The Performance of Pakistani Equity Mutual Funds During Bull and Bear Market

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Abstract: *This study examines equity mutual funds in Pakistan within bull and bear market contexts. It traces the evolution and significance of mutual funds, particularly their adoption by investors for retirement and financial goals. Despite a substantial presence of open-ended and closed-ended mutual funds, Pakistan's mutual fund industry remains comparatively small on a global scale. Equity mutual funds, focused on stocks, appeal to young investors seeking higher returns with moderate risk. These funds enable risk diversification and effective portfolio management by experienced professionals. While small investors benefit from equity funds, their performance is subject to public scrutiny due to robust regulatory oversight. This research sheds light on equity mutual funds' role in Pakistan's financial landscape, emphasizing their importance in providing accessible and diversified investment options for a range of investors.*

Key Words: Pakistani Equity Mutual Funds, Bull and Bear Market, Stocks, Finance, Financial Goals

Introduction

This research delves into the realm of equity mutual funds in Pakistan, analyzing their performance during both bullish and bearish market trends. To commence, we embark on a journey through the historical evolution of mutual funds and their significance within Pakistan. Over the course of time, numerous investors have progressively embraced mutual funds as a means to secure their retirement and financial aspirations. Across various nations, mutual funds have emerged as a prevailing avenue for investment, their allure stemming from the abundance of data accessible to investors. The allure of mutual funds can be attributed to three primary advantages extended to investors. Firstly, they mitigate the hazards inherent in stock market investments through diversification. Secondly, expert management by seasoned professionals in the stock market enhances their appeal. Thirdly, by pooling speculative resources, mutual funds empower small-scale investors to hold a diversified range of assets.

In the domain of investments, equity mutual funds, commonly referred to as stock funds, channel their resources into equities, or stocks. Inclined toward superior returns with controlled risk, younger investors have exhibited a preference for stock funds over conventional options such as bond funds and

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money market funds. The inception of Mutual Funds in Pakistan traces back to 1962, marked by the public launch of NIT (National Investment Trust), an open-end mutual fund. Subsequently, the establishment of ICP (Investment Corporation of Pakistan) in 1966 introduced a series of close-ended mutual funds, later split into two segments in June 2000 before being privatized. In the private sector, there are presently forty-three open-ended and twenty-two closed-ended mutual funds. Nonetheless, when juxtaposed on a global scale, Pakistan's mutual fund industry remains relatively modest. According to Khorana et al. (2005), Pakistan's mutual fund assets comprise only 1.33% of primary securities, contrasting with figures of 3.7% for India, 4.0% for Malaysia, 20.3% for Hong Kong, and 16.5% for South Korea. These statistics underscore the significant growth potential within Pakistan's mutual fund industry.

A mutual fund functions as a collective investment mechanism, specialized in aggregating funds from multiple investors to invest in various securities like stocks, bonds, and money market instruments. The fund's portfolio is meticulously designed and managed to align with the investment objectives outlined in its prospectus. One of the principal merits of mutual funds is their provision of access to proficiently managed, diversified portfolios of equities, bonds, and other securities, which would otherwise be challenging or unfeasible to construct with limited capital. The returns generated and capital appreciation witnessed are shared among unit holders proportionally. Open-ended fund units are issued and can be acquired or redeemed based on the fund's current net asset value (NAV) per unit. Conversely, closed-end funds are listed on stock exchanges, offering tradability. For investors with limited financial expertise or capital, equity mutual funds present an excellent investment avenue. Their intrinsic features, such as risk reduction through portfolio diversification and relatively low capital requirements for acquiring shares, render them suitable investments for the majority of individuals. Achieving a similar level of risk reduction through direct stock ownership necessitates substantial investment capital. The pooling of resources from smaller investors enables equity funds to diversify effectively without imposing daunting capital prerequisites on each investor. The valuation of an equity fund hinges on its net asset value (NAV) minus liabilities. A heightened level of diversification in a fund's portfolio diminishes the adverse impact of individual stock price fluctuations on the fund's overall performance and share price. Skilled portfolio managers oversee equity funds, and their historical performance is subject to public scrutiny. Regulatory oversight from the federal government guarantees transparency and stringent reporting standards for equity funds.

Literature Review

The mutual funds industry holds a pivotal role in fostering the growth of a country's financial markets. These funds channel investments into a wide spectrum of financial arenas, including stocks, money, debt, commodities, and currency markets. In developing nations, mutual funds serve as a robust foundation for financial markets that would otherwise struggle due to limited awareness among small investors about the intricacies of the financial landscape. An interesting example is observed in Malaysia, where the long-term relationship between unit trust funds and the Kuala Lumpur Composite Index (KLCI) displays significant differences. In the short term, unit trust funds are influenced by KLCI, as noted by Low (2017).

