



The Pakistan Credit Rating Agency Limited

## Rating Report

### Engro Polymer & Chemicals Limited

#### Report Contents

1. Rating Analysis
2. Financial Information
3. Rating Scale
4. Regulatory and Supplementary Disclosure

#### Rating History

Dissemination Date	Long Term Rating	Short Term Rating	Outlook	Action	Rating Watch
16-Jul-2022	AA	A1+	Stable	Upgrade	-
17-Jul-2021	AA-	A1+	Positive	Maintain	-
18-Jul-2020	AA-	A1+	Stable	Maintain	-
19-Jul-2019	AA-	A1+	Stable	Maintain	-
18-Jan-2019	AA-	A1+	Stable	Maintain	-
19-Jul-2018	AA-	A1+	Stable	Upgrade	-
25-Jan-2018	A+	A1+	Stable	Upgrade	-
30-Jun-2017	A	A1	Stable	Upgrade	-

#### Rating Rationale and Key Rating Drivers

Engro Polymer and Chemicals Limited (“EPCL” or “The Company”) ratings reflect an established foothold in the manufacturing of Poly Vinyl Chloride(PVC) resin, and Chlor Alkali products (Caustic Soda, Sodium Hypochlorite, and Hydrochloric Acid). EPCL is the sole manufacturer of PVC resin in domestic market. During 1HCY21, EPCL successfully completed its 100KTA PVC plant-3 project along with the 50KTA VCM plant debottlenecking project. The combined capacity of PVC plants now stands at 295KTA. These expansion projects enabled EPCL to fully serve domestic demand, support import substitution, and increase export sales footprint by surplus capacity. During CY21 the Company claimed to dominate the local market share in PVC resin as compared to CY20 mainly on account of import substitution which adds comfort to the assigned ratings. The Company’s topline grew by ~98% in CY21 owing to an increase in sales volume followed by higher PVC prices which translated into the highest ever profitability. It is anticipated that PVC resin demand will remain strong due to ongoing infrastructure and modernization projects, rapid urbanization trends, and rehabilitation of existing sewage and water pipes distribution systems. In addition, the elevation of living standards, rapidly growing population, and real estate developments will continue to drive PVC demand. The Company en-routes another efficiency/expansion projects which include; Hydrogen peroxide production & High-Temperature direct Chlorination. Hydrogen peroxide will add diversity to EPCL’s product mix by penetrating into the Hydrogen peroxide market through a green field manufacturing facility by investing ~USD 35-40mln, both of these projects are anticipated to be commissioned in 2023. Currently, the Company’s debt profile is elevated amidst its phases of expansion, though, it is being aptly managed by having concessionary loans (TERF). The KIBOR has increased up to 15%, further elevating the debt service cost in the future as long-term borrowings dominate the total borrowings. A forex risk arising from the foreign currency loan on the company’s books has been neutralized through a synthetic hedge transaction that EPCL entered into 2020. The Company enjoys a very strong liquidity position on the back of sizable deposits and liquid assets, supplementing its cashflows. EPCL’s association with one of the country’s leading conglomerates – Engro Corp – and the very strong financial profile of the sponsors, lend further support to the ratings.

The ratings are dependent upon the company’s ability to sustain its position as a market leader, further strengthen its sales volumes through exports, and maintain sufficient margins and profitability with prudent financial discipline. Timely completion of the remaining planned expansion projects, while retaining stable coverages would remain important. Adequate management of its capital structure and debt payback remains imperative.

#### Disclosure

<b>Name of Rated Entity</b>	Engro Polymer & Chemicals Limited
<b>Type of Relationship</b>	Solicited
<b>Purpose of the Rating</b>	Entity Rating
<b>Applicable Criteria</b>	Methodology   Corporate Rating(Jun-22),Methodology   Correlation Between Long-term & Short-term Rating Scales(Jun-22),Mehtodology   Rating Modifiers(Jun-22)
<b>Related Research</b>	Sector Study   Chemical(Jul-22)
<b>Rating Analysts</b>	Muhammad Harris Ghaffar   harris.ghaffar@pacra.com   +92-42-35869504

## Profile

**Legal Structure** Engro Polymer and Chemicals Limited ('EPCL' or 'The Company'), was established in 1997 and is listed on Pakistan Stock Exchange.

