

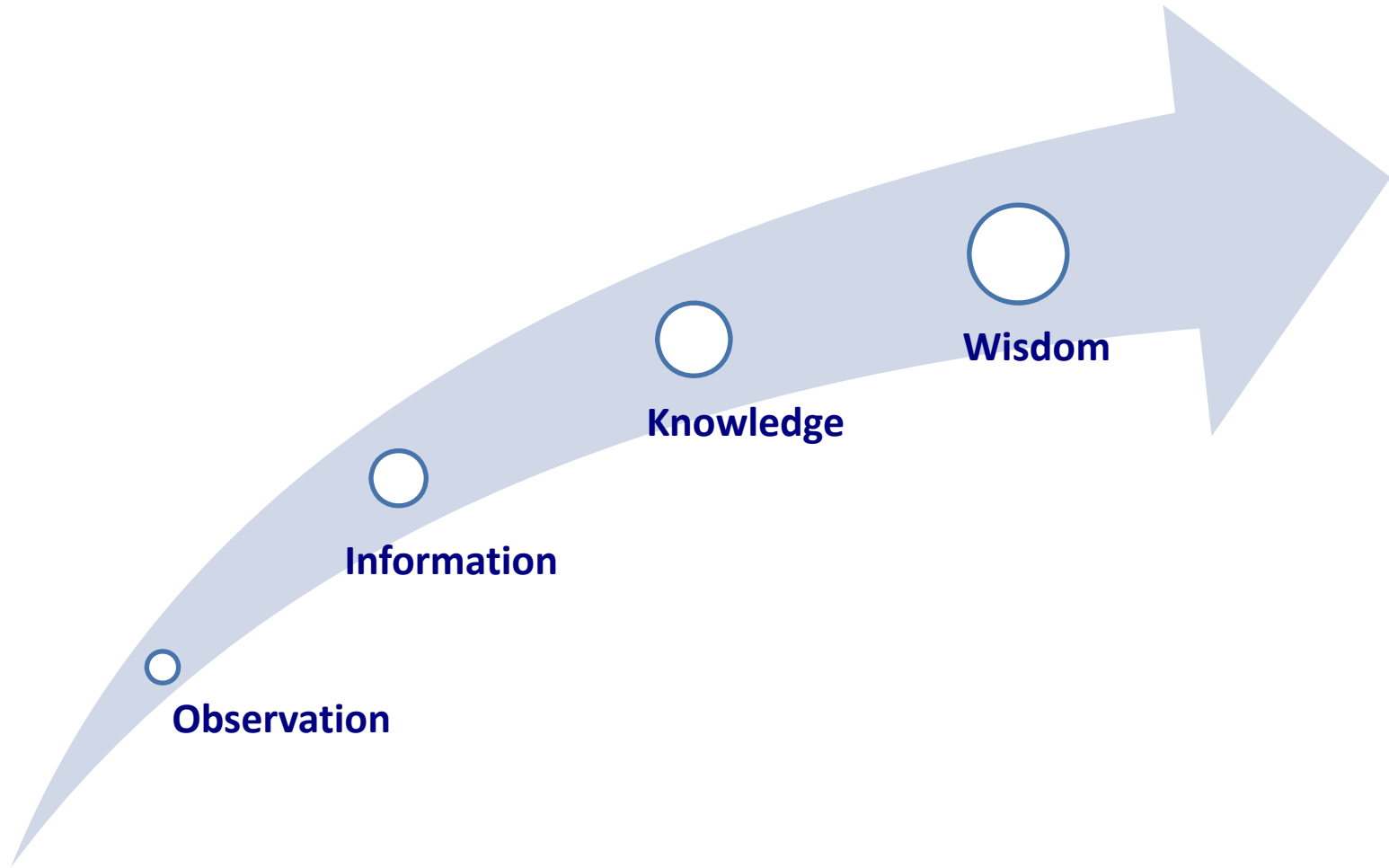


Knowledge Talk

Investment Analysis & Portfolio Management **Mutual Funds – A saving alternative**

Shahzad Saleem FCA, CFA
[COO – The Pakistan Credit Rating Agency (PACRA)]

Why are we here?



Investments

A manifestation of Savings

Cultural
[Societal Norm]

Save for Rainy Days



Opportunity
[Return Attraction]





