

Characteristics of Modern Investment Products

The world has changed drastically since the turn of the century. Some of the recent changes we have experienced in our lives today are as significant as last century's introduction of the television or the automobile. The technology revolution is changing and shrinking the world. It's getting harder to track and enumerate the rapid transformations in many of our daily life activities. If you've taken a plane or train recently, you have noticed that most people seem to be interacting and paying attention to a screen. From a train seat, you can read a newspaper, pay your bills, play a game, and even trade and invest on these portable screens. There's even a good chance you're reading this book on some form of electronic device.

The Internet and the miniaturization of electronic devices have been disruptive and game changing to many businesses and industries. Where have the

stores that sell albums and CDs gone? Where is the Blockbuster video store that used to be on your corner? Banking is another industry that is undergoing its own transformation because of modern technology. Every aspect from commercial banking, I haven't written a check in years, to investment banking and trading has been affected by technology. Just the way the news is always at our fingertips now, so is our ability to trade and invest.

This is a book about change. The use of exchange-traded funds (ETFs) is a revolutionary change for investors and for those in the investing business. Never before have investors been able to get the transparency, the liquidity, or the access now available in the form of ETFs. ETFs have packaged indices and other forms of asset classes and benchmarks neatly into the palm of your hand. A recent report claims that "ETFs

have democratized access to an array of asset classes and strategies.”¹ The report further details change in the financial advisory business with ETFs giving advisors the ability to monetize their investment advice by giving them access to almost every asset class in the simplicity of a brokerage account. ETFs give you the power of choice for your asset allocation and modern technology gives you the easy access to implement it.

In this chapter, we’ll take a look at the growth of the ETF market and what the product array looks like. We’ll delve into the characteristics that stand out as unique to ETFs. In addition, we’ll look at the two other major products in the investment landscape that vie for the attention of investors: mutual funds and closed-end funds. It will be valuable to look at the advantages of ETFs, in comparison to other products, to determine how to fit them properly into your own portfolios.

Four Types of Investment Products

According to the Investment Company Institute (ICI), there are four types of products that fit into the definition of investment companies: exchange-traded funds,² mutual funds (also known as open-end funds), closed-end funds, and unit investment trusts.

Exchange-traded funds are the newest and fastest-growing category, and are the second largest category by assets. ETFs are open-ended investment funds that have a process of issuing or redeeming their shares

in blocks, typically 50,000 shares or more based on customer demand. ETFs also have an exchange listing feature that gives investors access to the funds throughout the trading day on public stock exchanges.

Mutual funds are the biggest category of investment products, both by assets and number of available products. They can be either actively managed or designed to passively track an index. They are open-ended funds, meaning that they stand ready to issue new shares or buy back existing shares on a daily basis, typically at their current net asset value (NAV).

Closed-end funds (CEFs) are another type of investment product, but, as the name suggests, they are not open-ended. They issue a limited number of shares once during their initial offering process, and that share amount remains mostly constant throughout the life of the fund. The fund shares trade on an exchange, like an ETF; however, they tend to move to prolonged discounts and premiums, primarily due to the limitations on new share issuance coupled with changes in investor sentiment and demand.

Unit investment trusts (UITs) are a combination of several of these product types. They issue specific amounts of shares that are called units. They trade on exchanges but typically only to facilitate redemption of shares by investors. And the portfolio is typically fixed until a predetermined termination date.

The growth of assets in each product set over the last 15 years tells an interesting story. You can see in Exhibit 1.1 that two types of the products, ETFs and mutual funds, have grown at a very rapid pace.

	ETFs ¹	Mutual Funds ²	CEFs	UITs	Total ³
1995	\$ 1	\$ 2,811	\$143	\$73	\$ 3,028
1996	\$ 2	\$ 3,526	\$147	\$72	\$ 3,747
1997	\$ 7	\$ 4,468	\$152	\$85	\$ 4,712
1998	\$ 16	\$ 5,525	\$156	\$94	\$ 5,791
1999	\$ 34	\$ 6,846	\$147	\$92	\$ 7,119
2000	\$ 66	\$ 6,965	\$143	\$74	\$ 7,248
2001	\$ 83	\$ 6,975	\$141	\$49	\$ 7,248
2002	\$ 102	\$ 6,383	\$159	\$36	\$ 6,680
2003	\$ 151	\$ 7,402	\$214	\$36	\$ 7,803
2004	\$ 228	\$ 8,095	\$254	\$37	\$ 8,614
2005	\$ 301	\$ 8,891	\$277	\$41	\$ 9,510
2006	\$ 423	\$10,398	\$298	\$50	\$11,169
2007	\$ 608	\$12,002	\$312	\$53	\$12,975
2008	\$ 531	\$ 9,604	\$183	\$29	\$10,347
2009	\$ 777	\$11,120	\$220	\$38	\$12,155
2010	\$ 992	\$11,821	\$234	\$51	\$13,098
2011	\$ 1,048	\$11,622	\$239	\$60	\$12,969

Exhibit 1.1 Investment Company Total Net Assets (in \$billions) by Type

1. ETF data prior to 2001 were provided by Strategic Insight Simfund. ETF data include investment companies not registered under the Investment Company Act of 1940 and exclude ETFs that invest primarily in other ETFs.
2. Mutual fund data include only mutual funds that report statistical information to the Investment Company Institute. The data do not include mutual funds that invest primarily in other mutual funds.
3. Total investment company assets include mutual fund holdings of closed-end funds and ETFs.

Source: Investment Company Institute and Strategic Insight Simfund.

Closed-end funds have grown slowly, and UITs actually represent a smaller amount of assets than they did 15 years ago. The recent rampant pace of growth in the ETF industry is astounding. Overall, the products are still somewhat small in total assets, representing only about 8 percent of the mutual fund industry. However, the rate of asset growth and customer adoption is definitely bringing more and more attention to the newcomer among investment companies.

The growth rates tell the story about an investing public that is becoming savvier about its use of investment products and more demanding about the characteristics of those products. The CEF and UIT are examples of products that tend to exhibit less desirable traits, such as higher fees, lower liquidity, and a focus on a small, select group of investors. You can see that assets are subsequently lagging in those categories

As a result of the technology revolution, products are evolving as systems, and regulatory structures develop. The ETF structure, from its creation about 20 years ago, is an example of taking a mutual fund structure and combining it with some of the benefits of the closed-end fund structure to develop a product that provides new and unique benefits to investors. When coupled with the development of stock market infrastructure that facilitates increased electronic access and advanced trading speeds, we have created a fertile climate for an investment product revolution not seen since the early days of mutual funds themselves.

Coincidentally, studies have shown that asset allocation is responsible for a significant portion of portfolio returns. There really is no better tool than the ETF for easy and quick access to a wide swath of asset classes. Let us take a look at some of the main features of ETFs and what I like to call their “cousin” products, the mutual fund and the closed-end fund. This analysis will help explain the rapid growth of this newer investment company product versus its more traditional counterparts.

Exchange-Traded Funds

The growth of assets in exchange-traded products and the development of the ecosystem of businesses around that growth have been stunning in recent years. Numerous factors have contributed to this growth, from the Wall Street marketing engines, to the regulatory changes that provide for significant structural advantages, to the growth of electronic trading. What is rarely mentioned, however, is that investors have simply been demanding a way to invest with reasonably low fees and through a straight-forward structure. The main tranche of the ETF market provides this, along with a level of transparency and other benefits that were unavailable in previous products.

Let’s take a look at the characteristics of this product structure and why it is taking the investment world by storm. In Exhibit 1.1, you were able to see the dramatic asset growth. There are some defining characteristics that are attracting investors to these

products, either for new portions of their portfolios or for transitions of their entire investment strategies. The main ones are:

- Transparency
- Exchange listing
- Tax efficiency
- Lower fees

In the following sections, I'll go through these main characteristics and explain their differences from alternative products.

Transparency

When transparency is mentioned as a defining characteristic, it sometimes takes a minute of personal product inventory for an investor to realize that there is really no other fund product available that provides a daily accounting of exactly what the fund holds. Before ETFs, portfolio holdings were typically only released on a quarterly or semiannual basis. ETFs make their portfolio publicly available daily. This has a host of ramifications, from eliminating style drift to creating the basis for an **arbitrage** that keeps the trading price close to fund value. One would have thought transparency should have been the gold standard in investment products from their very beginning, but it does not seem as if investors learned anything from watching the *Wizard of Oz*!

Regarding the transparency of ETFs, it is important to understand that the majority of assets are in index

tracking products. Daily transparency works well for passive index tracking. Conversely, a majority of mutual fund assets are in what are called actively managed funds. These are funds that have a portfolio manager whose intention is to manage the holdings of the fund to perform better than some specified benchmark. A prevalent argument for not disclosing a daily portfolio of an actively managed ETF is a fear that investors would purchase the portfolio themselves instead of putting assets into the fund and paying the manager for their trading ideas for outperformance. That may be true if it was more economical for investors to do that and gain efficiency. It is also feared the disclosure would drive costs to the fund higher because of the **front running**. In reality, it would probably drive the management fees for those funds lower in order for them to compete. We are already starting to see that happen, and it is slowly squeezing industry margins.

