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Exchange-Traded Funds: Consequences of Expansion



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Overview

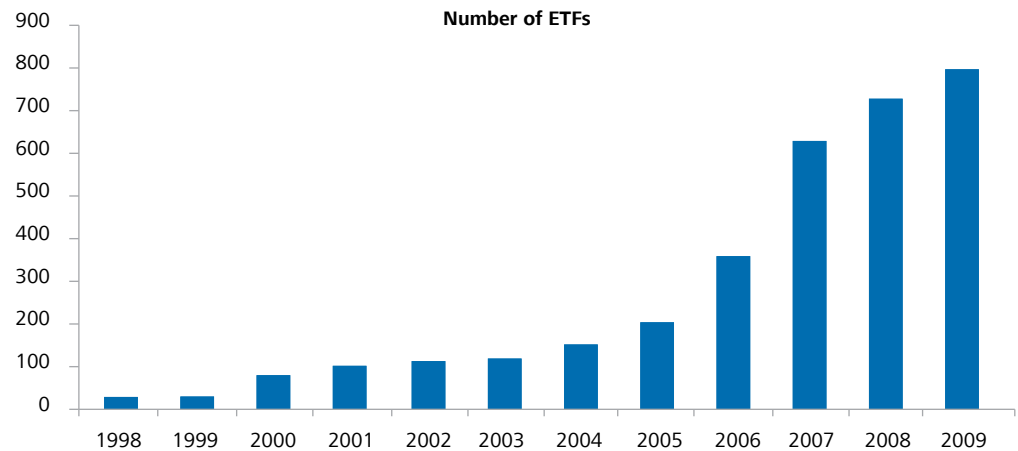
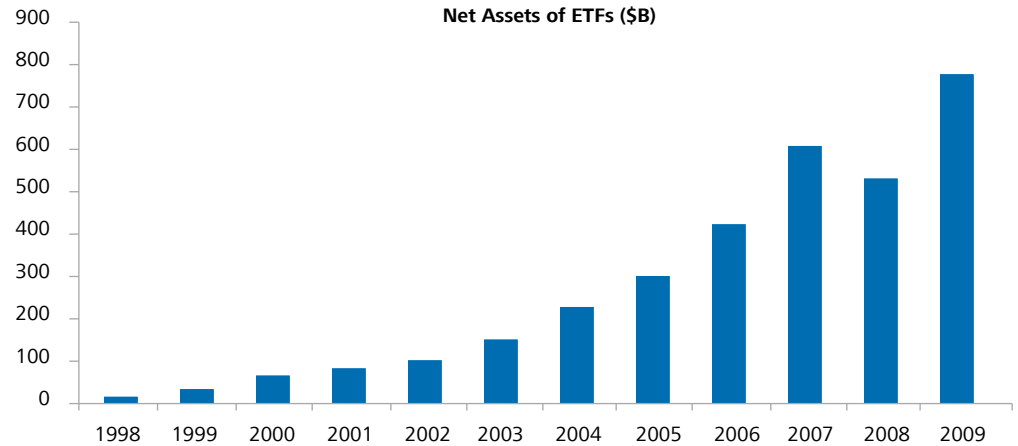
Exchange-Traded Funds (ETFs) have garnered close attention from the investment community and regulators in recent years, as they have rapidly increased in popularity, variety, and complexity. Until recently, ETFs had enjoyed a relatively uncontroversial history and were traditionally used to track the performance of specified equity indices. ETFs originally gained popularity as alternatives to similar index-tracking mutual funds, with the advantage of intraday liquidity, lower fees, and greater tax efficiency. Historically, ETF prices have also closely tracked the value of their underlying portfolios. The straightforward investment objectives of equity index-tracking ETFs, as well as the relatively high liquidity of most securities in equity indices, may have contributed to the success of these instruments.

However, newer ETFs may face some challenges in duplicating the success of their predecessors as they expand beyond simple tracking of equity indices. Newer and more complex ETF products include ETFs that track bond indices or hold other less liquid securities, leveraged and inverse ETFs, and actively managed ETFs. Leveraged and inverse ETFs have already received much media attention and have been the subject of several recent securities class action lawsuits.¹ Additionally, actively managed ETFs have been attracting significant attention after their long-awaited Securities and Exchange Commission (SEC) approval in February 2008. Complex investment strategies may be more costly to implement, and more exotic and less liquid securities may impede the arbitrage mechanism upon which ETFs depend. As ETFs continue to expand beyond traditional strategies, they may be subject to further regulatory restrictions and scrutiny and may face greater litigation risks.

