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Evaluation of Leverage Effect and Spillover Effect of Indian Broad Index Exchange Traded Funds

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Abstract

Exchange Traded Funds (ETFs) are in their infancy stage in India. There is a huge potential in India for ETFs to grab the attention of all types of investors. The study is conducted on Indian Equity ETFs tracking broader indices namely SENSEX and NIFTY 50. The time frame taken for the study is 10 years and the daily return series from 1st April 2009 to 31st March 2019 forms part of the study. This study investigates the spillover effect of returns between Equity ETFs and its Benchmark Index. Also, the study uses the EGARCH model to identify the presence of leverage effect in the conditional variance of ETFs. The study found that there is only a unidirectional spillover of returns from the Benchmark index to ETF. The presence of leverage effect is not identified in SENSEX based ETFs. The best performer based on risk-adjusted returns is ICICISENSX ETF.

JEL Code : G12, G14
Keywords : ETF; Leverage; Spillover; EGARCH; SENSEX; NIFTY; Conditional Heteroscedasticity; Tracking-error; NSE; BSE; India

I. Introduction

EXCHANGE TRADED FUND (ETF) is an innovative investment avenue which is having a great popularity among developed nations like US where 60% of trading value in the American Stock Exchange (AMEX) is from ETFs (Patak, 2018). Various types of ETFs are available for Indian investors such as Equity ETFs, Debt ETFs, Gold ETFs and World Indices ETFs. ETFs are new entrant (first ETF in India Nifty BeES launched towards the end of 2001) in India and the share of ETF trade is low compared to other schemes. According to AMFI (Association of Mutual Funds in India), March 2019 report only 2 percentages of investor accounts are held in ETF/FOF (Fund

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