**Background** Engro Polymer and Chemicals Limited, formerly known as Engro Asahi Polymer and Chemicals Limited, is the only Poly Vinyl Chloride (PVC) manufacturer in Pakistan. The Company is the only fully integrated chemical production facility in the country, located at Port Qasim, Karachi.

**Operations** The Company is primarily involved in the manufacturing, marketing and distribution of PVC with an annual capacity of 295KT. The Company also produces Caustic Soda and its allied products. The Company meets its electricity requirement through a captive generation capacity of ~60MW.

## Ownership

**Ownership Structure** Engro Polymer and Chemicals Limited is a subsidiary of Engro Corporation Limited which is ultimately owned by DH Group. Engro Corporation holds a majority stake in the company (~56%). The other major shareholder is Mitsubishi Corporation (~11%).

**Stability** The ownership structure of the Company displays a composite outlook, with a defined shareholding pattern of all parties.

**Business Acumen** Dawood Group is a conglomerate with over three generations of experience in commercial and social enterprises. Currently, the Group has interests in various sectors of the economy including Fertilizers, Foods, Power Generation, Technology, Financial Services, Chemical Storage, and Petrochemicals.

**Financial Strength** Dawood Group's main holding company is DH Corp. The Group's main investments in Engro Corp are consolidated in DH Corp. DH Corp had a strong consolidated asset base of ~ PKR 692bln supported by an equity base of ~ PKR 263bln in March-22, signifying a robust strength.

## Governance

**Board Structure** The Board of Directors (BoD) comprises 9 members including CEO - the only Executive Director, one member represents Mitsubishi Corporation, three are Independent Directors and the remaining are Non-Executive Directors. Mr. Ghias Khan (the CEO of Engro Corp) - Chairman of EPCL. - is the Non-Executive Director and chairman of the board.

**Members' Profile** Members of the board have a good mix of skills and experience. Mr. Ghias Uddin Khan - the CEO of Engro Corp, is Non-Executive Chairman of Engro Polymer & Chemicals Limited. He helps set a cohesive direction to create growth and value for the group of companies by focusing on long-term strategy and digital transformation.

**Board Effectiveness** The board has two committees in place; (i) Board Audit Committee and (ii) Board People's Committee. Board Committees are chaired by independent directors to ensure transparent governance.

**Financial Transparency** A.F.Ferguson & Co. Chartered Accountants are the auditors of the Company. The said firm falls in category 'A' of SBP's panel of auditors. They expressed an unqualified opinion on the Company's financial statements for the year ended CY2021.

## Management

**Organizational Structure** The Company operates through eight departments, each headed by an experienced manager. These departments include (i) Internal Audit (ii) Manufacturing (iii) Commercial (iv) Supply Chain (v) Finance, (vi) Human Resource, (vii) Business development, and (viii) Digital Transformation. Each department head directly reports to the CEO.

**Management Team** A well qualified and experienced management team is there to run the business operations efficiently. The newly appointed CEO, Mr. Jahangir Piracha, has a degree in chemical engineering with diverse corporate experience spanning over 25 years.

**Effectiveness** The strong organizational structure ensures effective delegation of functional responsibility across various departments, facilitating a smooth flow of operations. There is a management committee headed by CEO, Mr. Jahangir Piracha to oversee and resolve all operational and managerial issues.

**MIS** EPCL has successfully transitioned from SAP ECC 6.0 to S4/HANA. This would help the Company by managing complex processes and larger data sets through the system as compared to the previous version. EPCL's Digital Strategy is based on projects which will automate most of the processes and bring AI, Computer Vision, and Data Analytics to use to improve the safety, reliability, and efficiency of the processes.