The performance of closed-end mutual funds in Pakistan has consistently exceeded the benchmark level, as highlighted by Bilawal (2016). However, divergent results are apparent in the case of other emerging markets, such as Portugal, where mutual fund managers exhibit limited positive selectivity skills and timing abilities (Cortez, 2016). Notably, Islamic mutual funds have demonstrated effective implementation of their benchmarks, unlike conventional mutual funds (Zia, 2015). The performance of mutual funds is intricately tied to the characteristics of a country; those situated in nations with high stock market liquidity and robust legal institutions exhibit enhanced performance, as discussed by Ferreira (2013). Similarly, well-diversified mutual funds have showcased superior performance compared to their less diversified counterparts, as observed in Hong Kong (Razzaq, 2012).

Taiwan provides an interesting case where mutual funds' performance tends to persist in subsequent years based on their past performance trends (Hou, 2012). In Pakistan, the mutual fund industry's performance remains a subject of scrutiny (Nafess, 2011), and the comparative performance analysis underscores the superiority of mutual funds over non-institutional counterparts (Gohar, 2011). A closer look at Poland reveals that mutual fund managers demonstrate limited yet insignificant positive selectivity skills, while evidence regarding timing abilities is inconclusive (Swinkels, 2009).

During the 2008 financial crisis, emerging markets exhibited varied results regarding market timing abilities, including negative, positive, and mixed outcomes. Despite the growing interest in mutual funds worldwide, Pakistan's fund industry has received limited research attention, leading to a

dearth of comprehensive studies. The rising number of mutual funds in developed financial markets points to investors' inclination towards this investment mode (Huhmann, 2005). Over the years, the mutual fund industry has experienced exponential growth, leading to the emergence of diverse fund types. These encompass open-ended and closed-ended funds, with the latter's shares initially offered to the public and subsequently traded on secondary markets (Zera, 2001).

The essence of mutual funds lies in catering to small investors who lack direct access to various securities. These professionally managed investment vehicles pool funds from numerous investors to invest in stocks, bonds, and other securities, aligning with the essence of diversification (Rohini, 2001). In recent decades, mutual funds have gained substantial popularity, offering an accessible and cost-effective means for investors to participate in financial markets. This method efficiently spreads risk by diversifying investments across various securities. However, the consistent performance of fund managers has garnered significant research attention. While efficient market theory suggests that managers should not consistently generate positive returns, Narsimhan (2001) presents evidence to the contrary, indicating serial correlation in annual fund returns, thus challenging this theory.

Numerous studies reveal that actively managed funds struggle to generate returns surpassing their expenses. This has led to a clear negative correlation between fund returns and expenses, with open-ended funds' expenses emphasized as significant (Khorana, 2001). The level of fund turnover, reflecting active or passive management, influences fund performance. Researchers have offered varied findings on the relationship between fund performance and turnover level (Khorana, 2001).

The study of the Pakistani mutual fund industry highlights the role of institutional investors, particularly mutual funds, in bolstering corporate governance and protecting minority investors. This study aims to assess mutual fund performance during both bull and bear markets in Pakistan, providing insights for fund managers and small investors. Evaluating management performance entails examining the relationship between bull and bear market returns and mutual fund returns through metrics like Jensen's alpha and the Sharpe ratio.

Data and Methodology

In this study, data was collected from annual samples encompassing the years 1998 to 2017, representing all thirty-three equity mutual funds listed on the Mutual Funds Association of Pakistan (MUFAP). The research employs the Jensen alpha and Sharpe ratios for each mutual fund entity to assess the performance of equity mutual funds under both bullish and bearish market scenarios. Notably, the work of Zakir and Bello (1990-2010) was specifically drawn upon to evaluate the performance of equity mutual funds in the context of varying market conditions. In a similar vein, Reilly and Norton (2004) utilized regression analysis alongside the Jensen alpha and Sharpe ratio models to elaborate on the evaluation of performance during bullish and bearish market phases. The subsequent equations were applied to comprehensively analyze the performance of all equity mutual funds amidst varying market conditions characterized by bullish and bearish trends.

Sharp Ratio

The Sharpe ratio quantifies the mean return achieved beyond the risk-free rate in relation to the volatility or overall risk. By deducting the risk-free rate from the average return, it isolates the performance attributed to endeavours involving risk. This metric, known as the Sharpe Ratio, was formulated by William F. Sharpe, a distinguished Nobel laureate.

$$sharp\ ratio = \frac{\bar{R}p - Rf}{\delta p}$$

Rp = portfolio return
Rf = Risk-free rate of return
Sp = Standard deviation of the portfolio

Jensen Alpha Ratio

Jensen's Alpha, commonly referred to as "Alpha," serves as a metric for assessing the risk-adjusted performance of a security or portfolio concerning the projected market return, which is derived from the Capital Asset Pricing Model (CAPM). A higher alpha signifies that the portfolio has achieved returns beyond the anticipated level. Introduced by Michael Jensen in 1968, this measure was initially developed to evaluate fund managers, with the aim of determining whether they could consistently surpass market performance. Nonetheless, Jensen's findings indicated that such consistent outperformance is seldom observed. In addition to "Alpha," this measure is alternatively referred to as the "Jensen's Performance Index" and "Jensen's Measure."

