

ETF InvestorSM

A rational approach to asset allocation

A Noble Lie

A common nugget of wisdom passed down from on high to the masses is to “buy and hold,” which really means several things: Set fixed allocations to stocks, bonds, and cash; dollar-cost average into the portfolio with periodic purchases; and, above all, stay the course. I tell investors to do these things all the time, too, because on the whole it’s good advice.

It’s also a noble lie, an untruth told to investors to keep them from hurting themselves.

You can detect a contradiction when juxtaposing the advice with the well-established fact that, in aggregate, individual investors are perverse market-timers, selling low and buying high. If investors manage the feat of reverse market-timing, wouldn’t doing the opposite of what they do lead to successful market-timing?

Either the market is predictable or individual investors are not reverse market-timers. Something has to give. Which is it?

Here’s a hint: Eugene Fama and Robert Shiller shared this year’s Nobel Prize in Economics in part for showing returns are predictable over long horizons. They found that when valuations are low, expected returns are high, and vice versa.

Yes, Eugene Fama, the father of the efficient-market hypothesis, believes the market can be sorta-kinda

timed. In an interview with *The New York Times*, Fama said, “If I were to characterize what differentiates me from Shiller or [Richard] Thaler, it’s basically we agree on the facts—there is variation in expected returns, which leads to some predictability in returns. Where we disagree is whether it’s rational or irrational.”¹

This wasn’t a recent change of heart. Fama and many other researchers discovered return predictability all the way back in the 1980s. Somehow, during the past 30 years, the academic research was translated into the dictum that you should never, ever change your asset allocation, except in response to changing risk tolerance.

So why do experts urge investors to stay the course, even though there’s good evidence valuation can predict long-term returns? I suspect it’s exactly because the market is somewhat predictable. The fear is if you give investors leeway to adjust their allocations, they’re going buy high and sell low. “Stay the course” is simple, memorable, and easier to implement than “buy when there’s blood in the streets, even if the blood is your own.”

Another reason is that there’s very little statistical evidence managers have been able to exploit market predictability; this has been misinterpreted to mean that no one can time the market. Statistical tests of whether a manager can time market allocations are weak. After all, a business cycle usually lasts around five years. Even if some investors can time the market based on long-term forecasts, it’s devilishly hard to prove they exist with the tools and data we have.

Finally, it’s because the level of predictability is fairly low for the stock market. The cyclically adjusted

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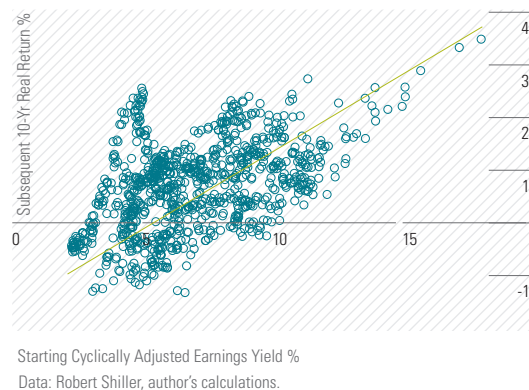
Samuel Lee, Editor

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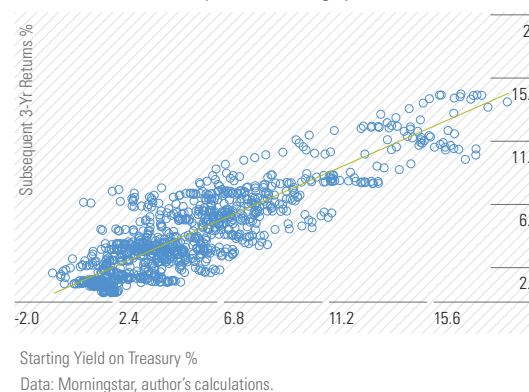
price/earnings ratio, or Shiller P/E, one of the best valuation signals, will give you only a ballpark range of returns over the next five to 10 years. Exhibit 1 shows a scatter plot of 10-year forward real returns for the S&P 500 versus its starting cyclically adjusted earnings yield (the inverse of Shiller P/E), using data from 1926 to 2013. As you can see, the relationship is very noisy. The signal becomes more useful at the extremes, suggesting you should aggressively alter your stock allocation only on rare occasions.

Exhibit 1 Starting Earnings Yield Predicts 10-Yr Real S&P 500 Returns



Bonds, on the other hand, are very predictable. Over the next three to five years, your returns are going to be close to the starting yield. In Exhibit 2, I plot the forward three-year nominal annualized returns of Ibbotson Associates SBBI Intermediate Government Bond Index versus its starting yield, using data from 1926 to 2013. The resulting plot is about as clean as you're going to get: Returns move one-for-one with yield in high-quality bonds. One would have to be daft not to take into account valuation when deciding one's bond allocations.

Exhibit 2 Nominal Treasury Returns Are Highly Predictable



Even junk bonds, which act like both stocks and Treasuries, are predictable. In Exhibit 3, I plot the forward three-year nominal annualized returns of the Bank of America Merrill Lynch High Yield Master II Index against its options-adjusted starting yield minus 2.6% to account for average annual credit losses. The data spanned 1996–2013. The relationship is also surprisingly clean, partly because junk bonds are relatively illiquid. Illiquid stuff is really easy to time, because extreme price movements tend to quickly reverse themselves.

Exhibit 3 Starting Yield Predicts 3-Yr Returns in Junk Bonds



Yes, Virginia, you can time the market—if you have the brains and the courage to do so. I wouldn't be surprised if lots of experts preaching buy and hold are closet market-timers. Academics can be notorious hypocrites. In a 1994 speech at the USC Marshall School of Business, Charlie Munger said, "... one of the greatest economists of the world is a substantial shareholder in Berkshire Hathaway and has been for a long time. His textbook always taught that the stock market was perfectly efficient and that nobody could beat it. But his own money went into Berkshire and made him wealthy."² According to *Fortune* magazine, that economist was Nobel Prize winner Paul Samuelson, whose work on efficient markets ironically inspired Jack Bogle to launch the first Vanguard index fund.^{3,4} ■■■

¹ Sommer, J. "Eugene Fama, King of Predictable Markets." *The New York Times*, Oct. 26, 2013.

² Munger, C. "A Lesson on Elementary, Worldly Wisdom as It Relates to Investment Management & Business." 1994.

³ Setton, D. "The Berkshire Bunch." *Fortune*, Oct. 12, 1998.

⁴ Bogle, J. "Eugene Fama and Efficient Financial Market Theory." *The Wall Street Journal*, Oct. 18, 2013.

When Buy and Hold Fails

Lessons From History | Samuel Lee

Over the past 30 years, you'd be hard-pressed to find many managers who returned noticeably higher risk-adjusted returns than those of a plain-old 60/40 portfolio of stocks and bonds that is rebalanced regularly.

However, it must be pointed out that the past three decades have been a golden age for financial assets, which enjoyed three big tailwinds: low starting valuations for stocks and bonds, low and stable inflation, and robust earnings growth. From 1982 to 2013, the following occurred: The 10-year Treasury rate fell to under 3% from 15%. The cyclically adjusted earnings yield for the U.S. stock market fell to 4% from 15%. Inflation plummeted and then remained stable. Real per-share earnings grew at a rate of 3.3% annualized, well above the 2% annualized growth since 1926. Any portfolio that maintained exposure to risky assets would have done well. There has never been a period in modern history during which so many financial assets did so well for so long.

Take a broader view, however, and buy and hold doesn't look so ironclad.

Spin the globe and point to a country. It's likely that a buy-and-hold investor in that country's bonds would have been beggared had they invested prior to the 1980s. According to data compiled by economists

Elroy Dimson, Paul Marsh, and Mike Staunton, a globally diversified portfolio of developed-markets bonds would have earned a 0% real annualized return from 1900 to 1984. Of the 19 countries in the sample, Denmark's 1.95% annualized real bond return is the highest for this period. This isn't even counting taxes and fees.

Many of these countries racked up big debts from World War I and World War II. They debased their currencies, ran the printing presses, and suppressed interest rates to bring their debt burdens down. Keep in mind these were the big, largely successful countries. There were plenty of sovereigns that went bust. In the early 1900s Argentina was one of the richest countries in the world, with higher per-capita income than France, Italy, and Spain. However, it's not in the Dimson, Marsh, and Staunton sample because it became a banana republic, a status it has maintained for nearly a century.