Background

ETFs have greatly increased in popularity over the past decade. As of year-end 2009, there were 797 US-registered ETFs with \$777 billion in net assets, or about 6% of the total net assets managed by US-registered investment companies, compared to just 30 ETFs with \$34 billion in net assets, or less than 0.5% of total net assets, as of year-end 1999.²

Exhibit 1. **Net Assets and Number of US-Registered ETFs³**



Structure and Advantages

ETFs are generally registered with the SEC under the Investment Company Act of 1940 as open-end funds or unit investment trusts,⁴ but unlike mutual funds, investors trade ETF shares on an exchange just like they would trade a regular stock.⁵ In contrast, mutual funds are “forward priced,” meaning that all mutual fund buy and sell orders received during the day are processed once at the end of the day at a price that is equal to the fund’s net asset value (NAV). The fund’s NAV is the value of the fund’s assets less its liabilities, on a per share basis. Investors may trade ETF shares throughout the day, at varying prices. Thus, the price of an ETF share is *dependent upon the supply and demand for that ETF share and therefore is not necessarily equal to the fund’s NAV.*

However, ETFs do have a key arbitrage mechanism that helps keep ETF share prices at or near NAV. This mechanism relies on intermediaries called authorized participants (APs). While other investors are limited to trading ETF shares on an exchange, APs can also engage in transactions directly with ETFs at the NAV of the fund. If the price of an ETF's shares on the exchange begins to deviate from the NAV of the fund, APs may have an incentive to arbitrage the difference, which will tend to bring the price and the NAV closer together.⁶

Exhibit 2. **ETF Arbitrage**

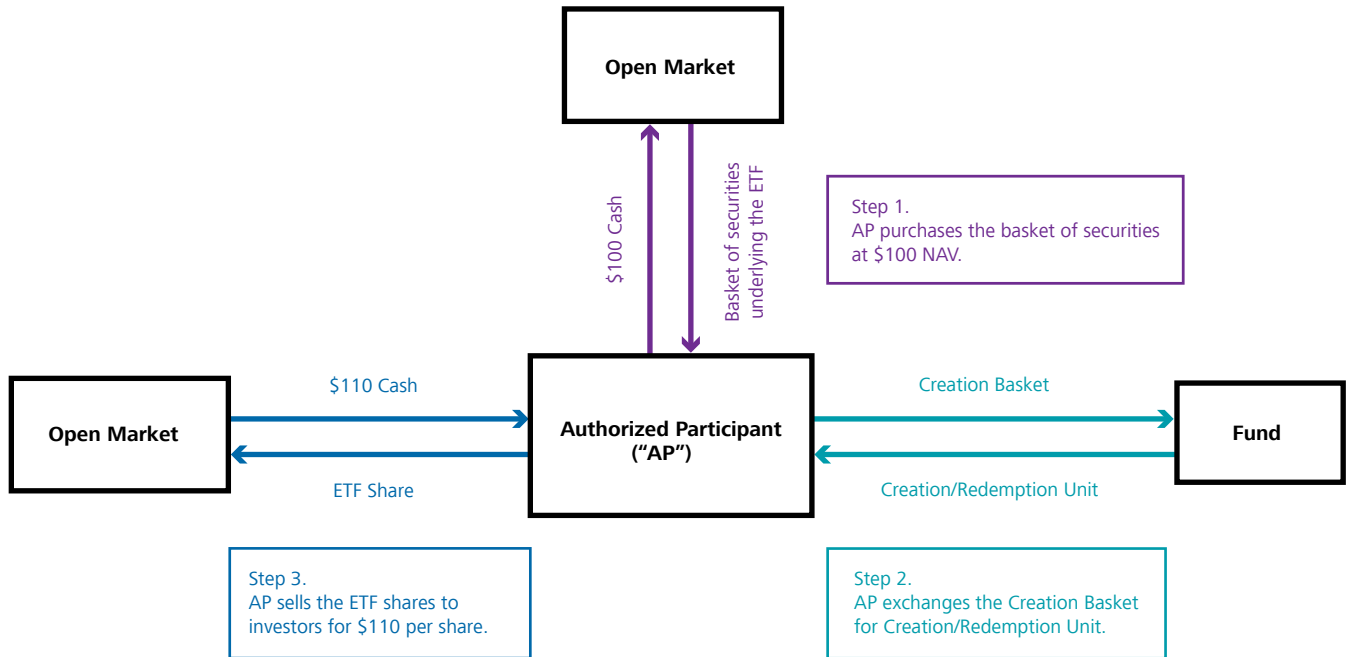


Exhibit 2 demonstrates how the arbitrage process would occur if an ETF's price deviated from its NAV.⁷ Assume that the ETF in this example has recently experienced high demand from investors, pushing its price per share to \$110, above its NAV of \$100 per share. This situation attracts APs seeking to profit from an arbitrage opportunity.

In step 1, APs purchase the underlying securities on the open market at prices equivalent to the \$100 NAV. In step 2, the APs trade these securities (called a "creation basket") to the fund for a block of ETF shares (called a "creation/redemption unit"). Finally, in step 3, the APs sell the block of ETF shares to investors. The APs receive \$110 per ETF share, making a profit of \$10 (= \$110 - \$100) per share.