**Control Environment** The control environment is strengthened by the role of the Internal Audit department provides periodic detailed reports to the Audit Committee for review and assessment and to take necessary remedial actions, where needed.

## Business Risk

**Industry Dynamics** Pakistan has gigantic potential for the growth of the chemical sector as it is an integral part of our daily lives and industrial progress. Over the years, the local market has made considerable progress in basic inorganic chemicals like Polyvinyl Chloride, Caustic soda, Soda Ash, Hydrogen peroxide and has expanded its production capacities to cater for the market demand. PVC to Ethylene Core delta has declined from its peak of October 2021 (average USD 1,067/MT for 2021) to around USD 700-800/MT. However, it is still higher compared to the historic USD 500-600/MT levels. Under normal circumstances, we do not expect the core delta to erode significantly (from current levels) in the foreseeable future given the international PVC and ethylene supply/demand dynamics. Operational issues, longer than expected turnarounds, disruptions caused by hurricanes and higher freight cost kept PVC prices on an upward trend during most of 2021.

**Relative Position** Majority of domestic PVC demand is met through Engro Polymer and Chemicals. It is the only producer of PVC in Pakistan. The plant has annual production capacity of 295,000KTA of PVC, caustic soda 106KTA. The upgraded capacity in PVC will reduce the element of country's PVC imports eventually.

**Revenues** After growing for five consecutive years, albeit at varying rates, revenue increased in CY21 by 98.2% (PKR 70bln from PKR 35bln in CY20) and PKR 23,127mln in March-22. International prices in the PVC market witnessed an upward trajectory in the first & third quarter of CY21 as business activities resumed and countries emphasized on economy driven activities. Sales from PVC contributes ~96% towards the Company's total net sales, and remaining from caustic soda.

**Margins** EPCL's gross margins moved to ~34.3% in CY21 (CY20: 31%), taking the benefit from core delta. During CY21, the Company net profit increased to PKR 15,103mln from PKR 5,712mln in CY20. As a result, net profit margin moved to 21.6% in CY21 (CY20: 16.2%).

**Sustainability** The Company is working on several efficiency & diversification projects, which include High-Temperature Direct Chlorination and hydrogen peroxide. Oxygen-based VCM production plant has been successfully commissioned (April, 2022). The Board of Engro Polymer & Chemicals Limited (EPCL) in its meeting dated April 18th, 2022 has approved a CAPEX of USD 4 million for conducting Basic Engineering followed by a Front End Engineering Design (FEED) study in relation to de-bottlenecking its VCM production facility to 300 KT per annum (the "Project").

## Financial Risk

**Working Capital** In CY21, EPCL's net working capital cycle improved to 35 days (CY20: 43days), resulting in decreased average inventory days. EPCL has no short-term borrowings during CY20 whereas it had PKR 496mln in CY21.

**Coverages** FCFO increased to PKR 20.7bln in CY21 (CY20: PKR 11bln) due to improved profitability, considered strong. Increased FCFO resulted in a better interest coverage ratio; CY21 14.3x (CY20: 5.4x). This was due to increased improvement in profitability. Coverages are likely to remain steady on the back of strong EBITDA.

**Capitalization** EPCL borrowings comprises: long term debt, short term debt, CMLTD, debt instrument (sukuk). In CY21, the Company's leveraging stood at ~46.3% (CY20: 50.2%). Total borrowings were PKR ~23.1bln (CY21) and PKR ~22.7bln in CY20. The borrowings are neutralized against the hedge transaction to manage the forex risk arising on the IFC loan. EPCL's leveraging tends to remain elevated till the company's expansion phase completes, though it has entered in concessionary loan arrangements; LTFF - PKR 1.92bln, ERF PKR 1.59bln & ITERF PKR 0.53bln up till March-22, in order to fuel its expansion projects. The equity base has increased on account of preference shares (CY21: 26.9bln CY20: PKR 26bln). The Company has a privately placed, secured Sukuk of PKR 8.75bln (inclusive of PKR 5bln green shoe option) on Jan'19 at 3MK+.9%. The Company issued a listed cumulative, callable and convertible preference share in Dec'20.