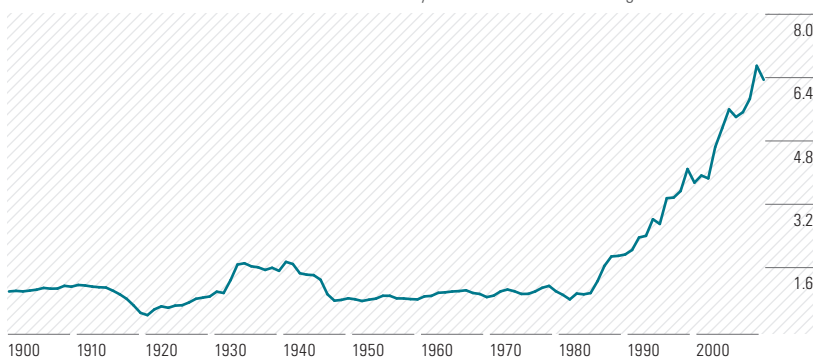
The most extreme case of a highly indebted sovereign paying back its debts in full is 19th-century United Kingdom, according to GMO's Ed Chancellor.¹ When the Napoleonic Wars concluded in 1815, the U.K.'s public debt as a percent of gross domestic product exceeded 250%. However, the U.K. went back on the gold standard at great social cost, inflicting a deflationary depression, and paid its debts off in full over the next century. Chancellor attributes this extreme outcome to several factors: 1) The debt was financed domestically; 2) gilt holders were well-represented in Parliament; 3) economic growth was strong. In fact, over this period, the British Empire rapidly expanded and achieved the height of its powers.

Lest you think the U.S. special, know that the government has twice inflated away the massive wartime debts it accrued during the Revolutionary War and World War II.

The widespread notion that bonds are "risk-free" or "safe" investments is largely the product of the unusually benign inflationary environment of the past 30 years. It would be a mistake to assume history won't repeat or rhyme.

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A Dollar Invested in a Global Basket of Bonds in 1900 Only Just Maintained Purchasing Power for Over 80 Years



Data from 12/1900–12/2009. Data: Dimson, Marsh, and Staunton

Exchanging Junk for Junk

Income Portfolio | Samuel Lee

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On Nov. 8, I sent a trade alert (“Booting Junk Bonds from the Income Portfolio”) via email notifying subscribers that I had liquidated the Income Portfolio’s 14% stake in **PIMCO 0-5 Year High Yield Corporate Bond Index HYS**.

The fund no longer offers enough income. HYS tracks the Bank of America Merrill Lynch 0-5 Year High Yield Index. According to BofA ML, the index yields 5.4% as of Nov. 11 after adjusting for options.

Bond math is fairly simple if you ignore changes to the yield curve, which often don’t matter much when holding bonds for multiyear periods:

Expected Return = Yield – Credit Losses – Options Costs – Inflation

Average losses for junk bonds as a whole have historically run 2.6% annually, but short-duration bonds have lost less. I estimate HYS’ expected annual credit loss is 1.5%. Because the yield figure already adjusts for options, we’re left to figure out future inflation. The 5-year Treasury Inflation-Protected Securities break-even rate is 1.7%. Plugging the numbers into our equation, we get a 2.2% expected real return, only a tad higher than the 2.1% figure I estimated when the email went out.

This number is by itself not all that informative. Investments must be compared with alternatives. The benchmark bond fund I use is **PIMCO Total Return BOND**. Its portfolio yields 4%. The figure isn’t too informative either given the fund’s tendency to rotate its sector and yield-curve exposures. BOND’s bogy, the high-quality Barclays U.S. Aggregate Index, yields 2%, which is close to its nominal expected return. I project BOND can add about 1% annualized alpha

to that yield, for a 3% expected nominal return. After subtracting expected inflation, you’re looking at a 1.3% real return over the next five years, with much lower risk. Moreover, BOND’s returns will likely be less correlated to equities than HYS’ returns. At today’s valuations, I prefer BOND over HYS.

However, I like **PIMCO Dynamic Income PDI** even more. I swapped HYS for a big slug of cash and an add-on purchase to PDI, boosting its weighting to 10% from 5%. PDI owns illiquid, nonagency mortgage-backed securities. It is a bet on a recovering housing market. Based on its earnings yield and potential to appreciate, I estimate its real expected return is around 10%.

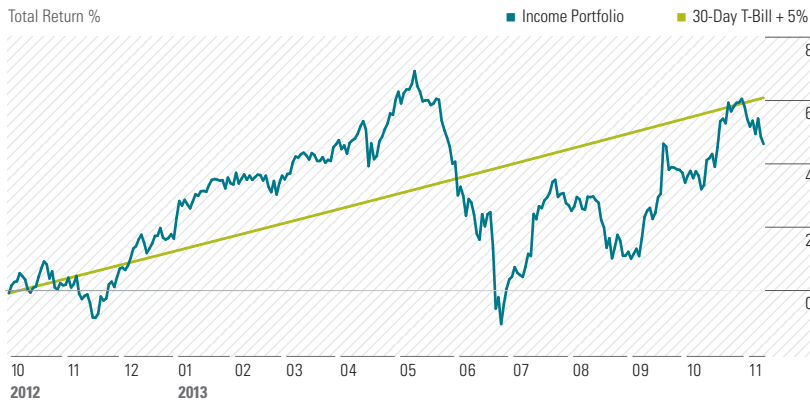
I don’t have special insight into PDI’s holdings. It’s all but impossible for nonprofessional bond investors to get a good sense of the risks manager Dan Ivascyn and his colleagues are running. However, I’m confident Ivascyn knows something—he’s bought more than 370,400 shares, currently valued at around \$11 million, at prices ranging from \$24.98 to \$30.29. As far as I can tell, Ivascyn’s inside ownership stake is the biggest of all in PIMCO closed-end funds in both absolute and percentage terms, excluding Bill Gross’ holdings.

Ivascyn’s stake not only suggests he has private information on PDI’s true value, but it aligns his interest with ours. Ivascyn runs \$29 billion **PIMCO Income PIMIX**, but he has only \$100,000 to \$500,000 in it, according to the fund’s latest Statement of Additional Information. He has discretion as to which bonds go into which funds. When a compelling opportunity with limited capacity comes up, where do you think he’s going to sock it away—in PIMIX or PDI? ■■

Income Portfolio

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email account.



Data from 09/28/2012–11/08/2013.

Performance				
MTD (%)	October (%)	3-Mo (%)	12-Mo (%)	Since Incep. (%) ¹
-0.74	1.93	2.81	5.21	5.05
0.13	0.49	1.4	5.55	5.55
Risk			Fundamentals	
Volatility (%)	Sharpe Ratio	Max D.D. (%)	Yield (%)	Exp. Ratio (%)
6.06	0.83	-5.48	2.43	0.48
N/A	N/A	N/A	—	N/A

Holdings	Location	Expense Ratio (%)	Yield (%)	First Bought	Shares	Average Cost (\$)	Price (\$)	Cap. Gain/Loss (%)	Value (\$)	Alloc. (%)	Target Alloc. (%)
Financial Select Sector SPDR XLF	Taxable	0.18	1.58	6/14/13	370	19.73	20.85	5.68	7,714.50	5.1	5.0
iShares Gold Trust IAU	Taxable	0.25	0.00	2/8/13	460	16.27	12.48	-23.29	5,740.80	3.8	5.0
iShares MSCI EAFE Min Volatility EFAV	Taxable	0.20	2.08	9/28/12	262	54.57	61.07	11.91	16,000.34	10.6	10.0
iShares MSCI Emerging Mkts Min Vol EEMV	Taxable	0.25	1.67	9/28/12	251	57.15	58.77	2.83	14,751.27	9.8	10.0
PIMCO Dynamic Income Fund Common PDI	Deferred	2.18	8.78	9/9/13	510	28.48	28.72	0.84	14,647.20	9.7	10.0
PIMCO Total Return ETF BOND	Deferred	0.55	2.39	9/28/12	424	108.77	105.9	-2.64	44,901.60	29.8	30.0
PowerShares S&P 500 Low Volatility SPLV	Taxable	0.25	2.77	9/28/12	514	28.17	32.75	16.26	16,833.50	11.2	10.0
WisdomTree Emerging Mkts Eqty Inc DEM	Taxable	0.63	3.81	9/28/12	70	54.48	51.64	-5.21	3,614.80	2.4	2.5
Cash									26,332.39	17.5	17.5
Total		0.48	2.43						150,536.40		100.0

