



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
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	-
30-Jun-2016	A-	A2	Stable	Maintain	-

#### Rating Rationale and Key Rating Drivers

The ratings incorporates Engro Polymer’s (‘EPCL’ or ‘The Company’) established foothold in the local Poly Vinyl Chloride (PVC) and Caustic Soda market. EPCL, being the sole manufacturer of PVC in domestic market, embraces a distinct position in PVC with a market share of ~66% (CY20). During the 1HCY20, demand cycle disrupted due to countrywide lockdown, impacting the operational business activities, which later recovered due to easing of lockdowns and resumption of construction sector. In such times, EPCL stayed resilient, as it was authorized to operate by the government agencies given criticality of its products. Moreover, the hike in PVC prices covered the impact of suppressed revenues. The volumes of PVC also rose considerably. Future demand outlook is expected to remain robust primarily on the back of improved market conditions. Prudent management of EPCL capacitated it in defying all the unparalleled challenges and achieved milestones during the year CY20. The ratings stance stems from i) EPCL’s highest ever profitability in CY20, ii) Preference shares of PKR 3bln issued, oversubscribed by 5.4x & iii) successful completion of PVC – III capacity expansion of 100,000 M.T and VCM debottlenecking of 50KT. It is much likely that the enhanced capacity will benefit the Company in capitalizing the growth momentum spurred by the construction space and take over the share of PVC imports. Additionally, the Company en-routes other efficiency expansion projects; HTDC, OVR and TLEx, comprising both enhancements in capacity of existing product lines and introduction of new products. This will add diversity to EPCL’s product mix. The Company is also entering Hydrogen Peroxide market through a green field manufacturing facility by investing ~USD 35-40mln, anticipated to commission in late 2022. Currently, the Company’s debt profile is elevated amidst its phase of expansion, though, it is being aptly managed by having concessionary loans (TERF). A forex risk arising from the foreign currency loan on company’s books, has been neutralized. Company enjoys very strong liquidity position on the back of sizable deposits and liquid assets, supplementing it cashflows. EPCL’s association with one of the country’s leading conglomerate – Engro Corp – and very strong financial profile of the sponsor, lends further support to the ratings.

The Positive Outlook captures the evolving trajectory of the ratings upgrade. The ratings are dependent upon company’s ability to strengthen its business as well as financial profile, sustained operation, and in-time completion of the PVC expansion. 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-21),Criteria   Correlation Between Long-term & Short-term Rating Scales(Jun-21),Criteria   Rating Modifiers(Jun-21)
<b>Related Research</b>	Sector Study   Chemical(Jul-21)
<b>Rating Analysts</b>	Raniya Tanawar   raniya.tanawar@pacra.com   +92-42-35869504

## Profile

**Legal Structure** Engro Polymer and Chemicals Limited ('EPCL' or 'The Company'), 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 and its allied products with an annual capacity of 295KT. The Company also produces Caustic Soda and its allied products. The Company meets its electricity requirement through captive generation capacity of ~70MW.

## 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 majority stake in the company (~56%). The other major shareholder is Mitsubishi Corporation (~11%).

**Stability** Ownership structure of the Company displays a composite outlook, with 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 Groups' main investments in Engro Corp are consolidated in DH Corp. DH Corp had a strong consolidated asset base of ~ PKR 601bln supported by an equity base of ~ PKR 232bln in CY20, 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 while remaining are Non-Executive Directors. Mr. Ghias Khan (the CEO of Engro Corp) - Chairman of EPCL. - is the Non-Executive Director.

**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 year ended December 31st, 2020.

## Management

**Organizational Structure** The Company operates through eight departments, each headed by an experienced manager. These departments include (i) Audit (ii) Public Affairs (iii) Manufacturing (iv) Marketing (v) Supply Chain (vi) Finance, (vii) Human Resource and (viii) Projects. Each department head directly reports to the CEO. Recently, 2 more departments were established by the Company: i) HSE & Training and ii) Digital Transformation.

**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** The Company has SAP as ERP solution. Going forward the Company's corporate objective is implementation of state-of-the-art end to end ERP "SAP S4 HANA", including FIORI, Business Planning & Consolidation and Success Factors.