In addition, portfolio managers of actively managed funds may be concerned about investors backing into their supposedly magical proprietary strategies. I don't think these concerns outweigh the benefits to clients of knowing what is in a fund portfolio on a daily basis. Currently, there are active ETFs available that are providing baskets daily without announcing changes before they occur. That is working very well as a model, and the assets in those funds are growing rapidly. In essence, I agree with the Blackrock goal of "daily disclosure of holdings and exposures"³ as defined in their recent recommendations on the ETF product set.

DEFINITION:

Arbitrage

Arbitrage is a term used in finance to describe taking advantage of price differences between two similar assets. In this case, the ETF and its underlying basket represent the same thing and can be converted from one into the other. For example, if the price of the ETF gets too high, traders would be able to sell the ETF and buy the underlying basket, capturing the price difference between them.

DEFINITION:

Front Running

Front running is the practice of purchasing stocks, or other assets, in anticipation that a portfolio manager is imminently coming in to purchase those same assets. The practice describes investors buying stocks in anticipation that a large fund manager will be making similar investments for the fund portfolio. This can theoretically drive costs higher for the fund.

KEY POINT:

Exchange listing and the variety of asset classes within the ETF structure enable investors to maintain all parts of their investment portfolio in one account with a single set of statements and processes. You can have your commodities exposure with your fixed-income and equities exposures all together, making it easy to understand your performance and view your allocations. All the various asset classes look structurally similar in an equity-style product wrapper.

KEY POINT:

The trading of ETFs requires more knowledge than was required when customers were using mutual funds to invest. By becoming your own advocate when trading the products you can create significant execution cost savings. As you will learn about in more detail later in the book, trading the products is unique and is probably the most important nuance that clients need to understand better when building portfolios of ETFs.

Exchange Listing

There is sometimes confusion that exchange listing is all about liquidity, but that is just one of several benefits. The three major positives of exchange listing are:

1. Standardization
2. Intraday trading
3. Liquidity

Standardization is proving to be a tremendous benefit to holding multiasset portfolios all within the same account structure. ETFs neatly package all asset classes into an equity structure that can reside in the simplest of brokerage accounts. This was impossible just a few years ago. Now you are able to keep your bond position wrapped in an ETF structure within your investment account, instead of having your portfolio separated in different account types with attendant complications. You can even include your commodities ETF piece and your alternatives ETF selections in your investment account. Trading in the products also becomes standardized. If you understand how ETFs trade, you'll be able to trade all the asset classes in your portfolio easily from the same account, probably using the same tools.

Intraday trading of exchange-traded funds has been the characteristic that presents itself as both a blessing and a curse. The mutual fund industry has the benefit of never having to explain to a client the concept of how to achieve best execution. They rarely even have to explain poor trading practices within the performance of a portfolio. While intraday trading adds

to the transparency and liquidity of the ETF product class, it puts the responsibility of understanding how to achieve best execution on the investor. The execution portion of the equation is a very important part of the investment process. Every new client has to climb the learning curve of how to achieve a good execution in the products. The ETF industry has given investors the ability to manage their own executions. But with this responsibility there is a learning curve that is proving to be somewhat steeper than the industry may have expected. I've been involved in the trading of ETFs for almost 15 years, and I am still answering basic questions about liquidity and trading. Part of that problem is the slowness of systems and processes to adapt to this new necessity. It is critical to become an advocate for yourself and your clients when trading ETFs. Advances in execution when managing a portfolio of ETFs can save millions of dollars annually.

For many investors, the intraday trading aspect of ETFs is not that important, nor should it be. This is why I have broken it out from liquidity as a separate factor. If you are using an investment process that instructs you to buy a fund today, hold it for some extended period based upon various parameters, and then sell it, then trading intraday, except on those execution days, is like a good insurance policy. It is there if you ever need it, but most of the time you won't. In addition, if you're trading in ETFs with foreign underlying assets, the intraday trading of a fund in the United States adds an additional dimension and time zone for trading the foreign assets. There are some

ETFs that can even be traded 24 hours a day through your broker dealer, which adds a never before seen flexibility to the management of portfolios.

As the trading industry evolves to a more process-driven business based around customer service and continues to attract different kinds of liquidity providers, the customer experience in ETFs will continue to improve. Several of the large customer execution providers are offering commission-free ETF trading on many of their platforms. Essentially, we are seeing a full-scale change in the way equities orders are executed because they now include ETFs. ETFs trade differently than stocks, although they share similar characteristics, so the major execution platforms servicing advisors are retooling to understand and achieve better liquidity in the ETFs. In this book, you will read more about this evolution of providing better execution services to all ETF investors, from the growth of liquidity aggregators to agency executions of baskets with an exchange for ETF shares.

Listing a product on an exchange and creating a standardized format provides access to a wider variety of market participants and can increase liquidity and participation to a level that could not have been

previously achieved. This has also helped to decrease trading spreads for many products. You can see in the grid in Exhibit 1.2 where the ETF price is actually trading between the bid and ask spread of the underlying basket. Listing on the exchange has brought multiple sources of liquidity into one location creating a tangible benefit for investors.

This extreme liquidity injection does not happen in every product but at the very least exchange listing adds to the liquidity base. The trading that takes place in some of the highest-volume ETFs has had the effect of causing the ETF itself to trade at a tighter spread than its underlying basket and in much greater size than would be expected. In Exhibit 1.2, you can see the market price and the **indicative value (IV)** of the SPDR S&P 500 ETF Trust (SPY). There are many more details about indicative value in Chapter 2.

If you look at the spread column, you can see that the basket is showing an implied ETF spread of 4 cents wide. However, the fund is showing a trading spread of only 1 cent wide. The fund is trading at a tighter spread than would be available if you traded the basket. This anomaly becomes much more pronounced in some

	Bid	Ask	Spread	Last Price
SPY Price	\$119.25	\$119.26	\$0.01	\$119.25
SPY IV Basket Value	\$119.22	\$119.27	\$0.04	\$119.24

Exhibit 1.2 SPY Price Spread Example

Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

DEFINITION:

Indicative Value (IV)

Indicative value is the calculated value of the underlying assets in an ETF. This is typically calculated by using the last price of each underlying component and presents a close to real-time value of the fund for investors.

KEY POINT:

One difference in trading between an ETF and a stock is that an ETF trade is typically between a customer and a liquidity provider. Very rarely are two end customers trading against each other without an intermediary in between. The liquidity providers, or other professional traders, are usually providing liquidity from the basket to the ETF shares for the client, utilizing the arbitrage function that keeps the trading price right around the value of the basket.

KEY POINT:

The in-kind creation and redemption process is what drives some of the tax efficiency of the ETF structure. The portfolio can be managed by the delivery and receipt of shares without trading and causing tax liabilities.

products that trade high volumes or have underlying assets that are not readily accessible. The exchange provides a secondary gathering place for a wide variety of market participants that might not have found each other otherwise. The advantages of this become even more evident as products emerge providing access to formerly hard-to-access asset classes. In many cases, the ETF is becoming a vehicle to aid liquidity growth in the underlying basket itself. Bringing together multiple

different investor types into one standardized vehicle is centralizing product liquidity as is the purpose of an exchange listed market. As you can see in Exhibit 1.3, the wide array of ETF users all come together in the products on an equal playing field. There are no multiple shares classes or alternative structures for institutions versus smaller investors.

The tighter spreads are also possible because of the arbitrage available when you have two products, the

KEY POINT:

Creation and redemption of ETFs centers around the delivery of baskets of shares in exchange for ETF shares between Authorized Participants (AP) and ETF issuers (AP). This process, described in detail in Chapter 2, is one of the keys to the structure. It is how an ETF grows larger with investor demand and then shrinks when the underlying asset class moves out of favor.

