ETFS: PEOPLE FEAR WHAT THEY DON'T UNDERSTAND

David Abner - Head of Europe 06/26/2013

A Financial Times (FT) article entitled "Bond Market Sell-Off Causes Stress in \$2 Trillion ETF Industry" set off a flurry of questions about the role exchange-traded funds (ETFs) played in Thursday's market sell-off. A review of basic ETF operations and mechanics illustrates that ETFs not only functioned properly last week but that they are increasingly relied upon as liquidity and price discovery tools during periods of extreme market volatility. We welcome the opportunity to clarify the following concepts that were perceived to be disruptions to ETFs: 1. Emerging market ETFs trading at discounts and premiums to their NAV. 2. Authorized Participants (APs) in the ETF market and their internal risk limits. 3. The <u>creation and redemption process</u> and the difference between in-kind delivery and cash delivery. 4. High volumes in ETFs and investor risk tolerance levels. 1. ETF "discounts" and "premiums" While ETFs tracking U.S. stocks typically trade in line with their underlying holdings, ETFs providing exposure to international markets that are closed during U.S. trading hours function differently. Discounts and premiums of ETFs with foreign underlying holdings are confusing to investors, and this is primarily due to the timing difference between the closing prices of two separate but related vehicles. The NAV (net asset value) of an ETF represents the closing price of the underlying basket of the ETF, with small adjustments for cash. The "last price" of an ETF represents the price at which that ETF traded most recently on the stock exchange secondary market). The two numbers are frequently compared, and the difference between them is considered an ETF premium or discount. If the stocks in the ETF all closed at 3:00 a.m. NY time, then any news and market moving events that happen between then and the closing time of the U.S. markets will be built into the ETF price but not the NAV. On Thursday, June 20, 2013, the U.S. markets sold off broadly throughout the afternoon. Expectations that the emerging markets might also sell off later that night led to lower ETF prices. The ETF prices were acting as price discovery mechanisms for where market participants expected the underlying markets to trade the following day. The NAV for that same ETF was using closing prices for the underlying stocks as they were at 3:00 a.m. NY time. The disconnect between the NAV and the ETF trading price is not really a premium or discount. The ETF price is representing the market's view of fair value for the assets in the fund at any given moment. The NAV represents the value of those assets at the end of their local market trading sessions. 2. Authorized Participants and their internal risk limits ETFs trade in two markets simultaneously, the primary and the secondary market. The secondary market is the one most readers are familiar with-this is where individual investors and advisors can buy ETFs just as they buy stocks through a brokerage account. However, behind the secondary market, there is a primary market where ETFs are created or redeemed between the ETF sponsor and what is known as an Authorized Participant, an ETF market maker or other large financial institution. The AP is acting as the conduit between the firms providing liquidity in ETFs to customers trading in the secondary market, and the ETF issuers that are enabling creations and redemptions of ETF shares. APs are typically the ETF trading desks at the big brokerage firms, and all those trading desks have limits on how much risk they can facilitate in their trading portfolios on any given day. If an AP is very successful in its business, it has attracted a lot of "clients" (liquidity