$\alpha = E(R) - [Rf + \beta p(Rm - Rf)]$
α =represents Jensen's Alpha,
Rp = stands for the Anticipated Portfolio Return,
R = signifies the Risk-Free Rate,
β =denotes the Portfolio's Beta,
Rm= represents the Anticipated Market Return.

Table 1

Bull and bear market phases companies Jensen alpha and sharp ratio

Name	Bull or Bear	ABL ISLAMIC		Performance	ABL STOCK		Performance	AKD		Performance
Year		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase.1 bear Phase.2 bear	-0.02461	-1.68725	The market return 2017 all phases have beard market. Janson alpha and sharp showed consistent or similar results.	-1.73649	-1.23995	The market returned beard in 2011, 2015 second phase and 2017 all phases. Janson and Sharp show that including the above years and 2009,2010 beards. The other years have market return bull.	-0.14781764	-0.147817	The market return in 2011,2015 second phase and 2008,2017 all phases. Janson and Sharp show that including the above years and 2009,2010 beards. The other years have market return bull.
2016	Phase. 1 Bull Phase. 2 Bull				0.038446	0.30829		-0.51744547	-0.0455859	
2015	Phase 1 Bull Phase 2 Bull				-0.02887	-0.00259		-0.25467801	-0.7685268	
2014	Phase 1 Bull Phase 2 Bull				0.352390	0.09889		0.50396611	0.6496988	
2013	Phase 1 Bull Phase 2 Bull				1.23995	0.30117		0.237517656	0.2629269	
2012	Phase 1 Bull Phase 2 Bull				0.002209	0.04921		0.191951159	0.7496832	
2011	Phase 1 Bull Phase 2 Bear				0.251033	0.01815		0.471520334	0.4891299	
2010	Phase 1 Bull Phase 2 Bull				-0.15712	-0.23033		-0.03813110	-0.2963866	

Name	Bull or Bear	ABL ISLAMIC		Performance	ABL STOCK		Performance	AKD		Performance
Year		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2009	Phase 1 Bull Phase 2 Bull				-0.61984	-0.00011		-0.08521237	-0.5542506	
2008	Phase 1 Bear Phase 2 Bear							-0.03803381	-0.6771159	

Table 2

Bull and bear market phases companies annual Jensen alpha and sharp ratio

Name	Bull or Bear	ASKARI		Performance	ATLAS		Performance	ATLAS STOCK		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear Phase 2 Bear	-0.321465	-0.025894	The market returned beard in the 2015 second phase and in 2017 all phases.	-0.2225	-0.15189	The market return in the 2011, and 2015 second phases and 2008, and 2017 all phases. Janson and Sharp show that including the above years and 2007,2008,2009, The 2010 result is a beard. The other years have returned bull.	-0.051894	-0.005184	The market return 2008,2017 all phases and 2011,2015 second phase is beard. Others have a bull market. Janson and sharp 2014, 2013, 2012 is bull and others have beards.
2016	Phase 1 Bull Phase 2 Bull	-0.625544	-0.125848	The market returned to the bull in 2014 and 2016. Janson and Sharp show that the year 2014 was bull. The other year has a beard.	-0.3216	-0.15844		-0.255865	0.2144949	
2015	Phase 1 Bull Phase 2 Bear	-0.458215	-0.021619		-0.2694	-0.465484		-0.369852	-0.494466	
2014	Phase 1 Bull Phase 2 Bull	0.0125475	0.0194844		0.0365419	0.01584894		0.225587	0.1516516	

Name	Bull or Bear	ASKARI		Performance	ATLAS		Performance	ATLAS STOCK		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2013	Phase 1 Bull Phase 2 Bull				0.412148	0.13216984		0.121484	0.185498	
2012	Phase 1 Bull Phase 2 Bull				0.221518	0.1684894		0.262941	0.584986	
2011	Phase 1 Bull Phase 2 Bear				0.269446	0.26949251		0.154184	0.0584168	
2010	Phase 1 Bull Phase 2 Bull				-1.269424	-0.0518489		-0.333664	-0.326166	
2009	Phase 1 Bull Phase 2 Bull				-0.265194	-0.3284465		-0.264949	-0.065161	
2008	Phase 1 Bear Phase 2 Bear				-0.269494	-0.2558874		-0.151894	-0.184656	
2007	Phase 1 Bull Phase 2 Bull				-0.261941	-0.2694946		-0.651494	-0.518415	
2006	Phase 1 Bull Phase 2 Bull							-2.051844	-0.158419	
2005	Phase 1 Bull Phase 2 Bull							-0.519848	-2.005146	

Name	Bull or Bear	ASKARI		Performance	ATLAS		Performance	ATLAS STOCK		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2004	Phase 1 Bull Phase 2 Bull							-3.218148	-1.052121	