This arbitrage process will have two effects—first, by creating and selling new ETF shares, the APs will increase the supply of the ETF, and will tend to drive its price *lower* than \$110 per share. Second, by purchasing the underlying securities, the APs will tend to drive their collective prices *higher* than the \$100 NAV. As APs continue to perform this arbitrage function, they will eventually close the gap between the ETF price of \$110 per share and the \$100 NAV of the underlying securities.

This structure results in several advantages over mutual funds. The most straightforward advantages are lower fees and greater tax efficiency. Mutual funds must bear certain costs associated with transacting directly with investors, while ETFs can often limit their transactions to exchanging ETF shares with APs for underlying securities and vice versa (as shown by the “in-kind” transaction in step 2 of Exhibit 2). In addition to lowering administrative and record-keeping costs, transacting with APs often does not involve cash changing hands, deferring capital gains taxes.⁸

Another advantage of the ETF structure is that long-term holders of ETFs are generally not susceptible to transaction costs imposed by frequent traders. In contrast, long-term holders of some mutual funds can be vulnerable to such costs. Because mutual funds are forward priced, investors who place orders to buy or sell mutual fund shares throughout the day will all receive the same price calculated at the end of the trading day. Under certain circumstances, some mutual fund investors may be able to exploit this feature. Market timing is one example of this phenomenon.⁹ Generally, mutual fund market timing can occur when certain investors trade frequently in and out of a fund to exploit perceived pricing inefficiencies, which may increase the fund’s costs for *all* holders and may allow market timers to extract value from longer-term holders of the mutual fund.¹⁰

In general, whenever a market participant trades on information not accurately reflected in the fund’s NAV, value may be extracted from continuing fund holders by frequent traders. In contrast, the intraday liquidity of ETFs prevents such directly dilutive transactions. As an ETF’s price is determined by continuous transactions during the trading day, investors will incorporate new information continuously. Importantly, as APs and other investors engage in transactions that will tend to eliminate these pricing inefficiencies, long-term holders of the ETF are safe from opportunistic investors extracting value from the fund, unlike holders of an equivalent mutual fund.

Many of the advantages of ETFs are dependent on the ability of APs to trade often, easily, and cheaply. This, in turn, is dependent on the liquidity of an ETF’s portfolio of securities and the level of interest in the ETF. A portfolio of illiquid securities, or an ETF strategy that fails to attract the attention of investors, may potentially impede the function of the APs. This may pose a challenge to non-traditional ETFs that attempt to duplicate the cost effectiveness and other efficiencies that have been generally enjoyed by equity index-tracking ETFs.

Expansion

ETFs have expanded dramatically over the past decade in terms of net assets invested as well as in variety. They now encompass numerous asset classes and niche indices, and are beginning to incorporate more active investing strategies.

Exhibit 3. **Net Assets by ETF Type of US-Registered Funds**¹¹

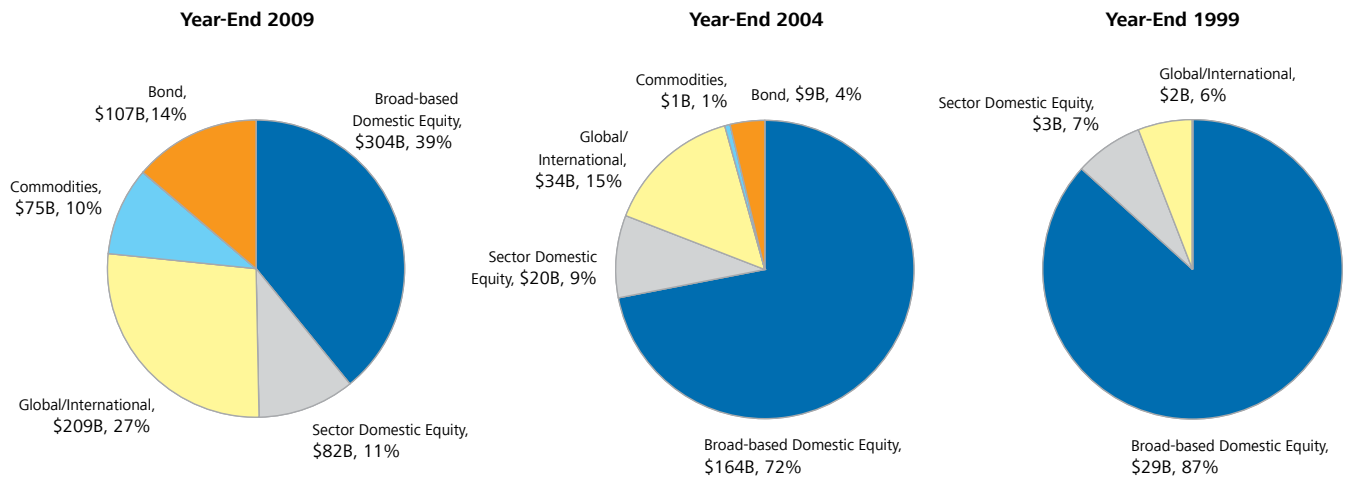


Exhibit 3 illustrates the expansion in the variety of ETFs over the last decade. From representing approximately 87% of US-registered ETF net assets in 1999, the percentage of ETF net assets invested in US-registered ETFs that invest in broad-based domestic equity securities has declined to approximately 39% by year-end 2009.