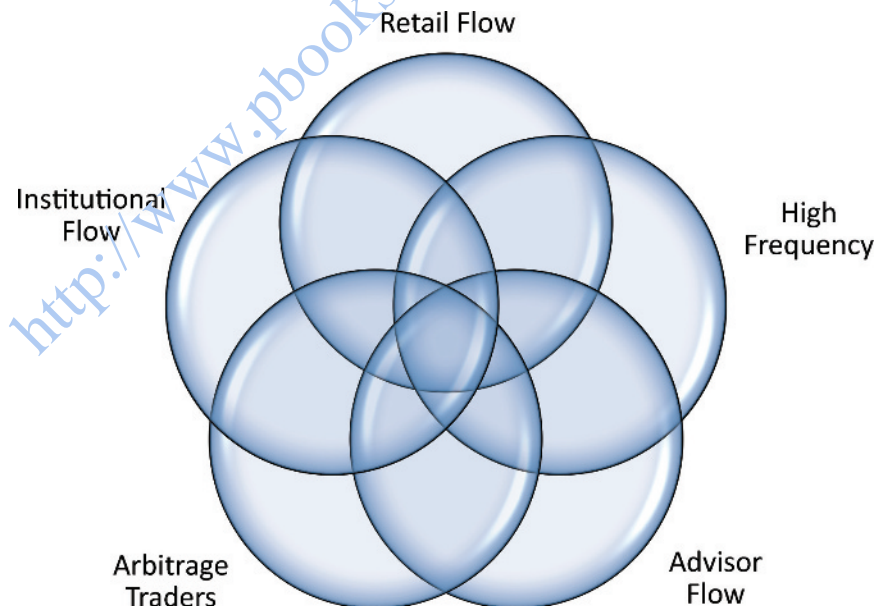


Exhibit 1.3 ETF Market Participants

basket and the ETF, that can easily be converted into one another. This is known as being **fungible**. There is a lot of competition in the trading industry to capture any spread between the ETF price and the basket price. This is advantageous for investors because, as those trading firms compete, they drive spreads ever tighter and keep the ETF trading near its fair value. There are also alternative trading vehicles like futures and options that trade in conjunction with some ETFs and this only further enhances the liquidity pool. For investors, the centralizing of users into the ETFs is very beneficial because the presentation of tighter spreads and more liquidity than had previously existed translates into cheaper execution costs for the end investor.

Tax Efficiency

I present the basics of why ETFs are different than other investment products in terms of their tax consequences, but I am not a tax attorney or an accountant. Each individual situation is different, and you should consult your own advisors regarding your personal tax situation. I am also discussing the funds in a normal taxable environment. Things can change when the funds are held in tax-deferred accounts and other structures.

The concept of the tax efficiency of the ETF structure is another major feature that is helping to drive growth. In trying to simplify the discussion down to its most important aspects, I have isolated three subcategories:

- Tax efficiencies within the portfolio management process
- Tax efficiencies within the distribution process
- Structural differences that affect tax efficiency

The major tax advantage of the ETF structure within the portfolio management process derives from the concept of in-kind creation and redemption. I will cover the details of how creation and redemption works in Chapter 2 but for now will explain the differences between ETFs and their mutual and closed-end fund cousins.

When investors add assets to mutual funds, the portfolio managers are taking in cash from the investors and then purchasing the underlying basket of assets. The reverse happens when an investor wants to redeem shares of the mutual fund. At that point, the mutual fund manager has to raise cash to deliver back to the investor. In general, they need to sell assets that the fund holds. This selling of assets typically generates a taxable event for the mutual fund. Funds do hold certain cash reserves to accommodate some redemption, but this can lead to performance lag and so needs to be done sparingly. There are also other minor techniques to manage the portfolio, but at its essence, when investors come into and out of mutual funds, the portfolio managers are buying and selling the underlying assets. This is creating taxable events within the funds that will need to be distributed among the remaining shareholders. Then at some point in the future, depending on the distribution schedule,

DEFINITION:

Fungible

Fungible is the condition of being able to exchange two assets for each other. In the case of an ETF, the ETF shares can be exchanged for the underlying baskets along with some cash amount to balance out the transaction. This can also be done in reverse.

KEY POINT:

The ETF industry makes use of two parts of the capital markets: the primary market and the secondary market. The primary market is where issuance takes place. All creations and redemptions are considered to be taking place in the primary market. The secondary market is where previously issued securities trade. When you are trading a stock or ETF on an exchange, you are trading in the secondary market. Do not confuse this with the primary exchange listing of an ETF, which delineates the exchange on which a product was first listed to begin trading and that affects the official opening and closing auction and prices.

KEY POINT:

ETFs do not do IPOs to raise assets. Every ETF launches with some amount of seed capital so that the shares can be brought to the secondary market. Typically, this is a process whereby an authorized participant goes into the markets and purchases the required basket for the new ETF and then processes an initial creation. Once an ETF has shares outstanding, they can be traded on an exchange, and the ETF begins to take on a life of its own.

the mutual fund will make distributions of short- and long-term capital gains that will be taxable events for shareholders.

The way a typical equity ETF takes in and disburses assets is quite different. It surprises me how many users of ETFs have not gotten a firm grasp on how the ETFs take in assets, unwind assets, and even make money on those assets. The first stage is taking in assets. An ETF transacts on two levels in the markets, the primary market and the secondary market.

When an ETF is trading, the process of taking in new assets actually begins away from the ETF portfolio itself in the secondary market. When an influx of investors want to buy the ETF, the liquidity-providing community sells the shares of the ETF to those buyers. They then typically buy the shares in the underlying basket to hedge their trading books. As this continues throughout the trading day, the liquidity providers are accumulating larger short positions in the ETF, and at the same time they are continually growing their long exposure to the underlying basket. At the end of the trading day, the liquidity-providing community assesses their own trading portfolios and takes actions to clean up their balance sheets. This is where the magic happens in the ETF structure. If the liquidity providers have done everything correctly, they have two positions on their trading books, short the ETF and long a basket of stocks that represents perfect creation units of the ETF portfolio. They can then effect a creation. In this process, the liquidity provider delivers the basket of underlying assets to the

ETF issuer's portfolio management agent, and new shares of the ETF are issued. This is a primary market transaction that is not considered a trade by the ETF portfolio, and is separate from the secondary trading activity that was taking place throughout the day. But the distinction that needs to be made here is that the AP is the one gathering and selling the assets of the ETF when creating and redeeming and not the ETF portfolio managers as would be the case in a mutual fund structure.

The activity in the secondary market can have varying effects on the primary markets, which I discuss further in Chapter 4. At this point, the ETF has grown the assets it is managing, and that growth has been represented to the public via an increase in the shares outstanding number. Now let's look at what is going to happen in the reverse situation. In our hypothetical example, there are sellers in the market. Investors want to do nothing but sell the ETF shares. All day long, they are selling the ETF to liquidity providers, who are, in turn, selling shares across the underlying basket of the ETF. This is the key transference between liquidity in the ETF and activity in the underlying baskets. In this reverse example, at the end of the day the liquidity provider may have a large position of long the ETF and short the underlying basket in perfect unit sizes. Remember, if done correctly, this is a perfectly hedged position, so there is no market exposure, but there are financing fees on the various long and short positions. To manage the balance sheet costs and exposures, the liquidity provider decides to affect redemption of the

ETF shares. In this case, the liquidity provider will be delivering the shares of the ETF back to the ETF issuer, and the issuer will be delivering units of the underlying basket to the liquidity provider. The ETF shares outstanding will decrease because those ETF shares are no longer in existence and tradable in the market place. The assets in the fund have also decreased because the underlying shares that represented those assets have been delivered out.

This primary market transaction is not considered to be a trade and is therefore not creating a taxable event for the ETF. The in-kind creation and redemption process enables the delivery and receipt of shares into and out of the portfolio but are not considered to be trades for tax purposes which can cut down on capital gains distributions. This is all very tax efficient for the ETF and is a critical concept that I refer to as a piece of the structural alpha of the products.

The taxable events of trading the underlying equities and the actual ETF shares have been moved back to where they should be, at each particular end investor involved in the transaction. This removes from the equation the risk of large investors creating taxable events that affect all the other investors of the fund. It also highlights the importance of investors being their own advocates on the trading side, because it is now more likely to have a direct effect on their particular portfolio, while in other fund structures, many of those costs are allocated across all holders.

These efficiencies of moving baskets into and out of the ETF without doing trades enable the portfolio

managers to maintain a highly efficient tax strategy within the portfolio. There are portfolio rebalances and corporate actions that take place that do require some trading to be done, but for the most part, large asset moves are done efficiently. If you look at the history of ETF distribution numbers, you can see that they have a small fraction of the tax distributions as compared to other investment products. In addition, since you can see the portfolio movements within the ETF, diligent investors are able to closely monitor what any distribution might actually be if there was to be one. This whole process enables investors to manage their own tax situations at the fund ownership level without being vulnerable to tax consequences created by other investors moving in and out of the ETF.

Structural Ramifications and Taxation

It is important to understand that different types of ETFs structures can affect their tax efficiency. As the ETF structure has evolved and the funds have begun providing exposure to more esoteric underlying assets, they have evolved into utilizing a cash creation and redemption feature. This cash creation/redemption feature is usually only used when the underlying is regulated and/or difficult to trade. In the standard in-kind creation and redemption process, the transactions by the fund are not considered to be trades. In a cash creation and redemption, the fund is acting more like a mutual fund in taking in cash and going out and purchasing assets. Since these asset purchases and sales are actually taking place

KEY POINT:

A wide variety of market participants act as liquidity providers in ETFs. They may be professional market makers or ETF arbitrageurs, pursuing price differences between the basket and the ETF. Or they may be facilitating ETF order flow for a customer base. The key is that all these market participants are facilitating the exchange of the underlying basket for the ETF. A liquidity provider may or may not be an authorized participant. It can be a trading firm that uses the services of an authorized participant to clear off the balance sheet at the end of the day. Conversely, not all APs are ETF liquidity providers. In some circumstances, they are just processing transactions on behalf of their customers in the primary ETF market.