Where to plant the *Savings?*

Undocumented

Documented



Individuals	True savings
Corporates	Cash Management
Banks	Liquidity management

Total number is deceiving

Where to plant the

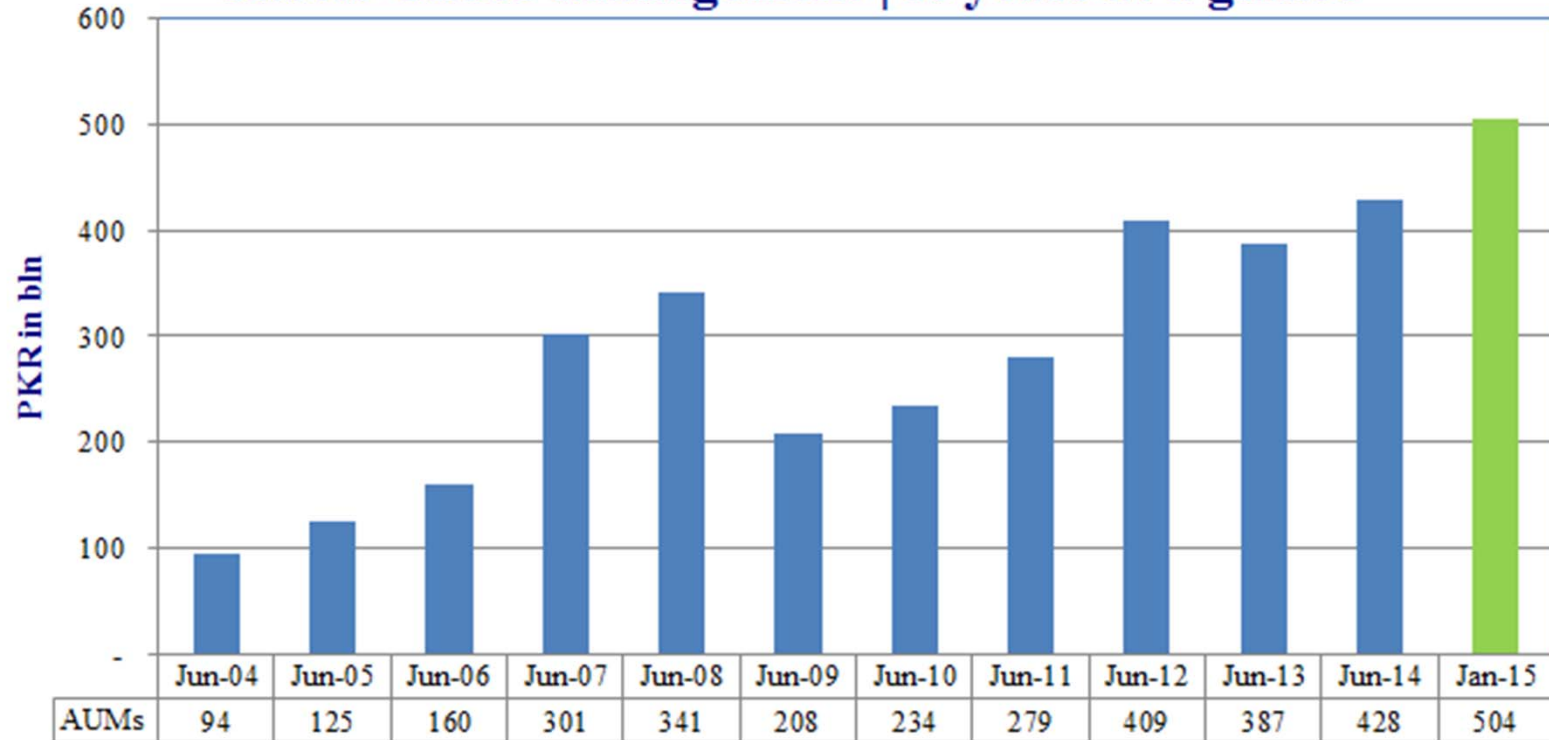
Savings?

Investment Avenues

Category	Sub Category	Jun-14 (PKR bln)
Fixed Income	National Saving Schemes including Prize Bonds	2,603
	Government papers [T-bills plus PIBs]	5,429
	Total Banking Deposits <i>of which Individual deposits</i>	8,052 3,949
Equities	Market Capitalization	7,023
Hybrid	Mutual Funds	428