ETFs with Non-Equity and/or Less Liquid Securities

As noted above, most early ETFs focused on duplicating the returns of broad-market equity indices, while some more recent ETFs include foreign equity and less liquid securities such as fixed-income securities. Other recent products track more specialized indices and niche investing markets, such as specific emerging markets or specific areas within the health care industry.

As seen in Exhibit 3, ETFs investing in global/international securities currently represent 27% of US-registered ETF net assets, compared to 15% five years ago, and 6% 10 years ago. Similarly, bond ETFs now represent a substantial portion of total net assets after their first issuance in 2002, as do commodity ETFs after their first issuance in 2004. Many non-broad-based domestic equity ETF products have thrived over the past decade, although there have been some notable exceptions.¹²

Leveraged and Inverse ETFs

Leveraged investing allows investors to magnify returns on investments through borrowed funds and short-selling strategies allow investors to bet on declines in the value of a security. Traditionally, the demand for leveraged and/or short-selling strategies was largely met by options, futures, and other derivative instruments, as well as investing on margin and selling short. Over the past few years, leveraged and inverse ETFs have experienced substantial growth as an alternative to these methods—as of January 2010, 129 leveraged and inverse ETFs represented almost \$30 billion in assets.¹³ They have expanded to include funds that leverage and/or short currencies, commodities, and bonds.

Leveraged and inverse ETFs have been the target of securities class action lawsuits due to their potentially misunderstood characteristics, particularly during periods of high market volatility.¹⁴ More recently, the SEC announced that it would be reviewing and evaluating the use of derivative instruments by mutual funds, ETFs, and other investment companies. Pending the completion of this review, the SEC is deferring requests for exemptive relief for ETFs that rely on derivative instruments, including leveraged and inverse ETFs, from certain provisions under the Investment Company Act of 1940.¹⁵

Actively Managed ETFs

The investing community has long been interested in combining the ETF structure with investment strategies that go beyond index tracking. Mutual funds with active investment strategies have historically dominated the market, suggesting that actively managed ETFs have enormous potential.

The first actively managed ETFs received SEC approval in February 2008 after many years of SEC consideration.¹⁶ By the end of 2009, there were 22 actively managed ETFs holding almost \$1 billion in net assets.¹⁷ Many more actively managed ETFs appear to be on the horizon. As of the beginning of this year, the list of financial companies that have mentioned plans to issue actively managed ETFs includes J.P. Morgan, Eaton Vance Corp., John Hancock, Vanguard Group, Legg Mason Inc., T. Rowe Price Group Inc., and Goldman Sachs Group Inc.¹⁸

The level of transparency of actively managed ETFs has been a contentious issue. Managers of active funds may be reluctant to disclose detailed daily information on the fund holdings as this could provide market participants with opportunities to “free ride,” copying a fund’s strategy, or to “front-run,” determining a fund’s next move and trading ahead of the fund itself, thereby making the fund’s subsequent transactions more costly. However, without the full transparency of holdings that index-tracking ETFs provide, it is less clear how the ETF’s arbitrage mechanism will function.

With an index-tracking ETF, there is generally enough information available on the ETF’s holdings and/or creation basket so that when the ETF’s price on an exchange deviates from its NAV, APs will want to engage in arbitrage transactions to cause the ETF share price and the NAV to converge. The holdings and/or creation basket of actively managed ETFs have the potential to be less clear, which explains part of why all current actively managed ETFs are transparent on a daily basis.¹⁹ Because of their required daily transparency, currently issued actively managed ETFs use several methods to reduce the risks of free-riding and front-running.²⁰ Despite this transparency requirement, there is significant interest in the investment community for actively managed ETFs that would *not* be fully transparent; a number of proposals have been put forth for such instruments, though none have yet been implemented.

Consequences of Expansion

A number of advantages of the ETF structure depend on characteristics of equity index ETFs. Such ETFs invest in highly liquid securities, facilitating the arbitrage role of APs, and involve very few direct transactions by the ETF sponsor, which translates into lower costs and greater tax efficiencies. More complex strategies involving less liquid and less transparent securities may impede these cost efficiencies and the arbitrage mechanism.