KEY POINT:

The creation and redemption transactions that take place within the ETF structure are not considered to be trades and therefore do not generate taxable gains and losses within the ETF portfolio.

KEY POINT:

Because the trading of the portfolio is now more in the control of the investors, it is important that they take control of this aspect when using ETFs. When you trade and how you trade your ETF, whether in an individual trading account or in a multi-billion dollar portfolio, is a critical piece of your investment process and will affect your overall performance.

STEP-BY-STEP

Screen for new funds on Bloomberg

1. Type EXTF, choose 5, New ETP Listings.
2. Actions, edit Criteria.
3. Select Country of Domicile, 1, Edit Criteria.
4. Select US.
5. Select Results.
6. Actions, edit Display.
7. Choose the columns that work for your desired results.

within the fund portfolio, they are actual trades that can generate realized gains or losses in the portfolio. They are also treated like all trades for tax purposes. There are also hybrid structures that will use cash for some underlyings and in-kind for others. The tax liability will be different for each piece. In Exhibit 1.4, you can see the third page of a Bloomberg description screen showing creation and redemption details. Bloomberg provides you with information on the creation redemption mechanism for each ETF. In this case, the ETF has an in-kind creation and redemption process, indicating shares are delivered in and out of the fund.

ETF Product Proliferation

One question I encounter repeatedly in client meetings and at conferences is whether we have reached a saturation point of product in the ETF market. To address this question, begin by looking at what has been happening in product proliferation both in the United States and globally. The number of ETF products in the United States has been growing at a fast pace, far outpacing other investment products. The graph in Exhibit 1.5 is probably the most widespread graph in the ETF industry. It is in nearly every research publication about the products. The bars represent the main trends of assets under management (AUM) growth, both globally and in the United States. The lines, which I've highlighted, represent the number of outstanding products.⁴ Notice the rates of change in the product lines.

The number of ETFs globally is growing at an even faster pace than in the United States. The demand that I see from clients clamoring for ETF product would seem to be saying that we are nowhere near a saturation point. Clients are looking for the ability to build portfolios of multiple asset classes in the ETF wrapper, which is driving a lot of new product innovation.

The next piece of the puzzle would be to look at assets raised in new funds. Are new funds still picking up assets? The logic would say that if new funds are not picking up assets, then we possibly have reached a saturation point. In this case, I have run a search using the Bloomberg search function and come up with 122 funds that were newly listed in the United States in 2012 through June 27.

Exhibit 1.6 shows the top 17 new funds of 2012 sorted by assets through October 29. It shows that those 17 new products have raised more than \$4 billion in assets already, in the first nine months of the year. What you see in these new products are unique concepts that have not before been available in the ETF structure, or where investors have not been able to attain exposures, or different aspects of investment themes that have been in existence. In particular, a significant amount of the assets were raised in an actively managed ETF that is designed to be the ETF version of a very popular mutual fund. Many industry participants and potential investors have been watching this launch closely. It could have groundbreaking ramifications for the future of the product set and is proof that ETFs as a product category are still evolving. However,

GRAB			EquityDES		
At 11:06 Vol 24,380 Op 50.71 P Hi 50.71 P Lo 50.51 D ValTrd 1234458			Page 3/5 Description: Holdings		
DTN US Equity		99 Feedback			
1) Profile		3) Holdings		5) Organizational	
Benchmark WTDXFTR Index					
6) Top 10 Fund Hlds (MHD)		Net Fund	Net Index	Top 10 Index Hlds (MEMB)	
				Net Index	Net Fund
CenturyLink Inc		2.536%	N.A.	No Holdings Reported	
Reynolds American Inc		2.269%	N.A.		
FirstEnergy Corp		2.234%	N.A.		
Lorillard Inc		2.146%	N.A.		
Altria Group Inc		2.100%	N.A.		
NiSource Inc		2.044%	N.A.		
Progress Energy Inc		2.023%	N.A.		
Verizon Communications Inc		1.930%	N.A.		
Duke Energy Corp		1.895%	N.A.		
Eli Lilly & Co		1.852%	N.A.		
Creation/Redemption Basket			Holdings Statistics		
Total Cash		USD 20.6k	Rebalancing Frequency		Yearly
Estimated Cash		USD 20.5k	Replication Strategy		Optimized
Creation Unit Size		50,000	Fund Holdings As Of Date		12/09/11
Creation/Redemption Fee		USD 500.00	Fund Number Of Holdings		87
Create/Redeem Process		In-Kind	Index Number Of Holdings		N.A.
Creation Cutoff Time		16:00 EST			
Settlement Cycle		T+3			
NAV Pricing Methodology		Primary Market Close			
<small> Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2011 Bloomberg Finance L.P. SN 192825 6638-450-0 12-Dec-11 11:10:27 EST GMT-5:00 </small>					

Exhibit 1.4 ETF Description (DES), Holdings
 Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

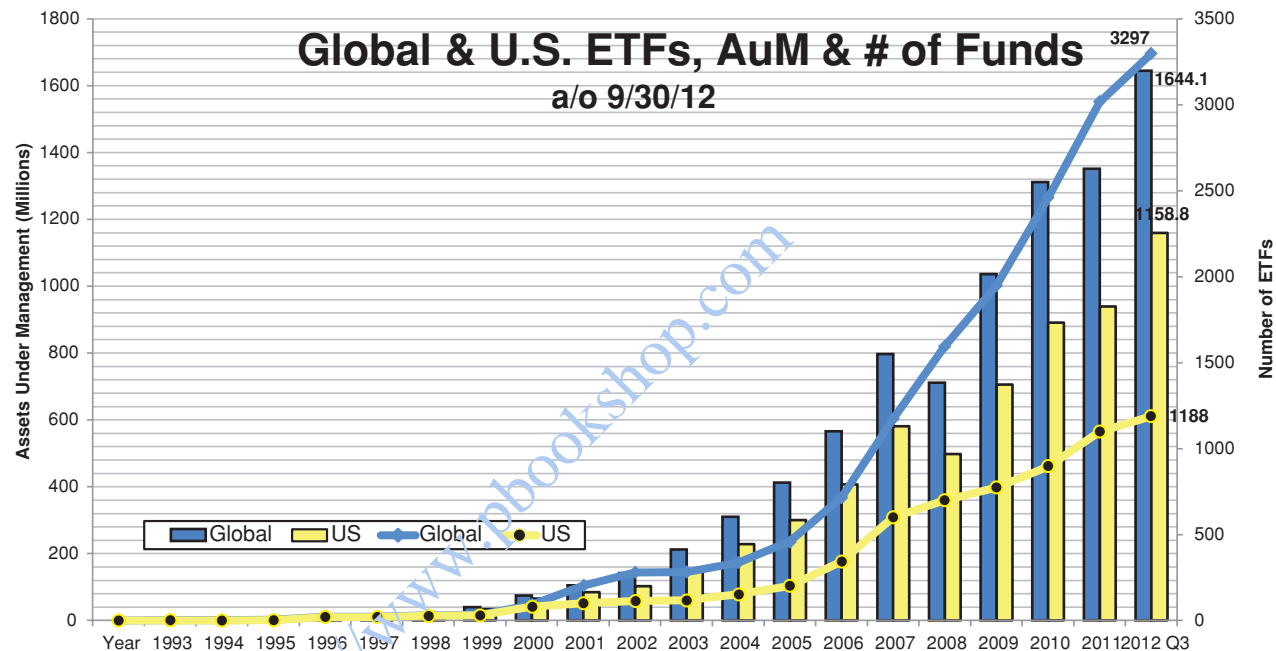


Exhibit 1.5 Number of ETFs and Assets Both in the United States and Globally

Source: BlackRock ETP Landscape Industry Highlights.

there are many variables that cause newly launched ETFs to gather assets quickly or slowly and most have to do with the market timing and investor sentiment in the theme.

