

ETFs Are Not All Created Alike

How to Navigate the
Rapidly Evolving
ETF Landscape

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October 2009

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Introduction

Demand for Exchange Traded Funds (ETFs) has accelerated from both an institutional and retail perspective over the past several years. While institutional investors view ETFs as a convenient vehicle for participating in, or hedging against broad movements in the stock market, many retail investors and financial advisors see ETFs as a low-cost passive alternative that trades like stocks. Since the first ETF launched in 1993, the ETF space has evolved rapidly with innovative new ETFs being introduced on a seemingly daily basis.

This paper will highlight recent industry developments and discuss today's ETF landscape. It will also discuss various methods and tools that may be used to evaluate ETFs. This may help investment professionals to better navigate this unique marketplace and identify ETFs that are appropriate for client portfolios.

New Developments

In 2008, two major developments impacted the ETF marketplace: the growing popularity of leveraged ETFs and the launch of actively managed ETFs. Leveraged ETFs generally utilize various financial instruments or margin in an attempt to achieve a multiple of an index's returns; inverse ETFs (constructed using derivatives such as futures, forward contracts and options) are designed to track the opposite of an index's return. Similarly, *leveraged and inverse ETFs* intend to achieve a multiple of an index's returns in the opposite direction. While these ETFs have gained in popularity, there is growing concern that individual investors do not fully grasp the sophisticated nature of these products.

Leverage, designed to amplify an investment's results, increases risk. While the upside may look promising, it comes with the potential for a devastating downside, particularly in high volatility environments such as during the recent market crisis. In addition, due to the compounding nature of these products, the return over holding periods of longer than one day may deviate significantly from what many investors expect. For example, ProShares UltraShort Dow 30 (DXD) is designed to provide -200% of the return of the Dow Jones Industrial Average Index (DJIA). While the Index returned -33.8% in 2008, DXD returned 6.74% in 2008 instead of the 67.6% (33.8% \times 2) many investors expected. For investors with an investment horizon that is longer than a few days or weeks, these products might not be appropriate investment vehicles. Exhibit 1 (in the addendum at the end of this paper) provides performance examples of a hypothetical *leveraged and inverse ETF* in steady gain, steady loss, high volatility and low volatility market environments.

With the launch of actively managed ETFs, the ETF is no longer synonymous with passive investing. Actively managed ETFs do not seek to track the return of a particular index. Instead, like an actively managed mutual fund, they are managed to meet a particular investment objective and policy. However, the SEC requires these funds to provide full transparency of holdings and weightings on a daily basis.

Landscape¹

As of August 31, 2009, ETF assets under management reached \$674 billion. This figure covers 858 U.S. ETFs sponsored by 40 different firms tracking 700 indexes. These ETFs are traded on the NYSE or NASDAQ exchanges. The ETF landscape is dominated by a few major players, with iShares (pending sale to Blackrock by Barclays) leading with a market share of 48%, followed by State Street (24%) and Vanguard (11%).

The majority of ETF assets are invested in equities (78%) with just 12% of assets in bonds and the remainder invested mainly in specialty areas. Since bond benchmarks typically consist of thousands of issues, it is much harder operationally for a bond ETF to replicate benchmark performance with reasonable expenses.

The vast majority of ETFs are registered with the SEC under the Investment Company Act of 1940. About 9% of ETFs are commodity-based (investing in commodity futures) and are not registered with or regulated by the SEC, but instead are regulated by the Commodity Futures Trading Commission.

Understanding the Indexes

Since ETFs are primarily used as a passive investment vehicle to track specific indexes, it is important to understand the index to which an ETF is benchmarked. Today there are tens of thousands of global indexes. For this analysis, we used U.S. dollar denominated global stock indexes (about 5,800 indexes). The following paragraphs refer to this group of indexes.

Weighting Scheme

The majority of indexes (about 95%) are constructed using market capitalization (includes free-float adjusted) weighting, meaning that each security's weight in the index is determined by its respective market capitalization. (Free-float adjusted means adjusting for those shares that are not freely traded.) The S&P 500 Index uses this market weighted scheme that has been dominant historically and is perhaps the most reasonable way to replicate market performance. Other weighting schemes such as multi-factors weight, equal weight, price weight and dividend weight have been introduced in the market place. Examples of multi-factors utilized in index construction are total cash dividends, free cash flow, total sales, and book equity value. The FTSE FAFI US 1000 Index is an example of a multi-factors weighted index. The Dow Jones Industrial Average is a well-known price weighted index.

Selection Scheme

Approximately 94% of indexes select components based on rules, while the remainder are committee based. For example, Russell has well documented processes and rules on how its index components are selected. The S&P 500 Index's components are selected by a committee,

¹ Morningstar

therefore, subjective opinions may influence the stocks selected for inclusion, even though the general guidelines for component selection are fairly transparent. Standard & Poor's strongly advocates its committee-based selection scheme due to the breadth and depth of the committee's knowledge and experience.