Higher Fees and Taxes

As discussed above, through their minimal involvement in actual transactions in securities, traditional index-tracking ETFs have been able to keep their costs low and gain tax advantages relative to mutual funds. Leveraged ETFs provide an illustration of the difficulty of maintaining these advantages with more complex fund strategies. The goal of keeping a specified leverage ratio from day to day requires leveraged ETFs to adjust their derivative positions at least on a daily basis, and may lead to higher transaction costs.²¹

Future actively managed ETFs may experience similar issues. While many existing actively managed ETFs attempt to limit their transactions to a weekly or monthly basis, non-index strategies may require the fund sponsor itself to transact, which reduces the cost efficiencies and tax advantages imparted by APs.²² Further, future actively managed ETFs may involve more complex strategies that require intraday shifts in portfolio holdings, magnifying these effects. This possibility was noted by the SEC in its 2001 Concept Release: "... an actively managed ETF may have greater turnover in its portfolio securities, which could result in higher expenses and less tax efficiency than index-based ETFs."²³ Emerging market ETFs provide another example where the traditional fee and tax advantages of ETFs may be reduced or eliminated: emerging market ETFs may be prohibited by local exchanges from utilizing "in-kind" transactions,²⁴ which will generally lead to both higher fees and decreased tax efficiency.

The ETF Arbitrage Mechanism

The efficiency of the arbitrage mechanism of an ETF is partially dependent on the liquidity of securities underlying the ETF. In 2008, the SEC requested comments from the investment community on the effect of portfolio liquidity for deviations between ETF share prices and NAVs and on potential additional liquidity requirements. Beyond this, the SEC has also debated whether this is a regulatory issue, or if it should be treated as a material risk that investors should be allowed to evaluate.²⁵

At the heart of the issue is the viability of the arbitrage mechanism by which ETFs theoretically maintain pricing at or near NAV through transactions with APs. ETFs with complex strategies, or that involve illiquid securities, may diminish the advantages of the ETF structure. For example, ETF products that do not generate enough investor interest may experience higher costs and lower liquidity, thus disrupting the arbitrage mechanism inherent in ETFs and reducing the advantages these instruments may have over more traditional mutual funds. APs may also be more reluctant to perform their function if they must transact in illiquid securities, securities with extremely volatile or less transparent prices, or creation baskets whose constituents may not exactly mirror the fund strategy. Bond ETFs, particularly those that track portfolios of high-yield bonds, are one potential example of ETFs that hold securities that are less liquid than traditional ETF portfolios. J.P. Morgan's *ETF Quarterly* publication for the third quarter of 2009 highlights the example of iShares iBoxx High Yield Bond ETFs, which "jackknifed between premium and discount almost daily" during the market turmoil of late 2008 and early 2009. As the publication stated, "[t]he lower the liquidity of the underlying [securities], the higher the likelihood that a fund will trade with significant spreads and at significant premium or discount to its net asset value."²⁶

The recent “flash crash” between 2:40pm and 3:00pm on 6 May 2010 was an example where the ETF arbitrage mechanism may have been affected by a sudden lack of liquidity. While ETFs represented about 11% of all securities traded during this period on 6 May, they accounted for almost 70% of the securities that saw severe price movements of over 60% from their 2:40pm prices during the flash crash.²⁷ Moreover, many ETFs traded at extreme discounts to their NAVs, with some momentarily losing almost all their value, dropping to less than a penny per share.²⁸ In a report of their preliminary findings, the SEC and the Commodities Future Trading Commission (CFTC) have stated that one issue regarding the price declines of ETFs that they are considering is the “role of market makers and authorized participants in ETFs, and whether an inability to hedge their ETF positions during periods of severe volatility may have contributed to a lack of liquidity in ETF shares.”²⁹ The flash crash serves as a reminder of the crucial role played by the APs, and the consequences of a breakdown in that mechanism.

Litigation Exposure

The history of litigation involving mutual funds and similar types of investments may provide clues to potential ETF litigation as ETFs continue to expand in scope. NERA’s database³⁰ of US federal securities class action lawsuits includes 71 such lawsuits filed between 1995 and November 2009.³¹ The following three sections examine the types of allegations within these lawsuits. In particular, actively managed ETFs may encounter issues similar to those faced by other types of actively managed funds.

Securities class action litigation involving ETFs thus far has been largely limited to leveraged and inverse ETFs. Sponsors for actively managed ETFs may experience similar attention if they gain a foothold in the fund market.

Conflicts of Interest

The relative lack of management discretion and the straightforward implementation of index-tracking ETFs may protect them from becoming involved in conflict-of-interest claims. There have been 29 class action lawsuits involving investment funds and conflicts of interest between investors and investment advisors and/or brokers. The vast majority of these cases involved allegations of undisclosed arrangements whereby some fund investment advisors compensated broker-dealers and other financial intermediaries to promote certain funds. These cases were often accompanied by allegations that the investment advisors charged excessive fees to cover the compensation. In some cases, the investment advisor and financial intermediary were related companies. Other such cases involved investment advisors failing to disclose that they purchased securities that related companies had underwritten.