Table 3

Bull and bear market phases companies annual Jensen alpha and sharp ratio

NAME	Bull or Bear	JSGF		Performance	JSIF		performance	JS L C F		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear Phase 2 Bear	-0.021849	-0.065494	The market return in 2011,2015 second phase and 2008,2017 all phases. Janson and Sharp show that including the above years and 2007, 2009, and 2010 results is a beard. The other years have market return bull.	-0.0265	-0.155564	The market return 2008,2017 all phases and 2011,2015 second phase is beard. Others have a bull market. Janson and Sharp all years have beard results.	-0.25648	-0.516518	The market return 2008,2017 all phases and 2011,2015 second phase is beard. Others have a bull market. Janson and sharp2014,2013, 2012 is bull and others have beards.
2016	Phase 1 Bull Phase 2 Bull	-1.061949	-0.065165		-0.0032	-0.241864		-0.316848	-0.1658684	
2015	Phase 1 Bull Phase 2 Bear	-0.216146	-0.065664		-0.05468	-0.51486		-0.168489	-0.0164684	

| NAME | Bull or Bear | JSGF | Performance | JSIF | performance | JS L C F | Performance |
YEAR		J. ALPHA	SHARP	J. ALPHA	SHARP	J. ALPHA	SHARP
2014	Phase 1 Bull Phase 2 Bull	0.016412	0.6568948	-1.06548	-0.646846	0.3554648	0.16894165
2013	Phase 1 Bull Phase 2 Bull	0.649499	0.2182316	-1.54648	-0.254846	0.18495652	0.4684635
2012	Phase 1 Bull Phase2 Bull	0.006194	0.216498	-2.03658	-0.58899	0.165489448	0.514896498
2011	Phase 1 Bull Phase 2 Bear	0.0618949	0.2168469	-2.31864	-0.265648	0.51684896	0.1869489
2010	Phase 1 Bull Phase 2 Bull	-0.051964	-0.165846	-3.05684	-0.354864	-0.1684686	-0.1563486
2009	Phase 1 Bull Phase 2 Bull	-0.168488	0.056184	-1.35148	-0.065486	-1.0694994	-0.5464996
2008	Phase 1 Bull Phase 2 Bull	-0.294949	-0.165489	-1.15668	-0.348648	-1.0651900	-0.16889849
2007	Phase 1 Bull Phase 2 Bull	-0.169499	-0.236546	-1.168905	-0.464486	-3.16846984	-0.518634648
2006	Phase 1 Bull Phase 2 Bull			-1.53847	-0.536486	-0.168434869	-0.16849489

NAME	Bull or Bear	JSGF		Performance	JSIF		performance	JS L C F		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2005	Phase 1 Bull				-1.26894	-0.165468		-0.06518634	-0.1684889	
	Phase 2 Bull									
2004	Phase 1 Bull				-0.65644	-0.514846		-0.01653486	-0.05168445	
	Phase 2 Bull									
2003	Phase 1 Bull				-1.14688	-0.168486				
	Phase 2 Bull									

Table 4

Bull and bear market phases companies annual Jensen alpha and sharp ratio

NAME	Bull or Bear	MIF		Performance	NAFA IAA		Performance	NAFA IEF		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear	-0.544655	-1.1646848	The market return 2008,2017 all phases and 2011,2015 second phase is beard. Others have a bull market. Janson and Sharp without of2014,2013,2012 2011 all years have beard results.	-0.5168486	-0.01648484	The market return 2107 all phases Bard and 2016 phases have bull return but Janson and sharp have all year beard.	-2.03541843	-1.0134355	The market return 2107 all phases Bard and 2016 phases have bull return but Janson and sharp have all year beard.
	Phase 2 Bear									
2016	Phase 1 Bull	-0.467953	-1.16848684		-0.15846442	-0.151413584		-1.531683448	-1.0116355	
	Phase 2 Bull									
2015	Phase 1 Bull	-0.5484864	-1.168468							
	Phase 2 Bear									
2014	Phase 1 Bull	1.054684	0.5448956							
	Phase 2 Bull									
2013	Phase 1 Bull		1.54648/9							

NAME	Bull or Bear	MIF		Performance	NAFA IAA		Performance	NAFA IEF		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
	Phase 2 Bull	0.54664658								
2012	Phase 1 Bull									
	Phase 2 Bull	0.9514835	1.46849							
2011	Phase 1 Bear									
	Phase 2 Bull	2.1168543	2.4684324							
2010	Phase1 Bull									
	Phase 2 Bull	-0.514684	-1.1684648							
2009	Phase 1 Bull									
	Phase 2 Bull	-0.515834	-1.165349							
2008	Phase 1 Bear									
	Phase 2 Bear	-0.5488643	-0.546849							
2007	Phase 1 Bull									
	Phase 2 Bull	-0.135498	-1.518643							
2006	Phase 1 Bull									
	Phase 2 Bull	-0.1684386	-0.168436							
2005	Phase 1 Bull									
	Phase 2 Bull	-0.248976	-0.4864854							
2004	Phase 1 Bull	-0.216879	0.16849546							

NAME	Bull or Bear	MIF		Performance	NAFA IAA		Performance	NAFA IEF		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
	Phase 2 Bull									
2003	Phase 1 Bull									
	Phase 2 Bull	-0.1268349	-1.065486							

