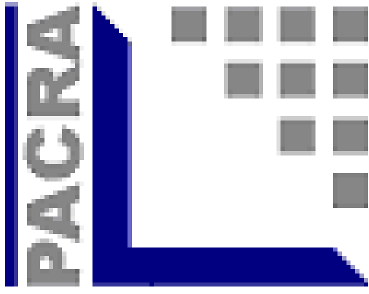

RATING METHODOLOGY

CAPITAL PROTECTION RATING

An opinion on the relative certainty of capital preservation, that is, the timely repayment of the original investment as per agreed terms.

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The Pakistan Credit Rating Agency Limited

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0. INTRODUCTION

- *Overriding objective of capital protection*
- *Circular 7 – the legal backbone*
- *Circular 18 – the multiplier framework*
- *No operational history for fund rating required*

0.1 Mutual fund is an effective tool for mobilizing resources from a large pool of investors, and in turn, providing them access to a variety of assets, which might otherwise be difficult. Pakistan's mutual fund industry has witnessed notable evolution in the overall structure. Asset management companies (AMCs) have introduced a variety of products in line with varying risk return preferences of investors.

0.1.1 The asset management business has two distinct elements – 1) the asset manager, 2) the mutual funds. PACRA has developed separate methodologies to capture distinct components of the industry. Asset Manager Rating is an opinion on the quality of fund management, capability to manage risks inherent in asset management business, ability to generate sound fund performance and effectiveness of an AMC's systems and processes. PACRA offers three products to capture varied factors of different types of mutual funds, i) Star Ranking, ii) Stability Rating, and iii) Capital Protection Rating. The star ranking (also referred as performance ranking) is purely a quantitative measure, comparing historical returns of a fund relative to other funds in the same category of classification. The fund stability rating provides the investors with an objective measure as to the main areas of risk to which the income funds are exposed. Capital protection rating reflects the degree of protection offered on the original investment of the unit holders.

Performance Ranking

- *opinion on the fund's historical performance in comparison to other funds in similar category measured through a quantitative yardstick. Performance Ranking is an independent opinion on the relative risk adjusted performance of the fund. Each asset management company compile their own funds' performance and the performance of the peer funds. Being an independent rating agency, PACRA ensures that it applies same basis to determine the relative performance of all the funds.*

Stability Rating

- *The fund stability rating provides the investors with an objective measure as to the main areas of risk to which the income funds are exposed. The Fund Stability Rating provides the investors with an objective measure as to the main areas of risk to which the income funds are exposed, that is credit risk, liquidity risk and interest rate risk. The stability rating could provide investors with a useful yardstick in comparing their individual risk-return matrix, while making investment decisions.*

Capital Protection

- *Capital Protection Ratings indicate the degree of certainty regarding timely payment of the original investment as per the terms of the scheme. The ratings of the capital protection funds only capture the relative degree of certainty of capital protection: it does not comment on the relative performance of these funds in terms of returns offered to investors.*

0.2 Capital Protection Funds (CPFs) are structured to protect against the downside risk with the ability to tap the upward potential. These funds address the needs of investors who are mindful of their original investment and do not intend to expose it to downside risk. Capital protection funds offer such investors with an opportunity to earn a return on their investment while upholding the original capital. CPFs with the overriding objective of capital protection may forgo extra return. The return maximization philosophy works with the allocation of investment

between risky and non-risky avenues. Some of the funds espouse static allocation, meaning a simplified strategy toward capital protection, whereas others take a dynamic approach towards asset allocation. At a time when the market conditions are ripe, the asset allocation towards risky avenues is increased – (offensive strategy); on the contrary, when the market conditions are deteriorating, portion of non-risky investment is enhanced to preserve the capital (defensive strategy). The challenge of the dynamic investment manager is to seek a balance between offensive and defensive strategy. This balance would determine the success of the fund, measured in terms of capital protection.

0.2.1 Securities and Exchange Commission of Pakistan (SECP) included 'Capital Protected Funds' as a category while devising criteria for categorization of Collective Investment Schemes under its Circular No.7 of 2009. SECP through Circular No. 18 of 2015 laid down a framework for the maximum multiplier in line with cushion value percentage. The objective was to regulate the risk appetite of the fund.