Rebalancing Frequency

Sixty-three percent (63%) of indexes are rebalanced on a quarterly basis, some are rebalanced annually and others even on an as-needed basis.

Reconstitution Frequency

Most indexes (64%) are reconstituted on a quarterly basis, together with the rebalance process. Others, such as the Russell indexes, are rebalanced and reconstituted only once a year. Reconstitution is the process of adjusting an index to add and/or delete securities from inclusion in the index. For example, a stock in a small capitalization index may be deleted from that index if its market capitalization rises to the point where the stock is considered to be a mid capitalization stock. Subsequently, that same stock may be included in a mid capitalization index.

Indexes falling under the same asset category can be very different. For example, the S&P 500 Equal Weighted Index and the Russell 1000 Index are both broad large cap indexes, but they are constructed in very different ways. The S&P 500 Equal Weighted Index is equal weighted, committee based, and rebalanced and reconstituted quarterly. On the other hand, the Russell 1000 Index is market cap weighted, rule based, and rebalanced and reconstituted annually. These differences in construction lead to different risk and return characteristics; therefore, they need to be examined carefully.

Understanding and Evaluating ETFs

ETF Creation and Redemption

Contrary to the operating nature of a typical mutual fund complex, ETF creation and redemption from the sponsor is not cash based, in most cases. When demand increases for shares of an ETF, Authorized Participants (APs) have the ability to create shares on-demand. APs such as specialists on the exchange or institutional broker/dealers can create or redeem shares directly with the fund through an "in-kind" transfer mechanism. APs create ETF units by delivering a basket of securities to the fund equal to the current holdings of the ETF, plus a designated cash component. In return, the APs receive a large block of ETF shares, which investors can then buy and sell in the secondary market. AP redemptions from ETFs are also in-kind.

Understanding Risk

To reasonably assess an ETF's performance, the first step is to identify the benchmark it is designed to track. The table below highlights nine ETFs that are all classified as large blend funds, but are designed to track very different market indexes (prospectus benchmark column).

Since ETFs are primarily used as passive investment vehicles, how well an ETF tracks its underlying benchmark is a metric monitored closely. Tracking error, the actual performance difference between the ETF and its benchmark, is used to quantify performance risk. A summary of the risk profile of these nine ETFs is provided below. Using the S&P 500 Index as a benchmark (rather than each ETF's prospectus benchmark), at first glance the Ultra Dow30 ProShares (DDM) ETF appears to be a high risk product with beta of 1.79 and a high 1-year tracking error. However, if we understand that this product is designed to deliver 200% of the Dow Jones Industrial Average Index's performance, the risk characteristics can be explained by the ETF's concentrated nature and use of leverage.

Risk Analysis Comparison – Select Large Blend Equity ETFs Modern Portfolio Theory (MPT) Analysis (Data as of 8/31/09--Morningstar)

Name	Ticker	Prospectus Benchmark	Analysis 1 Year vs. S&P 500			
			Tracking Error	R-Squared	Alpha	Beta
Ultra Dow30 ProShares	DDM	DJ Industrial Average TR	25.64	97.54	-7.63	1.79
iShares Dow Jones U.S. Index	IYY	DJ US TR	1.61	99.80	0.53	1.03
SPDR Dow Jones Total Market	TMW	DJ Wilshire 5000 TR	1.70	99.74	0.67	1.02
PowerShares Dynamic Market	PWC	Dynamic Market Intellidex PR	7.05	95.10	-7.52	0.89
iShares KLD Select Social Index	KLD	KLD Select Social PR	2.92	99.08	1.83	1.00
Vanguard Total Stock Market ETF	VTI	MSCI US Broad Market	1.87	99.77	1.07	1.04
iShares Russell 1000 Index	IWB	Russell 1000 TR	1.33	99.86	0.44	1.02
Rydex S&P Equal Weight	RSP	S&P 500 Equal Weighted TR	11.17	96.73	11.17	1.28
SPDRs	SPY	S&P 500 TR	0.21	100.00	-0.03	0.99

In a perfect world, an ETF should be expected to deliver a similar risk/return compared to its benchmark before expenses. Therefore, the expense ratio is a very important factor in selecting an ETF. As of 8/31/2009 the three-year performance of the SPDR S&P 500 ETF (SPY) lagged its benchmark, the S&P 500 Index, by 13 basis points (bps), which is largely explained by its 9 bps

expense ratio. In practice, because many ETFs use a representative sampling approach to portfolio construction, performance can be expected to deviate from the benchmark before expenses.

