ISSN: 0974-5823 Vol. 7 No. 1 January, 2022

International Journal of Mechanical Engineering

THE IMPACT OF COVID ON MONEY MARKET IN MUTUAL FUND

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Abstract

The goal of this research is to investigate the generally held belief that actively managed funds may outperform the market during a slump. This widely held belief has been put to the test by the performance of Indian equity mutual funds throughout the epidemic era. In contrast to the OLS estimation, the conditional alphas are calculated using lagged instrumental variables with the fixed effect/LSDV estimator and the sys-GMM estimator using a sample of 1271 schemes for 5 months from March 1st to July 31st, 2020. The study's findings reveal that the actively managed Indian mutual fund moves in lockstep with the market and lacks the potential to outperform it. The main consequence is from the use of fixed effect and GMM estimators for evaluating the performance of Indian Mutual Funds during the crisis era, which assists investors in determining profitable investment possibilities.

Keywords: Crisis; *Mutual funds; Assets under Management, India; risk; investment*

Introduction:

For mutual funds, the start of 2020 promises to be a double whammy. The COVID-19 pandemic comes first, followed by a sharp decline in worldwide crude oil prices. These incidents sparked panic in world markets. The Indian capital market regulator SEBI and the mutual fund industry organisation AMFI implemented a number of steps to protect and defend investors and the mutual fund industry. Understanding market trends is a crucial skill for academic researchers, capital market aficionados, distributors, and anyone pursuing a job in the asset management business. Mutual funds are seeing outflows: The frightening drop in the stock markets has caused investor fear, causing them to rush to redeem their mutual funds. In March 2020, net outflows amount to Rs. 2.13 lakh crore. Much of the harm was caused by withdrawals in the debt category, which recorded the biggest outflows in the Indian Debt MF market in a single fiscal year. The equity investment base maintained by mutual funds was reduced by a fourth. As a result, the total AUMof all 44 AMCs has decreased from Rs. 27.23 lakh crores at the end of February 2020 to Rs. 22.26 lakh crores at the end of March 2020. SIP Inflows Continue to Rise: SIP inflows continue to rise, reaching new highs. Inflows into SIPs increased from Rs. 92,963 crores in FY 2018-19 to Rs. 1,00,084 crores in FY 2019-20. Mutual funds, like DIIs, have been absorbing FII selling so far, owing to consistent and growing inflows from SIPs. However, the lockdown and probable slowdown that follows might result in tightening of employment and salary, affecting mutual fund SIP inflows and putting AMCs to the test. Some Plans Open Doors: It is relatively rare for schemesto cease accepting new investors when values are exceedingly high, and vice versa. Some AMCs, including DSP, SBI, and Nippon India, had limits on the acquisition of units in their smallcap schemes in 2018. With the market falling and small-cap prices becoming more appealing, these plans began to enable both lumpsum and systematic investment-based transactions into the schemes.

The lass began to perform admirably. Inflows into gold ETFs had been increasing for four months, while outflows into gold ETFs also increased in March 2020. In the previous year, the average return from the Commodity-Gold category was 42.6 percent. The equity-large-cap category returned -19%. (as of April 10, 2020). During 2019-20, gold ETFs raised Rs. 1,600 crore. Debt Funds with Negative Returns: Market risks are always present in investments. Debt fund investors tend to forget this until they have firsthand experience with it, which, of course, is unusual. Thisis also true for liquid money. This is due to a number of factors. FIIs and corporates both sold aggressively in the short-term bond market to raise funds for advance tax payments. Due to the shutdown, stockbrokers' activity was limited. Meanwhile, the RBI disappointed by not reducing rates but instead decided to deploy LTROs. There was no "special window" for mutual funds as there had been in 2009 and 2013. These variables resulted in higher yields and lower bond returns. Temporary Office Closure: The lockdown has caused AMCs and RTAs to close their front offices. AMFI mandated that all transactions be completed in electronic format only. Some AMCs, such as IDFC AMC, encourage its workers to work from home in order to offer critical customer care. Mutual funds are primarily sold through distributors. Unlike SEBI-registered firms that provide financial services, distributors are not permitted to leave during the lockdown, hence distributor- led operations were primarily impacted. While electronic transactions are permitted, investors suchas the elderly and retired continue to utilise cash and checks. Because of the lockout, such investorswere unable to transact. Changes to Nav Cut-Off Timings: As a result of the RBI lowering trading hours for the money market and FX markets, cut-off timings for several mutual fund transactions have been advanced. Subscription and redemption requests for Liquid and Overnight funds have been rescheduled for 12:30 PM and 1:00 PM, respectively. The cut-off time for all other schemes has been adjusted to 1:00 PM for both subscriptions and redemptions. Smart Beta ETFs: In India, smart beta goods are less popular. However, their

