The Pakistan Credit Rating Agency

Capital Preservation Rating

Assessment Framework

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The performance rating is an opinion on a fund's historical performance in comparison to other funds in a similar category. It is measured through a quantitative yardstick and provides prospective investors with an initial screening criterion. The rating is derived purely from quantitative metrics that evaluate the fund's historical ability to preserve capital and manage downside risk relative to other funds in similar categories.

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Introduction

A mutual fund is an effective tool for mobilizing pooled resources from a large number of investors and, in turn, providing them access to a variety of assets. Pakistan's mutual fund industry has witnessed notable evolution in its overall structure as asset management companies (AMCs) continue to introduce a variety of products in line with the varying risk-return preferences of different investors.

The asset management business has two distinct elements: the asset manager and the mutual funds. PACRA has developed separate methodologies to capture distinct components of the industry. PACRA's Asset Manager Rating is an independent opinion on the expertise and quality of services of an asset manager. PACRA offers three products to capture varied factors of different types of mutual funds: Performance Ranking, Stability Rating, and Capital Preservation Rating.

Performance Ranking

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

Stability Rating

Fund Stability Rating provides investors with an objective measure of the main areas of risk to which income funds are exposed: credit risk, liquidity risk, and interest rate risk. Stability Rating provides investors with a useful yardstick to compare their individual risk-return matrix while making investment decisions.

Capital Preservation

Capital preservation rating indicates the level of certainty regarding timely payment of the original investment as per the terms of a fund. The rating evaluates a fund's historical ability to protect principal while also capturing upside potential.
The capital preservation rating is aimed at investors who particularly prioritize minimizing downside risk, while also retaining the ability to tap upside gains.

Certain categories of funds are structured to preserve the original amount of investment while having the potential to yield positive returns. Thus, they provide protection to investors against downside risk with the ability to tap upside 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. Fund categories with this objective include: Capital Protected Funds, Constant Proportion Portfolio Insurance (CPPI) funds, Capital Guaranteed Funds, and Fixed Rate/Return funds. While the ultimate objective of each of these funds is the same, the strategies deployed to achieve it may vary in accordance with the guidelines issued by the regulator – the Securities and Exchange Commission of Pakistan (SECP). These guidelines may be in the form of eligibility of specific investment avenues, caps on exposure limits, or other conditions as specified and updated by the SECP.

Funds with the overriding objective of capital preservation may forgo extra return. The return maximization philosophy works with the allocation of investment between risky and non-risky avenues (subject to regulatory restrictions for

each fund category). Some funds adopt static allocation, meaning a simplified strategy toward capital preservation, whereas others take a dynamic approach towards asset allocation. At a time when market conditions are ripe, the asset allocation towards risky avenues is increased (offensive strategy). On the contrary, when market conditions are deteriorating, the portion of non-risky investments is enhanced to preserve the capital (defensive strategy). The challenge of a dynamic investment manager is to seek a balance between offensive and defensive strategies. This balance would determine the success of the capital preservation objective. It is important for a fund to adhere to its category's investment and exposure covenants. In the event of a breach, PACRA would allow the fund a curing period to regularize its asset allocation. Failure to do so within the curing period may result in a rating downgrade. The duration of the curing period would depend on the nature of capital preservation. The duration is likely to be shorter for funds offering ongoing capital preservation (withdrawal at any time with capital preservation) compared to funds offering protection at maturity.

Capital Preservation (CP) Rating 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 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 CP Rating and expected performance. A fund with a higher CP Rating may demonstrate average performance, and vice versa. The CP Rating scale ranges from CP 1 (the highest rating, depicting very strong certainty of timely payment of the original investment as per the terms of the scheme) to CP 5 (the lowest rating, depicting weak certainty of timely payment of the original investment as per the terms of the scheme).

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

Structure of the Fund

The preservation of the original investment emanates from the structure of the funds, which can be broadly classified under two widely used approaches: 1) Static approach, and 2) Dynamic Approach.