Trades	Location	Date	Shares	Average Cost (\$)	Price (\$)	Cap. Gain/Loss (%)	LT Cap Gain (\$)	ST Cap Gain (\$)	Value (\$)	Orig. (%)	New (%)
⊕ PIMCO Dynamic Income Fund Common PDI	Deferred	11/8/13	240	29.25	29.25	—	—	—	7,020.00	5.2	9.9
⊖ PIMCO 0–5 Yr High Yld Corp Bd Idx ETF HYS	Deferred	11/8/13	200	101.7	105.96	4.19	852	—	21,192.00	14.2	0.0
★ PIMCO Dynamic Income Fund Common PDI	Deferred	9/9/13	270	27.8	27.80	—	—	—	7,506.00	0.0	5.1
★ Financial Select Sector SPDR XLF	Taxable	6/14/13	370	19.7	19.70	—	—	—	7,288.63	0.0	4.9
⊖ WisdomTree Emerging Mkts Eqty Inc DEM	Taxable	6/14/13	197	53.67	51.06	-4.86	—	-513.973	10,059.02	9.4	2.5
★ iShares Gold Trust IAU	Taxable	2/8/13	460	16.25	16.25	—	—	—	7,475.00	0.0	5.0
⊖ PIMCO 0–5 Yr High Yld Corp Bd Idx ETF HYS	Deferred	2/8/13	82	101.7	104.00	2.26	—	188.6	8,528.00	19.7	14.0

What is the ETF Income Portfolio? This portfolio targets a return of 5% in excess of the 30-day T-bill rate over a full business cycle, with the least risk possible. It favors high-yield opportunities with improving fundamentals. In addition, it will attempt to hedge against inflation, disinflation, recession and growth, a "risk-parity" approach. Tracking error to conventional benchmarks will be significant.

Who should invest in the ETF Income Portfolio? This portfolio is suitable for income-seeking investors who are comfortable deviating from the market's returns for long periods. It will not seek the highest yields possible at all times; at times it will shift to lower-yielding investments, or even cash, if valuations do not offer enough reward for the risk borne. It will be a relatively low turnover strategy.

¹Portfolio Inception: Oct. 1, 2012. Data through Nov. 08, 2013.

- ⊕ Shares added
- ⊖ Shares sold
- ★ New holding

Mistakes

Asset-Allocation Portfolio | Samuel Lee

Disclosure:

I own the following funds and stocks in my personal portfolio:

BOND, BRK.B, DEM, DXJ, EEMV, EFAV, IAU, PDI, POAGX, SPLV, VASVX, VEA, VIG, XLF

I fought momentum and lost. The Global-Momentum Strategy, a dead-simple quantitative portfolio that rotates among four broad exchange-traded funds, has thrashed the low-turnover, discretionary approach I favor with the Asset-Allocation Portfolio. Over the past year, the momentum strategy returned more than 23%, nearly doubling my performance. It's also beaten its benchmark. (For those of you who haven't signed up, I publish six quantitative portfolios every month on the *ETFInvestor* website, etf.morningstar.com.)

My intention was always to consider momentum when setting broad asset allocations. And I did. However, I didn't pay it as much heed as I should have for fear of incurring costs. The momentum model told me to ride U.S. equities to the hilt for the past year, ignoring emerging markets. I didn't because the U.S. was expensive and emerging markets were cheap.

Compounding the error was my decision to maintain a neutral weighting to stocks. Again, momentum said to ramp up equity risk, but I stood pat.

The failure to go heavy in U.S. equities at the expense of bonds, cash, and emerging markets easily cost the portfolio several percentage points in return.

My other mistake came from the opposite direction. I squelched discretion in favor of a model, when I probably shouldn't have. In April and May, **Wisdom-Tree Japan Hedged Equity DXJ** experienced accelerating price appreciation—a classic warning sign of a trend reversal. I was familiar with geophysicist Didier Sornette's work on bubbles. He argues bubbles experience accelerating appreciation right before popping. I also knew that many trend-following funds,

including **AQR Managed Futures Strategy AQMIX**, use overextension signals to reduce the probability of being on the wrong side of a whipsaw. Ominously, I also started getting lots of emails from investors who finally wanted to hop on the bandwagon. I had all the facts at hand to put two and two together, and I didn't.

My failure to trim DXJ in the face of trend acceleration cost the portfolio maybe half a percentage point.

Learning from mistakes is a tricky business when we're talking about financial markets. It's easy to overreact to noise. However, it's clear I could have been a little less slothful when trying to exploit something as fast-moving as momentum. ■■■

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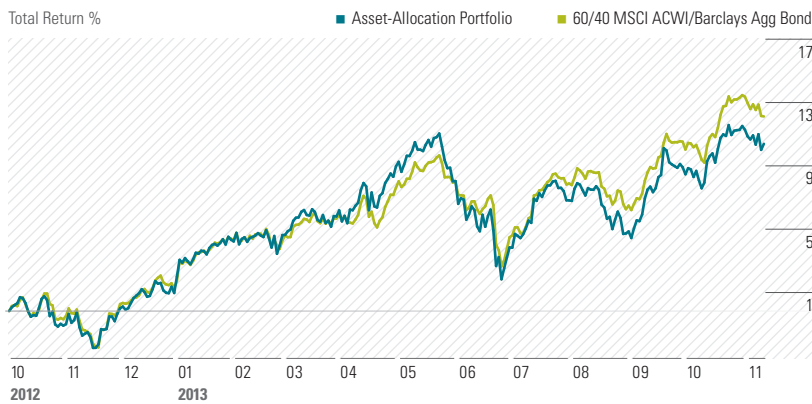
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Asset-Allocation Portfolio

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Performance

MTD (%)	October (%)	3-Mo (%)	12-Mo (%)	Since Incep. (%) ¹
-0.42	2.20	3.80	11.93	10.12
-0.75	2.66	4.79	13.46	12.04

Risk

Volatility (%)	Sharpe Ratio	Max D.D. (%)	Yield (%)	Exp. Ratio (%)
7.52	1.35	-4.95	1.97	0.24
6.29	1.91	-3.15	N/A	N/A

Fundamentals

Holdings	Location	Expense Ratio (%)	Yield (%)	First Bought	Shares	Average Cost (\$)	Price (\$)	Cap. Gain/Loss (%)	Value (\$)	Alloc. (%)	Target Alloc. (%)
Financial Select Sector SPDR XLF	Taxable	0.18	1.58	6/14/13	370	19.69	20.85	5.89	7,714.50	5.1	5.0
iShares MSCI Emerging Mkts Min Vol EEMV	Taxable	0.25	1.67	10/1/12	240	57.15	58.77	2.83	14,104.80	9.2	10.0
PIMCO Total Return BOND	Deferred	0.55	2.39	10/1/12	330	108.89	105.90	-2.75	34,947.00	22.9	25.0
PowerShares S&P 500 Low Volatility SPLV	Taxable	0.25	2.77	10/1/12	475	28.17	32.75	16.26	15,556.25	10.2	10.0
Vanguard Dividend Appreciation VIG	Taxable	0.10	2.05	10/1/12	230	59.68	73.20	22.65	16,836.00	11.0	10.0
Vanguard FTSE Developed Markets VEA	Taxable	0.10	2.98	11/2/12	800	34.68	40.35	16.35	32,280.00	21.1	20.0
WisdomTree Japan Hedged Equity DXJ	Deferred	0.48	1.01	2/8/13	160	40.47	46.86	15.79	7,497.60	4.9	5.0
Cash									23,799.56	15.6	15.0
Total		0.24	1.97						152,735.71		

Trades	Location	Date	Shares	Average Cost (\$)	Price (\$)	Cap. Gain/Loss (%)	LT Cap Gain (\$)	ST Cap Gain (\$)	Value (\$)	Orig. (%)	New (%)
★ Financial Select Sector SPDR XLF	Taxable	6/13/13	370	19.66	19.66	—	—	—	7274.20	0.0	5.0
● WisdomTree Emerging Mkts Eqty Inc DEM	Taxable	6/13/13	100	53.67	50.97	-5.03	—	-270.00	5097.00	3.5	0.0
● WisdomTree Emerging Mkts SmCp Div DGS	Taxable	6/13/13	195	45.86	48.20	5.10	—	456.30	9399.00	6.5	0.0
● WisdomTree Japan Hedged Equity DXJ	Deferred	5/30/13	20	40.47	47.59	17.59	—	142.41	951.80	6.0	5.0
★ WisdomTree Japan Hedged Equity DXJ	Deferred	2/8/13	180	40.47	40.47	—	—	—	7,284.60	0.0	5.0
⊕ PIMCO Total Return BOND	Deferred	2/8/13	80	109.27	109.27	—	—	—	8741.60	18.9	24.9
● PIMCO 0-5 Year High Yield Corp Bd Idx HYS	Deferred	2/8/13	135	101.70	104.00	2.26	—	310.50	14040.00	9.7	0.0
⊕ Vanguard FTSE Developed Markets VEA	Taxable	1/11/13	380	36.01	36.01	—	—	—	13683.80	10.5	20.1
● Vanguard Dividend Appreciation VIG	Taxable	1/11/13	270	59.68	61.39	2.87	—	461.70	16575.30	21.4	9.9

What is the ETF Global Asset-Allocation Portfolio?