The Pakistan Credit Rating Agency Limited

Financial Summary

PKR mln

Engro Polymer & Chemicals Ltd Chemicals	Mar-22	Dec-21	Dec-20	Dec-19
	3M	12M	12M	12M

#### A BALANCE SHEET

1 Non-Current Assets	39,431	39,542	38,687	34,005
2 Investments	19,595	16,924	18,806	13,459
3 Related Party Exposure	2,472	2,474	1,637	1,728
4 Current Assets	21,389	18,883	9,965	8,275
a Inventories	12,328	12,591	6,195	6,028
b Trade Receivables	1,102	834	586	470
5 Total Assets	82,888	77,822	69,094	57,466
6 Current Liabilities	24,304	18,179	12,472	12,656
a Trade Payables	3,886	4,342	3,259	2,845
7 Borrowings	20,978	21,632	21,626	21,548
8 Related Party Exposure	4,161	4,195	4,695	5,531
9 Non-Current Liabilities	3,844	3,857	4,175	-
10 Net Assets	29,600	29,959	26,126	17,731
11 Shareholders' Equity	29,600	29,959	26,126	17,731

#### B INCOME STATEMENT

1 Sales	23,127	70,020	35,331	37,837
a Cost of Good Sold	(15,462)	(45,984)	(24,382)	(29,731)
2 Gross Profit	7,665	24,035	10,949	8,106
a Operating Expenses	(375)	(1,059)	(845)	(957)
3 Operating Profit	7,290	22,976	10,105	7,149
a Non Operating Income or (Expense)	(400)	(1,046)	320	(320)
4 Profit or (Loss) before Interest and Tax	6,890	21,930	10,425	6,828
a Total Finance Cost	(624)	(1,902)	(2,191)	(1,786)
b Taxation	(1,545)	(4,926)	(2,504)	(1,339)
6 Net Income Or (Loss)	4,721	15,103	5,730	3,704

#### C CASH FLOW STATEMENT

a Free Cash Flows from Operations (FCFO)	7,300	20,714	11,030	8,315
b Net Cash from Operating Activities before Working Capital Changes	6,686	19,360	8,132	6,828
c Changes in Working Capital	2,241	(6,024)	1,307	(176)
1 Net Cash provided by Operating Activities	8,926	13,336	9,440	6,652
2 Net Cash (Used in) or Available From Investing Activities	(1,523)	(13,465)	(5,286)	(18,917)
3 Net Cash (Used in) or Available From Financing Activities	(4,949)	(12,070)	3,306	11,683
4 Net Cash generated or (Used) during the period	2,454	(12,199)	7,459	(581)

#### D RATIO ANALYSIS

1 Performance				
a Sales Growth (for the period)	32.1%	98.2%	-6.6%	7.3%
b Gross Profit Margin	33.1%	34.3%	31.0%	21.4%
c Net Profit Margin	20.4%	21.6%	16.2%	9.8%
d Cash Conversion Efficiency (FCFO adjusted for Working Capital/Sales)	41.3%	21.0%	34.9%	21.5%
e Return on Equity [ Net Profit Margin * Asset Turnover * (Total Assets/Shareholders' Equity) ]	63.4%	53.9%	26.1%	21.5%
2 Working Capital Management				
a Gross Working Capital (Average Days)	53	53	69	51
b Net Working Capital (Average Days)	37	33	37	20
c Current Ratio (Current Assets / Current Liabilities)	0.9	1.0	0.8	0.7
3 Coverages				
a EBITDA / Finance Cost	14.1	14.3	6.0	5.8
b FCFO / Finance Cost+CMLTB+Excess STB	4.7	3.7	2.8	5.0
c Debt Payback (Total Borrowings+Excess STB) / (FCFO-Finance Cost)	0.9	1.3	2.9	3.8
4 Capital Structure				
a Total Borrowings / (Total Borrowings+Shareholders' Equity)	45.9%	46.3%	50.2%	60.4%
b Interest or Markup Payable (Days)	60.4	94.6	76.1	80.0
c Entity Average Borrowing Rate	8.3%	6.3%	8.3%	14.3%

**Credit Rating**

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.