Static Approach

The static approach is the most basic strategy that ensures capital preservation at maturity of the fund. This approach includes deploying the present value of the original investment in fixed income instruments so that this amount compounds to the level of the original investment at maturity. The remaining amount is invested in risky avenues to make a return. Static approach and does not require ongoing vigilant monitoring for the portion of preserved capital unless the interest rate environment witnesses a paradigm shift prior to the maturity of the fund where the fund is exposed to reinvestment risk.

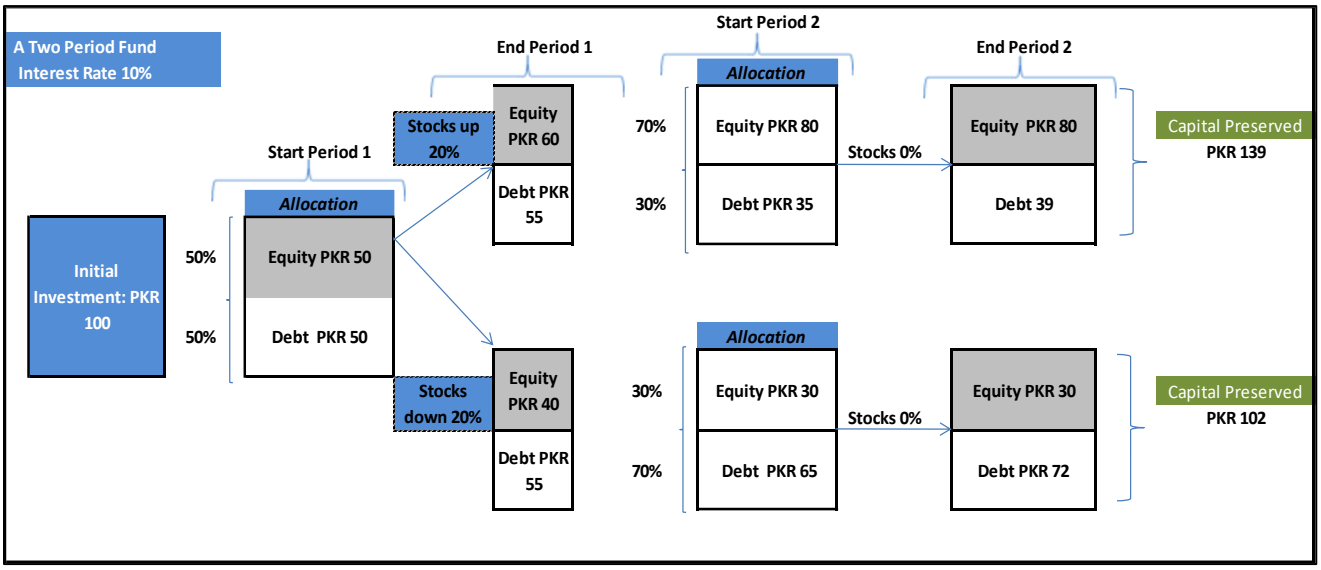
Dynamic Approach

The dynamic approach 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 instruments. The basic principle of CPPI is to work with the asset allocation to ensure capital preservation while receiving the best possible returns. CPPI prescribes that allocation to risky avenues should be enhanced when the

market is going up and should be reduced when the market is going down. When the fund's value declines in bad market conditions, the exposure is reduced to increase the allocation towards low-risk investments to achieve capital preservation. A dynamic strategy like CPPI aims for capital preservation by shifting the portfolio between risky and non-risky assets, in response to market conditions.

Example

The example, taking a simple case, elucidates how the CPPI approach works. In one scenario, the market is going up by 20%, and in another it is going down by 20%. At the end of Period 1, the allocation is accordingly adjusted. While the exposure is enhanced in the first case, it is reduced in the second scenario. Even if the market generates volatility, giving no return at the end, the capital is preserved.