The SEC has acknowledged that there may be elevated levels of some of these risks for ETFs with active strategies. In its 2001 Concept Release, the SEC stated that “[t]he increased investment discretion of the adviser to an actively managed ETF would seem to increase the potential for conflicts of interest. For example, an adviser to an index-based ETF would have little ability to create a market for certain securities in a way that would favor an affiliate. Because the adviser to an actively managed ETF would have greater discretion to designate securities to be included in the Portfolio Deposit or Redemption Basket, a greater potential for conflicts appears to exist.”³²

Deviation from Fund Objectives

The clearly defined investment strategies of index-tracking ETFs also leave little room for disputes regarding proper adherence to these strategies. If actively managed mutual funds are any indication, ETFs that pursue an active strategy may be subject to allegations that they failed to adhere to their stated strategy; such allegations have appeared in 23 federal class actions involving investment funds. These lawsuits often involved allegations that funds failed to adhere to certain risk or liquidity guidelines.

There has already been at least one recent lawsuit of this type involving an ETF. Plaintiffs have alleged that the iShares iBoxx \$ Investment Grade Corporate Bond Fund's investment advisor inappropriately purchased bonds issued by Lehman Brothers just before Lehman went bankrupt, causing fund holders to suffer losses.³³ The lawsuit alleges that the fund failed to adhere to its fundamental policies and investment objectives by accumulating the Lehman position.

Valuation of Portfolio Securities and Other Potential Litigation Risks

Traditional equity index-tracking ETFs generally invest in liquid securities that trade on major exchanges, making the calculation of NAVs relatively straightforward. Actively managed ETFs may invest in securities that are illiquid or otherwise difficult to value, potentially leaving them vulnerable to litigation relating to the valuation of securities in their portfolio. Indeed, there have been 10 class action lawsuits involving mutual funds and similar investment vehicles that allegedly misrepresented the value of their portfolio securities, generally leading to an allegedly overstated NAV.³⁴

Increased litigation risks for actively managed ETFs are not limited to securities class action lawsuits. Mutual funds with active strategies have been the subject of scrutiny by the SEC regarding allegations of insider trading.³⁵ Similarly, for actively managed funds of any type, incentives may exist for insiders to take advantage of their knowledge of fund strategies to engage in profitable transactions at the expense of investors. Yet another consequence of more complex strategies for ETFs may be increased litigation and other actions against brokers that may recommend certain funds for specific investors. While brokers are not immune to allegations by customers that the broker placed the customer in inappropriate index-tracking funds, such allegations may be more likely for funds involving more complex strategies.

Looking Forward

The first ETFs were relatively uncontroversial, low-cost, tax efficient instruments, with certain advantages over their mutual fund counterparts. As ETFs continue to gain popularity and expand into more complex investment strategies, it is not entirely clear that they will be able to maintain these advantages, or that the AP arbitrage mechanism will continue to operate as effectively. If successful, future innovative ETF products may provide a challenge to the dominance of mutual funds beyond traditional index strategies. However, the history of past regulatory scrutiny and litigation risk for other similar types of investment funds suggests that ETFs may still have certain hurdles to overcome.

Notes

- * Raymund Wong is a Senior Consultant and Kara Hargadon is an Analyst with NERA Economic Consulting. The authors thank Ron Miller, David Tabak, Stephanie Lee, Jordan Milev, Pat Conroy, Svetlana Starykh, Jim Overdahl, and Kriti Mehrotra for their helpful comments and edits.
- 1 A more detailed discussion and analysis of the recent controversy regarding leveraged and inverse ETFs can be found in the NERA working paper entitled "Rebalancing Act: A Primer on Leveraged and Inverse ETFs" published on 7 October 2009.
 - 2 Figures are from "2010 Investment Company Fact Book," 50th Edition, *Investment Company Institute* (www.icifactbook.org). Figures exclude ETFs that primarily invest in other ETFs. Figures include ETFs registered under the Investment Company Act of 1940 and ETFs regulated by the Securities Act of 1933 or the Commodities Futures Trading Commission.