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

## Business Risk

**Industry Dynamics** In the recent times, Chemical industry is one of the fastest growing sector. It has directly contributed more than USD~1.1 trillion to the global GDP, accounting for more than ~1.35% of global GDP. China, the world's largest chemical markets with ~6.3% growth forecasted in CY21 (CY20: 3.4%). In Pakistan, during CY20 overall sales of PVC was recorded at ~163,000MT with YOY decline of ~15.5% on the back of lock down being imposed during 2QCY20. Moreover, with uptick in construction activity overall demand of PVC is expected to increase in CY21 as evident by higher sales volumes in 1QCY21. There are three major players in caustic soda segment, Engro Polymer, Ittehad Chemicals and Sitara chemical. The total combined production capacity of all players was recorded at ~495,900MT during 9MFY21 whereas total production during the same period was ~315,000MT translating into ~65% capacity utilization. Amid low capacity utilization the import of caustic soda is negligible. The expected demand for FY21 is expected to be ~388,000MT, which will be majorly catered by domestic players.

**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 295,000MT. The upgraded capacity in PVC will reduce the element of country's PVC imports eventually.

**Revenues** After growing for four consecutive years, albeit at varying rates, revenue contracted in CY20 by 6.6% ( PKR 35bln from PKR 37bln in CY19). International prices in the PVC market witnessed an upward trajectory in the fourth quarter of CY20 as business activities resumed and countries emphasized on economy driven activities. Another development in the first quarter of CY21 was the commencement of operations on the new PVC-III plant. Expansions and diversification in product mix will further enhance Company's revenue base in the coming years. Sales from PVC contributes ~87% towards the Company's total net sales, and remaining from caustic soda.

**Margins** Instilling from improved topline, EPCL's gross margins moved to ~31% in CY20 (CY19: 21.4%), taking the benefit from core delta. During CY20, the Company net profit increased to PKR 5,712mln from PKR 3,704mln in CY19. The impact of increased finance cost was managed by the non operating income. As a result, net profit margin moved to 16.2% (CY19: 9.8%). During 1QCY21, there is noticeable uptick in both gross and net margins: 39.8% and ~26.5%, respectively.

**Sustainability** The Company is working on several expansion projects, which include, oxygen-based VCM production, High Temperature Direct Chlorination and hydrogen per oxide. PVC expansion has been completed and reflecting in the numbers as well. Completion of the other projects are yet to materialize. Recently, commercial operations of VCM Plant Debottlenecking of 50,000 MT per annum (new capacity) were announced by the company dated 25 Jun'21.

## Financial Risk

**Working Capital** During CY20, EPCL's net working capital cycle increased to 43 days (CY19: 20days), owing to COVID-19 impact, resulting in increased average inventory days. However, this has reduced to 29days in 1QCY21. EPCL has no short term borrowings during CY20 where it had PKR 2,159mln in CY19 (CY18: 0).

**Coverages** FCFO increased to PKR 11bln (CY19: PKR 9bln) and PKR 6bln in 1QCY21 due to improved profitability, considered strong. Inclined FCFO resulted in better interest coverage ratio; 1QCY21 17.2x (CY20: 5.4x) and debt coverage ratio to 1.1x (CY20: 2.9x). This was due to the fall in policy rate. Coverages are likely remain steady on the back of strong EBITDA.

**Capitalization** EPCL borrowings comprises: long term debt, short term debt, CMLTD, debt instrument (sukuk). During CY20, the Company's leveraging stood at ~45% (CY19: 55%). Total borrowings were PKR ~21.7bln (CY20), largely the same as it was in CY19. The borrowings are neutralized against the hedge transaction to manage the forex risk arising on IFC loan. EPCL's leveraging tends to remain elevated till the company's expansion phase completes, though it has entered in concessionary loan arrangements; LTFB - PKR 1.95bln and TERF PKR 3.5bln, in order to fuel its expansion projects. Equity base has increased on account of preference shares (1QCY21: 29bln 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+.90bps. The Company issued a listed cumulative, callable and convertible preference share in Dec'20. Dividend on the Issue will be cumulative and will be payable half-yearly at the rate of 6 Months KIBOR + 3.5%, and the payment of the same shall be at the discretion of Board of Directors and shall be in priority to ordinary shareholders.



