned by a single group or through a combination of entities and individuals, and iv) part of a group or a standalone entity. All these deliberations are done to identify the man of the last mile.

Complex shareholding/ownership structures: *In cases where an entity has a complex ownership structure, there are unique challenges in evaluating the decision making process, lines of hierarchy and financial obligations and liabilities. In analyzing these entity's the fundamental issue is to explore the underlying reason or motivation for the complexity of the structure.*

Financial Institutions which are owned by private individuals and families: *On the one hand, the concentration of equity ownership might indicate that the majority shareholders have a strong vested interest in creating long-term value and closely monitoring management behavior. On the other hand, a potential concern in such cases is that the owners might rely heavily on extracting funds from the entity as source of income or to fund other business activities, potentially undermining the financial stability of the entity.*

2.2 Stability: In order to analyze the stability of the ownership, a particularly important factor to be taken into account is the succession planning. A very important part of our background analytical work is an attempt to assess whether, and under right of succession, an entity future prospects would be supported, and by whom. This is particularly relevant for support in case of larger sized banks, whose failures could have a contagious effect on the confidence in the overall financial system.

2.3 Business Acumen: Here PACRA gauge the Sponsor's business acumen. Having a strong business acumen set has been critical for the sustainable success of the entity. PACRA analyze the business acumen through two primary areas; i) Industry-specific working knowledge and ii) Strategic thinking capability. Meanwhile, a deep and applicable understanding of the system is critical in order to determine how a business achieves its goals and objectives. The scope includes the assessment and understanding of how the sponsors of the entity think about and successfully make the right business decisions.

2.4 Financial Strength: We analyze the ability and willingness of owners to support the entity in case of need. Particularly in case of small financial institute, where capitalization requirements are yet to meet by the entity, PACRA critically analyses the willingness and ability of the major shareholder to support the entity to comply with regulatory requirements within required timeframe. Thus ongoing support is considered more likely in these cases. However, for large financial institutions, external support from government / regulatory becomes more important. Here, PACRA gives due importance to, i) the behavior of the major shareholders to provide timely and comprehensive support in times of need in the past, ii) prospective view of key shareholders, incase such need arises, iii) other businesses of sponsors, and iv) the level of commitment of the major shareholder with the entity in providing capital support. In case of no explicit commitment, PACRA attempts to form a view on availability of likely support. The scope for other business of sponsors includes overall profiling of the key sponsor in the context of identifying the resources they have, outside the entity.

Information Required

- *Shareholding Pattern*
- *Details of sponsors' other businesses*
- *Sponsor's financial information*
- *Past pattern of sponsor support*

3. GOVERNANCE

- ***Board Structure***
- ***Members' Profile***
- ***Board Effectiveness***
- ***Financial Transparency***

3.0 PACRA's assessment of governance involves both systematic analyses of governance data and information, and the more contextual reviews of an entity's governance practices. PACRA considers four main factors while assessing the board structure of an entity: (i) board structure, (ii) members profile, (iii) board effectiveness, and (iv) financial transparency.

3.1 Board Structure: This comprises assessment of board on various criteria including overall size, presence of independent members, association of board members with the entity, overall skill mix and structure of committees of the board. Size of the board may vary as per the scope and complexity of the business operations of the entity. As too small board is not considered good, similarly reaching on a decision in an effective and efficient manner may not be possible in case of a larger board. A healthy composition of board includes the presence of independent / non-executive members having limited relationship with the sponsoring group of the entity. Meanwhile, same individual holding chairman and CEO positions is considered weak governance practice. Thus these should be separate persons. The chairman is expected to have a non-executive role. Assessment of board as a whole Compliance of code of corporate governance is also examined. Here PACRA also examines the independence of management from major shareholders. Lastly, PACRA evaluates number of board committees, their structure, and how these committees are providing support to the BoD. The board with higher total number of members should have higher number of committees in place to achieve efficiency in performing role of the board.

3.2 Members' Profile: PACRA collects information regarding profile and experience of each board member. This helps in forming an opinion about the quality of overall board. Moreover, diversification in terms of knowledge background and experience is considered positive. However, a fair number of board members should have related experience. Here, director's trainings conducted by the entity are considered good. This is expected to equip the board members in fulfilling their role in an effective manner.