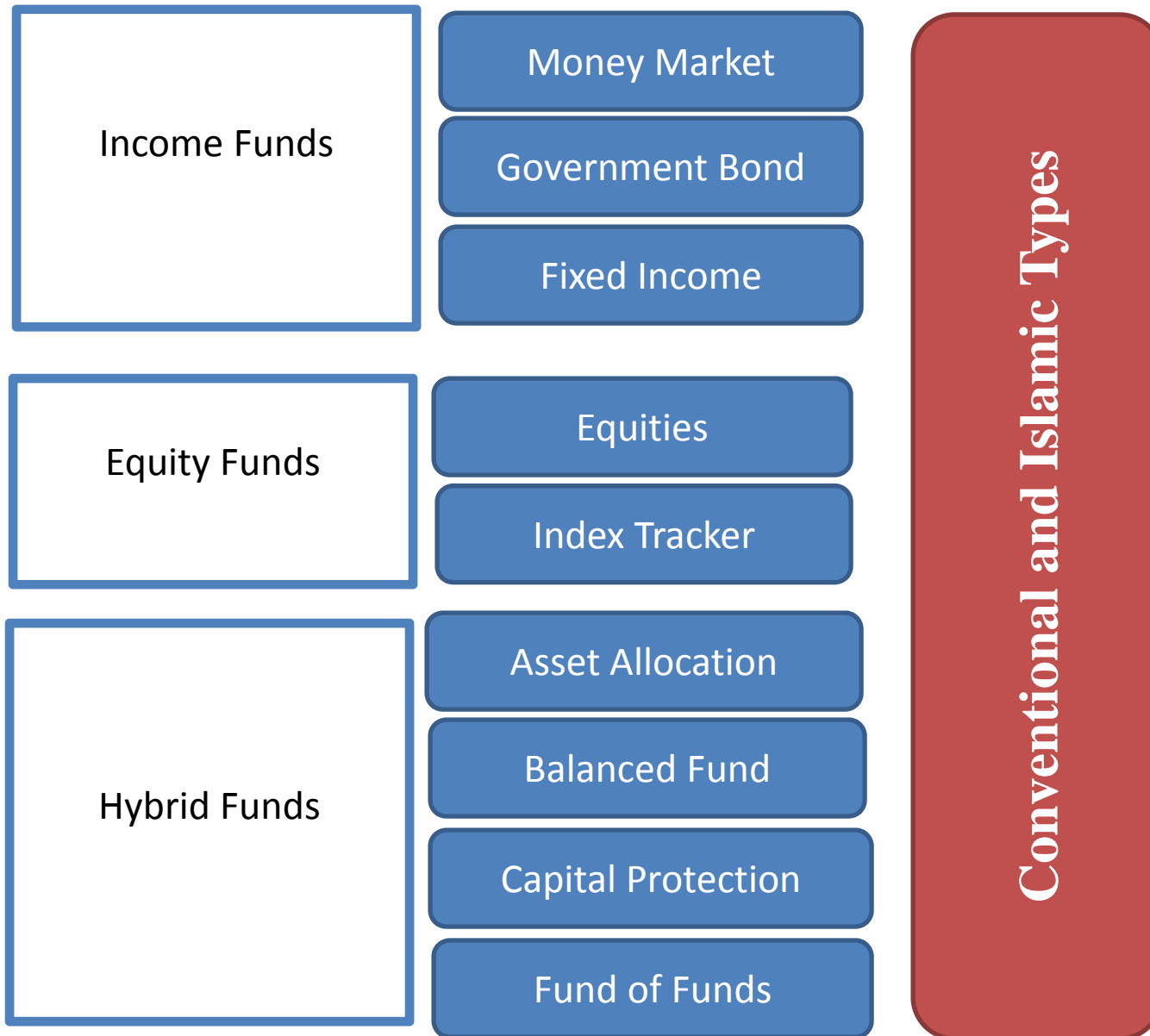
Mutual Funds

Assets Under Management | 10 years at a glance

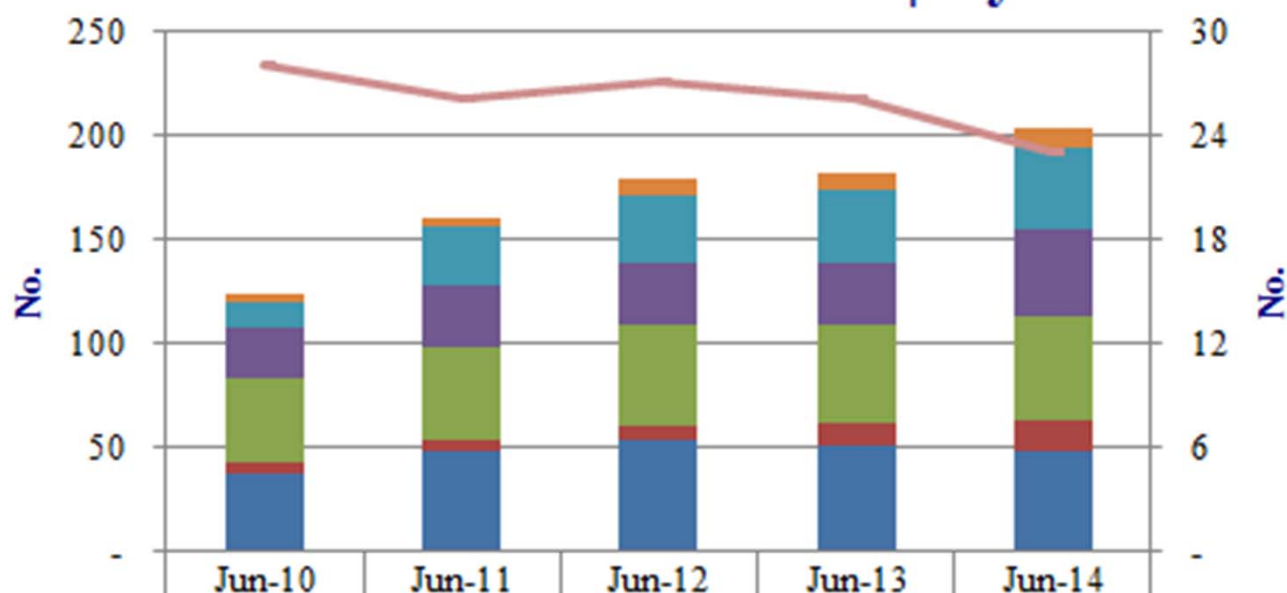


- **Mutual Fund**
An investment vehicle made up of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and similar assets.
- **Assets under Management (AUMs)**
The market value of assets that an AMC manages on behalf of investors.
- **Net Assets Value (NAV)**
A closed-end mutual fund's price per share or open-end fund's per-share value.
- **Return**
Change in the fund's NAV over time.