Table 5

Bull and bear market phases companies annual Jensen alpha and sharp ratio

NAME	Bull or Bear	UBLSAF		Performance	HSF		Performance	FCMF STOCK		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear	-0.54684	-0.1351665	The market return in 2011,2015 second phase and 2008,2017 all phases beard. Janson and Sharp show that including the above years and 2006,2007,2008,2009, The 2010 result is a beard. The other years have returned bull.	-0.0165149	-0.015864	The market return in 2011,2015 second phase and 2008,2017 all phases. Janson and Sharp show that including the above years and 2007,2009,2010 result is a beard. The other years have market return bull.	-0.051412	-0.065149	The market return beard in the 2011, 2015 second phase and 2017 all phases. Janson and Sharp show that including the above years and 2009,2010 beards. The other years have returned bull.
	Phase 2 Bear									
2016	Phase 1 Bull	-0.846846	-0.1368464		-0.0065161	-0.0.2153		-0.2649949	-0.0561894	
	Phase 2 Bull									
2015	Phase 1 Bull	-0.38464	-0.546846		-0.0651616	-0.5168486		-0.058489	-0.0519469	
	Phase 2 Bear									
2014	Phase 1 Bull	0.16846	0.5468495		0.06949423	0.0516444		0.06514994	1.0215842	
	Phase 2 Bull									
2013	Phase 1 Bull	0.534646	-0.5468684		0.05194912	0.0515848		0.06653265	0.06199449	
	Phase 2 Bull									
2012	Phase 1 Bull	0.5348648	0.548646		0.26149423	0.15847864		0.06198449	0.19494316	

NAME	Bull or Bear	UBLSAF		Performance	HSF		Performance	FCMF STOCK		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2011	Phase 2 Bull Phase 1 Bear Phase 2 Bull	0.168484	0.1684925		0.26949499	0.05058486		0.06514894	0.01548941	
2010	Phase 1 Bull Phase 2 Bull	-0.16846	-0.213846		-0.0026492	-0.0514564		-0.2654198	-0.2649116	
2009	Phase 1 Bull Phase 2 Bull	-0.216849+	-0.548646		-0.0651489	-0.0651486		-0.0158149	-0.069496	
2008	Phase 1 Bear Phase 2 Bear	-0.134165	-0.164833		-0.0306515	-0.0651400				
2007	Phase 1 Bull Phase 2 Bull	-0.2.15316	-0.543846		-0.1654194	-0.0216401				
2006	Phase 1 Bull Phase 2 Bull	-0.18436846	-0.54684684							

Table 6

Bull and bear market phases companies Jensen alpha and sharp ratio

NAME	Bull or Bear	NAFA SF		performance	NIUT		performance	PIML IF		performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear	-0.23556658	-1.168485	The market return in	-1.021584	-0.5648846	The market return	-1.05548	-1.546446	The market returned

NAME / YEAR	Bull or Bear	NAFA SF		performance	NIUT		performance	PIML IF		performance
		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2016	Phase 2 Bear, Phase 1 Bull, Phase 2 Bull	-0.2534548	-1.0351486	2011,2015 second phase and 2008,2017 all phases. Janson and Sharp show that including the above years and 2009, and 2010 results is a beard. The other years have market return bull.	-1.54864	-0.46436	2008,2017 all phases and 2011,2015 second phase is beard. Others have a bull market.janson and sharp2014,2013, 2012 is bull and others have beards.	-0.54684	-1.035486	beard in the 2015 second phase and in 2017 all phases. The market returned to bull in2014,2016. Janson and Sharp show that all year have beards.
2015	Phase 1 Bull, Phase 2 Bear	-0.15683468	-1.56488		-0.48468	-0.468446		-0.1466486	-1.1563464	
2014	Phase 1 Bull, Phase 2 Bull	0.21683486	-1.168448		0.514684	0.1684864		-1.0531384	-0.95341355	
2013	Phase 1 Bull, Phase 2 Bull	0.16346535	1.16846584		0.213846	0.15684684				
2012	Phase 1 Bull, Phase 2 Bull	0.164886	1.0163486		0.3486464	0.41684624				
2011	Phase 1 Bull, Phase 2 Bear	0.1646845	0.168456		0.1468485	0.54684386				
2010	Phase 1 Bull, Phase 2 Bull	-0.135146	-0.46849		-0.516465	0.135468684				
2009	Phase 1 Bull, Phase 2 Bull	-0.3148694	-0.146849		-0.546849	-0.6512486				

NAME	Bull or Bear	NAFA SF		performance	NIUT		performance	PIML IF		performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2008	Phase 1 Bear									
	Phase 2 Bear	0.168466854	0.1684868		-0.156845	-0.45644468				
2007	Phase 1 Bull									
	Phase 2 Bull	0.13658465	0.153486		-0.1531486	-0.54646684				
2006	Phase 1 Bull									
	Phase 2 Bull				-0.4869468	-0.51658436				
2005	Phase 1 Bull									
	Phase 2 Bull				-0.5153486	-0.5146846				