3.3 Board Effectiveness: PACRA considers the role of the board is to work with management in steering the entity to its performance objectives and to provide critical and impartial oversight of management performance. Board members' attendance and participation in meetings is considered a measure to assess the effectiveness. Moreover, PACRA analyses the type and extent of information shared with the board members, and quality of discussions taking place at board and committee level. Effective oversight requires frequent sharing and detailed information than required by statue. Meanwhile, PACRA also review the number of board meeting held during the year as number of board meetings should be justified with the number of issues/matters arising.

3.4 Financial Transparency: Quality of governance framework is also assessed by the procedures designed by the board to ensure transparent disclosures of financial information. The board may establish controls to ensure transparency through strengthening the role of audit committee, the quality of internal audit function, and effectiveness of external audit.

Information Required

- *Profile of BoD members*
- *Details of committees including TORs*
- *Minutes of the board meetings*
- *Information packs for the boards (MIS)*
- *Auditor details*

4. MANAGEMENT

- *Organizational Structure*
- *Management Team*
- *MIS*
- *Risk Management Framework*

4.0 Good quality management, effective systems and controls, and well-defined strategy are essential ingredients for a successful entity.

4.1 **Organizational Structure:** The assessment of management starts with PACRA conducting an in-depth analysis of organizational structure of the entity. On a standalone basis, PACRA looks into the hierarchal structure, reporting line, dependence of the management team on one or more persons, coherence of the team. However, PACRA also places the organizational structure in the entity's relative universe for comparison in order to form opinion of optimal structure within the sector in context of its complexity. Number of management committees are established to monitor performance and assure the adherence to the policies and procedures. PACRA measures the effectiveness of the entity by forming an opinion on the quality of management committees.

4.2 **Management Team:** Analysis of management includes evaluating experience profile of key individuals, management's track record to date, in terms of building up sound business mix, maintaining operating efficiency and strengthening the entity's market position. Although judgment about management is subjective, performance of entity over time provides a more objective measure. PACRA analyses the quality and credibility of management's strategy, examining plans for internal or external growth. When evaluating future plans, significant credit is given for delivering on past projections and sticking to strategies. Loss of key personnel, particularly members of senior management, can have potentially adverse effects on overall standing of the entity relative to peers. Hence, HR turnover is reviewed to determine the stability of critical staff, with particular focus on key departments. In addition, entity's human resource policies are also reviewed to gauge entity's emphasis on retaining and recruiting vital staff and ensuring their redundancy in the structure.

4.3 **MIS**: One of the key tools available to the management to effectively run an organization is the information provided to it. PACRA closely monitors the type and frequency of information used by the management. The critical aspect is for the information to be concise, clear, and timely so the management can understand and respond accordingly. System generated – real time based – MIS reports add more efficiency in performance monitoring. PACRA evaluates the quality and frequency of the MIS reports used by the department heads. PACRA further assesses whether management has developed any critical success factors (CSF) to evaluate performance of various business segments. The efficacy of these CSF is gauged.

4.4 **Risk Management Framework:** This includes an analysis of the entity's appetite for risks and the systems in place to manage these risks. PACRA examines the independence and effectiveness of the risk management function, the procedures and limits that have been implemented, limits setting authority and the degree to which these procedures are adhered to. PACRA endeavors to assess senior management's understanding of and involvement in risk management issues and examine the reporting lines in place. In recent years, there has been a noticeable upgradation in the risk management systems of the financial institutes, in the face of increasing guidance and supervision from the SBP and SECP.

Operational Risk: *Operational risk has historically been defined as all other risks other than market, credit and liquidity risk. In the context of Basel II, definition of operational risk is: "the risk of loss resulting from inadequate or failed internal processes, people and systems or external events". This definition includes legal risk but excludes strategic and reputation risk.*

Our analysis of operational risk focuses on a number of issues, including (a) an entity's definition of such risk (b) the quality of its organizational structure (c) operational risk culture (c) the development of its approach to the identification and assessment of key risks (d) data collection efforts; and (e) overall approach to operational risk quantification and management.