Categories of Mutual Funds

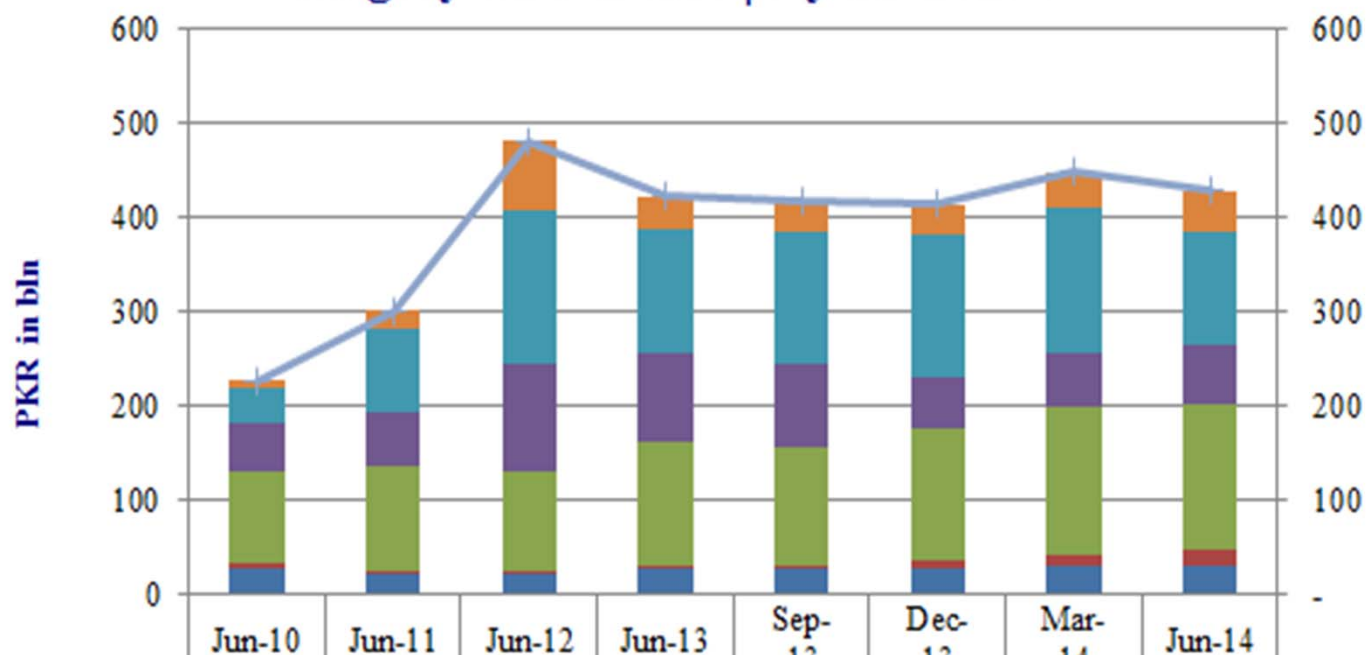


No. of Funds & AMCs | 5 year trend



Government Bond	3	4	8	9	10
Money Market	13	29	33	35	38
Income	24	29	30	29	42
Equity	40	44	48	48	50
Capital Protected	6	6	7	10	15
Others	37	48	53	51	48
Total Funds	123	160	179	182	203
No. of AMCs	28	26	27	26	23

Category wise AUMs | 5 year trends



Government Bond	6	21	73	36	34	32	38	43
Money Market	37	86	165	132	139	150	154	122
Income	52	58	112	93	89	55	56	63
Equity	97	111	108	131	124	142	158	155
Capital Protected	5	3	3	4	4	6	12	16
Others	28	21	20	26	27	27	29	31
Total	226	301	480	423	417	413	448	428