0.2.2 Capital Protection Rating (CPR) indicates the degree of certainty regarding timely payment of the original investment as per terms of the scheme. The protection may be from day one or at maturity depending upon the risk appetite of the fund. The rating captures the relative degree of certainty of capital protection; it does not comment on the relative performance of these schemes in terms of returns offered to investors. Therefore, it is not advisable to create any analogy between capital protection rating and expected performance. A fund with a higher CPR may demonstrate average performance and vice versa. The Capital Protection Rating ranges from CP 1 (the highest rating which means that certainty of capital protection is very strong) to CP 5 (the lowest rating which implies that capital protection is weak).

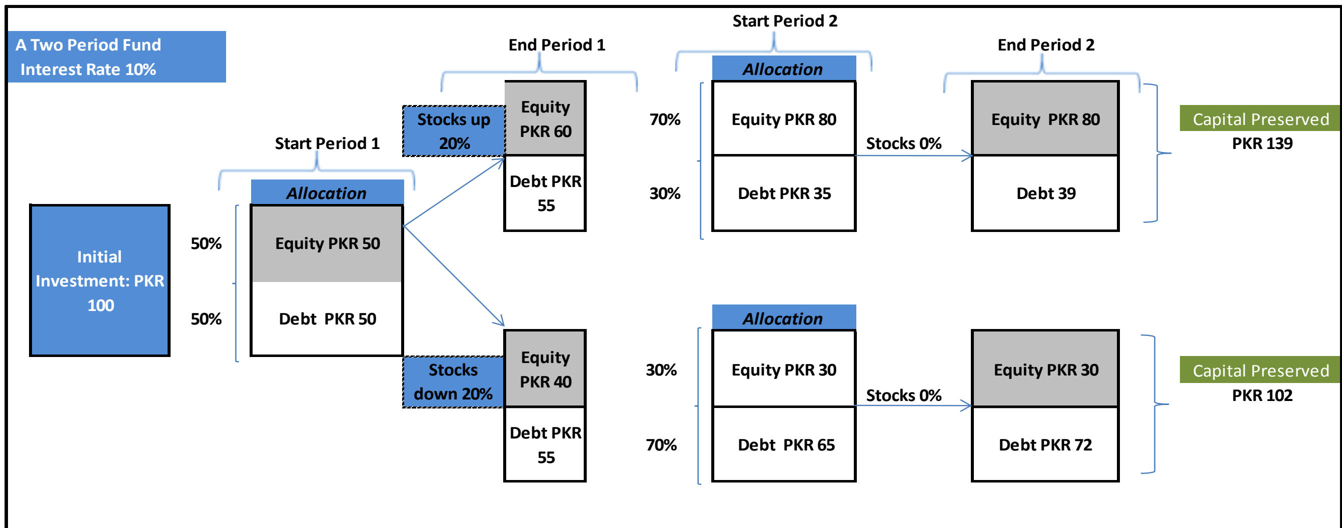
0.2.3 There is no requirement of any minimum operational history of the fund to be eligible for the rating. Thus, a fund proposed to be launched in the near future could also be assigned a rating. This would be based on the offering documents and internal investment policies that the asset manager intends to abide by.

0.3 **Structure of the Fund**: The protection of original investment emanates from the structure of CPFs, which can be broadly classified under two widely used approaches 1) Static approach 2) Dynamic Approach.

0.3.1 **Static Approach:** The static approach is the most basic strategy that ensures capital protection at maturity of the fund. The approach seeks to ensure this by deploying the present value of the protected capital in the fixed income instruments so that this amount compounds to the level of protected capital at maturity. The remaining amount is invested in risky avenues to make a return. This is a static approach and does not require ongoing monitoring for the portion of protected capital unless the interest rate environment witnesses paradigm change prior to maturity of the fund where the fund is exposed to reinvestment risk.

0.3.2 **Dynamic Approach:** The dynamic approach represents a capital protection strategy that maneuvers investment allocation between risky and non-risky avenues. One such strategy which has gained popularity in recent times is Constant Proportion Portfolio Insurance (CPPI). CPPI strategy was first introduced by A.R. Perold in 1986 for fixed-income investments and by Fisher Black & Roberts in 1987 for equity instrument. The basic principle of CPPI is to work with the asset allocation to ensure capital preservation as well as best possible returns. CPPI prescribes that allocation to risky avenues should be enhanced when market is going up and it should be reduced, when market is going down. When the fund value declines in the bad market condition, the exposure is reduced to increase the allocation towards low risk investments to achieve capital preservation. A dynamic strategy like CPPI ensures capital by shifting the portfolio, between risky and non-risky assets, in response to market conditions.