This portfolio seeks to beat the 60/40 MSCI ACWI/Barclays US Aggregate benchmark over a full business cycle, with the least risk possible. Using analyst discretion, it will deviate from its benchmark allocations in order to exploit the best valuations and improving fundamentals. Tracking error will be moderate.

Who should invest in the ETF Global Asset-Allocation Portfolio?

This portfolio is suitable for moderate-risk-seeking investors looking to maximize return and who are comfortable deviating from the market's returns for long periods. The portfolio is to have similar volatility to the 60% stock/40% bond index. It will be more aggressive and have higher turnover than the Income Portfolio, and use both fundamental and technical signals.

¹ Portfolio Inception: Oct. 1, 2012. Data through Nov. 08, 2013.

- ⊕ Shares added
- Shares sold
- ★ New holding

A Nobel for Asset Pricing

News | Samuel Lee

Chances are you've heard by now that on Oct. 14 Eugene Fama, Robert Shiller, and Lars Hansen won the Nobel Prize in Economics.

Fama, of the University of Chicago, won for his work on efficient markets, the intellectual linchpin of index funds. The Fama-French three-factor model is the workhorse for analysts serious about testing claims of stock-picking ability. Much of the analysis I do is based on the tools Fama helped make.

Shiller, of Yale University, won for his work in the early 1980s demonstrating that the stock market's price is too volatile to be explained by changes in expected corporate earnings growth. His work led academics to conclude that, yes, the stock market is actually predictable in the long run (market-timing!), and that perhaps the efficient-market hypothesis isn't true.

Hansen, also of the University of Chicago, won for developing the generalized method of moments, or GMM, a statistical tool suited to testing asset-pricing models. He used it on the consumption capital asset pricing model, or CCAPM, and found that it couldn't explain market volatility. This dealt a blow to rational explanations for the wild swings in market price.

The award committee threaded the needle by awarding the prize to both Fama and Shiller, who champion influential but opposing explanations for asset prices. Despite these differences, both believe markets are predictable over the long run.

In an interview with *The New York Times*, Fama said, "If I were to characterize what differentiates me from Shiller or [Richard] Thaler, it's basically we agree

on the facts—there is variation in expected returns, which leads to some predictability in returns. Where we disagree is whether it's rational or irrational."¹

Bogle: It's About Costs, Not Efficient Markets

In a *Wall Street Journal* editorial, economist David Henderson implied Eugene Fama's work on the efficient-market hypothesis, or EMH, inspired Jack Bogle to launch the first index mutual fund in 1975. In a letter, Bogle claimed to have learned about EMH a decade after he launched the fund.² He stated his inspiration was another Nobel Prize-winning economist, Paul Samuelson, who can also credibly lay claim to developing the EMH. (While preaching EMH in his textbook, Samuelson became fabulously wealthy by buying **Berkshire Hathaway** BRK.A shares early on.)

Bogle's main argument for indexing doesn't rely on efficient markets. In a phone conversation with Business Insider, Bogle said, "Don't focus on EMH, focus on CMH—the cost-matters hypothesis. EMH is sometimes correct and sometimes incorrect."³ The CMH is not a hypothesis, but a truism: The average return to a dollar invested in the market is equal to the market, minus costs. Therefore, guaranteeing an above-average outcome is merely an exercise in paying the lowest fees to obtain market exposure.

I don't think the CMH is a sufficient reason to index one's holdings. Imagine a wildly inefficient market in which prices are set completely randomly, unconnected to any fundamentals. Suppose anyone with two brain cells can identify mispriced stocks. The CMH would still hold. But does that mean one should just own the entire market? You'd have to be brain-dead.

The case for indexing needs the EMH, which implies that efforts to beat the market are largely fruitless. If beating markets were easy, then indexing would be pointless. Fortunately for Bogle, markets are pretty close to efficient, so indexing has lots of merit.

A Devious Trade

On Oct. 22, Bloomberg reported an unusual loan made by Blackstone subsidiary GSO Capital Partners to Spanish gaming firm Codere. In exchange for a new loan from GSO, Codere agreed to purposefully delay interest payments on its outstanding loans by two days beyond the 30-day grace period, triggering default.

You see, GSO had bought a bunch of credit default swaps, tradable insurance policies that pay off when a firm defaults on its debt. According to Bloomberg, GSO held 25 million to 30 million euros of the swaps and may have made at least 11.4 million euros on the trade.⁴

Why am I bringing up GSO? Well, it's the manager of the **SPDR Blackstone/GSO Senior Loan ETF** SRLN. Sadly, the ETF doesn't seem to have benefited from the trade. But one wonders what other "clever" things GSO is doing with investors' money that are technically within the bounds of the rules but violate the spirit of fair play.

Multifactor ETFs Rising

Investors will have more multifactor ETF strategies to pick from in the future, if recent SEC filings are a guide. On Sept. 30, Cambria Investment Management filed plans for the actively managed **Cambria Value and Momentum ETF** VAMO. On Oct. 4, iShares filed plans for the actively managed iShares Enhanced International Large-Cap ETF and the iShares Enhanced International Small-Cap ETF, which combine value and quality. On Oct. 21, JPMorgan filed for the passive JPMorgan Global Equity ETF, which would choose stocks based on value, momentum, and volatility. At the right price, these funds have the potential to be fearsome competitors to traditional active managers. ■■

ETFs Launched in October

Name	Exp. Ratio (%)	Incep. Date
ALPS Alerian Energy Infrastructure ENFR	0.65	10/31/13
Vident International Equity VIDI	0.75	10/29/13
Robo-Stox Gbl Robotics&Automation ROBO	0.95	10/22/13
Fidelity MSCI Consumer Discretionary FDIS	0.12	10/21/13
Fidelity MSCI Consumer Staples Index FSTA	0.12	10/21/13
Fidelity MSCI Financials Index FNCL	0.12	10/21/13
Fidelity MSCI Industrials Index FIDU	0.12	10/21/13
Fidelity MSCI Materials Index FMAT	0.12	10/21/13
Fidelity MSCI Telecom Svcs FCOM	0.12	10/21/13
Fidelity MSCI Information Technology FTEC	0.12	10/21/13
Fidelity MSCI Health Care Index FHLC	0.12	10/21/13
Fidelity MSCI Energy Index FENY	0.12	10/21/13
Fidelity MSCI Utilities Index FUTY	0.12	10/21/13
Credit Suisse FI Enhanced Big Cap Gr ETN FIBG	0.05	10/17/13
Renaissance IPO IPO	0.60	10/16/13
WisdomTree Germany Hedged Equity Fund DXGE	0.48	10/16/13
iShares 0-5 Year Invmt Grd Corp Bd SLQD	0.15	10/15/13
iShares 0-5 Year High Yield Corp Bd SHYG	0.50	10/15/13
PowerShares China A-Share CHNA	0.50	10/10/13
ProShares S&P 500 Aristocrats NOBL	0.35	10/9/13
SPDR SSgA Ultra Short Term Bond ULST	0.20	10/9/13
FlexShares STOXX Global Broad Infrs NFRA	0.47	10/8/13
DB FI Enhanced Global High Yield ETN FIEG	0.10	10/7/13
ALPS RiverFront Strategic Income RIGS	0.22	10/7/13
Direxion Daily Jr Gld Mnrs Bear 3X Shrs JDST	1.00	10/3/13
Direxion Daily Jr Gld Mnrs Bull 3X Shrs JNUG	1.00	10/3/13
db X-trackers MSCI AP ex Jap Hdgd Eq DBAP	0.60	10/1/13
db X-trackers MSCI UK Hdgd Eq DBUK	0.45	10/1/13
db X-trackers MSCI Europe Hdgd Eq DBEU	0.45	10/1/13

¹ Sommer, J. "Eugene Fama, King of Predictable Markets." *New York Times*, Oct. 26, 2013.