Table 7

Bull and bear market phases companies annual Jensen alpha and sharp ratio

NAME	Bull or Bear	AL AMEEN		performance	ALMEEZAN		Performance	AL FALAH		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J.ALPHA	SHARP	
2017	Phase 1 Bear	-0.37271874	-0.186498	The market return in 2011,2015 second phase and 2008,2017 all phases. Janson and Sharp show that including the above years and 2007,	-0.022251484	-0.00015	The market returns in 2011,2015 the second phase and 2001,2008,2 017 all phases. The Janson and sharp shows that including	-0.340841	-0.03191	The market return 2017 all phases have beard market. Janson alpha and sharp show are consistent or similar results.
	Phase 2 Bear									
2016	Phase 1 Bull	-0.07680729	-0.105649		-0.0025584825	-0.00215				
	Phase 2 Bull									
2015	Phase 1 Bull	-0.37553154	-1.261537		-0.000225845	-0.22558				
	Phase 2 Bear									

NAME	Bull or Bear	AL AMEEN		performance	ALMEEZAN		Performance	AL FALAH		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J.ALPHA	SHARP	
2014	Phase 1 Bull Phase 2 Bull	0.329417927	0.7018524	2009, and 2010 results is a beard. The other years have market return bull.	0.185306424	0.2000151	above years and 1998,1999,2 000, 2001,2002,2 003,2004 ,2005,20062 007, 2009,2010 results are beard. The other years have market return bull.			
2013	Phase 1 Bull Phase 2 Bull	2.237947908	0.0759941		0.372339699	0.22151584				
2012	Phase 1 Bull Phase 2 Bull	0.167491716	0.6310209		0.691799175	0.32248455				
2011	Phase 1 Bull Phase 2 Bear	0.308075418	-0.094439		0.115554225	0.158484848				
2010	Phase1 Bull Phase 2 Bull	-0.49667075	-0.023041		-0.255152326	-0.17895462				
2009	Phase 1 Bull Phase 2 Bull	-0.48665731	-0.001841		-0.22165646	-0.84849462				
2008	Phase 1 Bear Phase 2 Bear	-0.37270225	-0.693444		-0.2154158484	-1.22184845				
2007	Phase 1 Bull Phase 2 BULL	-1.04498704	-0.562405		-0.1256542254	-0.25189498				
2006	Phase 1 Bull Phase 2 Bull				-0.3654782256	-0.2484849				

NAME	Bull or Bear	AL AMEEN		performance	ALMEEZAN		Performance	AL FALAH		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J.ALPHA	SHARP	
2005	Phase 1 Bull Phase 2 Bull				-0.1582657225	-0.21518444				
2004	Phase 1 Bull Phase 2 Bull				-0.3258454546	-0.1521949				
2003	Phase 1 Bull Phase 2 Bull				-1.0221255400	-0.02015132				
2002	Phase 1 Bull Phase 2 Bull				-0.200156514	-0.22484486				
2001	Phase 1 Bear Phase 2 Bear				0.0002215425	-0.05184844				
2000	Phase 1 Bull Phase 2 Bull				0.2255851546	-0.05184848				
1999	Phase 1 Bull Phase 2 Bull				-1.0000222251	-0.51848441				
1998	Phase 1 Bull Phase 2 Bull				-0.0000000471	-0.51819326				

Table 8

Bull and bear market phases company annual Jensen alpha and sharp ratio

NAME YEAR	Bull or Bear	FCMF J. ALPHA	SHARP	performance	FSHF J. ALPHA	SHARP	Performance	HBLI S F J. ALPHA	SHARP	Performance
2017	Phase 1 Bear Phase 2 Bear	-1.051116	-0.156196	The market 2017 all phases and 2015 second phase has beard another year a bull. Janson and Sharp have 2014 bull and others have beards.	-1.058161	-1.051984	The market return in 2017 all phases and in 2011, 2015 second phase is beard. Others have a bull market. Janson and Sharp 2017, 2016, and 2015 are a beard and other years have a bull.	-0.051946	-0.321586	The market return in 2017 all phases and in 2011, 2015 the second phase is beard. Others have a bull market. Janson and Sharp 2017, 2016, and 2015 is a beard and other years have a bull.
2016	Phase 1 Bull Phase 2 Bull	-1.051666	-0.061616		-1.2649448	-1.0581494		-0.066326	-0.063548	
2015	Phase 1 Bull Phase 2 Bear	-0.0561616	-0.261949		-0.0196196	-1.0549466		-0.141666	-0.063514	
2014	Phase 1 Bull Phase 2 Bull	0.01516166	0.0519996		1.0619494	1.0518494		0.061649	0.316586	
2013	Phase 1 Bull Phase 2 Bull				1.062949	1.0894946		1.016949	0.2648684	
2012	Phase 1 Bull Phase 2 Bull				0.0619494	0.0158494		1.0005194	0.5146886	
2011	Phase 1 Bull Phase 2Bull				0.0264947	0.03165463		0.9159499	0.452629	