The table below highlights three bond ETFs, each designed to track the Barclays US Aggregate Total Return Index. As you can see, performance vs. the benchmark over the past year varied substantially for the three ETFs.

Performance Comparison
Bond ETFs Tracking the Barclays US Aggregate Total Return Index
(Data as of 8/31/09--Morningstar)

Name	Ticker	Total Return 1 Year	Market Return 1 Year	Diff. vs. Index	Total Return Annualized 3 Year	Market Return Annualized 3 Year	Diff. vs. Index	Net Expense Ratio
iShares Barclays Agg. Bond	AGG	7.66	7.94	-0.28	6.17	6.35	-0.18	0.20
SPDR Barclays Capital Agg. Bond	LAG	8.57	7.94	0.63	N/A	N/A	N/A	0.13
Vanguard Total Bond Market ETF	BND	8.14	7.94	0.21	N/A	N/A	N/A	0.10

An ETF's stated benchmark (as detailed in its prospectus) also influences the number of holdings for each fund. For example, as shown in the table on the following page, SPY, which tracks the S&P 500 Index, had 500 holdings, compared with 3,382 holdings for VTI, which tracks the broader MSCI US Broad Market Index.

Generally, ETFs are considered tax-efficient as they usually have low turnover due to their index-tracking nature. In addition, there is no need for the ETF to sell securities to meet redemptions. However, tax efficiency as measured by tax cost ratio² varies amongst the nine ETFs in the chart below, with PowerShares Dynamic Market (PWC) seemingly the most tax efficient of this group. Potential capital gains distributions offer another clue to an ETF's future tax obligation.

² The Morningstar Tax Cost Ratio measures how much of a fund's annualized return is reduced by the taxes investors pay on distributions. Like an expense ratio, it is usually concentrated in the range of 0-5%. Zero percent (0%) indicates that the fund had no taxable distributions and 5% indicates that the fund was less tax efficient.

Similar to mutual funds, capital gains distributions from ETFs are generally taxable to the investor. With the sharp losses of 2008 and the first quarter of 2009, many ETFs accumulated large capital losses that can be carried over by investors. However, with the recent market rally since March, investors may need to revisit potential tax implications.

Tax Comparison - Nine Large Blend Equity ETFs

(Data as of 8/31/2009 --Morningstar)

Ticker	Tax Cost Ratio 1 Yr	Tax Cost Ratio 3 Yr	Potential Capital Gains Exposure	Turnover Ratio %	# of Holdings
DDM	0.77	1.85	-77.59	73.00	33
IYY	0.83	0.66	-21.56	7.00	1,419
TMW	0.83	0.67	-20.39	1.00	1,055
PWC	0.45	0.35	-101.30	113.00	101
KLD	0.77	0.59	-28.27	52.00	264
VTI	0.53	0.36	N/A	5.00	3,382
IWB	0.83	0.69	-35.21	8.00	968
RSP	0.71	0.54	-33.44	32.00	541
SPY	0.95	0.69	-54.09	4.56	500

Sector Allocation

Understanding ETF sector exposure is important to achieve intended portfolio diversification. Differences in sector weightings are also important when considering performance from an attribution standpoint. In 2008, KLD, RSP and SPY returns were -35.8%, -40.4% and -36.8%, respectively. Compared to SPY (used here as a proxy for the S&P 500 Index), KLD outperformed due to an overweight in the healthcare and information technology sectors, while RSP underperformed due to an overweight in consumer discretionary and underweight in the consumer staples sectors.

Sector Weighting Comparison – Three Large Blend Equity ETFs

(Data as of 12/31/08--Morningstar)

Ticker	Energy	Materials	Industrials	Cons. Disc.	Cons. Staples	Health	Financial	Info Tech	Telecom	Utilities
KLD	10.26	2.97	9.64	8.24	14.67	18.24	11.50	17.36	4.05	3.07
RSP	7.90	5.75	11.81	15.85	8.26	10.70	16.28	14.82	1.85	6.77
SPY	13.32	2.99	11.07	8.39	12.86	14.73	13.27	15.31	3.83	4.24

Bond ETFs

In a bear market for stocks, bond ETFs attracted much interest in 2008. Bond ETFs jumped from 5.7% to 10.5% as a percentage of all ETF assets in 2008.³ This trend has continued in 2009. In fact, as of 08/31/2009, bond ETFs account for 12% of ETF assets.

As mentioned earlier, bond indexes typically consist of tens of thousands of issues and it is very challenging to replicate the risk/return characteristics of an index with a manageable number of issues. Research breadth and depth, plus extraordinary portfolio management skills, are critical for operating a successful bond ETF.