Mutual Fund | Performance Evaluation

**Asset Management
Companies**

Mutual Funds

**Asset Manager
Rating**

**Fund Performance
Ranking | Star
Ranking**

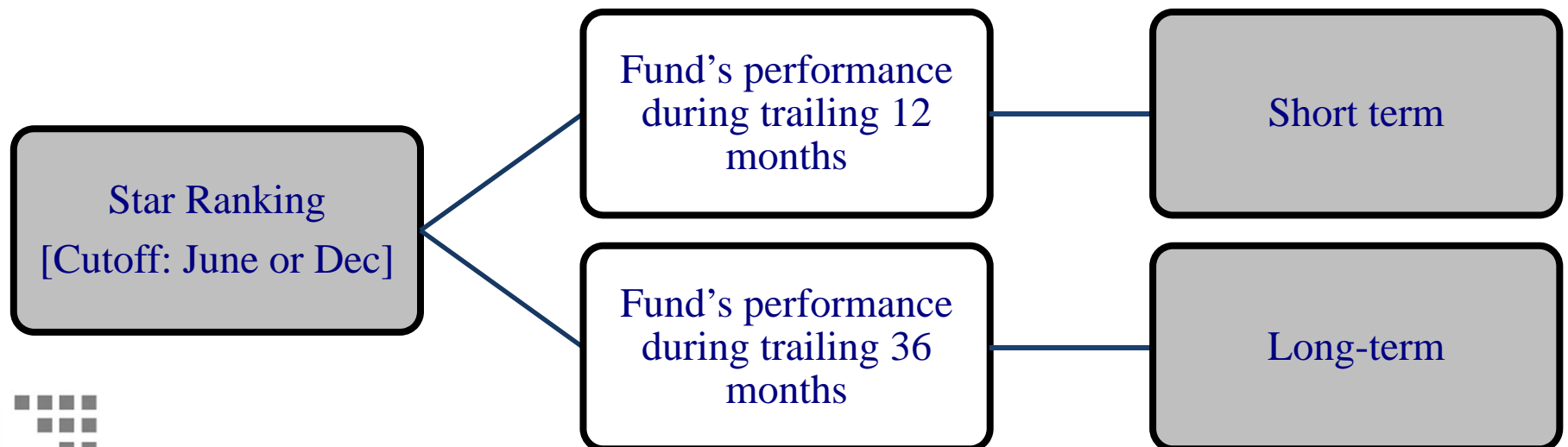
**Fund Stability
Rating**

**Capital Protection
Rating**

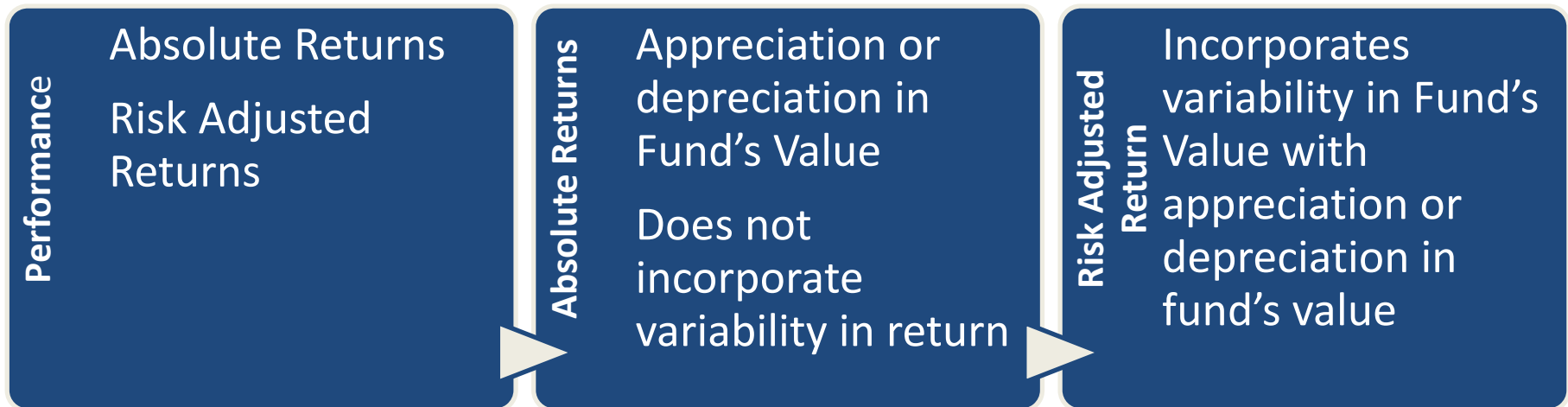
Mutual Funds | Performance Ranking [Star Ranking]

Fund performance ranking aims to distinguish a fund based on its relative actual performance within a category of similar funds.

A **pure quantitative measure** based on historical returns of a fund.



Mutual Funds | Measuring Performance [I]



Absolute Return

=

$$\frac{\text{PE} - \text{PB} \pm \text{A}}{\text{PB}}$$

PE = End of month NAV per unit certificate

PB = Beginning of month NAV per unit certificate

A = Adjustments on account of cash dividend, bonus issue and addition to capital.

Risk Adjusted Return

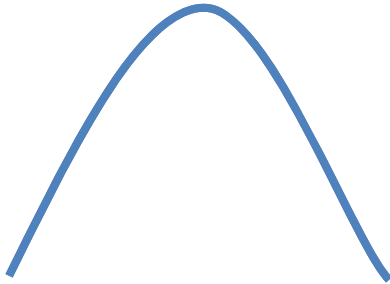
=

$$\frac{\text{R}}{\text{SD}}$$

R = Average monthly returns for the trailing 12 monthly periods [36 months for long-term star ranking]

SD = Standard deviation of the monthly returns of the fund. SD is computed using the returns for trailing 12 months [36 months for long-term star ranking]

Mutual Funds | Assigning Stars[II]



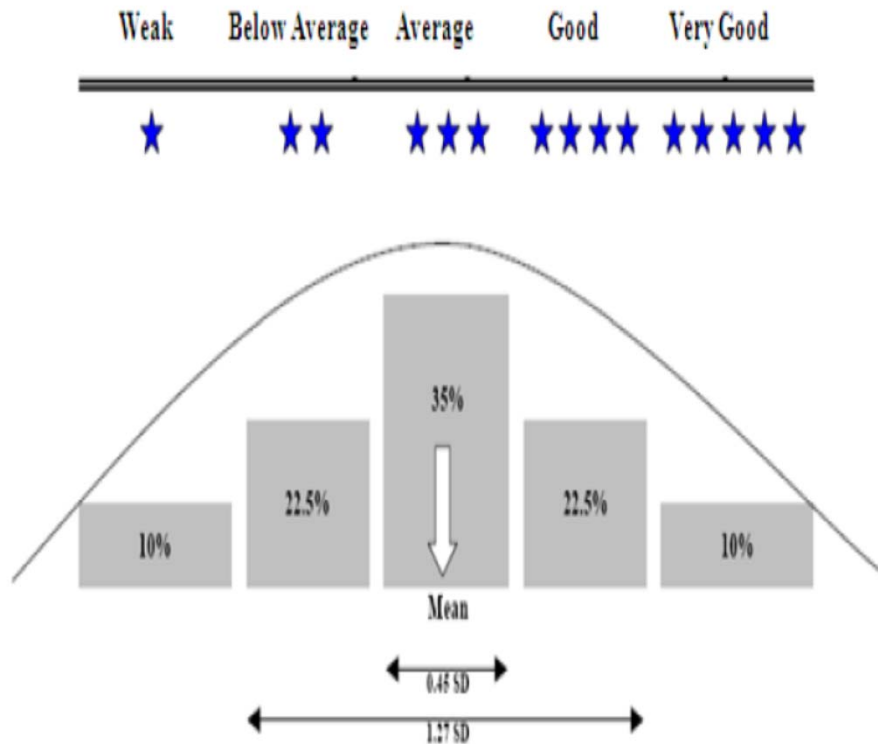
Ranking for each fund is determined using characteristics of a normal distribution

The basic philosophy is to rank the funds based on the distance (measured through standard deviation) of their returns and risk adjusted returns (R & RAR) from the mean R & RAR of that particular category.

In simplistic terms, a fund's performance (measured by assigning 50 % weight each to the fund's return and risk adjusted return) falling within a close range of the mean is rated as average, while funds' performance beyond the said range is rated as good, below average, superior or weak based on the direction and quantum of the deviation from the mean.