² Bogle, J. "Eugene Fama and Efficient Financial Market Theory." *Wall Street Journal*, Oct. 18, 2013.

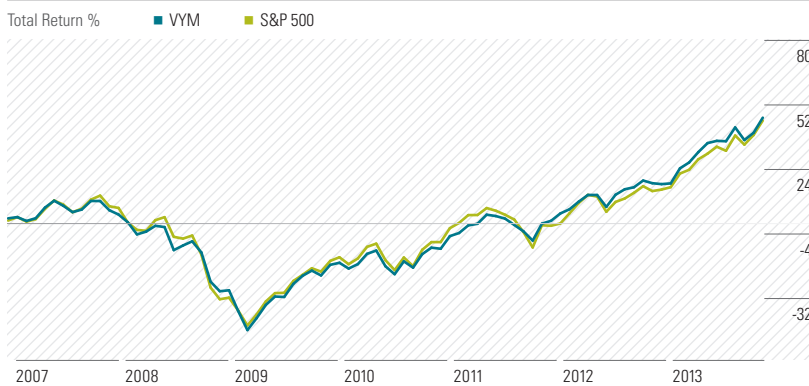
³ Ro, S. "Jack Bogle Has a 'Philosophical Disagreement' with Nobel Prize Winner Eugene Fama." *Business Insider*, Oct. 20, 2013.

⁴ Ruhle, S., Childs, M., and Miecamp, J. "Blackstone Unit Wins in No-Lose Codere Trade: Corporate Finance." *Bloomberg*, Oct. 22, 2013.

Vanguard High Dividend Yield VYM

Fund Analysis | Samuel Lee

Assets (\$Mil)	Expense Ratio %	Tax-Cost Ratio %	Turnover %	Inception
6,918	0.10	0.57	11.0	11/10/06



Data from 12/2006–10/2013.

Returns	3-Mo	1-Year	3-Year	5-Year	SI
VYM	3.0	24.4	17.9	14.5	5.8
S&P 500 TR USD	4.8	27.2	16.6	15.2	5.6

Fundamental	
Yield	2.8
P/E	16.1
P/B	2.4

Top Holdings	Wtg (%)
Exxon Mobil Corporation XOM	5.9
Johnson & Johnson JNJ	3.6
General Electric Co GE	3.6
Chevron Corp CVX	3.5
Microsoft Corporation MSFT	3.4
Wells Fargo & Co WFC	3.3
Procter & Gamble Co PG	3.1
JPMorgan Chase & Co JPM	3.0
Pfizer Inc PFE	2.8
AT&T Inc T	2.7

Analyst Fair Value	
P/FV	1.0
Coverage	94.7

Moat Rating	
Wide	50.4
Narrow	39.6
No Moat	4.4

Data through Nov. 6, 2013.

If you notice a lot of investors doing the same thing, a good general rule is to do the opposite. For the past couple of years, investors have snapped up high-yield assets to hit income targets, leading some to speculate there's a yield bubble. Nonsense. There are pockets of irrational exuberance, yes, but for the most part valuations look merely stretched.

Vanguard High Dividend Yield VYM is still a fine holding that avoids gorging on the most overvalued sectors, real estate and utilities, a vice of more-aggressive high-yield strategies. By design the fund excludes real estate investment trusts, and its holdings are market-weighted, keeping its utilities allocation from growing big. The fund strikes a balance among market representation, yield, and quality. Its construction is straightforward: Each year it ranks stocks by their forward dividend yield according to consensus analyst estimates and includes the highest-yielding ones in its portfolio until 50% of the eligible universe's aggregate market capitalization is reached. VYM excludes stocks forecast to not pay a dividend in the coming year.

VYM is really a simple quantitative trading strategy. Why would anyone own such a thing? I imagine many think it's for "income" or "safety," both bad reasons. Peak to trough, VYM lost more than the S&P 500 during the financial crisis. Its since-inception total return is close to the S&P 500's. An investor who lived off the dividends would've been no worse off than an investor in the lower-yielding S&P 500 who "manufactured" his own dividends by selling appreciated shares.

A better reason to own VYM is because one believes it provides a unique tilt that either enhances returns or reduces risk in one's overall portfolio.

It's a good thing, then, that VYM can credibly lay claim to such a quality. Its yield focus creates a value tilt, meaning the fund's holdings tend to be cheaper than the market by fundamental valuation ratios. Historically, cheap stocks have tended to beat expensive stocks, a pattern found in almost every equity market studied. The return generated by value stocks above growth stocks is called the "value premium."

The case for VYM, then, really rests on how strongly you believe in the existence of a value premium, how you expect the value premium to behave, and how exposed VYM is to it.

The extent to which a fund is exposed to this premium is called its “value loading.” Stocks with high loadings tend to benefit more from the value premium. For example, if a fund’s value loading is 0.5 and the value premium is 4% annualized (the historical realized premium from 1926 to 2013), the fund’s excess returns attributable to its value exposure will be 2% ($0.5 \times 4\%$). VYM’s estimated value loading has been around 0.5. If—and this is a big if—the historical value premium is a fair forecast of the future value premium, we can expect VYM to earn 2% excess annualized returns attributable to its value exposure over long periods of time.

Does this mean VYM can be reasonably expected to beat the broad market by 2%? Not so fast. First of all, VYM tends to emphasize larger, mature enterprises. Historically, such firms have tended to underperform riskier small caps. The large-cap emphasis reduces both expected return and volatility.

Second, it’s not clear that the value premium should be as big as it’s historically been. Buying cheap stuff is not necessarily riskier than buying expensive stuff. In fact, many investors would argue the opposite: Cheap assets are less risky, regardless of their volatility. One of the worst periods for value was the late 1990s, during the dot-com bubble, and one of the best periods was the aftermath of the bubble popping. In this case, value didn’t work because it was riskier; value worked because the market went barking mad and priced “old economy” stocks at absurdly low valuations.

I hate to sound like a two-handed economist, but on the other hand, one could make a case for even higher returns for VYM, but not because of its value exposure. Some researchers argue there’s a “quality premium,” an excess return that accrues to stocks with high profitability, high payouts, high growth, and safety. That sounds an awful lot like many of the big names in VYM—**Exxon Mobil XOM, Johnson &**

Johnson JNJ, Microsoft MSFT, and so on. (I explored “quality” in the previous issue.)

Interestingly, VYM has historically had a surprisingly high quality loading: 0.4. The historical quality premium was 4%, suggesting VYM can enjoy a 1.6% ($4\% \times 0.4$) tailwind owing to it.

This naïve analysis would suggest VYM stands to benefit from 3.6% annualized expected excess returns owing to its quality and value tilts. If it sounds too good to be true, it is. Quality and value stocks are already known to outperform, so a lot of quantitative hedge funds own them. Surely some of the juice has been squeezed out. There’s also a fair amount of statistical uncertainty as to the “true” loadings one can expect.

I think a 1%–2% excess return to VYM is a much more reasonable forecast over the long run. The bonus to value and quality won’t come in a steady dribble but in fits and starts. The greatest rewards will arrive after the inevitable bad times, when investors abandon boring, dividend stocks in droves, sending their prices plummeting. Investors who hold on for the long haul will likely be rewarded.

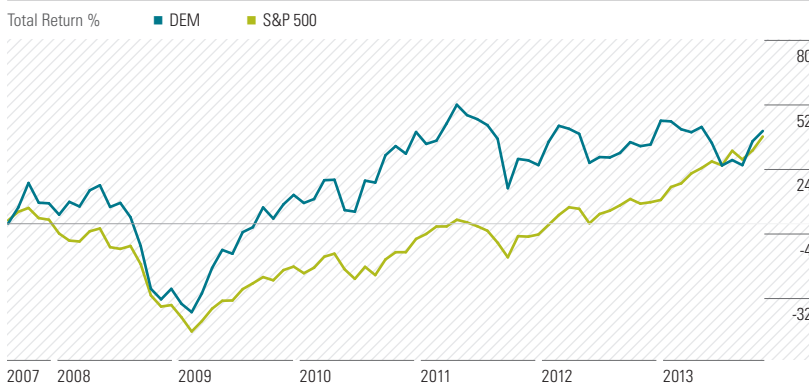
I’ve talked a lot about VYM’s return on top of the stock market. But the U.S. stock market’s returns will determine most of VYM’s behavior. I’ve said this before, and I’ll say it again: U.S. stocks are expensive. A reasonable way to estimate long-run returns is to sum current dividend yield with expected real per-share dividend growth. The market’s dividend yield right now is 2%. There’s also a hidden yield boost thanks to net share buybacks. Let’s say 0.5%. Real per-share dividends have historically grown about 1.5%. So you’re looking at a 4% expected real return, after inflation, over a decade-plus horizon.