Bond ETF creation and redemption differ amongst sponsors. Barclays (iShares) uses the in-kind transfer method that allows APs (Authorized Participants who can create shares on-demand) to buy the underlying bonds and deliver them to the company. Van Eck (Market Vectors ETFs) adopts this in-kind mechanism too, giving APs a daily list of permissible characteristics based on credit rating, sector, issue, yield, etc. Based on this list, APs are allowed to put a portfolio of securities together on their own. State Street Global Advisors (SPDR ETFs) adopts a cash creation process. Its huge size allows it to obtain good pricing and execution in the bond markets, but it needs to absorb transaction costs due to the actual buying and selling of underlying securities. PowerShares also adopts a cash method for its bond ETF creation.

³ SSGA (SPDR University)

Sector ETFs⁴

In 2008 and 2009, sector ETFs continued to gather assets. With 347 sector ETFs available as of 8/31/2009, total assets rose to \$153 billion, accounting for 23% of the ETF market.

Leading the sector funds is the Precious Metal category, with the bulk of the category's assets driven by interest in gold. SPDR Gold Shares (GLD) had \$33 billion in assets under management as of 8/31/2009 as investors flocked to gold, anticipating high inflation in the future as the Fed injected massive money supply into the financial markets.

Sector ETF Asset Breakdown

(Data as of 8/31/2009 –Morningstar, Assets in \$ Billions)

Category	# of Funds	Total Assets
Specialty - Precious Metals	22	45
Specialty - Natural Resources	127	41
Specialty - Financial	32	19
Specialty - Real Estate	30	13
Specialty - Unaligned	41	11
Specialty - Technology	37	9
Specialty - Health	26	9
Specialty - Utility	20	6
Specialty - Communications	12	1
Total	347	153

Sector ETFs vary greatly due to different industry exposure. The table below highlights five financial sector ETFs with very different industry allocations. Some are well diversified across industries, while others are highly concentrated. An ETF's industry exposure needs to be closely examined so that the portfolio's risk/return characteristics remain on track.

Industry Allocation Comparison – 5 Financial ETFs

(Data source: Morningstar)

Ticker	Portfolio Date	Commercial Banks	Thriffs & Mortgage Finance	Diversified Fin. Services	Consumer Finance	Capital Markets	Insurance	REITs	Real Estate Mgt & Dev
XLF	8/31/2009	18.96	0.90	30.76	4.97	19.41	17.77	7.04	0.20
RYF	8/31/2009	17.91	2.14	10.29	5.69	16.34	28.34	17.90	1.39
KBE	8/31/2009	56.49	2.04	26.48	4.82	10.16	0.00	0.00	0.00
IYG	8/31/2009	25.76	1.93	35.14	5.71	25.46	0.34	0.00	0.00
EXB	8/31/2009	0.00	0.00	32.01	0.00	68.90	0.00	0.00	0.00