The number of products listed over the last several years has definitely accelerated, as compared to recent history. In Exhibit 1.7 you can see product issuance by year and the amount of assets. The graph shows the

number of funds launched each year and the assets those funds have attracted from inception until June 2012. It highlights the dramatic increase in issuance and also the clear decline in assets that were raised in newer products. This shows the difficulties in raising assets when launching new products. However, also take into consideration the market environment and the trend of other investment products in raising new

GRAB
 <Menu> to return

Search 97) Output 98) Actions 99) View Fund Screening

KCtgry-New Launches - 2 158 funds

	Ticker	Name	Inception Date	Tot Asset (M)	Avg Volume 30 Day	Tot Ret 1Y	Parent Comp. Name
1)	BOND US	PIMCO TOTAL RETURN ETF	2/29/2012	2,895.38	499,213.00	N.A.	PIMCO Funds ETFs/USA
2)	SJNK US	SPDR SHORT-TERM HIGH YIELD	3/15/2012	409.31	252,484.00	N.A.	State Street ETF/USA
3)	QLTA US	ISHARES AAA-A RATED CORPORAT	2/14/2012	302.29	188,592.00	N.A.	iShares/USA
4)	GOVT US	ISHARES TREASURY BOND FUND	2/14/2012	231.72	455,339.00	N.A.	iShares/USA
5)	PICK US	ISHARES MSCI GLBL MTLs & MNR	1/31/2012	219.04	19,028.00	N.A.	iShares/USA
6)	FBG US	FI ENHANCED BIG CAP GR ETN	6/8/2012	113.03	46,280.00	N.A.	UBS ETNs/USA
7)	EMHY US	ISHARES EM HY BOND	4/3/2012	92.01	109,196.00	N.A.	iShares/USA
8)	ILB US	PIMCO GLOBAL ADVANTAGE INFLA	4/30/2012	88.52	55,500.00	N.A.	PIMCO Funds ETFs/USA
9)	EMLP US	FIRST TRUST NORTH AMERICAN E	6/21/2012	88.43	1,008.00	N.A.	First Trust/ETFs
10)	IEMG US	ISHARES CORE MSCI EMERGING	10/22/2012	81.48		N.A.	iShares/USA
11)	YMPL US	YORKVILLE HIGH INCOME MLP	3/13/2012	75.93	60,001.00	N.A.	Exchange-Traded Concept
12)	IYLD US	ISHARES MORNINGSTAR MULT-ETF	4/3/2012	73.93	47,730.00	N.A.	iShares/USA
13)	EMCB US	WISDOMTREE EM CORP BOND	3/8/2012	70.73	10,220.00	N.A.	WisdomTree ETFs/USA
14)	MOAT US	MARKET VECTORS MORNINGSTAR	4/25/2012	66.78	39,667.00	N.A.	Van Eck ETF/USA
15)	PFXF US	MARKET VECTORS PREF EX-FINAN	7/16/2012	66.37	84,465.00	N.A.	Van Eck ETF/USA
16)	IEFA US	ISHARES CORE MSCI EAFE ETF	10/12/2012	66.32		N.A.	iShares/USA
17)	IXUS US	ISHARES CORE INTL STOCK ETF	10/12/2012	62.30		N.A.	iShares/USA
18)	CMBS US	ISHARES CMBS BOND FUND	7/14/2012	54.22	10,087.00	N.A.	iShares/USA

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2012 Bloomberg Finance L.P.
 SN 109100 H629-149-1 29-Oct-12 16:43:53 EDT GMT-4:00

Exhibit 1.6 Fund Search Screen

Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

STEP-BY-STEP

Screen for closed ETFs on Bloomberg

1. EXTF, choose 23, Liquidated ETPs.
2. Actions, edit Criteria.
3. Select Country of Domicile.
4. Select US, 1 to update.
5. Select Results.
6. Actions, edit Display.
7. Choose the columns that work for your desired results.

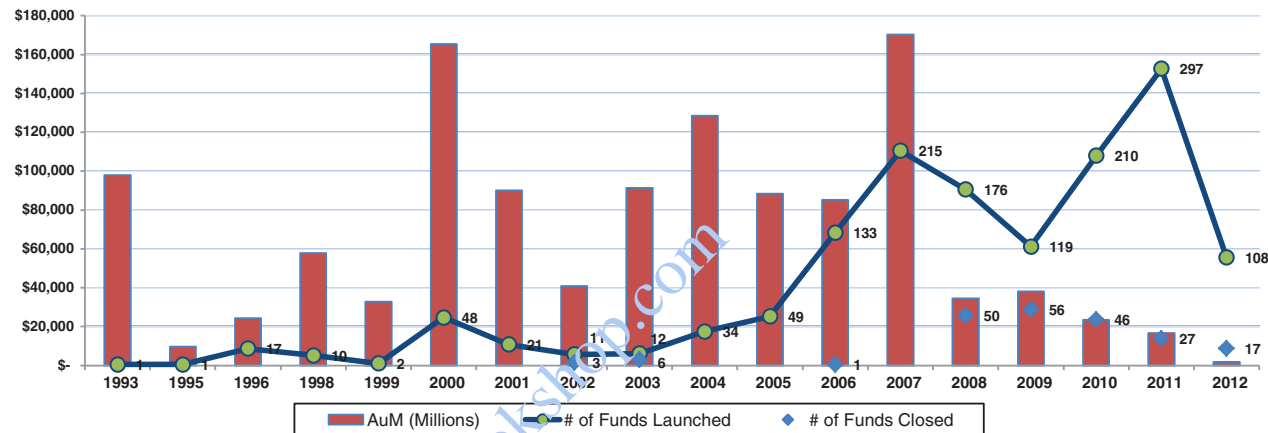


Exhibit 1.7 Funds Launched and Closed per Year and Current AuM

Source: Bloomberg, as of 5/15/12. Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

capital. ETFs are outpacing them all. I think it is fair to say that ETFs as a category are not saturated and still growing in the form of issuance as well as user base.

ETF Closings

As in any rapid growth industry there is a risk that not all new entrants will succeed and some must close. In investment products this is not necessarily an indication of saturation or of general failure but a natural weeding out process by investors of investment themes and this does not present a danger to the product category. The process of building

an ETF, listing it on the exchange, and maintaining the infrastructure to keep that product properly managed is expensive. If a product grows in age without corresponding growth in assets, it becomes a burden that is simply not economical for a fund management company to maintain. There are many variables that determine the length of life of a fund with few assets. It is first and foremost a function of cost to run and maintain as an outstanding vehicle. Beyond that are considerations regarding the time in the market cycle and investor appetite. If the fund represents an asset class that has not normally been

GRAB EquityFSRC

<Menu> to return

Search 97) Output 98) Actions 99) View Fund Screening

Closed ETPs 212 funds

	Ticker	Name	Mkt Status	Close Date	Tot Asset (M)	Parent Comp. Name
1)	WCAT US	JEFFERIES TR/J CRB WILDCATTE	Delisted	4/27/2012	10.98	ALPS ETFs/USA
2)	FXM US	CURRENCYSHARES MEXICAN PESO	Delisted	3/23/2012	35.18	Rydex Funds/ETF/USA
3)	XGC US	GUGGENHEIM INTERNATIONAL SMA	Delisted	3/23/2012	5.55	Guggenheim ETFs/USA
4)	FXRU US	CURRENCYSHARES RUSSIAN RUBLE	Delisted	3/23/2012	5.13	Rydex Funds/ETF/USA
5)	EEN US	GUGGENHEIM EW EURO-PACIFIC L	Delisted	3/23/2012	2.69	Guggenheim ETFs/USA
6)	OTP US	GUGGENHEIM OCEAN TOMO PATENT	Delisted	3/23/2012	4.00	Guggenheim ETFs/USA
7)	OTR US	GUGGENHEIM OCEAN TOMO GROWTH	Delisted	3/23/2012	1.40	Guggenheim ETFs/USA
8)	XRO US	GUGGENHEIM SECTOR ROTATION E	Delisted	3/23/2012	2.96	Guggenheim ETFs/USA
9)	EWAC US	GUGGENHEIM MSCI ACWI EQ WE	Delisted	3/23/2012	3.73	Guggenheim ETFs/USA
10)	FISN US	GLOBAL X FISHING INDUSTRY ET	Delisted	2/16/2012	1.68	Global X Management Co LLC
11)	MEXS US	GLOBAL X MEX SMALL CAP ETF	Delisted	2/16/2012	0.62	Global X Management Co LLC
12)	XOIL US	GLOBAL X OIL EQUITIES ETF	Delisted	2/16/2012	2.86	Global X Management Co LLC
13)	BARN US	GLOBAL X FARMING ETF	Delisted	2/16/2012	2.82	Global X Management Co LLC
14)	EATX US	GLOBAL X FOOD ETF	Delisted	2/16/2012	2.97	Global X Management Co LLC
15)	WSTE US	GLOBAL X WASTE MANAGEMENT ET	Delisted	2/16/2012	1.25	Global X Management Co LLC
16)	EMGX US	GLOBAL X EM GROWTH	Delisted	2/16/2012	2.25	Global X Management Co LLC
17)	EMVX US	GLOBAL X EM VALUE	Delisted	2/16/2012	2.36	Global X Management Co LLC
18)	HKK US	HO HONG KONG SMALL CAP ETF	Delisted	12/23/2011	1.49	IndexIQ ETF Trust/USA

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2012 Bloomberg Finance L.P.
 SN 192825 6509-1565-0 27-Jun-12 15:27:33 EDT GMT-4:00

Exhibit 1.8 Bloomberg Closed Funds Screen
 Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