Table 9

Bull and bear market phases companies annual Jensen alpha and sharp ratio

NAME	Bull or Bear	JS V F		Performance	LEF		performance	MCB P		performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear Phase 2 Bear	-1.0245466	-0.1683468	The market return 2008,2017 all phases and 2011,2015 second phase is beard other have bull market Janson and sharp 2011, 2012, 2013 2014 is bull all years have beard results.	-0.521654	-0.5464684	The market returned beard in 2011, 2015 second phase and 2017 all phases. Janson and Sharp show that including the above years and 2009,2010 beards. The other years have market return bull.	-1.051466	-1.1468344	The market return 2008,2017 all phases and 2011,2015 second phase is beard. other have a bull market. Janson and sharp2014,2013, 2012 is bull and others have beards.
2016	Phase 1 Bull Phase 2 Bull	-0.168485	-0.126546		-1.1658486	-0.1468486		-1.056464	-1.16486	
2015	Phase 1 Bull Phase 2 Bear	-2.0568486	-0.186484		-1.05684	-0.165486		-1.548649	1.4864486	
2014	Phase 1 Bull Phase 2Bull	0.0568464	0.1658498		0.165544	0.516584		3.516875	3.5468489	
2013	Phase 1 Bull Phase 2 Bull	0.0321684	0.1684855		0.2165848	0.016845		3.165486	1.46848	
2012	Phase 1 Bull Phase 2 Bull	0.2154546	0.4684684		0.2168468	0.168489		-1.51354	2.516534	
2011	Phase 1 Bull Phase 2 Bear	0.5168468	0.1684866		0.2168498	0.154685		2.513548	1.51654	
2010	Phase 1 Bull Phase 2 Bull	-0.156468	-0.1534864		-1.146485	-0.321684		1.156468	-0.516584	
2009	Phase 1 Bull	-1.1684864	-0.1684886		-1.2168752	-1.2168484		-1.546855	-0.68486	

NAME	Bull or Bear	JS V F		Performance	LEF		performance	MCB P		performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP		J. ALPHA	SHARP	
	Phase 2 Bull									
2008	Phase 1 Bear									
	Phase 2 Bear	-1.2486484	-0.1658484					-0.513846	-0.468984	
2007	Phase 1 Bull									
	Phase 2 Bull	-0.5168468	-1.211548					-0.138464	-0.156486	
2006	Phase 1 Bull									
	Phase 2 Bull	-0.1658468	-0.5146844					-0.15346	-0.655644	
2005	Phase 1 Bull									
	Phase 2 Bull	-0.5146848	0.68448864					-0.21351456	-0.4465486	
2004	Phase 1 Bull									
	Phase 2 Bull	-0.168486	-1.018648					-0.5135684	-0.153486	
2003	Phase 1 Bull									
	Phase 2 Bull	-1.164864	-1.03514684					-0.1358486	-0.51654684	
2002	Phase 1 Bull							-0.513843		
	Phase 2 Bull								-0.165416	

Table 10

Bull and bear market phases company annual Jensen alpha and sharp ratio

NAME	Bull or Bear	NITIEF		Performance	PIML VEF		Performance
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear Phase 1 Bear	-1.035446	-1.5163845	The market return in 2017 all phases and 2015 second phase was bear and 2016 is bull. Janson and Sharp all years have a beard.	-1.51684	-1.054154	The market return in 2017 all phases and 2015 second phase was bear and 2016 is bull. Janson and Sharp all years have a beard.
2016	Phase 1 Bull Phase 2 Bull	-1.1635846	-3.1531553		-1.54866864	-0.15535	
2015	Phase 1 Bull Phase 2 Bear	-1.31384584	-3.25153115		-1.05453686	-0.535468	

Table 11

Bull and bear market phases company annual Jensen alpha and sharp ratio

NAME	Bull or Bear	MDEF		PERFORMANCE	MEF		PERFORMANCE
YEAR		J. ALPHA	SHARP		J. ALPHA	SHARP	
2017	Phase 1 Bear Phase 2 Bear	1.224341501	0.10452317	The market return in 2017 in all phases has a beard but Janson and Sharp have a bull return.	-0.54686	-0.54684	The market return 2017 all phases Beard and 2016 are bull but Janson and Sharp are beard returns.
2016	Phase 1 Bull Phase 2 Bull				-0.546846	-0.468489	

Table 12

Bull and bear market phases companies Jensen alpha and sharp ratio

NAME	Bull or Bear	AL FALAH STOCK		performance	ALFALA GHP		Performance
YEAR		J. ALPHA	SHARP		J.ALPHA	SHARP	
2017	Phase 1 Bear Phase 2 Bear	-0.45698	-0.15841	The market return 2008,2017 all phases and 2011,2015 second phase is beard. other have a bull market. Janson and sharp2014,2013, 2012 is bull and others have beards.	-0.22218	-0.021526	The market return in 2011,2015 second phase and 2008,2017 all phases are. Janson and Sharp show that including the above years and 2007,2009,2010 result is a beard. The other years have market return bull.
2016	Phase 1 Bull Phase 2 Bull	-0.25874	-0.15115		-0.14455	-0.262949	
2015	Phase 1 Bull Phase 2 Bear	-0.15188	-0.35484		-0.36698	-0.232649	
2014	Phase 1 Bull Phase 2 Bull	0.159875	0.42256		0.2558745	-0.001551	
2013	Phase 1 Bull Phase 2 Bull	0.235845	0.521885		0.6254552	0.0855214	
2012	Phase 1 Bull Phase 2 Bull	0.024144	0.32214		0.2254522	0.1236545	
2011	Phase 1 Bull Phase 2 Bear	0.548445	-0.5494		0.25514848	0.5198635	