Other Risks: *As already indicated, a risk often not encapsulated in the above categories is reputation risk, which can be significant for some entities, particularly those active in private banking. A good name and brand image are often an important differentiator of long-term performance in an industry which is becoming increasingly commoditized.*

Information Required

- *Latest Organogram*
- *Profile of senior management*
- *Redundancy pattern*
- *MIS reports*
- *Management meeting minutes*
- *Entity's policies and SOP*

5. BUSINESS RISK

- ***Industry Dynamics***
- ***Relative Position***
- ***Revenue***
- ***Profitability***
- ***Sustainability***

5.1 Industry Dynamics: Industry analysis focuses on the dynamics of the domestic market over the past. The fluctuations and the cyclical movements are analyzed and based on this, future projections are made, especially with reference to the medium term outlook. Key data is interplay of domestic and foreign investors, appetite of these investors and future trends. The trading volumes and their concentration also helps identify the health of the industry. The domestic market dynamics are compared with the regional and global markets. This analysis is done with an objective of identifying the gaps and areas where the domestic market is lagging and what kind of implications it would have on the local market. Industry positioning of significant players is evaluated. At the same time, legal injunctions, current and forthcoming, are reviewed to form a view whether the industry would experience a major shift in the medium term The objective of business risk analysis it to establish the company's ability to sustain – indeed – grow its relative positioning in the industry while ensuring profitable operations.

5.1.1 PACRA explores the possible risks and opportunities in an entity resulting from social, demographic, regulatory and technological changes. It considers the effects of geographical diversification and trends in industry expansion or consolidation required to maintain a competitive position. The analysis includes the role of the supervisory authority, its supervision of regulated entities, reporting requirements and regulations relating to specific type of financial institutions and to specific financial products.

5.1.2 Economic Risk: While analyzing economy, PACRA evaluates economic policies, GDP growth, performance of important sectors in the economy and potential credit demand. An important part of economic analysis is positioning of industry and impact assessment of economic risk factors on the industry.

5.2 Relative Position: Relative position reflects the standing of the entity in the related market. The stronger this standing is, the stronger is the entity's ability to sustain pressures on its business volumes and profit margins. This standing takes support from two major factors including a) market share, b) growth trend.

*<u>**Market Share:**</u> Market size represents the entity's penetration in the chosen market. Size is advantageous as it provides ability to acquire larger business, pricing power and better expense management. There is a positive correlation between an entity's absolute and relative size and its market position and brand value. The large entities exercise greater power over the pricing, while ensuring commensurate profits. Small entities struggle to obtain business; and with less flexibility in the cost structure, their profits remain low. While absolute size is important, it is basically the relative proportion which provides a clear yardstick to analyze the comparative strength of the market players. The more distant a player is from the average on the positive side, the stronger is its ability to reflect the characteristics just mentioned. In a dynamic industry, which is not characterized by concentration, PACRA believes that relative size would better capture the strength of the entity's standing in the related market.*

***Growth Trend:** While evaluating the size, PACRA looks at the rate of growth. Growth is important as it ensures that the entity continues to have the ability to meet the industry's benchmarks. As the industry grows, it uplifts the scale of its operational context. This reflects in the ability of the players to invest in human resource, upgrade the control environment, enhance the product slate, increase the outreach and improve the quality of product/service. To lag the industry's growth trend means to remain short on these avenues, putting pressure on the market position.*

5.3 Revenues: In measuring earning's quality of an entity, diversification and stability are very important factors. An entity with a diverse product slate with more than one revenue streams is considered better than an entity with a concentrated earning profile. PACRA sees concentration at both product and customer levels. The analysis of business risk of a brokerage firm is based on a clear understanding of two lines of business in which the firm may engage itself. One is the fee-based revenue stream and the second is fund based revenue stream. PACRA generally tends to name the first source of revenue as the core business. While the second source of revenue may still be fundamental to the overall profitability of the brokerage firm, it is usually termed non-core to contrast it with the core fee based income. This clarity is helpful in understanding the issues surrounding the sustainability of the brokerage firm, to be rated. The core revenue needs to present a strong case for the continuity of the firm. This is evaluated by comparing the core revenue with the cost of doing business. The cost which is compared against the core revenue qualifies the test of relatedness. Only the cost incurred for the core business is pitched against the core revenue.

5.3.1 PACRA considers three types of revenues as core: brokerage, commission and advisory fee. The first type of revenue is most prevalent; the second is relevant for firms which are engaged in underwriting etc. The third is yet to make sizable presence in the domestic market. It is pertinent to analyze each of these revenue streams. The structure of brokerage fee is evaluated: the mix of value versus scrip revenue, the mix of institutional, HNWs and individuals, the interplay of foreign vs. local clients, the longevity of the relationship, the trend analysis, the average brokerage fee and its relativeness in the industry, and the mix of buy and sell brokerage. The alternative revenue streams from underwriting, advisory and financing are analyzed to form a view how significant these are and whether these represent a sustainable revenue stream.