Mutual Funds | Performance Ranking Scale

Using the relationship described in previous slide, the star rankings to funds are assigned within FIVE categories



SCALE	DEFINITION
★★★★★ 5 Star	Very good performance Superior fund performance relative to funds in the same category.
★★★★★ 4 Star	Good performance Good fund performance relative to funds in the same category.
★★★ 3 Star	Average performance Average fund performance relative to funds in the same category.
★★ 2Star	Below average performance Below average fund performance relative to funds in the same category.
★ 1 Star	Weak performance Weak fund performance relative to funds in the same category.

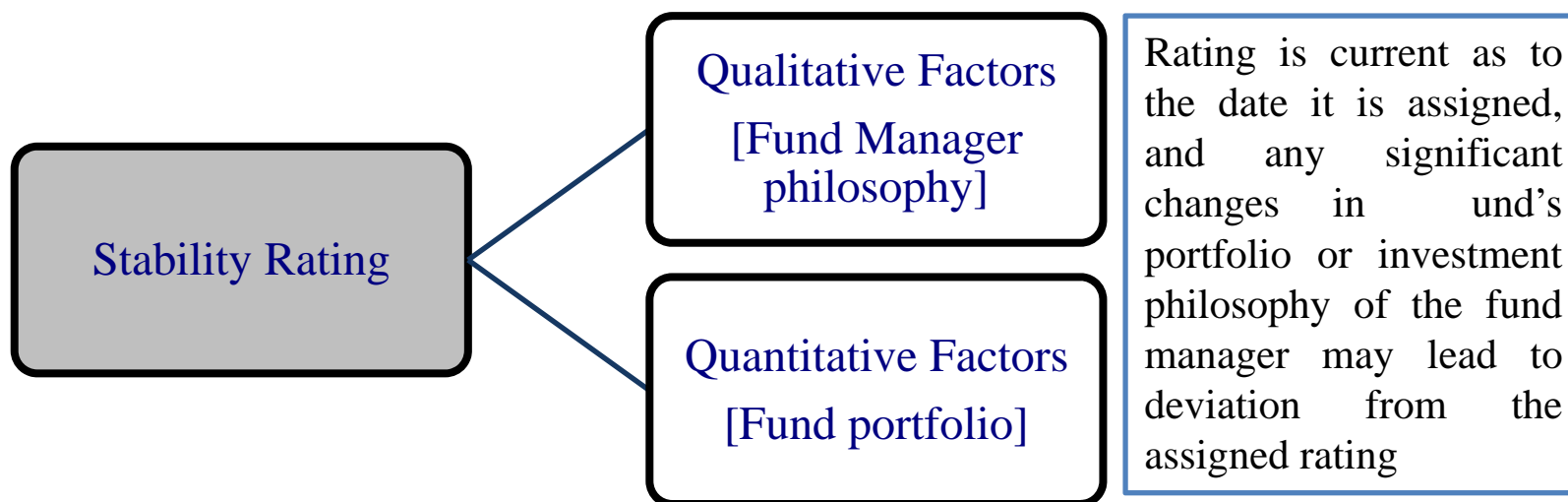
PACRA Universe | Fund Performance Ranking | Period Ending Jun 30th 2014

No.	Category	Fund	Dissemination	LT	ST	Action
			Date	Rating	Rating	
1	Asset Allocation Fund	MCB Dynamic Allocation Fund	21-Nov-14	4-STAR	3-STAR	Same
2		Pakistan Capital Market Fund	19-Nov-14	4-STAR	3-STAR	Improved
3		Alfalah GHP Value Fund	21-Nov-14	3-STAR	3-STAR	Same
4		NAFA Asset Allocation Fund	21-Nov-14	3-STAR	5-STAR	Same
5		Pak Oman Advantage Asset Allocation Fund	21-Nov-14	2-STAR	2-STAR	Declined
1	Balanced Fund	NAFA Multi Asset Fund	21-Nov-14	4-STAR	4-STAR	Improved
2		KASB Asset Allocation Fund	13-Jun-14	3-STAR	1-STAR	Improved
3		Unit Trust of Pakistan	21-Nov-14	3-STAR	4-STAR	Declined
5		First Habib Islamic Balanced Fund	21-Nov-14	2-STAR		Same
1	Equity Fund (Open end Closed end)	NI(U)T	21-Nov-14	5-STAR	4-STAR	Improved
2		Golden Arrow Selected Stocks Fund	21-Nov-14	4-STAR	5-STAR	Same
3		JS Growth Fund	21-Nov-14	4-STAR	4-STAR	Improved
4		AKD Opportunity Fund	21-Nov-14	4-STAR	4-STAR	Same
5		Pakistan Strategic Allocation Fund	21-Nov-14	4-STAR	3-STAR	Improved
6		First Capital Mutual Fund	21-Nov-14	3-STAR		Initial
7		Alfalah GHP Alpha Fund	21-Nov-14	3-STAR	2-STAR	Improved
8		Atlas Stock Market Fund	21-Nov-14	3-STAR	4-STAR	Same
9		JS Large Capital Fund	21-Nov-14	3-STAR	3-STAR	Declined
10		JS Value Fund	21-Nov-14	3-STAR	4-STAR	Declined
11		Lakson Equity Fund	21-Nov-14	3-STAR	2-STAR	Same
12		NAFA Stock Fund	21-Nov-14	3-STAR	4-STAR	Declined
13		Pakistan Stock Market Fund	21-Nov-14	3-STAR	3-STAR	Same
14		Askari Equity Fund	21-Nov-14	2-STAR		Declined
15		IGI Stock Fund	21-Nov-14	2-STAR	3-STAR	Declined
1	Islamic Asset Allocation Fund	NAFA Islamic Asset Allocation Fund	21-Nov-14	4-STAR	4-STAR	Same
2		Pak Oman Islamic Asset Allocation Fund	21-Nov-14	4-STAR	3-STAR	Improved
3		Askari Asset Allocation Fund	21-Nov-14	3-STAR	3-STAR	Declined
4		Askari Islamic Asset Allocation Fund	21-Nov-14	1-STAR	2-STAR	Declined
1	Islamic Equity Fund	JS Islamic Fund	21-Nov-14	4-STAR	3-STAR	Improved
2		Pakistan International Element Islamic Fund	21-Nov-14	4-STAR	3-STAR	Improved
3		Alfalah GHP Islamic Fund	21-Nov-14	3-STAR	4-STAR	Same
4		Atlas Islamic Stock Fund	21-Nov-14	2-STAR	3-STAR	Declined