Regarding foreign-registered ETFs, the European ETF market is still much smaller than the US market at \$204.2 billion in assets under management, although at 783 ETFs as of October 2009, the number of instruments traded is comparable with the US. The Asia-Pacific ETF market is even more limited, with 219 ETF products across 12 countries and 15 exchanges representing assets under management of \$65.1 billion. See "ETF Landscape: Industry Review," *Barclays Global Investors*, October 2009 and "ETF Liquidity Trends," *Deutsche Bank*, 9 November 2009, both as cited in *ETF Quarterly*, 4Q09 Edition, *J.P. Morgan*.
 - 3 Figures are from "2010 Investment Company Fact Book," 50th Edition, *Investment Company Institute* (www.icifactbook.org). Figures include ETFs registered under the Investment Company Act of 1940 and ETFs regulated by the Securities Act of 1933 or the Commodities Futures Trading Commission.
 - 4 Because the Investment Company Act of 1940 pre-dates the existence of ETFs, ETFs generally must obtain exemptive relief from certain of its provisions. This includes allowing ETF shares to trade at negotiated prices as well as allowing ETFs to issue shares that are redeemable from the fund not in individual shares, but in large blocks known as "creation units."
 - 5 Like most stocks, ETFs can also be shorted and leveraged using a margin account, although recent actions by the Financial Industry Regulatory Authority (FINRA) have limited the degree of leverage available in margin accounts for certain leveraged and inverse ETFs. In addition to placing orders at the current market price, investors can also implement trading strategies that involve stop losses, limit orders, and options on the ETFs. Like all securities traded on exchanges, applicable brokerage commissions may be incurred with each transaction and transactions must be made in whole shares, although notably some brokerages are currently offering commission-free trading on select ETFs.
 - 6 The arbitrage function is further facilitated by the dissemination of an "indicative value" for the ETF, which is an approximation of the fund's NAV, at frequent and regular intervals throughout the day as well as the dissemination of the current value of the relevant index for index-tracking ETFs.
 - 7 Fees and transaction costs are ignored in this simplified illustration.
 - 8 See, for example, "SEC Concept Release: Actively Managed Exchange-Traded Funds," Section II.C.3, *US Securities and Exchange Commission*. (<http://www.sec.gov/rules/concept/ic-25258.htm>).
 - 9 A widespread scandal regarding undisclosed mutual fund market timing arrangements came to light in 2003, exposing a potential weakness in the structure of mutual funds that the ETF structure avoids.
 - 10 To illustrate a potential market timing scenario, consider a US mutual fund that owns the common stock for a company trading on the Tokyo Stock Exchange (TSE), which closes at 1:00am EST. Since the NAV of the mutual fund will be calculated at the close of US markets at 4:00pm EST, the NAV may use the price for the security on the TSE as of its close that same day at 1:00am EST, 15 hours earlier. However, if a significant news event relevant to this company occurs between the close of the TSE at 1:00am EST and the calculation of the fund's NAV at 4:00pm EST, the price of the company's stock on the TSE would be "stale," as it would not incorporate the significant and relevant news that occurred after the close of the TSE. In the event that the relevant news has a positive impact on company's prospects, the fund's NAV may incorporate a value for the company's stock that is too low. A market timer might exploit this information and buy shares of the fund at a bargain price. This would benefit the market timer while harming the fund holders who were previously invested in the fund, as the fund receives proceeds from the market timer that, all else held equal, are of lesser value than what the fund is providing to the market timer.
 - 11 Figures are from "2010 Investment Company Fact Book," 50th Edition, *Investment Company Institute* (www.icifactbook.org). Figures include ETFs registered under the Investment Company Act of 1940 and ETFs regulated by the Securities Act of 1933 or the Commodities Futures Trading Commission.
 - 12 See, for example, "2010 Investment Company Fact Book," 50th Edition:48, *Investment Company Institute* (www.icifactbook.org).

"Few ETFs had been liquidated until 2008 and 2009 when market pressures appeared to come into play and sponsors began liquidating ETFs that had failed to gather sufficient assets. Liquidations have tended to occur among ETFs tracking virtually identical indexes, those focusing on specialty or niche indexes, or those using alternative weighting methodologies."
 - 13 Abner, David J. *The ETF Handbook: How to Value and Trade Exchange Traded Funds*, United State of America: John Wiley & Sons, Inc., 2010. 2. Print.
 - 14 A more detailed discussion and analysis of the recent controversy regarding leveraged and inverse ETFs can be found in the NERA working paper entitled "Rebalancing Act: A Primer on Leveraged and Inverse ETFs," published on 7 October 2009.
 - 15 "SEC Staff Evaluating the Use of Derivatives by Funds," *US Securities and Exchange Commission*, 25 March 2010.
 - 16 The SEC had previously requested comments from the public about actively managed ETFs in November 2001, issuing a concept release for these types of securities. In its concept release, the SEC requested information and commentary regarding proposals for actively managed ETFs, including structural and operational issues, potential uses, benefits, and risks for investors, and potential new regulatory issues.
 - 17 "2010 Investment Company Fact Book," 50th Edition:40, *Investment Company Institute* (www.icifactbook.org).
 - 18 Salisbury, Ian, "Legg Mason Plans to Offer ETFs," *The Wall Street Journal*, 23 February 2010. Salisbury, Ian, "J.P. Morgan Plans Actively Managed Exchange-Traded Funds," *Dow Jones Business News*, 11 March 2010, and Trotta, Elizabeth, "ETF Watch: Active ETFs Become... Active—The Industry's big names are starting to sell this latest hybrid investment," *SmartMoney*, 1 March 2010.
 - 19 In addition to publishing their creation baskets on a daily basis, currently issued actively managed ETFs are also required to disclose their complete portfolio holdings on a daily basis—see, for example, "2010 Investment Company Fact Book," 50th Edition: 40, *Investment Company Institute* (www.icifactbook.org).