Segments
Products
Customers
Geography

5.3.2 Diversification: Diversification is a holistic perspective. It encompasses many aspects which govern the business model of the entity. Multiple array of product provider against mono-line product provider is perceived to have less business risk. Diversification is utmost desirable. The rationale for this is that diversification enhances the ability to meet challenges, both present and upcoming. The lack of diversification gives rise to concentration risk, reflecting vulnerability of the entity to few elements. Concentration is considered a major negative because it limits the entity's ability to ensure sustainability in its business let alone expand it. At the same time, it enhances the risk of disruption in the operations if the area of concentration goes wrong. This does not entail that a company specializing in a certain product/segment would be put at a disadvantage. The disadvantage would only arise, if the company's business gives rise to concentration risk.

5.4 Profitability: PACRA looks at the historical trend of a financial institute's performance, the stability and quality of its earnings and its capacity to generate profits. While taking indicators for a financial institute with those of its peers. Where possible, it also analyses earnings for each of the financial institute's business lines. In this context, it looks at the trends in;

5.4.1 Where necessary in its ratings analysis, PACRA makes adjustments to a financial institute's reported income statement figures, so that financial performance indicators are as comparable as possible from one financial institute to another.

5.4.2 The related ratios are: fee based income to total income and operating cost to fee based income. The core income/loss explains the firm's strength in its business.

5.4.3 Fund based income is an additional buffer. This may emanate from financing activities, fixed income avenues and generally proprietary book. The depth and diversity of this income stream is analyzed with an objective to form a view whether this is one-off or recurrent. PACRA takes comfort from demonstrated stream of recurrent non-fee based income. Funding to the clients may result in crystallization of credit risk; hence bad debts are analyzed and pitched against financing book. The aging analysis also becomes relevant, though its impact is fully catered in the financial risk analysis of the broker.

5.5 Sustainability: PACRA evaluates the strategy of the management and the viability of designed path to reach to the goal. Earnings prospects are monitored, based on budgets and forecast prepared by the management. A reality check is performed while analyzing underlying assumption taken by the management as well as management's track record in providing reliable budgets and forecasts.

Information Required

- *Market Share*
- *Financial projections for next two years*
- *Branch network*
- *List and contribution to brokerage income of top 10 brokerage clients*
- *Contribution to brokerage revenue along with the number of trading accounts from each of the above category.*
- *Break-up of brokerage sales in terms of number of shares handled on stock and commodity exchange on monthly basis.*
- *Client wise (i.e. individuals, corporate, foreign) transaction rate charged.*
- *Break-up of investment book of the company*

6. FINANCIAL RISK

- *Credit Risk*
- *Market Risk*
- *Liquidity Risk*
- *Capitalization*

6.0 Financial risk of a brokerage firm emanates from the type of transactions that the firm executes. A brokerage firm may engage in a) leveraged products, b) receivable financing, c) ready futures, and d) proprietary investments. These transactions may (or may not) be backed by borrowings: short term usually and long term rarely. In addition to the borrowing, the firm may utilize clients' funds (normally reported under advances from and/or payables to clients). The higher the reliance on borrowings and payables, the higher the quantum of risk the brokerage firm is carrying. It is therefore fundamentally important to classify the firm's finances and funding avenues with marked clarity. This would capture the amount of risk that the firm is carrying on the balance sheet at a first glance. From here, a case may be built for an in-depth analysis of each risk.

6.1 Credit Risk: Credit risk results from the credit offered to the clients. The highest level of risk exists in case of receivables, primarily related to the securities purchased on behalf of the clients. This is a type of clean credit though the firm is carrying respective clients' scrips in the sub-account. For these scrips, the market risk is most critical. In the event of downfall of the market, the value of these scrips may stumble suddenly, inducing the client to withdraw from their commitment to settle the receivable. The mechanism put in place by the broker to limit its loss ensuing from the credit risk is assessed. Herein the most important is the system of margin calls, how timely and effective it is.

6.1.1 Credit risk also results from the leverage products as well. These products are governed by the oversight of National Clearing Company of Pakistan Limited. Currently, Margin Trading System and Margin Financing are mostly availed in the domestic market. The design and structure of MTS make it less risky, so is true for MF to some extent. Nevertheless, the counterparty credit risk is borne by the financier as the ultimate analysis of the products dictate.

6.1.2 Ready futures transactions entail purchase of securities from the current market and sale of the same in the future. This type of transactions has inherent risk mitigants against credit risk since the securities would be handed over only in case of payment settlement. Nevertheless, the market risk would become relevant in case of client's denial to make the payment in future to take up the securities.