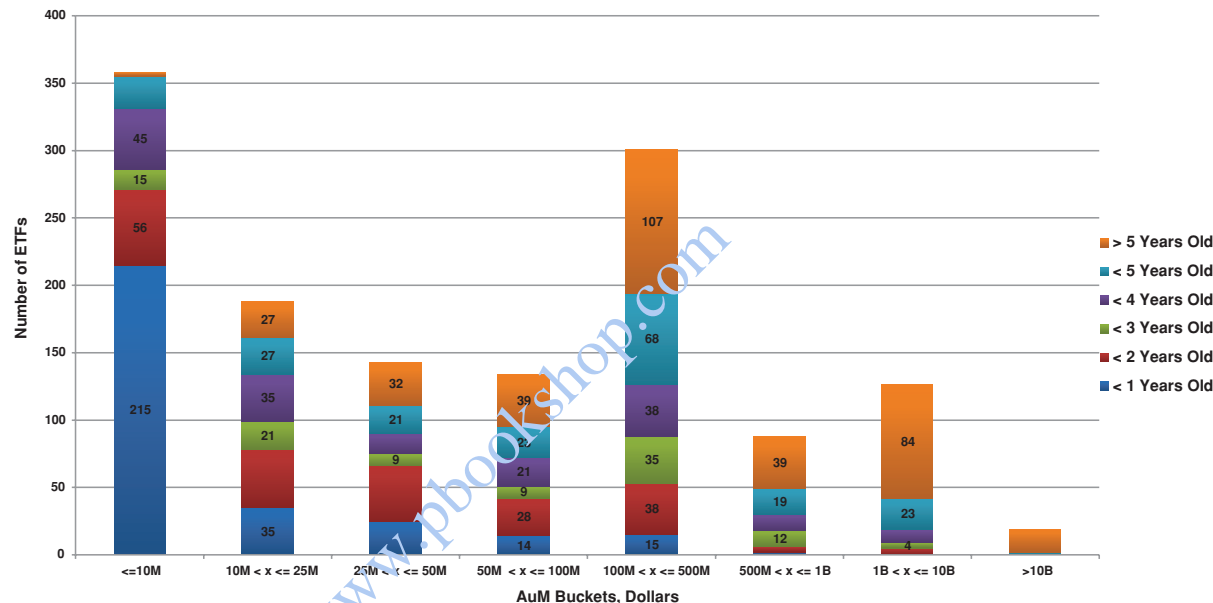


Exhibit 1.9 ETF Breakdown by Volume Bucket and Age since Inception
 As of 12/31/2011. Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

accessed via an equitized product, and if the fund company is large and can afford to keep a bigger stable of funds, then a small fund might have a longer life. A smaller, newer fund company will have less leeway in those situations.

As of June 6, 2012, there have been 212 funds closed in the U.S. markets. You can see a list of funds that were closed on Bloomberg by using the EXTF function as well. In Exhibit 1.8, you can see the most recently

closed 17 funds, but you can also generate the full list and export it to Excel.

Exhibit 1.9 presents a look at exchange-traded products by assets broken out by age of funds. You can see that there are a significant number of funds, more than 350, with less than \$10 million in AuM, and many of those funds, 215, are under a year old. There are a wide range of variables involved in making decisions about whether to keep funds open

and for how long. From the chart, you might think that the older a fund is, the more assets it attracts, but that discounts the effects of some older funds that attracted few assets having been closed. There is survivor bias present in this chart. You might look at the upper categories of the left bars as indications of where fund closings may be imminent, but since there are so many other variables, that does not necessarily present the most accurate prediction.

Regarding fund closures, investors must remember that they occur with enough time lag for you to reallocate your exposure. You will be given the opportunity to trade out of your position or receive a net asset value (NAV) based redemption of either cash or shares. Although this will create a potentially taxable event in your own portfolio and generate some trading costs as you reallocate, there is no other loss associated with fund closings. This is a common event in all classes of investment funds, as product development teams try to ascertain where investor dollars will flow in the future.

Mutual Funds

Mutual funds are the largest group of investment company products by assets both in the United States and globally. There were \$24.7 trillion in mutual funds worldwide as of the end of 2010. The United States represented just less than half that total with \$11.9 trillion.⁵

Within the U.S. mutual fund product set, the asset class breakdown in Exhibit 1.10 shows that roughly 35 percent of the assets are in funds comprised of domestic equities. Equity-based funds (domestic and international) make up only about half of the mutual fund assets, with a relatively even split with fixed-income funds. There are essentially two types of mutual funds from a fund management perspective: actively managed or index linked. Actively managed funds represent a significant majority of the industry, with funds steered by portfolio managers whose aim is to guide the portfolio to generate **alpha** for investors.

Index funds, as the name implies, are funds benchmarked to indexes with a goal to just replicate them and so are passive in management nature. They are a small but growing portion of the U.S. mutual fund market. According to the 2012 Investment Company Fact Book, index mutual funds manage nearly \$1 trillion dollars in assets, or approximately 7.5 percent of the U.S. mutual fund market. This is similar in size to the overall ETF market.

The ETF market has evolved very differently, with a significant majority, more than 90 percent, of the outstanding funds index based and focused on equities. Perhaps the maturity of the mutual fund market and its breakdown gives some indication of where the growth will be in ETFs going forward. In the beginning, the ETF growth pattern was based less around investor demand and more around regulatory approval. Fixed-income funds came to market much later. They represent, however, a significant development in

DEFINITION:

Alpha

Alpha in the context of mutual fund performance is the percent of outperformance a fund attains over its benchmark index.

KEY POINT:

Distribution [and/or Service] (12b-1) Fees⁶ - U.S. Securities and Exchange Commission Definitions: The SEC 12b-1 rule delineates distribution fees to include fees paid for marketing and selling fund shares, such as compensating brokers and others who sell fund shares and paying for advertising, the printing and mailing of prospectuses to new investors, and the printing and mailing of sales literature. The SEC does not limit the size of 12b-1 fees that funds may pay. But under FINRA rules, 12b-1 fees that are used to pay marketing and distribution expenses (as opposed to shareholder service expenses) cannot exceed 0.75 percent of a fund's average net assets per year..."

product structure and in certain ways a steeper learning curve for investors. They potentially provide a substantial growth opportunity.

Also, the majority of ETFs are index-linked funds. ETFs are only recently being allowed to pursue forms of actively managed portfolios. Investor preferences have changed, which is contributing to the growth of index-based funds both as a percent of the mutual fund market and as ETFs. But there are still a significant amount of actively managed assets in the mutual fund arena that could benefit from an ETF wrapper. We could see several paths of growth over coming years: the fixed-income ETF space, the actively managed space, and the alternatives space. Let's now examine some of the characteristics of mutual funds, especially as compared to ETFs.

Mutual funds offer several characteristics that investors have become comfortable with over the years. Most important, they have become entrenched in our investing culture. They have developed the distribution channels; they have created an entire ecosystem designed to funnel assets into the products in a painless way to investors.

The characteristics that investors are most familiar with:

- They can be purchased either directly from the mutual fund companies or from the product supermarkets.
- They offer a theoretically clear pricing scheme of publishing a NAV once daily.

- The NAV is the price at which investors can come into and out of the funds on a daily basis.
- Mutual fund purchases and redemptions take place in dollar amounts as opposed to trading in share amounts typical of ETFs.
- Mutual funds typically have multiple share classes per fund for different investors and from different distribution methods.
- They therefore have a wide spectrum of fee ranges beyond the actual management fee that investors can be subject to, based on how they came to invest in the fund.
- Since all trading takes place within the fund, mutual funds do not have the tax efficiency that many ETFs present.
- Since all trading takes place within the fund, all investors are subject to the costs of trading related to other investors entering and exiting the fund.
- Mutual funds are heavy users of 12b-1 fees. They use this to pay distributors for a variety of functions, including placing investors in the funds. This has driven a lot of investment over the years and possibly causes some advisors to continue funneling assets into those products.

As you review the list of characteristics, you can understand where ETFs stand out in stark contrast. With ETFs, uniquely, all investors interact on a level playing field with the same fees and the same information.

Although mutual funds have certainly provided investors with accessible investment vehicles over the years, it's now become clear that they have built up a huge infrastructure within the asset management business and defined the portfolio management and distribution groups that support it. Investors have paid for the development of this infrastructure, and its setup attracts star managers to run the funds as well as distributors to sell them. Mutual funds have become entrenched in the investing way of life and ETFs must continue to change that infrastructure in order to fit into more asset feeder structures that were designed to support mutual fund vehicles.

If you look at the hordes of slot machine players sitting for hours in extravagant gambling halls around the country, you can see evidence of Americans' ever present and strong desire to outperform. In many ways, actively managed investment funds cater to that inner desire to beat the averages or, in this case, the index. Unfortunately, sometimes the active managers are not providing better returns than an index-based fund. Numerous studies over the years have shown various ranges of underperformance by active managers. Yet a tremendous quantity of actively managed mutual fund products are available and demanded by investors. You can see the product numbers by type in Exhibit 1.11. You will notice that the number of outstanding mutual funds has been reasonably constant at approximately 8500 since 2001, while the number of ETFs has grown from 100 to 1000+ over that same time period. Both of

these numbers include new fund openings and fund closures as well.