Scale	Long-term Rating Definition
AAA	<b>Highest credit quality.</b> Lowest expectation of credit risk. Indicate exceptionally strong capacity for timely payment of financial commitments
AA+	
AA	<b>Very high credit quality.</b> 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.
AA-	
A+	
A	<b>High credit quality.</b> 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.
A-	
BBB+	
BBB	<b>Good credit quality.</b> 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.
BBB-	
BB+	<b>Moderate risk.</b> 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.
BB	
BB-	
B+	
B	<b>High credit risk.</b> 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.
B-	
CCC	<b>Very high credit risk.</b> 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.
CC	
C	
D	Obligations are currently in default.

Scale	Short-term Rating Definition
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.
A4	The capacity for timely repayment is more susceptible to adverse changes in business, economic, or financial conditions. Liquidity may not be sufficient.



*\*The correlation shown is indicative and, in certain cases, may not hold.*

**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 surveil 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 is carried out on an ongoing basis till it is formally suspended or withdrawn. 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.

**Note.** This scale is applicable to the following methodology(s):

<p><b>Entities</b></p> <ul style="list-style-type: none"> <li>a) Broker Entity Rating</li> <li>b) Corporate Rating</li> <li>c) Financial Institution Rating</li> <li>d) Holding Company Rating</li> <li>e) Independent Power Producer Rating</li> <li>f) Microfinance Institution Rating</li> <li>g) Non-Banking Finance Companies (NBFCs) Rating</li> </ul>	<p><b>Instruments</b></p> <ul style="list-style-type: none"> <li>a) Basel III Compliant Debt Instrument Rating</li> <li>b) Debt Instrument Rating</li> <li>c) Sukuk Rating</li> </ul>
--	---

**Disclaimer:** PACRA has used due care in preparation of this document. Our information has been obtained from sources we consider to be reliable but its accuracy or completeness is not guaranteed. PACRA shall owe no liability whatsoever to any loss or damage caused by or resulting from any error in such information. Contents of PACRA documents may be used, with due care and in the right context, with credit to PACRA. Our reports and ratings constitute opinions, not recommendations to buy or to sell.

### **Rating Team Statements**

(1) Rating is just an opinion about the creditworthiness of the entity and does not constitute recommendation to buy, hold or sell any security of the entity rated or to buy, hold or sell the security rated, as the case may be | Chapter III; 14-3-(x)

### **2) Conflict of Interest**

i. The Rating Team or any of their family members have no interest in this rating | Chapter III; 12-2-(j)

ii. PACRA, the analysts involved in the rating process and members of its rating committee, and their family members, do not have any conflict of interest relating to the rating done by them | Chapter III; 12-2-(e) & (k)

iii. The analyst is not a substantial shareholder of the customer being rated by PACRA [Annexure F; d-(ii)] Explanation: for the purpose of above clause, the term "family members" shall include only those family members who are dependent on the analyst and members of the rating committee

### **Restrictions**

(3) No director, officer or employee of PACRA communicates the information, acquired by him for use for rating purposes, to any other person except where required under law to do so. | Chapter III; 10-(5)

(4) PACRA does not disclose or discuss with outside parties or make improper use of the non-public information which has come to its knowledge during business relationship with the customer | Chapter III; 10-7-(d)

(5) PACRA does not make proposals or recommendations regarding the activities of rated entities that could impact a credit rating of entity subject to rating | Chapter III; 10-7-(k)

### **Conduct of Business**

(6) PACRA fulfills its obligations in a fair, efficient, transparent and ethical manner and renders high standards of services in performing its functions and obligations; | Chapter III; 11-A-(a)

(7) PACRA uses due care in preparation of this Rating Report. Our information has been obtained from sources we consider to be reliable but its accuracy or completeness is not guaranteed. PACRA does not, in every instance, independently verifies or validates information received in the rating process or in preparing this Rating Report | Clause 11-(A)(p).