This simple analysis assumes the market’s valuation multiple and profit margins stay constant. With interest rates so low and profits juiced by high margins, I think the market’s long-term expected real return is lower than 4%. ■■

WisdomTree Emerging Markets Equity Income DEM

Fund Analysis | Patricia Oey and Samuel Lee

Assets (\$Mil)	Expense Ratio %	Tax-Cost Ratio %	Turnover %	Inception
5,295	0.63	1.50	47.0	07-13-07



Returns	3-Mo	1-Year	3-Year	5-Year	SI
DEM	10.6	5.9	2.2	15.1	5.7
MSCI EM NR USD	9.8	6.5	0.3	15.4	1.2
S&P 500 TR USD	4.8	27.2	16.6	15.2	5.3

Top Holdings	Wtg (%)
OAO Gazprom ADR	6.0
China Construction Bank Corp H Shares	4.7
OJSC Rosneft Oil Company GDR	4.5
Vale SA	3.7
Industrial And Commercial Bank Of China Ltd. H Shares	3.4
OAO Lukoil ADR	2.7
Banco do Brasil SA BB Brasil	2.5
MMC Norilsk Nickel JSC ADR	2.3
Bank Of China Ltd. H Shares	2.1
Mtn Group Limited	1.8

Data through Nov. 6, 2013.

Fundamental	
Yield	3.8
P/E	8.3
P/B	1.2

Analyst Fair Value	
P/FV	1.0
Coverage	9.8

Moat Rating	
Wide	0.0
Narrow	9.8
No Moat	0.0

If there's a market that experiences irrational boom and bust, one would expect emerging-markets stocks to be it. Local investors don't have much experience with financial markets, so there's no built-up base of "smart money" to keep valuations in line with fundamentals. Foreign hot money rushes in and out. Managerial quality and financial statements are often suspect.

In this context, a fund that market-weights emerging-markets stocks seems suboptimal. Strategies that exploit investor irrationality, such as value and momentum, have earned obscenely high returns in emerging markets. According to data compiled by Jason Hsu of Research Affiliates, from 1995 to 2011 value beat growth by an incredible 22% annualized, and high momentum beat low momentum by 10% in emerging-markets stocks—results I find hard to believe. I favor non-market-weighted emerging-markets funds or even active management, provided their fees are low.

For a long time, **WisdomTree Emerging Markets Equity Income DEM** was the emerging-markets fund of choice for the ETF team. It employs a sensible value strategy: Each year, it sorts emerging-markets stocks by trailing 12-month cash dividend yield; picks the top 30%; and weights them by aggregate dividends. Back-tests suggest value strategies would have produced excess returns in the U.S. and internationally over many decades.

However, DEM's expense ratio has remained stubbornly high. At 0.63%, it's about the most I'm willing to pay for a passive fund. The fund has also experienced substantial tracking error beyond what can be explained by the expense ratio. Since inception, DEM has lagged its index by more than 1% annualized, suggesting transaction costs ate away an extra 0.4%. A 1% all-in fee is hefty.

iShares MSCI Emerging Markets Minimum Volatility EEMV charges only 0.25%, also has excellent secondary-market liquidity, and also implements a reasonable strategy. Since inception, it's lagged its index by an amount only a bit higher than its expense ratio. I don't find DEM's methodology so compelling

that it warrants a 0.75% expense premium over EEMV. EEMV is now my choice for passive, non-market-weighted emerging-markets equity exposure. I'm planning to replace DEM with EEMV in the Income Portfolio.

As of the end of October, emerging-markets stocks are statistically the cheapest of all the big equity markets, with a price/book ratio of 1.6, dividend yield of 2.6%, and an earnings yield of 8%. U.S. stocks are pricier with a price/book of 2.6, dividend yield of 2%, and an earnings yield of 6%. At these prices, emerging-markets stocks can reasonably be expected to earn around 5% to 6% real returns over the long run (3% dividend yield plus 2% to 3% real per-share dividend growth). DEM, by exploiting the value factor, can be expected to earn 1% to 2% more annualized after fees.

However, this analysis assumes that emerging markets won't experience war, revolution, or expropriation, devastations unlikely to visit developed markets. It's highly likely that over the next couple of decades, at least one emerging-markets country's stock market will disappear and its investors will be saddled with a total loss. If it's a major market like China, our little forecast wildly overstates the prospective rewards for investing in emerging markets. I don't mean to scare you. On balance, I think the risk-reward calculus calls for a moderate overweighting to emerging-markets stocks.

Below is my colleague Patty Oey's analysis of DEM's holdings.

There are interesting intricacies to DEM, as emerging markets are a diverse collection of 22 countries. First, Taiwanese and Brazilian companies tend to be higher dividend payers due to tax laws that support dividend payouts. As a result, emerging-markets dividend funds, including DEM, tend to have substantial exposure to these countries. Second, governments can influence company dividend policies, and in turn, the composition of this fund. Finally, this fund can also see significant changes following its benchmark index's annual rebalance in June.

Historically, this fund had been light in Chinese and Russian companies, as most of these firms failed to offer high-enough yields. Russia, one of the most volatile emerging-markets countries, used to account for less than 5% of DEM's portfolio, but now comprises around 20%. This change was driven by a Russian government ruling in 2012 that requires state-owned firms to return at least 25% of their net income to shareholders through dividends. The ruling was meant to boost foreign investor interest in Russian stocks, lift valuations ahead of the government's plan to sell some of its shares in state-owned firms, and provide additional revenue to public coffers. DEM's allocation to Russian stocks may continue to grow over the next few years as the government contemplates raising the dividend payout ratio to 35% by 2015.

This increase in exposure to Russia means the fund's risk profile will also rise. There are many well-known concerns about Russian stocks. The Russian economy is heavily dependent on oil and gas exports and is sensitive to fluctuating energy prices. Many of the large-cap firms are state-owned entities, where corruption is rampant and minority shareholder rights are almost nonexistent.

DEM's exposure to China also spiked following the 2012 rebalance and currently accounts for about 16% of the portfolio. The bulk of these Chinese holdings are mega-cap state-controlled banks and energy companies—national champions who have benefited from favorable regulations and political and financial support from the government.

The government is currently trying to shift the drivers of economic growth from capital investment to consumption. State-controlled firms might find their oligopolies (and profits) a little less secure. The impact of shifting government priorities is illustrated by the plight of the banking sector. The government recently loosened its control over lending rates to spur competition among banks and provide more credit to the private sector. Within the next few years, the liberalization of deposit rates will likely follow. China's big banks will find themselves operating in a more competitive environment for the first time. ■■

Moving the Goal Posts

Bias in Inflation Statistics | Samuel Lee

On March 11, 2011, the president of the Federal Reserve Bank of New York, William Dudley, lectured a working-class audience in Queens, New York, on why inflation wasn't a problem. A skeptical audience member asked, "When was the last time, sir, that you went grocery shopping?" The economist, a former Goldman Sachs partner with a Ph.D. from Berkeley, conceded that food and energy prices were rising, but pointed out that overall inflation was still tame. He went on to explain, "Today you can buy an iPad 2 that costs the same as an iPad 1 that is twice as powerful."

The audience laughed.

After the presentation, an audience member said of the economist: "Tone deaf." Another quipped, "I can't eat an iPad."¹

Dudley's speech was widely mocked and held up as an example of how out-of-touch the elite are with the common man.

Around the time of Dudley's speech, the University of Michigan inflation expectation survey of consumers registered a 4.6% median expected inflation over the next 12 months. The Bureau of Labor Statistics, however, only recorded a 2.6% year-over-year change in the Consumer Price Index. (In subsequent months,

the CPI did catch up with consumer expectations, hitting a 3.9% year-over-year change in September.)

Historically, consumers' expected inflation closely tracked the trailing year-over-year change in the CPI. This isn't surprising; inflation expectations are strongly influenced by recent inflation. However, beginning in 2008, consumer inflation expectations began outpacing the CPI, averaging 1% more over the period.