One of the most watched and discussed developments in the ETF industry was the introduction of actively managed ETFs in 2008. If there is an adoption of those products by the client base, then that will potentially open the floodgates to more actively managed products over the coming years. There will, however, have to be a resolution as to the best way to bring active products to market, either via fully transparent baskets or some form of screened holdings. The McKinsey report on ETFs⁷ brings up a very interesting point in describing potential growth of active ETFs. It says that "if Active ETFs were to follow the same growth pattern that passive ETF products followed, they would constitute approximately 10 percent of all actively managed U.S. long-term mutual fund assets within a decade and exceed \$1 trillion in AUM." Important to consider is that ETF companies have already been educating investors for almost 20 years about the structure, so a lot of the basic education has been done which will facilitate even faster adoption of new product styles like active ETFs. This would be a full-on challenge to the largest segment of mutual fund assets. Many in the industry are watching and preparing for this potential challenge to the long standing reign of the mutual fund.

Let's take a look at another cousin product, closed-end funds. It was the listed trading of this vehicle that served as a precursor to the listing of ETFs. There are

KEY POINT:

Closed-end fund (CEF) relative value portfolios means trading closed-end funds versus some hedge to capture changes in the discount or premium. Many people refer to this as CEF arbitrage, but unlike an ETF, where you can actually exchange the fund for the basket and back again, there is no collapsing of the positions in CEFs. There is no actual arbitrage. It's really trading two separate and distinct vehicles that have a mathematical relationship. One caveat is real arbitrage can exist when a CEF has announced that it is going to liquidate or open-end.

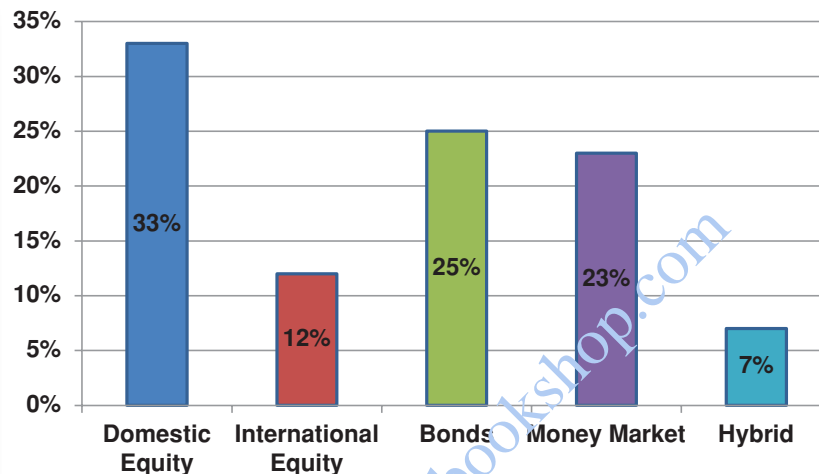


Exhibit 1.10 Breakdown of U.S. Mutual Fund Assets; Percentage by Type of Fund, Year-End 2011

Source: 2012 Investment Company Fact Book.

some very interesting and important differences between the products.

Closed-End Funds

In many of my comparisons and explanations of the ETF market, I reference them against mutual funds. That is where I see the largest shift of investment assets as a result of the growth of the more modern ETF structure. Mutual funds are related products and generally enter into the dialogue when people are making investment decisions. The conversation would not be

complete, however, without examining the closed-end fund segment of the market.

I am intimately familiar with closed-end funds, since before ETFs existed, I ran large CEF relative value portfolios. These portfolios typically ran to multiple hundreds of millions of dollars in long and short spread trades, taking advantage of discount anomalies in the products.

I've always been interested in investment products and how investors can use them to build optimal portfolios. I have never really understood how closed-end funds manage to continue to find initial investors in

their IPOs when so much research details their move to a discount typically during the first 100 trading days. In the IPO process, you are actually purchasing the fund at a premium to the value of the assets.

It is the way that closed-end funds trade that is most relevant for a comparison with ETFs. This is where investors most often become confused. The critical difference is in the ETF creation and redemption feature and the fact that ETFs exhibit the trait of continuous issuance, while CEFs typically issue shares once only upon their IPO. The name itself explains that CEFs are closed-ended, meaning there are a fixed number of shares outstanding, while ETFs are considered to be open-ended like mutual funds.

In its simplest form, the fact is that you can buy an ETF share and sell its basket, and if you get to a large enough size, you can have an AP, exchange the two, creating perfect arbitrage. One asset equals the other, and therefore the trading of one, while separate, can definitely be economically related to the other. This consistently serves to narrow any discount that would potentially develop between the two assets. I discuss ETF discounts and premiums in the chapter focused on structure later in the book.

This ability does not exist in CEFs. It is not arbitrage when you are trading a closed-end fund versus its underlying basket, not that you really can trade it perfectly since the holdings of CEFs are only published periodically. There is no direct conversion of one for the other that would enable you to actually capture the spread. If a market anomaly causes an

ETF to trade away from its basket or there is a halt in the creation and redemption facility, then the investment community refers to the ETF as trading like a closed-end fund.

In standard practice, the discounts or premiums of a CEF are very different than those that might arise in an ETF. They are typically long-term and are more related to the nuances of the product structure and the supply and demand of the underlying asset class. There is little that the average investor can do about the discount or premium. Exhibit 1.12 shows you the long-term discount that might even dog the existence of a closed-end fund. In the bottom half of the chart, you can see the long-term discount averaging approximately 14.5 percent over the past five years in the fund. This is a stable discount with a low degree of volatility.

In Exhibit 1.13, you can see the keystrokes required to pull up the discount and/or premium chart for a CEF or ETF. For both products, you can graph the NAV of the fund, and it will also produce the discount or premium graph.

There are some discounts and premiums that move with a high degree of volatility. In Exhibit 1.14, I show an example of a fund that trades at a persistent premium over time. You can see the premium and discount chart for the closed-end fund over the past five years. The yellow highlights delineate periods of drastic swings. The left arrow is showing a move in the premium of the fund from above 80 to below 20 over a six-month period. Then the fund price moves back out to almost an 80 percent premium above NAV again,

STEP-BY-STEP

To bring up a chart that shows the discount or premium on funds:

1. Type in the ticker of the fund and the EQUITY button.
2. Then NAV <GO>.

	ETFs ¹	Mutual Funds ²	CEFs	UITs	Total
1995	2	5,761	500	12,979	19,242
1996	19	6,293	497	11,764	18,573
1997	19	6,778	487	11,593	18,877
1998	29	7,489	492	10,966	18,976
1999	30	8,003	512	10,414	18,959
2000	80	8,370	482	10,072	19,004
2001	102	8,518	492	9,295	18,407
2002	113	8,511	545	8,303	17,472
2003	119	8,426	584	7,233	16,362
2004	152	8,415	619	6,499	15,685
2005	204	8,449	635	6,019	15,307
2006	359	8,721	647	5,907	15,634
2007	629	8,747	664	6,030	16,070
2008	743	8,884	643	5,984	16,254
2009	820	8,617	628	6,049	16,114
2010	950	8,545	624	5,971	16,090
2011	1,166	8,684	634	6,022	16,506

Exhibit 1.11 Number of Investment Companies by Type

¹ ETF data prior to 2001 were provided by Strategic Insight Simfund. ETF data include investment companies not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.

² Data include mutual funds that invest primarily in other mutual funds.

Source: Investment Company Institute Fact Book 2012.



Exhibit 1.12 CEF Discount Chart (ADX NAV)



Exhibit 1.13 Bloomberg Typing Code—ADX NAV

Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

and then in late 2008 it crashes down to almost a 20 percent discount to NAV, as highlighted by the yellow circle. The second arrow is highlighting another drastic move in the premium. What is interesting to think about in this example is that, instead of the fund being at a dramatic discount, it's actually at a dramatic premium. To clarify what that means, in the case of a fund having \$10 worth of assets, it might be trading at \$15 dollars in the secondary market (on the exchange). So an investor buying the fund is paying 50 percent more to buy the shares of the fund as opposed to buying its underlying basket of securities.

Some discounts seem to be reasonably stable and would therefore offer investors a small measure of comfort, except there are no structural measures to ensure the continuity of a discount or premium. This is the greatest risk if you are attempting to take advantage of discount anomalies in CEFs: Something occurs in a fund, and a discount moves against you dramatically. In Exhibit 1.15, you can see a fund that traded at approximately a 10 percent discount for about two years. Then in late 2011, the fund moved from about

a 10 percent discount to more than 15 percent. If you had been long the fund and perhaps short some form of hedge that was designed to mimic the movements of the NAV of the fund, you would be losing significantly due to the underperformance of the fund price relative to its NAV. While CEFs might have been the exchange-listed precursor to the ETF, the ETF has made a giant product leap by combining the open ended attribute of a mutual fund, the exchange listing of a CEF and added its own touch of transparency to provide the investing community with an evolved and more flexible investing product.

Summary

The adoption and growing use of exchange-traded funds is revolutionary. They possess a clear set of characteristics that satisfy the modern tastes of today's investors. Their proliferation is evident in the institutional trading community, the retail community, and even the retirement savings community. Their use in 401(k)s and other plans are slowly being adopted.

