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Are US-Dollar-Hedged-ETF investors aggressive on exchange rates? A panel VAR approach☆

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ABSTRACT

Exchange traded funds (ETFs) are a multi-trillion dollar market that epitomizes financialization due to its recent growth. This study examines the behavior of U.S. listed currency hedged ETF investors towards changes in the underlying benchmark and foreign exchange rate from July 2011 to November 2015 using a panel VAR approach. We find that investors are able to anticipate changes in future exchange rates and invest in currency hedged ETFs prior to changes. Granger-causality tests confirm that these investors proactively trade before large real exchange rate movements. These results suggest that the use of financial instruments such as ETFs to hedge against exchange rate volatility may have itself become a source of volatility, which have implications for the further financialization of the ETF industry.

1. Introduction

Exchange traded funds (ETFs) are a multi-trillion dollar market that epitomizes financialization. For the first time in history, the global level of assets held under management in ETFs has surpassed those held by hedge funds, with $2.97 trillion in June 2015 (Rennison, 2015). The ETF market has more than tripled in size since 2007, while the hedge fund industry has grown a little over 50%. Likewise, net inflows are $152.3 billion for ETFs in the first half of 2015, compared to $39.7 billion flowing into hedge funds. The ETF market is a perfect example of financialization, because if investors were not putting more importance on the ETF market, it would defy the recent growth. Therefore, the need to examine how investors trade ETFs is self-evident.

Ramaswamy (2011) explains the operation structure of ETFs by showing that market makers buy shares of stock from the market. Market makers then build a basket of securities through an ETF sponsor who creates shares for the ETF. These shares are provided to the stock exchange which then offers the ETF to investors in the secondary market. The cash from

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investors' purchases is given to the market maker through the exchange, who purchases more securities from the market to continue the cycle.[1]

Traditionally, ETFs look to replicate a targeted index.[2] Currency hedged ETFs have an additional feature besides holding the underlying assets, which is the use of derivatives such as forwards to hedge against future changes in exchange rates. This allows investors who want to own a foreign asset but are worried about exchange rates to hold a fund that is hedged against exchange rates.

1.1. Financialization

There is an emergent field of literature about financialization since the 1990's (Engelen, 2008). Epstein (2001) defines financialization as:

> "Financialization refers to the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operation of the economy and its governing institutions, both at the national and international level" (Epstein 2001).

Lagoarde-Segot (2016) describes how financialization research is widespread in a plethora of social sciences, but argues for the basis of incorporating it into the finance literature. He connects financialization with the related development of cyberspace, global deregulation of financial markets, and rise in shareholder governance to show the need to examine it in finance research.

Cloke (2010) and Cloke (2013) analyze the recent outlook in the international financial, economic, and political system and coin the term ultra-capital (new hybrid forms of capital),[3] proposing it evolves from within the global financial services' sector as a relational space for actants, networks and processes. The example of the securitization boom of 2003–2007 is provided where special purpose vehicles act as financial service entities with the purpose of invisibility, mobility and the concealment of ownership.

1.2. Previous studies on ETFs

Most research in ETFs examines the ETF instrument itself. For example, research analyzes how effectively ETFs track their benchmark indices (Aber et al., 2009; Johnson 2009; Charupat and Miu 2013). Svetina (2010) finds that ETFs track as well as comparable index mutual funds, similar to Poterba and Shoven (2002), adding that ETFs underperform their benchmark indexes, and are not immune from tracking error. Ben-David et al. (2014) find that ETFs increase stock volatility because they attract a new layer of demand shocks to the stock market due to their high liquidity.

ETF market quality, measured by liquidity and spreads, has improved since 2001 due to tick sizes changing from fractional to decimal (Chou and Chung 2006) and increased competition from new ETFs entering the market (Boehmer and Boehmer 2003). Nguyen et al. (2007) debate that multimarket trading improves the liquidity of most popular ETFs. Agapova (2011) finds that index mutual funds and ETFs are imperfect substitutes.

One concern for investors is that ETF prices can deviate from its net asset value (NAV). Engle and Sarkar (2006) indicate that the average premium is 1.1 basis points over NAV for domestic ETFs and 35 basis points for foreign ETFs. ETFs' price changes are due to variations in the underlying shares and are not high-frequency traded assets. However, some research focuses on arbitrage opportunities. Marshall et al. (2013) use high-frequency data from the Thomson Reuters Tick History (TRTH) database to analyze two extremely liquid S&P 500 ETFs and find that spreads increase just before arbitrage opportunities and price deviations are followed by a tendency to quickly correct back towards parity.

The current paper analyzes investor trading behavior on currency hedged ETFs, in the light of financialization, since these financial instruments have been discussed by market analysts as a way for investors to hedge their exposure to foreign exchange rates while taking advantage of international markets' performance.[4] There is large evidence of financialization in the commodities (Aboura and Chevallier 2015; Huchet and Fam 2016) and securitization (Buchanan, 2016) markets. In turn, we provide an insight into how investors trade currency hedged ETFs that provides important implications to the financialization of the ETF industry.

The rest of the paper proceeds as follows. Section 2 describes the data and methodology. Section 3 presents the results. Section 4 provides the conclusions.

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[1] ETFs are not considered to be mutual funds in the United States because of the limited redeem ability of ETF shares. They are open ended funds that can be traded throughout the day similarly to a closed end fund (Ramaswamy, 2011).

[2] For example, Elton et al. (2002) observe investors' most popular index to replicate is the S&P 500.

[3] Ultra-capital can also be defined as capital that in certain critical areas is created by complex social and relational aspects that put it outside, beyond capital (Cloke, 2010).

[4] See, for example, Pisani (2015).