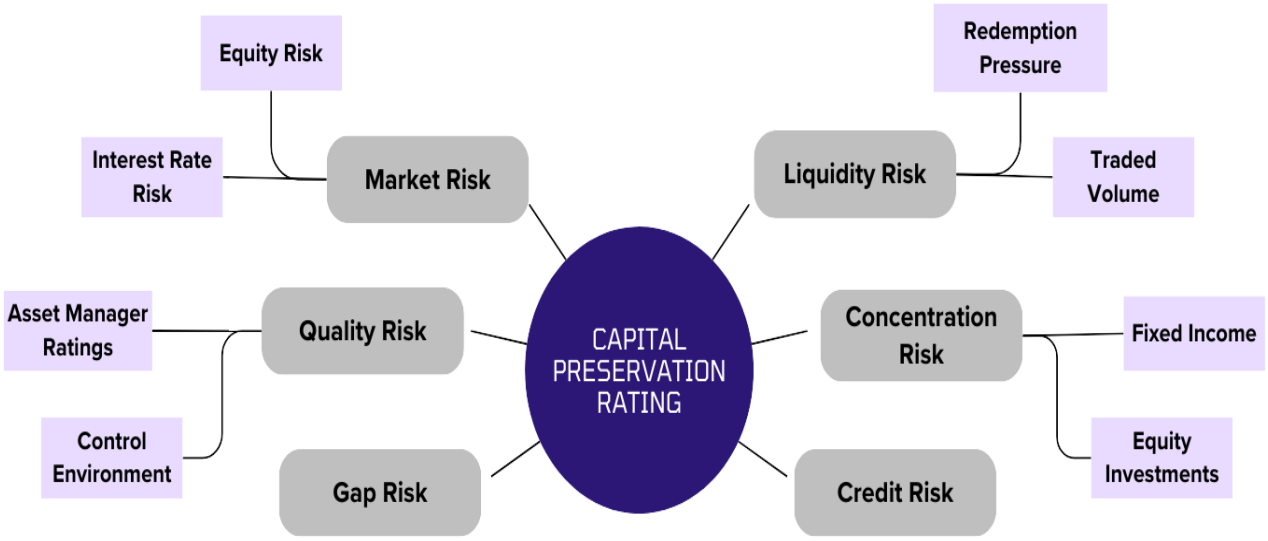
Some of the terms used in the rating methodology are explained below:

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 the multiplier, a view is made on the downside risk of the risky market.
Gap Event	Gap event occurs when the value of the portfolio falls below the floor value, hence violating capital preservation, giving rise to Gap Risk.
Gap Risk	Gap risk is the risk of violation of capital preservation.

Rating Framework

In forming its CP Rating opinion, PACRA considers: (i) market risk, (ii) credit risk, (iii) liquidity risk, (iv) concentration risk, and (v) quality risk. These factors are assessed to form a view on Gap Risk, the risk that the capital preservation objective would not be met as per agreed terms (day one or maturity). In case of a fund of funds 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 its capital preservation objective. 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 preservation.



Market Risk

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

Interest Rate Risk

The interest rate risk is the risk of variation in the price of a security due to a change in the interest rate environment. Funds with capital preservation objectives usually invest money in fixed income instruments 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, they are secured from 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 capital on maturity unless the allocation of this avenue is not increased at the expense of equity allocation. The funds that match maturities of its investment portfolio with expected withdrawal or plan duration are considered more secure.

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 the portfolio changes. The static funds entail equity risk to the extent of their allocation to the equity market. These are nevertheless secured from Gap Risk as only the extra money beyond the present value of the capital is assigned to this type of investment. Therefore, this risk is given weight only to the extent of comfort that 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 a 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 the equity market. It has to revert 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 CP Rating. The funds with high-risk appetite are likely to get a lower rating unless the risk is mitigated by some structural assurances.

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 period has elapsed. The move-based adjustment depends upon certain pre-decided triggers, such as a change in a market index by a certain percentage or a 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 a higher multiplier and lower floor when the portfolio rebalancing is done in line with the changing market conditions.