(8) PACRA prohibits its employees and analysts from soliciting money, gifts or favors from anyone with whom PACRA conducts business | Chapter III; 11-A-(q)

(9) PACRA ensures before commencement of the rating process that an analyst or employee has not had a recent employment or other significant business or personal relationship with the rated entity that may cause or may be perceived as causing a conflict of interest; | Chapter III; 11-A-(r)

(10) PACRA maintains principal of integrity in seeking rating business | Chapter III; 11-A-(u)

(11) PACRA promptly investigates, in the event of a misconduct or a breach of the policies, procedures and controls, and takes appropriate steps to rectify any weaknesses to prevent any recurrence along with suitable punitive action against the responsible employee(s) | Chapter III; 11-B-(m)

### **Independence & Conflict of interest**

(12) PACRA receives compensation from the entity being rated or any third party for the rating services it offers. The receipt of this compensation has no influence on PACRA's opinions or other analytical processes. In all instances, PACRA is committed to preserving the objectivity, integrity and independence of its ratings. Our relationship is governed by two distinct mandates i) rating mandate - signed with the entity being rated or issuer of the debt instrument, and fee mandate - signed with the payer, which can be different from the entity

(13) PACRA does not provide consultancy/advisory services or other services to any of its customers or to any of its customers' associated companies and associated undertakings that is being rated or has been rated by it during the preceding three years unless it has adequate mechanism in place ensuring that provision of such services does not lead to a conflict of interest situation with its rating activities; | Chapter III; 12-2-(d)

(14) PACRA discloses that no shareholder directly or indirectly holding 10% or more of the share capital of PACRA also holds directly or indirectly 10% or more of the share capital of the entity which is subject to rating or the entity which issued the instrument subject to rating by PACRA; | Reference Chapter III; 12-2-(f)

(15) PACRA ensures that the rating assigned to an entity or instrument is not be affected by the existence of a business relationship between PACRA and the entity or any other party, or the non-existence of such a relationship | Chapter III; 12-2-(i)

(16) PACRA ensures that the analysts or any of their family members shall not buy or sell or engage in any transaction in any security which falls in the analyst's area of primary analytical responsibility. This clause shall, however, not be applicable on investment in securities through collective investment schemes. | Chapter III; 12-2-(l)

(17) PACRA has established policies and procedure governing investments and trading in securities by its employees and for monitoring the same to prevent insider trading, market manipulation or any other market abuse | Chapter III; 11-B-(g)

### **Monitoring and review**

(18) PACRA monitors all the outstanding ratings continuously and any potential change therein due to any event associated with the issuer, the security arrangement, the industry etc., is disseminated to the market, immediately and in effective manner, after appropriate consultation with the entity/issuer; | Chapter III | 18-(a)

(19) PACRA reviews all the outstanding ratings on semi-annual basis or as and when required by any creditor or upon the occurrence of such an event which requires to do so; | Chapter III | 18-(b)

(20) PACRA initiates immediate review of the outstanding rating upon becoming aware of any information that may reasonably be expected to result in downgrading of the rating; | Chapter III | 18-(c)

(21) PACRA engages with the issuer and the debt securities trustee, to remain updated on all information pertaining to the rating of the entity/instrument; | Chapter III | 18-(d)

### **Probability of Default**

(22) PACRA's Rating Scale reflects the expectation of credit risk. The highest rating has the lowest relative likelihood of default (i.e, probability). PACRA's transition studies capture the historical performance behavior of a specific rating notch. Transition behavior of the assigned rating can be obtained from PACRA's Transition Study available at our website. (www.pacra.com). However, actual transition of rating may not follow the pattern observed in the past | Chapter III | 14-(F-VII)

### **Proprietary Information**

(23) All information contained herein is considered proprietary by PACRA. Hence, none of the information in this document can be copied or, otherwise reproduced, stored or disseminated in whole or in part in any form or by any means whatsoever by any person without PACRA's prior written consent