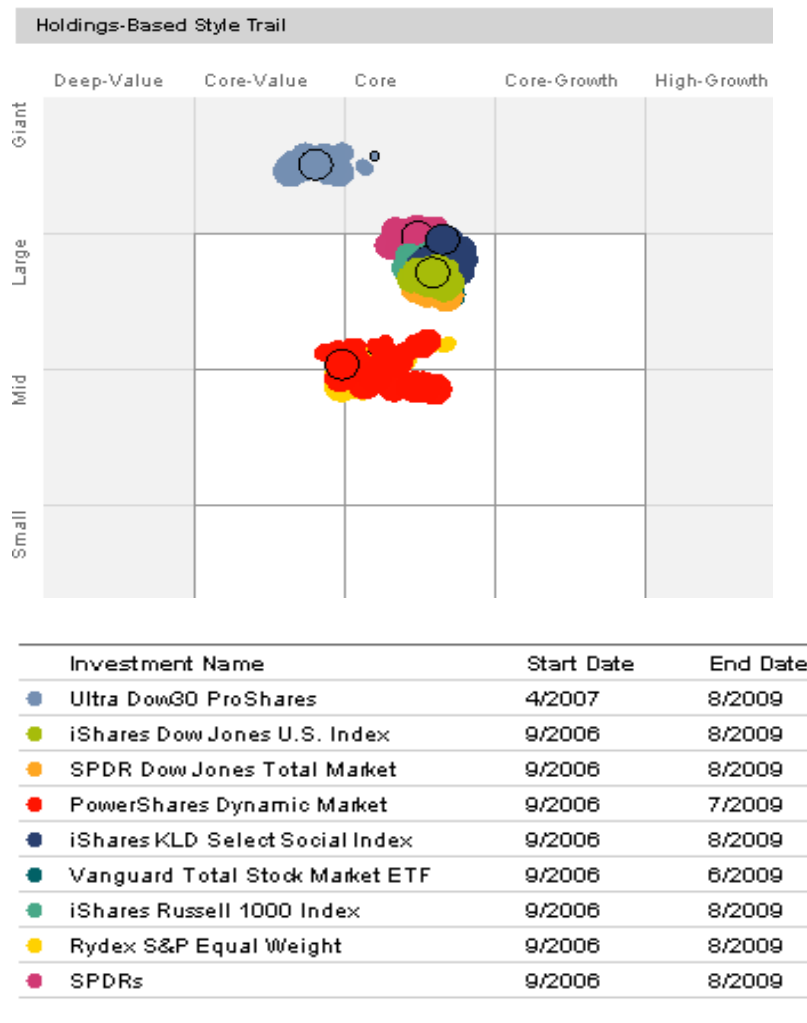
⁴ Morningstar

Methods of Analysis

Many screening tools allow investors to further understand ETFs. The following three types of analysis are particularly valuable:

Holdings-Based Style Analysis

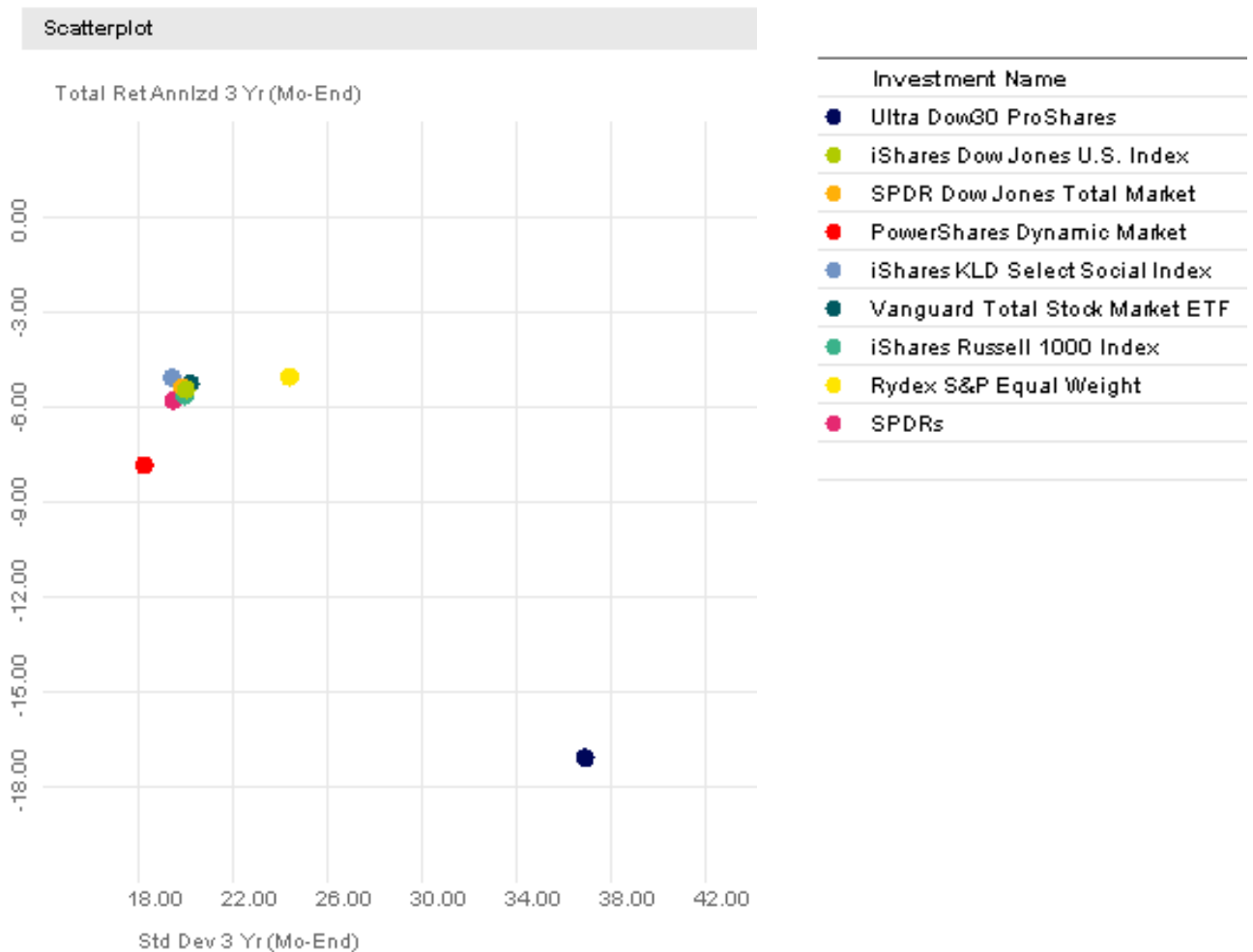
This analysis uses historical portfolio holdings to assign the ETF to a Morningstar style box. It also shows how an ETF’s holdings have evolved over time. The following illustration demonstrates the style movement of nine ETFs categorized as large cap blend equity over the past three years. We utilize SPY (shown below as SPDRs) as a proxy for the S&P 500 Index, as most investors consider the S&P 500 Index to be representative of the U.S. large cap equity market. With Ultra Dow30 ProShares (DDM) higher up the market cap ladder and leaning towards the value box, and PowerShares Dynamic Market (PWC) dipping into the mid cap category, these two funds offer very different exposure to asset classes even though they are both classified as large blend funds. Holdings-based analysis is also a very informative tool when it comes to explaining relative out/under performance, and it also provides a means to identify style drifters.