Notes

- ²⁰ For example, these ETFs tend to trade in more liquid securities, which are less susceptible to the effects of front-running. Another existing strategy used to minimize the potential effects of front-running (while disclosing holdings on a daily basis) is to employ multiple managers within one fund to help disguise the trades and strategy of each manager. Still, according to the 2010 Investment Company Fact Book, “most existing actively managed ETFs tend to trade only weekly or monthly for a number of reasons, including minimizing the risk of other market participants front-running their trades.” See, for example, Maxey, Daisy, “A More Active Role—Mutual funds, beware: ETFs increasingly are moving beyond indexes,” *The Wall Street Journal* 6 July 2009, and “Developments in Banking Law: 2007-2008,” *Annual Review of Banking and Financial Law*. Volume 27, Issue II (2008): 351-2.
- ²¹ See, for example, “Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors,” *US Securities and Exchange Commission and the Financial Industry Regulatory Authority* 18 August 2009 (<http://sec.gov/investor/pubs/leveragedetfs-alert.htm>):
“Leveraged or inverse ETFs may be more costly than traditional ETFs” and “Leveraged or inverse ETFs may be less tax-efficient than traditional ETFs, in part because daily resets can cause the ETF to realize significant short-term capital gains that may not be offset by a loss.”
- ²² There is an important distinction between a fund making direct transactions and a fund transacting through APs. When a fund trades securities directly, it will incur any associated transaction costs and tax consequences. However, when a fund transacts through APs, it can avoid both.
- ²³ “SEC Concept Release: Actively Managed Exchange-Traded Funds,” Section III, *US Securities and Exchange Commission* (<http://www.sec.gov/rules/concept/ic-25258.htm>).
- ²⁴ “Making International, Frontier Market ETFs Work,” *ETF Quarterly*, 3Q08 Edition, *J.P.Morgan*.
- ²⁵ “Proposed Rules.” *Federal Register*, 73.53: 14621, *US Securities and Exchange Commission*, 18 March 2008.
- ²⁶ “ETF Liquidity and Creation/Redemption Challenges,” *ETF Quarterly*, 3Q09 Edition, *J.P.Morgan*.
- ²⁷ “Preliminary Findings Regarding the Market Events of May 6, 2010,” Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, 18 May 2010: 29-30.
- ²⁸ See, for example, “Preliminary Findings Regarding the Market Events of May 6, 2010,” Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, 18 May 2010: 45-46.
- ²⁹ “Preliminary Findings Regarding the Market Events of May 6, 2010,” Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, 18 May 2010: 6.
- ³⁰ Data on filings come from multiple sources, including RiskMetrics Group/Securities Class Action Services (SCAS), Factiva, Bloomberg, FactSet, SEC filings, and the public press. In compiling our data, we seek information on all unique class actions alleging damages with regard to the purchase, ownership, or sale of securities. Summary statistics are based on data for cases filed in US federal courts. Until cases are consolidated, we report multiple filings that potentially are related to the same alleged fraud if complaints are filed in different Circuits. Similarly, until cases are consolidated, we report multiple filings if different cases are filed on behalf of investors in common stock and other securities. If cases are ultimately consolidated, the data are adjusted. This paper relies on data collected for the database from 1995, the year of the Private Securities Litigation Reform Act through November 2009.
- ³¹ This excludes cases which may not be comparable to ETFs and therefore may not provide insight into potential future litigation against actively managed and more complex ETFs, such as cases involving ponzi schemes. In addition, mutual fund market timing and late trading cases are excluded, which as demonstrated above in the “Structures and Advantages” section, are not applicable to ETFs. Cases against leveraged and inverse ETFs are also excluded, as the allegations in these lawsuits, primarily revolving around the nature of compounded and leveraged returns, are specific to this type of ETF. Types of funds included in NERA’s database include mutual funds and closed-end funds.
- ³² “SEC Concept Release: Actively Managed Exchange-Traded Funds,” *US Securities and Exchange Commission*, (<http://www.sec.gov/rules/concept/ic-25258.htm>).
- ³³ *Squires vs. iShares Trust et al*, USDC California Northern District (San Francisco), Case No. 3:09-cv-02077-WHA, filed on 12 May 2009. A stipulation of dismissal was entered into by both sides on 16 June 2009.
- ³⁴ Some of these lawsuits also include allegations that a fund did not adhere to its stated objectives.
- ³⁵ See, for example, “SEC Files Settled Insider Trading Charges Against Boston-Based Mutual Fund Insider,” *SEC Litigation Release* No. 21383, *US Securities and Exchange Commission*, 20 January 2010.

About NERA

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