0.4 **Example:** The example, taking a simple case, elucidates the CPPI approach in working. In one scenario, the market is going up by 20% and in another it is going down by 20%. At the end of period one, the allocation is accordingly adjusted. While the exposure is enhanced in the first case, it is reduced in the second scenario. Even if market generates volatility, giving no return at the end, the capital is preserved.



0.4.1 Before we proceed on to the explanation of rating methodology, it seems befitting to explain some of the terms being used.

Floor	Floor is the lowest acceptable value of the portfolio
Cushion	The portfolio value in excess of the floor (Portfolio value minus floor).
Multiplier	Multiple of cushion value. In order to estimate multiplier a view is made on the downside risk of the risky market.
Gap Event	Gap event occurs when value of the portfolio falls below the floor value, hence violating capital protection, giving rise to Gap Risk.
Gap Risk	Gap risk is the risk of violation of capital protection.

0.5 Rating Framework: In forming an opinion on a fund's relative certainty to provide capital protection, PACRA will consider (i) market risk, (ii) credit risk, (iii) liquidity risk, (iv) quality risk, and (v) concentration risk. These factors are assessed to form a view on Gap Risk, the risk that capital protection would not be met as per agreed terms (day one or maturity). In case of fund of fund structure, the assessment would involve analysis of the underlying funds. PACRA believes that market risk is the prime risk, which would fundamentally determine the fund's capacity to meet the capital protection as committed. This risk may be complemented or aggravated by other risks, the cumulative effect of which reflects the risk appetite of the fund and its ability to meet the capital protection.

1. MARKET RISK

- *Interest Rate Risk*
- *Equity market risk*
- *Rebalancing*
- *Held to maturity investment for CPFs*

1.1 CPFs face market risk though the extent varies in line with the structure of the fund. The risk will be more pronounced for CPF schemes embodying dynamic asset allocation and CPPI methodologies than for static allocation funds. The market risk arises on account of two factors: (i) interest rate risk and (ii) equity market risk.

1.1.1 Interest Rate Risk: The interest rate risk is the risk of variation in the price of security due to change in the interest rate environment. The CFPs usually invest money in fixed income instrument to increase to the level of original principal by the time of maturity. These instruments are expected to be held till maturity; this means that even if there is a secondary market available for the instruments, these are secured from the downward price adjustment due to the intention of keeping the investment till maturity. However, such investment is exposed to the reinvestment risk. In a declining interest rate environment, the coupon payment may not be reinvested at the same rate. In such a scenario, the compounding effect would fall short of protected capital on maturity unless the allocation of this avenue is not increased at the expense of equity allocation.

1.1.2 Market Risk: Market risk is the risk in the change of value of investments due to change in the market conditions. It may arise on investments not held to maturity.

1.1.3 Equity Risk: Equity risk is the risk of loss arising out of equity market fluctuations. However, the impact of this risk on the fund changes as the structure of portfolio changes. The static CPFs entail equity risk to the extent of their allocation to equity market. These are nevertheless secured from Gap Risk as only the extra money beyond the present value of the protected capital is assigned to this type of investment. Therefore, while forming a view on the capital protection rating, this risk is given weight only to the extent comfort is required for the reinvestment risk to which the fund is exposed. The CPPI based funds are comparatively more exposed to equity risk since these funds work on the concept of multiplier. These funds assume a view on the downside risk of the equity market and accordingly decide a multiplier. For example, if the downside risk of the market is assumed to be only 20%; the allocation towards this segment would be 5 times – that is the multiplier would be 5. This means that if the market falls by 20%, then the fund cannot have any allocation towards equity market. It has to revert back to fixed investment to safeguard capital. The risk exposure is also affected by the floor. The lower the floor, the higher the risk appetite. PACRA believes that the risk appetite of the fund is directly correlated with the certainty of capital protection rating. The funds with high risk appetite are likely to get lower rating unless the risk is mitigated by some structural assurances.