6.2 Market Risk: The assessment of market risk is premised on an understanding that not all types of investments are equally exposed to market risk. Alternatively, while investments are mostly exposed to market risk, the impact of this risk, should it materialize, would be different from one type of investment to the other type of investment. In certain investments, the interplay of credit risk and market risk aggravates the overall quantum of risk exposure. Bonds are exposed to interest rate risk; in so far as these are exposed to credit risk, their valuations are much vulnerable. Hence, bonds with low credit rating should secure less score. Management's policy as to prop book including equities play a vital role in the overall assessment of company's market risk appetite and its ability to manage conflict of interest.

6.3 Liquidity Risk: Liquidity risk is evaluated to identify balance sheet cushions against committed liabilities. Liquidity risk has a very straightforward computation. Liquid investments are compared against the company's funding base.

6.4 Capitalization: The broker's ability to maintain the related capital regime is analyzed to form a view as to the sustainability of operations. The funding lines and their utilization is assessed to evaluate fall back avenues. Net Capital Balance (NCB) must reflect the overall health of the company and would normally coincide with its size and rating.

Credit Enhancement: *The entity that carry third party commitment to make good an amount obligated to the lenders may provide additional support to its financial risk profile. In this case, in determining the impact on rating, key factors to assess are the financial profile of the third party and the extent of coverage – quantum and duration – it provides.*

Information Required

- *Top 10 trade receivables and top 10 trade payables.*
- *Top 10 accounts classified under doubtful receivables*
- *Details of exposure limits for the brokerage operations and measures taken by the management to ensure implementation of these limits*
- *Details of instances of margin calls during recent one year*
- *Authority limits of treasury head and other top management as well as policy regarding total investment limit in said securities as percentage of equity*
- *Details of latest approved funding limits along with outstanding amount*
- *Internally approved list of eligible securities for margin financing (if any).*
- *Calculation of net capital balance under Rule 2 (D) of the SECP Rules, 1971*
- *Aging analysis of receivables*
- *Statutory reports filed with PSX and SECP*

Credit Rating Scale & Definitions

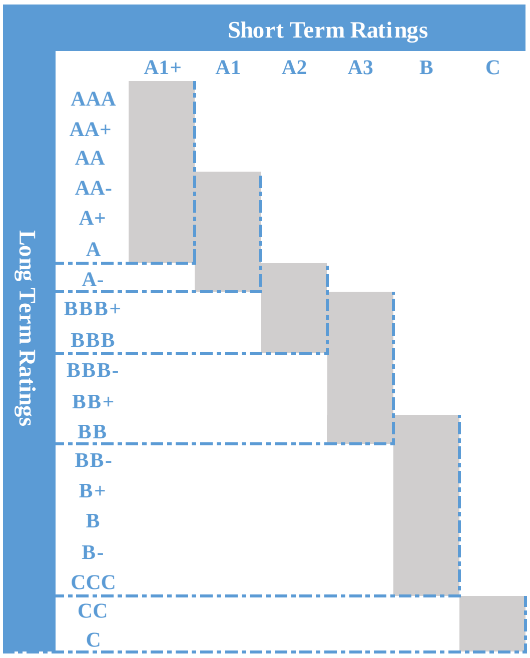
Credit rating reflects forward-looking opinion on credit worthiness of underlying entity or instrument; more specifically it covers relative ability to honor financial obligations. The primary factor being captured on the rating scale is relative likelihood of default.

Long Term Ratings

AAA	**Highest credit quality.** Lowest expectation of credit risk. Indicate exceptionally strong capacity for timely payment of financial commitments
AA+ AA AA-	**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+ A A-	**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+ BBB BBB-	**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+ BB BB-	**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+ B B-	**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 CC C	**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.

Short Term Ratings

A1+	The highest capacity for timely repayment.
A1	A strong capacity for timely repayment.
A2	A satisfactory capacity for timely repayment. This may be susceptible to adverse changes in business, economic, or financial conditions.
A3	An adequate capacity for timely repayment. Such capacity is susceptible to adverse changes in business, economic, or financial conditions.
B	The capacity for timely repayment is more susceptible to adverse changes in business, economic, or financial conditions.
C	An inadequate capacity to ensure timely repayment.



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, a) some material identifiable event and/or b) deviation from expected trend. 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 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) cessation of underlying entity, c) the debt instrument is redeemed, d) the rating remains suspended for six months, e) the entity/issuer defaults., or/and f) 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.