outperformance of the wider market-cap indices in these uncertain times has piqued the interest of investors. For example, the Nifty 100 Low Volatility-30 returned -16 percent compared to the Nifty 100, which returned -23 percent in the previous year. Three index funds and six exchange-traded funds (ETFs) benchmark against smart beta indexes. Although the outperformance piques investor interest, the lack of liquidity in the ETFs remains a disincentive.

Review of literature.

Sansa investigated the impact of COVID-19 on China's financial markets and the United States from March 1 to March 25, 2020. She used basic regression in Double Log and Semi Log-Linear Models and discovered that there is a significant influence on the stock markets of China and the United States. Ramelli and Wagner contrasted the unusual impact of COVID-19 on the US stock market to past pandemics in 1918–19, 1957–58, and 1968. Topcu and Gulal investigated the impact of COVID-19 on developing stock markets between March 10 and April 30, 2020. Becausethe impact of the pandemic epidemic is greater in rising Asian economies than in European markets, government interventions are extremely important. Baker et al. investigated the market impact of COVID-19 in the United States. They performed text-based analysis on a vast amountof daily data from 1900 and discovered that COVID-19 had a far larger impact than Spanish flu. Cheema et al. investigated the influence of the COVID-19 and the global financial crisis on the stock markets of the world's ten major economies. During both crises, US Treasury bonds and the Swiss franc served as safe havens for investors. Al-awadhi et al. studied the effects of COVID-19 on the Chinese stock market and discovered a strong negative effect across the board.

Liu et al.studied the coronavirus outbreak on 21 leading stock markets using the event study methodology. They found that the markets fell quickly after the outbreak. Further, they conducted panel fixed effect estimation using the abnormal returns and their results confirmed the pessimistic behavior of investors. Galena et al. applied sys-GMM for estimating the fund's realised performance with the characteristics.

Data and methodology

The research looked at factors on a daily basis and lasted 5 months, from March 1st to July 31st, 2020. Additionally, the entire sample period is divided into three subsamples: 01-03-2020 to 30- 04-2020, 01-05-2020 to 31-05-2020, and 01-06-2020 to 31-07-2020.

Data for net asset values (NAVs) for 1271 actively managed Indian equity mutual funds are extracted from the Association of Mutual Funds in India (AMFI) website and converted into portfolio daily returns (Rpi,tRpi,t) (see Eq. 1). Similarly, market returns are determined using NSENifty daily data. The index represents around 70% of market capitalization and is hence consideredas a proxy for the market.

Rpi,t=(NAVpi,t−NAVpi,t−1)/NAVpi,t−1Rpi,t=(NAVpi,t−NAVpi,t−1)/NAVpi,t−1 (1)

	Sample 1	Sample 2	Sample 3	Overall Sample
No. of Portfolio's	1220	1219	1267	1271
No.of days in eachsamples	38	19	45	102
No. of observation	44,018	22,519	54,780	1,21,317

Rm,=(IndVt−IndVt−1)/IndVt−1Rm,t=(IndVt−IndVt−1)/IndVt−1 (2)

IndV stands for the value of the market index th day and t − 1th day, respectively. The details ofSchemes used for the analysis are presented in Table 1.