Source: Morningstar, 08/31/2009

Risk Adjusted Return

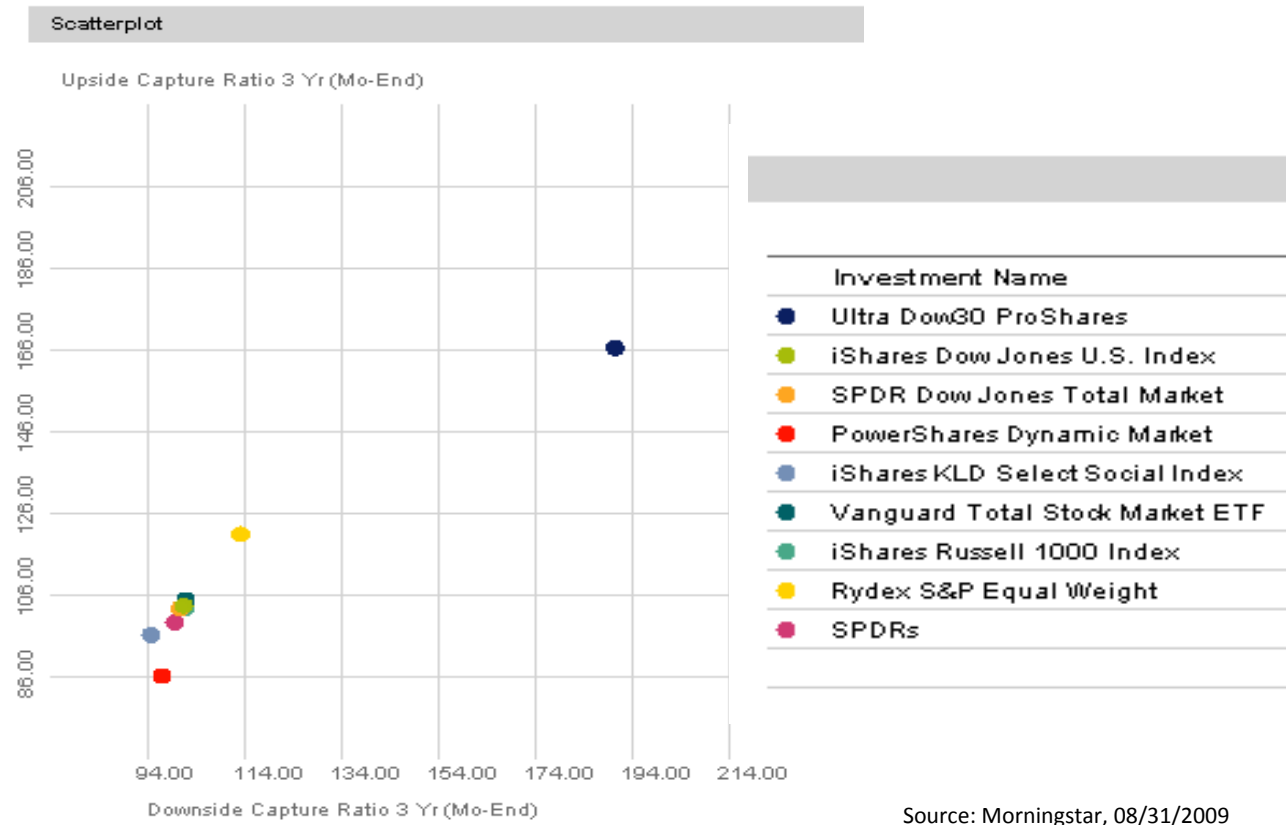
This combines views of both return and volatility. The illustration below demonstrates the risk-return positioning of the same ETFs compared to the market (again using SPY as a proxy for the S&P 500 Index) as well as relative to each other. The chart shows that over the specified three year period ending 08/31/2009, a few of the ETFs were closely clustered around SPY while the iShares KLD Select Social Index ETF slightly outperformed the market on a risk adjusted basis. On the other hand, Ultra Dow 30 ProShares underperformed the market on both an absolute and risk-adjusted basis.