The Pakistan Credit Rating Agency Limited

Financial Summary

PKR mln

Engro Polymer & Chemicals Limited Chemicals	Mar-21 3M	Dec-20 12M	Dec-19 12M	Dec-18 12M
<b>A BALANCE SHEET</b>				
1 Non-Current Assets	38,900	38,624	34,006	19,589
2 Investments	17,705	13,181	8,038	7,703
3 Related Party Exposure	1,648	1,637	1,728	173
4 Current Assets	11,959	10,929	8,275	8,506
<i>a Inventories</i>	8,228	7,979	6,028	3,581
<i>b Trade Receivables</i>	784	586	470	430
5 Total Assets	70,211	64,370	52,046	35,971
6 Current Liabilities	14,631	12,448	12,656	11,337
<i>a Trade Payables</i>	3,738	3,875	2,845	3,447
7 Borrowings	22,485	21,661	21,658	7,500
8 Related Party Exposure	-	-	-	-
9 Non-Current Liabilities	4,023	4,191	-	390
10 Net Assets	29,072	26,071	17,732	16,744
11 Shareholders' Equity	29,072	26,071	17,731	16,744
<b>B INCOME STATEMENT</b>				
1 Sales	15,671	35,331	37,837	35,272
<i>a Cost of Good Sold</i>	(9,436)	(24,382)	(29,731)	(26,536)
2 Gross Profit	6,236	10,949	8,106	8,736
<i>a Operating Expenses</i>	(241)	(793)	(957)	(2,044)
3 Operating Profit	5,995	10,156	7,149	6,692
<i>a Non Operating Income or (Expense)</i>	159	251	(320)	363
4 Profit or (Loss) before Interest and Tax	6,154	10,407	6,828	7,055
<i>a Total Finance Cost</i>	(403)	(2,191)	(1,786)	(606)
<i>b Taxation</i>	(1,604)	(2,504)	(1,339)	(1,531)
6 Net Income Or (Loss)	4,147	5,712	3,704	4,917
<b>C CASH FLOW STATEMENT</b>				
<i>a Free Cash Flows from Operations (FCFO)</i>	6,444	11,030	8,315	9,160
<i>b Net Cash from Operating Activities before Working Capital Changes</i>	6,031	8,132	6,828	8,183
<i>c Changes in Working Capital</i>	(1,008)	1,307	(176)	1,097
1 Net Cash provided by Operating Activities	5,023	9,440	6,652	9,280
2 Net Cash (Used in) or Available From Investing Activities	(462)	(5,286)	(18,917)	(11,474)
3 Net Cash (Used in) or Available From Financing Activities	(15)	3,306	11,683	2,873
4 Net Cash generated or (Used) during the period	4,546	7,459	(581)	679
<b>D RATIO ANALYSIS</b>				
<b>1 Performance</b>				
<i>a Sales Growth (for the period)</i>	77.4%	-6.6%	7.3%	27.2%
<i>b Gross Profit Margin</i>	39.8%	31.0%	21.4%	24.8%
<i>c Net Profit Margin</i>	26.5%	16.2%	9.8%	13.9%
<i>d Cash Conversion Efficiency (FCFO adjusted for Working Capital/Sales)</i>	34.7%	34.9%	21.5%	29.1%
<i>e Return on Equity [ Net Profit Margin * Asset Turnover * (Total Assets/Shareholders' Equity )]</i>	59.5%	24.2%	24.7%	35.0%
<b>2 Working Capital Management</b>				
<i>a Gross Working Capital (Average Days)</i>	51	78	51	42
<i>b Net Working Capital (Average Days)</i>	29	43	20	16
<i>c Current Ratio (Current Assets / Current Liabilities)</i>	0.8	0.9	0.7	0.8
<b>3 Coverages</b>				
<i>a EBITDA / Finance Cost</i>	17.6	6.0	5.8	16.9
<i>b FCFO / Finance Cost+CMLTB+Excess STB</i>	4.2	2.2	3.1	16.1
<i>c Debt Payback (Total Borrowings+Excess STB) / (FCFO-Finance Cost)</i>	0.9	2.4	2.9	0.9
<b>4 Capital Structure</b>				
<i>a Total Borrowings / (Total Borrowings+Shareholders' Equity)</i>	43.6%	45.4%	55.0%	30.9%
<i>b Interest or Markup Payable (Days)</i>	70.2	76.1	80.0	41.7
<i>c Entity Average Borrowing Rate</i>	6.4%	8.8%	16.2%	7.1%

#	Notes
A7	The borrowings are adjusted as the forex risk arising from foreign currency loan (IFC), has been neutralised.
A11	Shareholders Equity includes; recently issued perpetual, cumulative, callable and convertible listed Preference Shares (PKR 3bln in Dec'20 and Mar'21)

**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	
CC	<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.
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.

(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