1.1.3.1 The key to the equity risk is the ability of the fund manager to adjust the exposure in the wake of market softening. The exposure adjustment may be time-based or move based. The time based adjustment happens only after a predetermined time has elapsed. The move-based depends upon certain pre-decided triggers, like change in market index by a certain percentage or change in the policy interest rate. PACRA believes that predefined move-based triggers help in timing the market conditions, engendering ability to manage the market risk. The time-based adjustment is most effective when the tenure is daily. The longer horizon exposes the fund to the extra risk of delays especially when the multiplier is higher. The empirical evidence suggests that the equity risk is mitigated significantly despite higher multiplier and lower floor when the portfolio rebalancing is done in line with the changing market conditions.

1.1.3.2 The risk appetite of the fund depends upon the nature of its capital protection. A fund with day one capital protection would not have the same level of risk appetite, to begin with, as compared to the fund with protection at maturity. While the former may be forgoing a certain amount of extra return, PACRA believes that, from capital protection viewpoint, it is relatively secure.

1.2 Transactions Cost: In case of dynamic allocation and CPPI schemes, frequently rebalancing the portfolio may cause increased transaction costs. This would be an additional cost which could impact the return of the fund and its ability to protect the capital. The fund managers are expected to take a prudent approach in the rebalancing of the fund.

1.3 The structure may have a lower yield than projected in case there is a delay in deployment of funds, or if the debt instruments do not have the same maturity profile as the CPF scheme. The fund manager needs to build a cushion for float risks, at the launch and maturity of the fund as well as during rebalancing, while deciding the investment portfolio mix.

2. CREDIT RISK

- *Stand-alone and weighted average credit quality*
- *Static approach – rating closer to the underlying fixed income asset*

2.1 Capital Protected Funds are subject to default risk and downgrade risk, owing to the nature of the asset classes the fund invests in. Investors assume full credit risk of the underlying asset classes, the underlying institution with which funds are placed to ensure capital protection, as well as the credit risk of the institution that guarantees capital protection at maturity, if applicable. Therefore, for capital protected funds involving static approach, it is likely that the rating of such CPFs would be higher. The credit risk in CPFs may be minimized by investing in asset classes with high credit quality. For CPFs involving dynamic approach to capital protection, the weighted average credit quality of the portfolio is calculated and used in the rating model.

3. LIQUIDITY RISK

- *Liquidity against redemption pressure*
- *Liquidity – traded volume*

3.1 Liquidity concerns can be important in case of large redemption pressure. It is due to the impact cost of selling investments in distress to generate liquidity. The risk emanates from the underlying asset class. While government securities and bank placements may be readily convertible into cash, other investments may take time. An analysis of the type of investments and their relative mix is done with a view to form an opinion on the liquidity risk. While the essential information in this regard remains the traded volume of the respective security, thinly traded securities may be investigated to judge investors' attractiveness to hold-on to such securities. In that case, a portion of such securities may be allowed and liquidity score is not diluted. An analysis of unit-holder concentration may signify the extent of redemptions in the fund. The risk, to some extent, may be mitigated by keeping credit lines, if available at all, to meet unexpected redemptions.

3.2 The structure of the fund is an important consideration for liquidity as well. PACRA believes that a capital protected fund being managed through a Fund of Fund structure is comparatively better in terms of liquidity than a fund directly making all investments.

3.3 A queue system in case of excessive redemptions may also help in managing this risk. An exit load may be imposed to discourage early redemptions, and, in case these redemptions occur, the exit load would compensate for the impact cost. In case heavy redemption is unavoidable, the fund may invoke its arrangements with the guarantor (if applicable) to ensure that capital protection for the remaining investors is intact. A clause stipulating core investors to hold their investment for a minimum lock-in period necessary to ensure capital protection, along-with imposition of a back-end load in case of early redemption, may mitigate this risk.

4. CONCENTRATION RISK

- *Fund's philosophy to manage concentration risk*
- *Ease of exit from the market*

4.1 The concentration risk in the portfolio is established by analyzing the diversification across investment types and issuers. Well-managed funds would have clearly articulated and documented policies and procedures to ensure compliance with its stated portfolio diversification objective. Fund portfolios are subject to additional risk when they are highly concentrated in a specific industry.