Source: Morningstar, 08/31/2009

Upside/Downside Analysis

This captures an ETF’s performance relative to a benchmark (again using SPY as a proxy for the S&P 500 Index) in both up and down markets. It measures an ETF’s sensitivity to broad market movement; therefore, many view this as a beta gauge. The downside capture ratio is particularly important as it is an effective indicator of portfolio downside protection. The illustration below highlights the positioning of these nine funds compared to the market (SPY) as well as to each other. For example, the Rydex S&P Equal Weight ETF has a position of [113, 121], which indicates when the market was down 1%, the fund was down 1.13%, while when the market was up 1%, the ETF was up 1.21%. This means its upside was better than the market, while its downside protection was poorer than the market.



Other Factors to Evaluate

Unlike traditional open-end mutual funds, ETFs generally provide investors with greater liquidity due to the ability to trade intraday. However, there are issues relating to liquidity that must be assessed, such as the liquidity of the underlying securities in the ETF. Generally these issues are more pronounced for ETFs investing in less liquid securities such as small cap and emerging market equity stocks.

The trading volume of the ETF itself should also be evaluated. Some ETFs have closed due to their inability to garner assets quickly enough to be profitable for the sponsor. Several ETFs, especially those highly specialized, were launched but received the cold shoulder from investors and later

closed. One example is the Claymore Clear Global Vaccine Index which closed earlier this year with a daily trading volume of only 200 shares. Generally, investors do not want to be in a situation where they are forced to sell (redeem) ETF shares due to closures and possibly endure unavoidable tax consequences. In addition, ETFs with low trading volume may trade at a premium or discount that may impact performance.

Other factors should be considered during the portfolio construction process, such as if one particular ETF can provide the investor with the best opportunity to achieve desired exposure to a particular investment category, if multiple ETFs would achieve the desired result, or if a blend of active and passive investments is advantageous. If a blend of active and passive investments is used, it is important to determine the optimal blend—how much of the investment category should be allocated to each investment, based on an evaluation of both expenses and historical performance.

Summary: Challenges

The ETF landscape is changing quickly and innovative products are introduced continuously. While this trend is exciting and is one we expect to continue, it poses a challenge for today's financial advisors. In a recent survey, nearly 70% of advisors cited "unknown, untested indexes" and "the overwhelming number of choices" as the greatest disadvantages of ETF investing.⁵ Selecting an ETF that is the "best fit" for an investor's portfolio takes time, expertise and professional analysis.

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Addendum: Leveraged and Inverse ETFs

Overview

It is important to understand that *leveraged and inverse ETFs* are settled on a daily basis, and that daily returns are compounded to arrive at a long term return. Investors that do not understand this compounding feature are often baffled by the performance of their investment. Generally, *leveraged*

⁵ 2008 joint study between SSGA and Knowledge@Wharton

and inverse ETFs only behave the way most investors expect when held for a period of only one day. For long term investors seeking risk adjusted returns consistent with their investment objectives/investment policy, these vehicles might not present solid investment choices.

Recent market volatility demonstrates how the returns of these products can deviate from what is generally expected, particularly during times of high market volatility. The tables below provide an analysis of performance in hypothetical steady gain, steady loss, high volatility and low volatility market environments. As you can see from the lower-left table in the following exhibit, in a high volatility market environment the ETF's performance after 10 days deviated significantly compared to the return of the index. The deviation appears much milder in the low volatility environment example.

How to Read the Leveraged and Inverse ETFs Table

The 2X Inverse Index A ETF was launched on January 1. On January 2, the price of Index A declined 16.00% to \$105.00. Two times the inverse of -16% is +32%, so 2X Inverse Index A ETF experienced a 32% price increase to \$165.00. As you can see, for the period of January 1-10, Index A experienced an overall 20% decline in price, while 2X Inverse Index A ETF experienced a 1% decline in price for the same period. Without understanding the intricacies of the daily pricing of these ETFs, an investor might expect the price of 2X Inverse Index ETF A to have risen by 40%.

Exhibit 1: Examples of Hypothetical Leveraged and Inverse ETF Performance Relative to Their Index