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Results and discussion

Descriptive statistics of the variables portfolio return and the excess market returns are shown in panel A of Table 2. The whole period statistics especially the mean and the median are reported with a negative return. This indicates an unfavorable impact of the crisis on the variables. The results further exhibit that the variables are negatively Skewed and Leptokurtic. The normality condition is violated as the p values are insignificant; for this, the Jarque–Berra statistics are estimated. Both the variables are positively correlated at 34% and the results are reported in the Panel B of Table 2

	$Rp-Rf$Rp−Rf	$Rm-Rf$Rm−Rf
Panel A: Descriptive statistics of variables		
Mean	− 0.060195	− 0.059684
Median	− 0.0589	− 0.0564
Std. Dev	0.023431	0.028072
Skewness	− 25.74997	− 1.258902
Kurtosis	1072.591	8.210543
Jarque–Bera	6.16E + 09	1,86,758.90
Probability	0	0
Panel B: Pair wise correlation between variables		
$Rp-Rf$Rp−Rf	1	
$Rm-Rf$Rm−Rf	0.3440594	1

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Testing the relevance of instruments

The relevance test suggested by Olea and Pflueger [34] is used to evaluate instrument validity. In this paper, I followed a similar procedure to Roy and Shijin [40]. The explanatory variables are regressed against the instrumental variables, and the resulting Statistics are used to assess the weakinstrument problem, i.e., if the value is less than 24, the instruments are weak; otherwise, the instruments are robust.

$Rm-Rf=\varphi+\gamma 1\mathbb{Z}1+\gamma 2\mathbb{Z}2+\gamma 3\mathbb{Z}3+\gamma 4\mathbb{Z}4+\gamma 5\mathbb{Z}5+vi$Rm−Rf=φ+γ1Z1+γ2Z2+γ3Z3+γ4Z4+γ5Z5+νi (11)

The findings are shown in Table 3 below. The t values assigned to the instruments are correct. TheZ1,Z3Z1,Z3 coefficients are positive, whereas the Z2,Z4,Z5Z2,Z4,Z5 coefficients are negative. Relevance F denotes a favorable value that is greater than the standard value specified by Olea andPflueger [34]. The test acknowledges the overall validity and robustness of the instruments used to measure conditional performance and GMM estimation.

Source: Computation by author

From: Impact of COVID-19 on the performance of emerging market mutual funds: evidence fromIndia

Variable	Coefficient	*t* statistic	*p* values
φ	- 0.059646	- 38,031.4	0
$\mathbb{Z}_1$	0.000725	655.2984	0
$\mathbb{Z}_2$	0.998269	15,761.56	0
$\mathbb{Z}_3$	0.000298	64.19975	0
$\mathbb{Z}_4$	0.011038	29.89703	0
$\mathbb{Z}_5$	0.00106	10.29799	0
F statistic	62,834,864		
Prob. (*F* statistic)	0		

Conclusion

The purpose of the study was to examine the performance of actively managed Indian mutual funds during the COVID-19 pandemic. The sample consists of 1271 actively managed mutual fund schemes collected on a daily basis from March to July 2020. The fund's performance is estimated using the conditional version of CAPM and the lagged form of IV's such as COVID-19 reported cases (Z1Z1), NSE Nifty dividend yield (Z2Z2), Oil price fluctuation (Z3Z3), Foreign exchange rates (Z4Z4), and Gold price fluctuation (Z5Z5). The instruments are then examined for relevance and exogeneity. The results show that the instruments are valid when used together, with a weak result on Z1Z1 and Z3Z3. Because the Hausman test results indicate that the individual

effect is fixed, the fixed effect model was chosen over the Panel Least Square estimation. The panel has a large cross section (N) and a short period (T), which attracts the application of system GMM estimation.

The fixed effect model is used to estimate the alphas (intercepts), and the sys-GMM is negative, indicating that Indian fund houses have insufficient beating capacity. The findings show that the widely held hypothesis of superior alpha during the crisis period is violated throughout the sample period. There is no statistically significant difference between the results estimated using the system GMM and the fixed effect model. The findings may be useful to investors and managers in determining the overall performance of the investable universe. The study employed a novel application of panel data methodology to assess the performance of emerging market mutual funds during the crisis. It can also be extended to include a performance comparison of active and passive funds, as well as a comparison of the robust estimator for the fund house's overall performance.

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