In this context, conspiracy theories have gained some respectability. In a scathing *Newsweek* editorial, Harvard historian Niall Ferguson called the CPI a "bogus index." He cited John Williams' claim that the CPI, if calculated using its 1980 methodology, would report inflation of 10%.²

Rob Arnott piled on, stating the CPI understates inflation by 2%–4% relative to its historical methodology.³

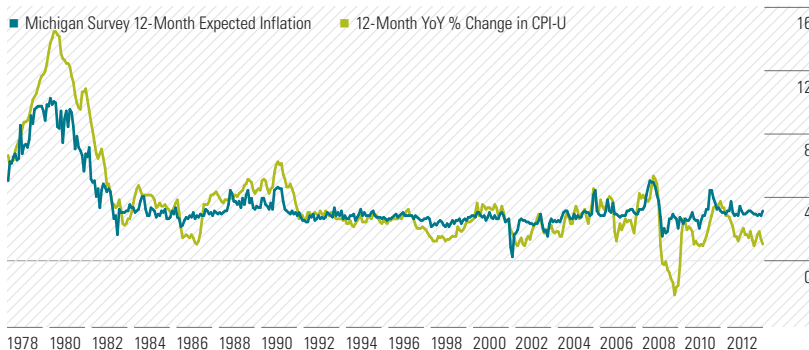
Even famed value investor Seth Klarman has expressed skepticism of the index. In a letter to investors earlier this year, he wrote, "... [most people] know inflation is not well under control, for they know how far the purchasing power of a dollar has dropped when they go to the supermarket or service station."⁴

Are the inflation critics right? From what I can tell, their arguments boil down to the following:

1) Common sense and personal experience strongly suggest inflation is higher than the rate reported by the CPI; and 2) the government can't be trusted, as all its methodological adjustments to the CPI over the past 30 years have, suspiciously enough, lowered the rate of inflation.

They have a point. For most of its history, the CPI was calculated from a fixed-weight basket of goods, or a Laspeyres index. Starting in the 1980s, the BLS began moving away from the Laspeyres calculation to one that replaced housing prices with rental equivalence, expanded the use of hedonic regressions to account for quality changes, more quickly refreshed its fixed-weight baskets, and replaced arithmetic price-change averages with geometric averages for lower-level

Exhibit 1 Surveyed Consumer Inflation Expectations Tracked Changes in CPI—Until 2008



Data from 01/1978–09/2013. Data: FRED

price indexes. Almost all the adjustments had the effect of lowering reported inflation relative to the previous methodologies. Indeed, the government has plausible incentives to move the goal posts: Social Security becomes less burdensome and economic growth looks better with slower-growing inflation.

However, I find it difficult to credit the skeptics' arguments, because the logical implications are ludicrous. According to government statistics, real GDP has grown at a rate of 2.7% annualized from 1980 to 2013. Real per-capita GDP has grown at an even slower rate, 1.6%, from 1980 to 2011. If true inflation was actually anywhere from 2% to 7% higher over this period, it implies the economy was either stagnant or experienced the worst 30 years in the nation's history, shrinking by 73% in real terms.

Moreover, there aren't the telltale signs the private sector distrusts government inflation statistics. Argentina's case is informative. Since 2007, Argentina has cooked inflation numbers coming out of INDEC, the national statistics bureau. INDEC has consistently reported 10%–11% inflation; private-sector economists reckon it's double that. Argentina's unions and corporations use private inflation estimates when negotiating contracts. The yields on Argentina's inflation-protected bonds have shot up since 2007, when worries about manipulation arose.⁵

You don't see any of that in the U.S. or global financial markets. Inflation swaps and the implied break-even inflation rate priced into Treasury Inflation-Protected Securities are largely consistent with the market believing the CPI is a reasonable proxy for inflation. The CPI is still widely used in escalator clauses between private parties who are under no obligation to resort to it as an inflation measure. The inflation critics are in effect claiming hundreds of billions of dollars of financial instruments are today mispriced because the market is relying on a flawed statistic.

The shallowness of their argument becomes apparent when you look at the premier source of "alternative" economic data, John Williams' Shadowstats. Will-

iams claims that the U.S. economy has persistently shrunk since 2001. He has for years predicted an imminent hyperinflationary recession—his latest 2012 report predicts that the "outside timing on the hyperinflation remains 2014, but events of the last year have accelerated the movement toward this ultimate dollar catastrophe."⁶

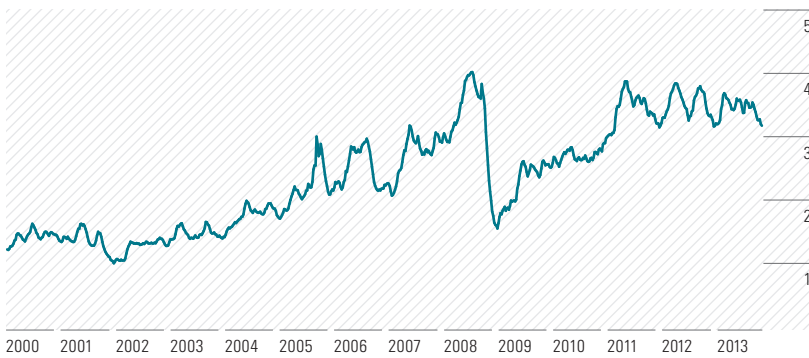
Williams himself admitted in 2008 that rather than doing the impossibly complicated task of collecting and computing the data necessary to calculate a CPI, he simply tacks on an "add factor" to the BLS' reported numbers.⁷ If you subtract his adjusted CPI from the official CPI, the factor looks pretty much like a constant 7%.

The independent Billion Prices Project at MIT doesn't take such shortcuts. It calculates a daily price index for the United States by scraping hundreds of websites. Its index looks pretty much like the official numbers. Because the BPP index is refreshed daily, it has been able to anticipate changes in the reported CPI. To explain this neat coincidence under the hypothesis that the government is manipulating the CPI, either the professors at MIT are in cahoots with the government or they've somehow secretly cracked the government algorithm to manipulate the CPI.

Finally, I couldn't find a single instance of an insider blowing the whistle on CPI manipulation. If the nation's most secretive department, the National Security Agency, has experienced multiple leaks over the past decade, it's awfully strange no one at the BLS has blown the whistle on the government's malign manipulations.

Occam's Razor

That still leaves us with the unassailable empirical fact that many consumers believe their personal rate of inflation is higher than what the CPI indicates. Rather than invoke conspiracy theories, I think the discrepancy is best explained by psychology and the way the CPI is calculated.

Exhibit 2 Gas Prices Have Surged Over the Past Decade, but Are Still Lower Than the Peak in Mid-2008 (\$)

Data from 01/2000–11/2013. Data: FRED

The brain substitutes difficult questions with easier ones. When confronted with the question of how much have overall prices risen, rather than carefully computing the price change in an expenditure-weighted basket of goods and services, many consumers instead recall price changes for things they buy frequently—food, gas, and so on—while underweighting or ignoring the price changes of things they infrequently buy, such as cars and houses. The CPI, on the other hand, assigns about a 15% weighting to food and beverages, 5% to fuel, and a massive 40% weighting to housing and related expenditures (such as appliances, furnishings, and so forth).

There's even a perfectly good, logical reason why all the changes to the CPI calculation seem to adjust inflation down. The BLS defines inflation as the change in the cost to maintain a constant standard of living. By that, it means constant utility, or constant "happiness." Because happiness can't be directly measured, it has to be inferred. With some undemanding assumptions, it can be shown that the fixed-weight Laspeyres index is the absolute upper bound for a true cost-of-living index, because it fails to account for substitution and quality improvements.

Starting at least in 1961 with the Stigler Commission, the expert consensus has been that a cost-of-living index is the ideal way to measure inflation. Decades before that, in 1939, economist John Hicks demonstrated that a fixed-weight index overstates inflation in the case of quality improvements or the introduction of new products.

However, the BLS kept the fixed-basket Laspeyres index calculation because it's easy to compute, easy to understand, and within the technological and resources constraints of the times. Calculating a true cost-of-living index is a massive undertaking. It should be no surprise that as statistical methodology has gotten better and computers cheaper, the BLS would begin moving toward the economists' ideal index.

Crying Wolf

During the financial crisis, the Federal Reserve began a slew of unconventional monetary programs to pump liquidity into the markets. There were two opposed schools of thought on the effects of the Fed's moves: The inflationistas predicted the Fed risked massive inflation and surging interest rates; the deflationistas predicted low inflation and interest rates.

I can't help but notice the people most loudly proclaiming that inflation is actually really high and that government stats are bogus were inflationistas back then.