Steady Loss					Steady Gain				
	Price of Index A (\$)	Daily Price % Change of Index A	Daily Price % Change of 2X Inverse ETF	Price of 2X Inverse ETF (\$)		Price of Index A (\$)	Daily Price % Change of Index A	Daily Price % Change of 2X Inverse ETF	Price of 2X Inverse ETF (\$)
1-Jan	125.0			125.0	1-Jan	125.0			125.0
2-Jan	122.5	-2.0%	4.0%	130.0	2-Jan	127.5	2.0%	-4.0%	120.0
3-Jan	120.1	-2.0%	4.0%	135.2	3-Jan	130.1	2.0%	-4.0%	115.2
4-Jan	117.6	-2.0%	4.0%	140.6	4-Jan	132.7	2.0%	-4.0%	110.6
5-Jan	115.3	-2.0%	4.0%	146.2	5-Jan	135.3	2.0%	-4.0%	106.2
6-Jan	113.0	-2.0%	4.0%	152.1	6-Jan	138.0	2.0%	-4.0%	101.9
7-Jan	110.7	-2.0%	4.0%	158.2	7-Jan	140.8	2.0%	-4.0%	97.8
8-Jan	108.5	-2.0%	4.0%	164.5	8-Jan	143.6	2.0%	-4.0%	93.9
9-Jan	106.3	-2.0%	4.0%	171.1	9-Jan	146.5	2.0%	-4.0%	90.2
10-Jan	104.2	-2.0%	4.0%	177.9	10-Jan	149.4	2.0%	-4.0%	86.6
Return:	-17%			42%	Return:	20%			-31%

High Volatility					Low Volatility				
	Price of Index A (\$)	Daily Price % Change of Index A	Daily Price % Change of 2X Inverse ETF	Price of 2X Inverse ETF (\$)		Price of Index A (\$)	Daily Price % Change of Index A	Daily Price % Change of 2X Inverse ETF	Price of 2X Inverse ETF (\$)
1-Jan	125.0			125.0	1-Jan	125.0			125.0
2-Jan	105.0	-16.0%	32.0%	165.0	2-Jan	120.0	-4.0%	8.0%	135.0
3-Jan	95.0	-9.5%	19.0%	196.4	3-Jan	115.0	-4.2%	8.3%	146.3
4-Jan	85.0	-10.5%	21.1%	237.8	4-Jan	112.0	-2.6%	5.2%	153.9
5-Jan	70.0	-17.6%	35.3%	321.7	5-Jan	108.0	-3.6%	7.1%	164.9
6-Jan	65.0	-7.1%	14.3%	367.7	6-Jan	100.0	-7.4%	14.8%	189.3
7-Jan	75.0	15.4%	-30.8%	254.5	7-Jan	95.0	-5.0%	10.0%	208.2
8-Jan	80.0	6.7%	-13.3%	220.6	8-Jan	92.0	-3.2%	6.3%	221.4
9-Jan	95.0	18.8%	-37.5%	137.9	9-Jan	97.0	5.4%	-10.9%	197.3
10-Jan	100.0	5.3%	-10.5%	123.4	10-Jan	100.0	3.1%	-6.2%	185.1
Return:	-20%			-1%	Return:	-20%			48%

Glossary of Terms

Basis Point A unit that is equal to 1/100th of 1% and is used to denote the change in a financial instrument. The basis point is commonly used for calculating changes in interest rates, equity indexes and the yield of a bond. The relationship between percentage changes and basis points can be summarized as follows: 1% change = 100 basis points, and 0.01% = 1 basis point.

Free Cash Flow is a measure of financial performance calculated as operating cash flow minus capital expenditures. Free cash flow (FCF) represents the cash that a company is able to generate after laying out the money required to maintain or expand its asset base. Free cash flow is important because it allows a company to pursue opportunities that enhance shareholder value. Without cash, it's tough to develop new products, make acquisitions, pay dividends and reduce debt.

Beta measures the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. An investment with a beta of one is considered as risky as the benchmark. An investment with a beta of two is considered twice as volatile as the benchmark. A beta below one indicates that the investment is less volatile than the benchmark.

Alpha measures the difference between an investment's actual returns and what it might be expected to deliver based on its level of risk (as measured by beta). A positive alpha means the investment has outperformed expectations.

R-squared is a statistical measure that represents the percentage of a fund or security's movements that can be explained by movements in a benchmark index. R-squared values range from 0 to 100. An R-squared of 100 means that all movements of a security can be completely explained by movements in the index. A high R-squared indicates the security's performance patterns have been in line with the index. A security with a low R-squared doesn't act much like the index.

Standard Deviation is a measure of the dispersion of a set of data from its mean. Standard deviation is calculated as the square root of variance. In finance, standard deviation is applied to the annual rate of return of an investment to measure the investment's volatility. Standard deviation is also generally known as volatility and it can be used by investors as a gauge for the amount of expected volatility.

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As of September 30, 2009 (the most recent date for which public holdings data on the ActivePassive funds is available), specific securities mentioned in this paper and included in the Funds' holdings were as follows: The ActivePassive Global Bond Fund held a 20.70% position in the Vanguard Total Bond Market ETF (BND) and the ActivePassive Intermediate Taxable Bond Fund held a 58.91% position in the same security (BND). Fund holdings and sector allocations are subject to change at any time and are not recommendations to buy or sell any security. The remainder of the securities mentioned in this white paper were not held by any of the ActivePassive Funds as of September 30, 2009.

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