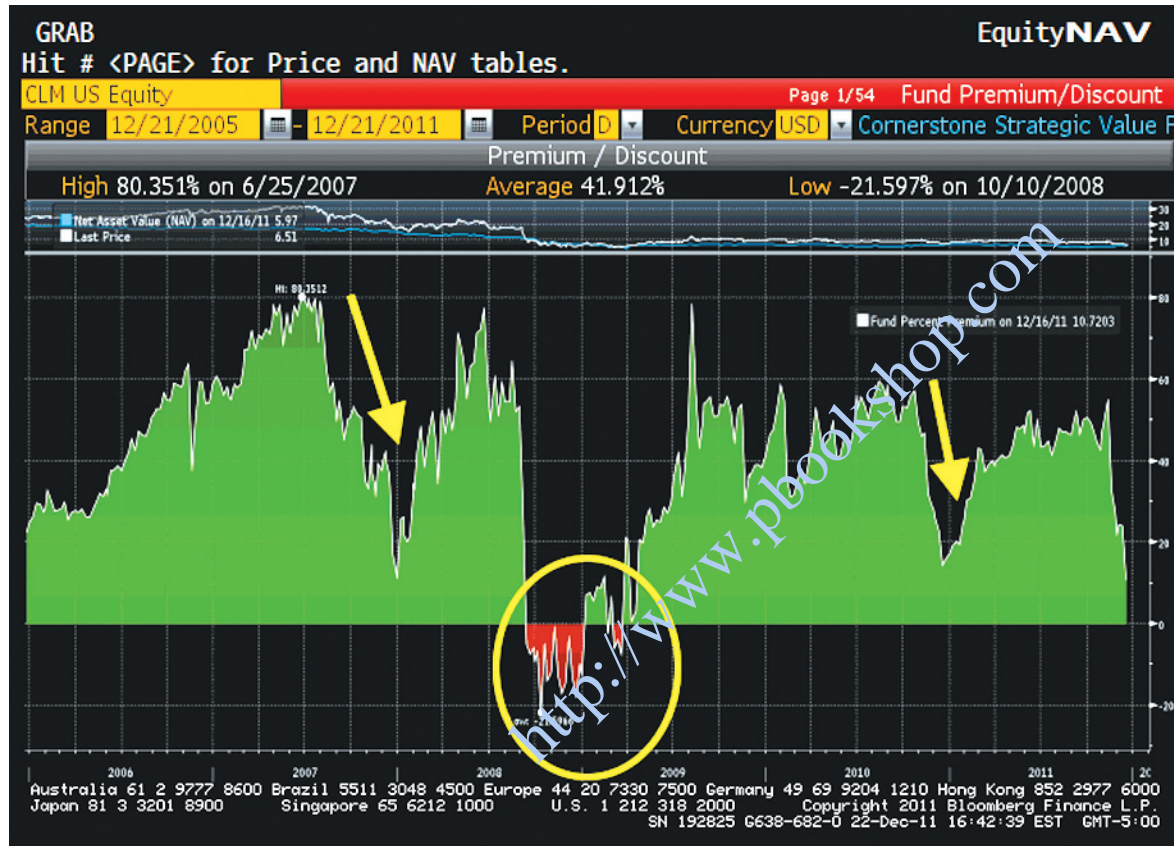


Exhibit 1.14 CEF Discount Chart (CLM)

Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

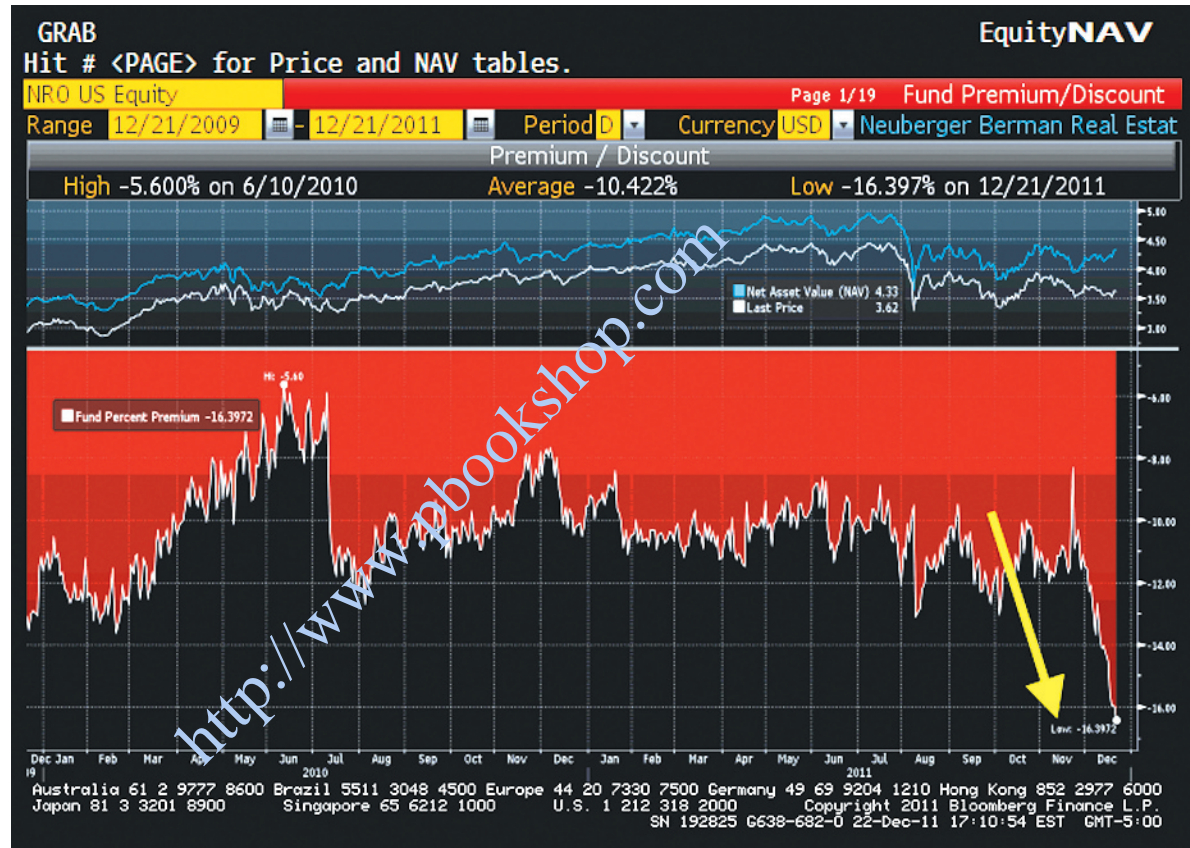


Exhibit 1.15 CEF Discount Chart (NRO)

Reprinted with permission from Bloomberg. Copyright 2012 Bloomberg L.P. All rights reserved.

Those plans have been slower in their adoption of ETFs due to legacy systems for recordkeeping, settlement, secondary market issues, and distribution fees. But the customer demand is pushing development, and use of ETFs is forcing the modernization of these systems. The desire of investors for transparency, lower fees, tax efficiency and standardization is obvious, and future growth will inevitably continue on a global basis as investor knowledge and facilitation systems continue to evolve. Understanding how these products work will be a crucial piece of investors' financial education now and for the future. The rest of the Visual Guide to ETFs provides a visual tour of how these products work, critical concepts and techniques for mastering ETF trading, and some sources for more information.

Notes

1. McKinsey and Company, "The Second Act Begins for ETFs: A Disruptive Investment Vehicle Vies for Center Stage in Asset Management." Financial Services Practice Research, August 2011, New York.
2. The ICI refers to the products as ETFs almost exclusively in the *2012 Investment Company Fact Book*. They state that ETF data in the book include investment companies not registered under the Investment Company Act of 1940 and exclude ETFs that invest primarily in other ETFs.
3. BlackRock iShares, "ETFs: A Call for Greater Transparency and Consistent Regulation," October 2011. BlackRock Research, New York.
4. The product numbers differ slightly because of differing inclusion of ETP, ETF, ETN, and ETC in the numbers between the ICI and BlackRock.
5. 2012 Investment Company Factbook. Investment Company Institute, Washington, DC.
6. Mutual Fund Fees and Expenses. www.sec.gov/answers/mftees.htm.
7. McKinsey & Company, "The Second Act Begins for ETFs: A Disruptive Investment Vehicle Vies for Center Stage in Asset Management." Financial Services Practice Research, August 2011, New York.

Test Yourself

1. Select three main characteristics of ETFs:
 - a. Daily portfolio transparency
 - b. Quarterly portfolio dissemination
 - c. Limited shares outstanding
 - d. Open-ended share issuance
 - e. Exchange listing
 - f. Regularly trade at significant discounts and premiums to NAV
2. If a retail investor is purchasing a product for cash at NAV, they are buying:
 - a. A mutual fund
 - b. A closed-end fund
 - c. An ETF
3. ETFs get a significant portion of their tax efficiency from:
 - a. Hiring better portfolio managers
 - b. Trading more frequently
 - c. The creation and redemption process

Answers: 1. a, d, e 2. a 3. c