4.2 Fixed Income: Concentration in securities of a specific industry may expose a fund to industry risks that could deviate significantly from general market trends. High rated funds would have a diversified portfolio. While exposure in liquid government securities is neutral to concentration risk, other securities are evaluated with respect to issuer, sector, security or market segment. There are two angles to concentration: one with respect to the percentage of the underlying asset and the other with respect to its proportion in fund portfolio. The asset classes which represent the same level of risk are treated on equal grounds. Where there is element of risk attached with an asset class, the score of the fund is diluted as per the view of the rating agency.

4.3 Equity Investment: Concentration impacts equity investments as well. Here again, the yardstick is to see the exposure towards single scrip and percentage of that scrip in the fund portfolio. The underlying objective is to evaluate whether the fund may be able to time its exit from the investment whenever needed. The overall equity allocation, the multiplier and per scrip limits (% of free float etc) would play a pivotal role in the analysis of the fund's exposure to equity risk.

5. QUALITY RISK

- ***Asset Manager Rating***
- ***Monitoring Mechanism***
- ***Identified interference points***
- ***Ability to respond to market conditions***
- ***MIS***

5.1 The ability of a fund to meet capital protection ultimately depends on the management's capability and quality of support systems. Therefore, an assessment of the fund manager's qualification and experience, and the asset management company's capabilities and track record are an integral part to the fund rating process. The assessment of management quality may also provide a basis of how the fund might respond to uncertain conditions or stress situations under different market scenarios.

5.2 The review of risk management processes in place at the asset management company is an important element in overall assessment of the risk of the fund. This involves review of the in-house credit and research analysis, security evaluation process, and ongoing surveillance procedures. The investment proposals and minutes of the Investment Committee meetings will also be reviewed to examine the depth and quality of analysis, and consistency of approach to understand the manager's credit risk tolerance.

5.3 During the evaluation process, PACRA will review the policies and procedures developed by the management to monitor efficacy of CPPI approach in a given fund, and will assess the effectiveness of the investment management process, the supporting organizational structure, internal controls, risk management, and reporting systems. The asset manager rating of the fund management company will provide a useful reference point in forming an opinion as to the quality of the management. A detailed description of the key factors that contribute to an assessment of the fund management qualities is reflected in our methodology for rating asset managers.

5.4 To determine fund's level of risk appetite and fund manager's investment philosophy, discussions with the fund manager regarding floor, multiplier, and entry/exit strategy will be vital during the rating process. At the same time, investment management experience of the fund manager and his/her association with the AMC will be considered as a part of overall process in forming an opinion. The framework deployed to ensure compliance with regulatory requirements and its actual effectiveness would likewise be an important consideration.

5.5 The financial strength of the guarantor, if any, is a considerable factor wherever such an arrangement exists. At the same time, guarantee of the asset manager is also a rating consideration. In both cases, an evaluation of the respective guarantor's financial health is made to form a view on their ability to honor their commitment in a timely manner.

6. SURVEILLANCE

- *Bi-Annual Review*
- *Breach to be monitored*

PACRA will monitor key rating factors of the rated funds to make sure that the fund's behavior is according to its stated mandate and representations given to PACRA. In this regard, Fund Manager Report would be a key resource. Meanwhile, Fund Managers would be expected to submit information of their respective funds to PACRA. This would ensure that the rating remains current and accurate throughout the cycle. PACRA shall not keep the Capital Protection Rating under constant surveillance. The rating will be assigned at least once every six months. In an instance where pre-defined limits are breached, PACRA attempts to understand the reason for breach. For a plausible reason, PACRA may draw an exception. Otherwise, PACRA would provide time to the fund manager to bring the portfolio within the stated framework. If the fund manager is able to cure the breach within the stipulated timeline, the rating is maintained. If the portfolio continues to breach, the rating is revised to reflect the change in the investment policy.

Capital Protection Rating

An opinion on the relative certainty of capital preservation, that is, the timely repayment of the original investment as per agreed terms.

Rating Scale	Definitions
CPI	Very strong certainty of capital protection.
CP2+ CP2	Strong certainty of capital protection.
CP3+ CP3	Good certainty of capital protection.
CP4+ CP4	Adequate certainty of capital protection.
CP5	Weak capital protection.

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. 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.

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 fund, c) the rating remains suspended for six months or d) PACRA finds it impractical to update the opinion due to lack of requisite information.

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

Surveillance PACRA shall not keep the Capital Protection Rating under constant surveillance. The rating will be assigned at least once every six months. Any material happening during a period that may warrant a revision of rating will be incorporated in the following review.

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