providers) to run their creations and redemptions through its firm. On busy days like June 20, the firm can become a victim of its own success and reach its own internally placed risk limit as to the size of the positions it can facilitate. I suspect that was the case with Citigroup, mentioned in the FT article because it ceased accepting redemptions. From an end-investor perspective, this means nothing. It does not affect the pricing of the ETF in the secondary market; it simply means the liquidity providers must go to a different AP to create or redeem the ETF shares they are trading. Typically, there are large numbers of APs for each ETF. WisdomTree, for example, has more than 20 different firms authorized to create and redeem shares. Any of those firms will pick up the slack in the market, facilitating creations and redemptions when other APs cannot. This actually highlights the dynamics of a well-developed network of liquidity providers and the authorized participants that service them. 3. The difference between in-kind and cash creations and redemptions A typical, in-kind creation of an ETF involves the authorized participant delivering the actual securities, in the right proportions, to the ETF issuer, who is then able to issue new shares of the ETF. A typical in-kind redemption works the same way in reverse: The AP delivers ETF shares to the ETF issuer, and the issuer delivers the underlying basket of assets to the $\mathsf{AP.}^1$ This process involves the AP doing the trading of the ETF and its underlying assets. However, to facilitate processing ease for authorized participants in certain funds, ETF issuers will sometimes allow them to create and redeem ETF shares for cash-this is known as a cash creation or redemption. In this case, instead of delivering or receiving the underlying basket, the issuer will take or deliver cash and actually go out into the markets and facilitate the trading of those assets. At certain times an ETF issuer can restrict cash creations or redemptions, which is what happened last week, according to the FT article. All this means is that APs have to go into the markets and trade the underlying assets, or in the case of a redemption, that the AP will receive the actual underlying assets and will have to sell them in the markets instead of just receiving cash. One of the main reasons for an issuer to do this is to preserve the tax efficiency of the portfolio for investors. This has no impact on the normal functioning of the ETF or of the arbitrage mechanism that keeps an ETF trading at close to its fair value throughout the day. 4. High volumes in ETFs The high volumes in ETFs on June 20 were actually not an abnormal event. As a matter of fact, they did not even make it into the top 10 of ETF high-volume days as calculated by Credit Suisse.² It is estimated that the funds traded roughly 2.5 billion shares, or \$146 trillion in notional. The minimum to crack the top 10 would be approximately 3.6 billion shares. When people trade ETFs, they are buying and selling to effect positions they have or want in the markets. If the ETFs didn't exist, they would be using other vehicles to try to achieve similar exposures. ETFs do not cause market sell-offs, but they certainly enable investors to have more control over their exposures in a low-cost, transparent, tax-efficient and liquid vehicle. When volatility increases, people use ETFs more for both portfolio protection and for new positioning. This is why volumes in ETFs increase in a manner directly correlated to volatility. I believe ETFs continue to prove themselves as a product innovation useful to a large section of the investment community. The assets in ETFs are a testament to how admirably they have performed through a variety of market environments over the years and I expect they will continue to do so for many more. ¹Source: David J. Abner, Visual Guide to ETFs, Bloomberg, 2013. ²Source: Credit Suisse Research Department, Information as of 6/20/2013.

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DEFINITIONS

<u>Liquidity</u>: The degree to which an asset or security can be bought or sold in the market without affecting the asset's price. Liquidity is characterized by a high level of trading activity. Assets that can be easily bought or sold are known as liquid asset.

<u>Price Discovery</u>: The process of the market finding a fair price for an asset through the process of bringing together buyers and sellers.

<u>Volatility</u>: A measure of the dispersion of actual returns around a particular average level. .

Discount: When the price of an ETF is lower than its NAV.

Premium: When the price of an ETF is higher than its NAV.

Net Asset Value (NAV): The calculated assets minus liabilities divided by shares outstanding. NAV is the straightforward account of the actual assets in the fun.

Authorized Participant (AP): An entity, usually an institutional investor, that submits orders to the ETF for the creation and redemption of ETF creation units.

<u>Creation and Redemption Process</u>: The process whereby an ETF issuer takes in and disburses baskets of assets in exchange for the issuance or removal of new ETF shares.

<u>Secondary market</u>: A market where investors purchase or sell securities or assets from or to other investors, rather than from issuing companies themselves—exchanges such as the New York Stock Exchange and the NASDAQ—are secondary markets.

Fair value: Also known as "eNAV." It is essentially an indicative value (IV) that is made in real time by calculating the basket value on every underlying tick and by adjustments that account for updated market new.

<u>Liquidity providers</u>: Traders that facilitate the trading of ETF shares by conducting the transference of liquidity between the underlying basket shares and the ETF.

<u>Arbitrage Mechanism</u>: The ability to compare the price of an ETF and its underlying basket and exchange one for the other utilizing the creation and redemption process.

Notional: The dollar value of the derivative contract.

Transparency: The extent to which investors have ready access to any required financial information about a company, such as price levels, market depth and audited financial reports.