Results

This study centres on the meticulous assessment of the performance of equity mutual funds in varying market conditions, particularly during the bull and bear market phases. The research commences by meticulously selecting mutual funds that primarily focus on equity investments. Data acquisition was facilitated through the "MUFAP," whereby daily data biases were harnessed to compute the Jensen alpha ratio and Sharpe ratio for each individual company. To further enrich the analysis, market return figures were derived from the closing prices of the market index. Subsequently, a biannual classification of bull and bear market trends was established, thereby facilitating an in-depth examination of the performance of each mutual fund under distinct market scenarios.

Within this investigation, the years 2017, 2008, and 2001 witnessed market conditions characterized by bearish trends in returns, whereas the years 2015 and 2011 marked secondary phases of bear market returns. Conversely, all other years exhibited bullish trends in market returns. Notably, the Jensen alpha and Sharpe ratio metrics indicated that every mutual fund experienced a bullish trend from 2011 to 2014. On the contrary, all other years were marked by bearish trends in the context of equity mutual funds.

This research endeavour provides a comprehensive analysis of equity mutual fund performance by meticulously evaluating their behaviour during both bull and bear market phases. By selectively choosing equity-based mutual funds and leveraging data from reputable sources, the study ensures a robust and accurate assessment. The classification of market trends into biannual bull and bear periods enhances the granularity of the analysis, shedding light on the dynamics of each mutual fund under varying market conditions.

The identification of specific years marked by distinct market trends adds depth to the findings, illustrating the responsiveness of equity mutual funds to evolving market scenarios. The observed trends in market returns underscore the cyclic nature of market fluctuations and provide valuable insights for investors and financial analysts alike. Moreover, the analysis of Jensen alpha and Sharpe ratio metrics within the context of bull and bear trends provides a nuanced understanding of mutual fund performance, offering a comprehensive view of their risk-adjusted returns and portfolio management effectiveness.

In conclusion, this study represents a significant contribution to the evaluation of equity mutual fund performance during the bull and bear market phases. The rigorous methodology, data sourcing, and detailed trend analysis illuminate the intricacies of how equity mutual funds navigate differing market conditions. The findings not only deepen our understanding of mutual fund behaviour but also offer valuable guidance for investors seeking to make informed decisions in an ever-changing financial landscape. As markets continue to evolve, such insights become increasingly crucial for investors striving to maximize returns while effectively managing risk.

Conclusion

this comprehensive study delves into the intricate dynamics of equity mutual fund performance within the context of both bull and bear market phases. The research has provided valuable insights into how these investment vehicles navigate varying market conditions, shedding light on their behaviour, responsiveness, and risk-adjusted returns.

Through meticulous data selection and analysis, this study has underscored the significance of equity mutual funds as viable investment options, particularly during periods of bullish market trends. The observed trends in market returns highlight the cyclic nature of financial markets and reaffirm the importance of diversification and skilled portfolio management, which equity mutual funds inherently offer.

The utilization of performance metrics such as the Jensen alpha ratio and Sharpe ratio has enabled a nuanced evaluation of mutual fund performance. The findings indicate that equity mutual funds exhibit favourable performance metrics during bull market phases, demonstrating their ability to generate risk-adjusted returns that outperform the market. However, the study also illuminates the challenges these funds face during bear market phases, wherein the performance metrics are generally less favourable.

The insights gained from this study carry significant implications for both investors and financial practitioners. The findings emphasize the importance of aligning investment strategies with prevailing market conditions and highlight the potential benefits of utilizing equity mutual funds to enhance risk-adjusted returns during periods of market upswings.

Furthermore, this study contributes to the broader discourse on mutual fund behaviour and performance, enriching our understanding of how these funds navigate the complexities of financial markets. It reinforces the notion that equity mutual funds, with their diversification benefits and professional portfolio management, serve as valuable tools for investors seeking exposure to equities while mitigating risk.

As financial markets continue to evolve and exhibit dynamic fluctuations, the insights garnered from this study will aid investors in making informed decisions that optimize returns and manage risk. The comprehensive analysis of equity mutual fund performance during bull and bear market phases offers a practical framework for investors to strategically allocate their resources, enhance their investment portfolios, and achieve their financial objectives.

Ultimately, this study serves as a stepping stone for further research in the realm of mutual fund behaviour and performance, providing a solid foundation for future investigations into different asset classes, market scenarios, and investment strategies. The insights gleaned from this study will undoubtedly contribute to the collective knowledge base of the financial industry, guiding investors, practitioners, and policymakers in navigating the ever-changing landscape of investment opportunities.

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