The risk appetite of the fund depends upon the nature of its capital preservation. A fund with ongoing capital preservation (withdrawal at any time with capital preservation) 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 a capital preservation viewpoint, it is relatively secure.

Transaction 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 fund's return and, in turn, its ability to preserve the capital. The fund managers are expected to take a prudent approach in rebalancing the fund.

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.

Credit Risk

The degree of default risk and downgrade risk depends upon 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 preservation, as well as the credit risk of the institution that guarantees capital protection at maturity (if applicable). Therefore, for funds undertaking the static approach, credit risk is likely to be lower. Capital Protected Funds, which invest exclusively in government securities and placements with highly rated banks, therefore would be expected to carry a higher CP Rating compared to CPPI Strategy-based funds that may invest up to 50% of net assets in risky avenues including equity securities. For funds undertaking the dynamic approach to capital preservation, the weighted average credit quality of the portfolio is calculated and used to derive the rating opinion.

Liquidity Risk

Liquidity concerns can be important in case of large redemption pressure. It is due to the 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 to do so. 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 the 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.

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

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 preservation for the remaining investors is intact. A clause stipulating that core investors to hold their investment for a minimum lock-in period necessary to ensure capital preservation, along with the imposition of a back-end load in case of early redemption, may mitigate this risk.

Concentration Risk

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

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 the 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.

Equity Investments

Concentration impacts equity investments as well. Here again, the yardstick is to see the exposure towards a single scrip and the 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.

Management Quality

The ability of a fund to meet its investment objectives and adhere to stated policies ultimately depends on the management's experience and quality of support systems. Therefore, an assessment of the fund manager's qualifications and experience, and the asset management entity's capabilities and track record are an integral part of the fund rating process. The assessment of management quality may also provide a basis for how the fund might respond to future opportunities or stress situations under different market conditions.

Management scoring is directly derived from the asset manager rating of the entity managing the fund. During the evaluation process, PACRA reviews the policies and procedures developed by the management to meet its investment objectives and assesses the efficacy of the investment management process, the supporting organizational structure, internal controls, risk management, and reporting systems. A detailed description of the key factors that contribute to an assessment of the fund management qualities is reflected in our Asset Manager Rating Methodology.

To confirm harmony between the fund's stated objectives and the fund manager's investment philosophy in the future course of action, discussions with the fund manager regarding the prospective asset mix and investment strategy are vital during the rating process. Floor, multiplier, and entry/exit strategy are additional important discussion points in case of CPPI strategy-based funds. The framework deployed to ensure compliance with regulatory requirements and its actual effectiveness would likewise be an important consideration.

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.

The financial strength of the guarantor, if any, is an important factor wherever such an arrangement exists. At the same time, the 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.

Capital Preservation Rating

Scale

Capital Preservation Rating (CP)

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

Scale	Long-Term Rating
CP1	Very Strong certainty of timely repayment of the original investment as per agreed terms.
CP2++ **CP2+** **CP2**	Strong certainty of timely repayment of the original investment as per agreed terms.
CP3++ **CP3+** **CP3**	Good certainty of timely repayments of the original investment as per agreed terms.
CP4++ **CP4+** **CP4**	Adequate certainty of timely repayment of the original investment as per agreed terms.
CP5	Weak certainty of timely repayment of the original investment as per agreed terms.

Rating Modifiers | Rating Actions

Outlook	Rating Watch	Suspension	Withdrawn	Harmonization
Being based on actual performance, no Outlook or Rating Watch is assigned to Capital Preservation Ratings.	Being based on actual performance, no Outlook or Rating Watch can be assigned to Capital Preservation Ratings.	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.	A rating is withdrawn on a) termination of rating mandate, b) the debt instrument is redeemed, c) the rating remains suspended for six months or d) PACRA finds it impractical to surveil the opinion due to lack of requisite information.	A change in rating due to revision in applicable methodology or underlying scale.

Surveillance: Surveillance on a mutual fund rating opinion is carried out on a periodic basis till it is formally suspended or withdrawn. A comprehensive surveillance of rating opinion is carried out at least once every six months.

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