Mutual Funds | Stability Rating

Stability rating measures the **stability of a fund in terms of its NAV.**

Sensitivity to economic and fundamental factors is incorporated in the rating



Mutual Funds | Measuring Stability [I]

Credit Risk **[40%]**

- Exposure to Low credit quality segments and bonds, higher concentration and maturity

Market Risk **[20%]**

- Exposure to interest rate risk and duration

Liquidity Risk **[30%]**

- Analysis of investments in the portfolio, the maturity structure, and secondary market liquidity

Historic Returns Volatility **[5%]**

- Analysis of variability in returns through coefficient of variability

Quality of Management & Support System **[5%]**

- Assessment of Fund Manager's team, organizational structure, risk management systems and internal control

Mutual Funds | Measuring Stability [I]

Credit Risk

Exposure to Market Segment

The high rated funds will have pre dominant exposure to low risk segments (government securities, TFCs of commercial banks) and low proportion towards high risk avenues (corporate TFCs/Sukuks)

Weighted Average Credit Quality

Asset Allocation % of AUMs						
Credit Quality	Govt. Securities	AAA(f)	AA+(f)	AA(f)	AA-(f)	A+(f)
AAA	Min. 75%		Max. 25%*			
AA+	Min. 50%			Max. 25%*		
AA	Min. 25%				Max. 25%*	
AA-	Min. 15%					Max. 25%*
A+						

*The remaining portfolio allocation should be in higher rating categories, subject to minimum specified in government securities.
Note: Actual asset allocation may vary over time as the assigned weights are indicative.

Non Performing Assets

Generally, an equal sized infection in portfolio will have greater effect on a smaller fund's NAV than its larger peer.

Concentration Risk

Fund portfolios are subject to additional risk when they are highly concentrated in a specific industry.

Weighted Average Maturity

Score	WAM
AAA	45 Days
AA+	60 Days
AA	90 Days
AA-	180 Days
A band	2 Years
BBB band	4 Years
BB & Below	Above 4 Years

Evaluation Process

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.

Mutual Funds | Measuring Stability [I]

Other Risks	Market Risk	Interest Rate Risk	<table><tr><th>Interest Rate Risk</th><th>Duration</th></tr><tr><td>AAA</td><td>45 Days</td></tr><tr><td>AA+</td><td>60 Days</td></tr><tr><td>AA</td><td>90 Days</td></tr><tr><td>AA-</td><td>180 Days</td></tr><tr><td>A band</td><td>2 Years</td></tr><tr><td>BBB band</td><td>4 Years</td></tr><tr><td>BB & Below</td><td>Above 4 Years</td></tr></table>	Interest Rate Risk	Duration	AAA	45 Days	AA+	60 Days	AA	90 Days	AA-	180 Days	A band	2 Years	BBB band	4 Years	BB & Below	Above 4 Years
		Interest Rate Risk	Duration																
		AAA	45 Days																
		AA+	60 Days																
	AA	90 Days																	
	AA-	180 Days																	
	A band	2 Years																	
	BBB band	4 Years																	
	BB & Below	Above 4 Years																	
	Duration																		
Liquidity Risk		Liquidity Avenues % Net Assets Monitoring mechanism to measure and anticipate high redemptions																	
Historical Returns Volatility		Coefficient of variation = SD of Monthly Returns/Average Monthly Return Gap between fund’s performance and targeted level																	
Management Review		a. Asset Manager Rating b. Fund Management c. Investment Process d. Risk Management Systems																	

Mutual Funds | Assigning Ratings[II]

Stability Rating Scale

SCALE	DEFINITION
AAA(f)	Very high stability An exceptionally strong capacity to maintain relative stability in returns and possesses negligible exposure to risks.
AA(f)+ AA(f) AA(f)-	High stability A strong capacity to maintain relative stability in returns and possesses low exposure to risks. This capacity may, nevertheless, be more vulnerable to changes in circumstances or in economic conditions.
A(f)+ A(f) A(f)-	Good stability A fund with stable performance generally in line with its peers with adequate capacity to respond to future opportunities or stress situations.
BBB(f)+ BBB(f) BBB(f)-	Adequate stability An adequate capacity to maintain relative stability in returns and possesses high exposure to risks. This capacity may be impacted adversely by changes in circumstances or in economic conditions.
BB(f)+ BB(f) BB(f)-	Weak stability A low capacity to maintain stability in returns and possesses very high exposure to risks.
B(f)	Poor stability A very low capacity to maintain stability in returns and possesses very high exposure to risks.

Fund Stability Rating PACRA Universe				
Category	No.	Fund	Dissemination Date	Rating
Income Fund	1	Alfalalah GHP Sovereign Fund	22-May-14	AA-(f)
	2	Askari Islamic Income Fund	5-Mar-14	AA-(f)
	3	Askari Sovereign Yield Enhancer Fund	11-Jun-14	AA-(f)
	4	Atlas Islamic Income Fund	13-Mar-14	AA-(f)
	5	First Habib Income Fund	28-Mar-14	AA-(f)
	6	MCB Islamic Income Fund	20-Feb-14	AA-(f)
	7	NAFA Riba Free Saving Fund	5-Mar-14	AA-(f)
	8	NAFA Saving Plus Fund	5-Mar-14	AA-(f)
	9	Pak Oman Advantage Islamic Income Fund	27-Feb-14	AA-(f)
	10	Atlas Income Fund	13-Mar-14	A+(f)
	11	BMA Chundrigar Road Savings Fund	26-Feb-14	A+(f)
	12	Dawood Income Fund	10-Jan-14	A+(f)
	13	IGI Income Fund	13-Mar-14	A+(f)
	14	IGI Islamic Income Fund	13-Mar-14	A+(f)
	15	JS Income Fund	26-Feb-14	A+(f)
	16	Lakson Income Fund	5-Mar-14	A+(f)
	17	MCB Dynamic Cash Fund	20-Feb-14	A+(f)
	18	NAFA Financial Sector Income Fund	5-Mar-14	A+(f)
	19	NIT Income Fund	13-Mar-14	A+(f)
	20	Pak Oman Advantage Fund	27-Feb-14	A+(f)
	21	Pakistan Income Enhancement Fund	20-Feb-14	A+(f)
	22	Pakistan Income Fund	20-Feb-14	A+(f)
	23	PIML Income Fund	13-May-14	A+(f)
	24	IGI Aggressive Income Fund	13-Mar-14	A-(f)
	25	NAFA Income Fund	5-Mar-14	A-(f)
	26	NAFA Income Opportunity Fund	27-Aug-14	A-(f)
	27	NAFA Islamic Aggressive Income Fund	27-Aug-14	A-(f)
	26	Askari High Yield Scheme	5-Mar-14	A(f)
	27	Alfalalah GHP Income Multiplier Fund	13-Mar-14	BBB+(f)

Fund Stability Rating | PACRA Universe

Category	No.	Fund	Dissemination Date	Rating
Government Bond Funds	1	Pak Oman Government Securities Fund	27-Feb-14	AA(f)
	2	JS Islamic Government Securities Fund	26-Feb-14	AA-(f)
	3	NIT Government Bond Fund	11-Jun-14	AA-(f)
	4	NAFA Government Securities Savings Fund	13-Jan-15	AA-(f)
	5	MetroBank-Pakistan Sovereign Fund	11-Jun-14	AA-(f)
Money Market Fund	1	Alfalah GHP Cash Fund	24-Feb-14	AAA(f)
	2	Askari Sovereign Cash Fund	5-Mar-14	AAA(f)
	3	NAFA Government Securities Liquid Fund	5-Mar-14	AAA(f)
	4	Pakistan Cash Management Fund	20-Feb-14	AAA(f)
	5	Atlas Money Market Fund	26-Feb-14	AA+(f)
	6	Atlas Sovereign Liquid Fund	30-Jan-15	AA+(f)
	7	IGI Money Market Fund	24-Feb-14	AA+(f)
	8	PRIMUS Daily Reserve Fund	21-Jul-14	AA+(f)
	9	Lakson Money Market Fund	5-Mar-14	AA(f)
	10	MCB Cash Management Optimizer Fund	20-Feb-14	AA(f)
	11	NAFA Money Market Fund	5-Mar-14	AA(f)
	12	Primus Islamic Money Market Fund	9-Apr-14	AA(f)

Asset Manager Rating

**Assessment of relative qualifications and capabilities of an asset manager
(asset management company/Investment advisor)**



Asset Manager Rating Scale

SCALE	DEFINITION
AM1	Very high quality Asset manager meets or exceeds the overall investment management industry best practices and highest benchmarks.
AM2+ AM2 AM2-	High quality Asset manager meets high investment management industry standards and benchmarks with noted strengths in several of the rating factors.
AM3+ AM3 AM3-	Good quality Asset manager meets investment management industry standards and benchmarks.
AM4+ AM4 AM4-	Adequate quality Asset manager demonstrates an adequate organization that meets key investment management industry standards and benchmarks.
AM5	Weak Asset manager does not meet the minimum investment management industry standards and benchmarks.

Asset Manager Rating | PACRA Universe

#	Dissemination	Dissemination Date	Rating
1	MCB-Arif Habib Investments Limited	10-Apr-14	AM2
2	NBP Fullerton Asset Management Limited	8-Apr-14	AM2
3	Atlas Asset Management Limited	18-Apr-14	AM2-
4	National Investment Trust Limited	21-Apr-14	AM2-
5	AKD Investment Management Limited	26-Sep-14	AM3
7	Habib Asset Management Limited	25-Jun-14	AM3
8	Alfalalah GHP Investment Management Limited	20-Jun-14	AM3+
9	Askari Investment Management Limited	17-Apr-14	AM3+
10	BMA Asset Management Company Limited	13-Feb-14	AM3+
11	Lakson Investments Limited	26-Jun-14	AM3+
12	First Capital Investments Limited	6-Dec-14	AM4+

Contact	Samiya Mukhtar samiya@pacra.com	Muhammad Shahzad Saleem shahzad@pacra.com
Contact Number: +92 42 3586 9504		

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. The information in this document may be copied or otherwise reproduced, in whole or in part, provided the source is duly acknowledged. The presentation should not be relied upon as professional advice.