I've struggled to find the doomsayers complaining about bogus inflation statistics prior to 2008. I'm sure some of them did. However, it's hard to shake the impression that rather than change their minds or admit they were wrong, the failed prognosticators have resorted to moving the goal posts. ■

¹ Cooke, K. "For Fed's Dudley, iPad Comment Falls Flat in Queens." Reuters, March 11, 2011.

² Ferguson, N. "Sticker Shock." *Newsweek*, May 1, 2011.

³ Arnott, R. "The Long View—Building the 3-D Shelter," *Fundamentals*, Oct. 2011.

⁴ Quoted by Howard Markets, "The Role of Confidence." *Oaktree*, Aug. 5, 2013.

⁵ Helft, D. "Argentina Inflation-Linked Bonds Fall on Investor CPI Pessimism," Bloomberg, June 21, 2007.

⁶ Williams, J. "Hyperinflation Special Report 2012." *Shadow Government Statistics*, Jan. 25, 2012.

⁷ Hamilton, J. "Shadowstats Repends." *Econbrowser*, Oct. 12, 2008.

Substitutes

Closed-End Fund Picks | Samuel Lee

I first began seriously looking at closed-end funds, or CEFs, last November, when the CEF market sharply sold off. Some excellent CEFs were trading at interesting discounts to their net asset values. Unfortunately, the liquidity shock reversed itself before I felt comfortable that I understood the market. (I finally took the plunge when I bought **PIMCO Dynamic Income** PDI in September.)

I've come to the conclusion that for the individual investor with a modicum of patience and intelligence, CEFs are probably among the easiest places to squeeze out excess returns. If large-cap U.S. equities and Treasuries are Major League Baseball, closed-end funds are more like little league. CEFs are both illiquid and largely owned by retail investors, so their market prices are often irrational, much like the 8 year old who sprints toward third base after putting a ball in play.

The problem is that CEFs, like most assets, have a long bias, meaning they're more likely to be overvalued than undervalued. The bias is especially strong in CEFs. Overvalued shares are difficult and expensive to short because most CEF investors don't allow their shares to be loaned out, so minibubbles can grow unchecked. And it doesn't take much money to push up irrationally depressed prices, so opportunities tend to be fleeting.

The correct approach to CEFs is to be almost entirely out of the market when valuations are high (as they were until investors shunned anything with interest-rate risk earlier this year), scoop up the occasional bargain, and hit hard when the market panics and discounts widen. We're not in bargain territory yet, but there are a couple of interesting options I've been eyeing.

Central GoldTrust Common GTU

While gold is still a disgustingly expensive asset with dismal long-run expected returns, I think it deserves a small allocation in the Income Portfolio, which is designed to maintain and grow real purchasing power over time. Gold is a hyperinflation/dollar debasement hedge.

GTU is a compelling replacement for current holding **iShares Gold Trust** IAU. As of this writing, GTU is traded at a discount of around 5%–6%. The expense ratio—0.35%—isn't terrible. And, if you're a taxable investor, GTU's status as a passive foreign investment company means it may be eligible for capital gains tax rates rather than the higher collectibles tax rate.

Plus, if sentiment in gold turns up, GTU is likely to enjoy a boost from the discount narrowing. The risk is that it's much less liquid than the gold ETFs. If gold gets hit more (a good possibility), GTU's discount will likely widen. So, this isn't a pick for a short-term investor.



Templeton Global Income Common GIM

Templeton Global Bond TPINX has a Morningstar Analyst Rating of Gold. In the mutual fund team's opinion, it's one of the best global bond mutual funds. GIM pursues essentially the same strategy, but with bigger currency bets, charges a lower 0.75% expense ratio, doesn't levy a load, and happens to trade at a 5% discount. With rare exceptions, GIM has historically commanded a modest premium on the strength of manager Michael Hasenstab's reputation. If you own Global Bond, I consider it a no-brainer to sell the fund and buy the CEF, assuming no tax consequences, of course.

Hasenstab's team employs a sensible process, focusing on creditworthy emerging-markets sovereigns and avoiding long duration. Its exposure to emerging-markets credit spreads makes it a potential inflation hedge to boot. GIM is better than any emerging-markets bond exchange-traded fund out there. ■■

Historical Performance

Nuts and Bolts

ETF Watchlist Domestic Equity	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Tax Cost Ratio %	Yield %	Current Market Price \$	Total Assets (\$Mil)	Daily Vol. (Thou)	Exp. Ratio %	Est. Holding Costs	Inception Date
		YTD	1Mo	3Mo	1Yr	3Yr								
Large Blend														
Guggenheim Russell Top 50 Mega Cap XLG	★★	21.4	5.0	4.0	21.1	15.5	0.80	2.1	123.46	523	19	0.20	0.26	05-04-05
Guggenheim S&P 500 Equal Weight RSP	★★★★★	28.8	4.3	5.4	33.4	17.5	0.56	1.4	67.99	5,664	1,016	0.40	0.43	04-24-03
iShares Core S&P 500 IVV	★★★★	25.3	4.6	4.7	27.1	16.5	0.44	1.9	176.69	47,097	4,662	0.08	0.05	05-15-00
iShares Core S&P Total US Stock Mkt ITOT	★★★★	25.7	4.5	4.9	28.0	16.6	0.41	1.8	80.47	954	87	0.13	0.07	01-20-04
iShares Dow Jones US IYY	★★★★	25.7	4.3	4.9	28.1	16.5	0.40	1.8	88.99	800	30	0.20	0.22	06-12-00
iShares Russell 1000 IWB	★★★★	25.9	4.4	5.0	28.2	16.7	0.42	1.8	98.27	8,290	537	0.15	0.13	05-15-00
iShares Russell 3000 IWW	★★★★	26.2	4.2	5.1	28.7	16.7	0.40	1.8	105.42	4,945	225	0.20	0.21	05-22-00
iShares S&P 100 OEF	★★★	23.2	4.9	4.3	23.8	16.1	0.46	2.1	78.56	3,845	1,067	0.20	0.23	10-23-00
Market Vectors Wide Moat ETF MOAT	NR	23.8	1.4	4.9	30.8	—	—	0.5	27.51	481	225	0.49	—	04-24-12
Schwab U.S. Broad Market ETF SCHB	★★★★	26.4	4.3	5.0	28.8	16.9	0.71	1.8	42.85	2,528	402	0.04	0.03	11-03-09
Schwab U.S. Dividend Equity ETF SCHD	NR	27.2	5.0	4.1	27.8	—	—	2.6	35.33	1,305	283	0.07	—	10-20-11
Schwab U.S. Large-Cap ETF SCHX	★★★★	25.6	4.4	4.9	27.7	16.5	0.72	1.9	41.97	2,040	380	0.04	0.06	11-03-09
SPDR S&P 500 SPY	★★★★	25.2	4.6	4.7	27.0	16.4	0.73	1.9	175.79	157,234	121,415	0.09	0.13	01-22-93
 Vanguard Dividend Appreciation ETF VIG	★★★★	23.5	4.2	4.5	25.9	15.7	0.41	2.1	72.51	18,344	892	0.10	0.02	04-21-06
Vanguard Large Cap ETF VV	★★★★	25.7	4.4	4.9	27.8	16.6	0.37	1.9	80.77	4,425	147	0.10	0.05	01-27-04
Vanguard Mega Cap ETF MGC	★★★★	25.0	4.6	4.8	26.5	16.5	0.39	2.0	60.13	631	32	0.11	0.01	12-17-07
Vanguard Russell 1000 Index ETF VONE	★★★★	25.9	4.4	5.0	28.2	16.7	0.33	1.8	81.36	239	11	0.12	—	09-20-10
Vanguard Russell 3000 Index ETF VTHR	★★★★	26.3	4.2	5.1	28.8	16.7	0.32	1.6	81.75	82	3	0.15	—	09-20-10
Vanguard S&P 500 ETF VOO	★★★★	25.3	4.6	4.7	27.1	16.5	0.39	2.0	160.88	12,564	1,394	0.05	0.03	09-07-10
Vanguard Total Stock Market ETF VTI	★★★★	26.4	4.3	5.0	28.9	16.9	0.38	1.9	91.39	36,531	2,648	0.05	0.08	05-24-01
Large Value														
iShares High Dividend HDV	NR	21.6	5.2	2.5	19.4	—	—	3.1	69.72	3,276	346	0.40	0.43	03-29-11
iShares MSCI USA Minimum Volatility USMV	NR	21.9	4.7	3.9	21.1	—	—	2.2	34.80	2,122	357	0.15	—	10-18-11
iShares Russell 1000 Value IWD	★★★	25.5	4.3	2.9	28.0	16.5	0.48	2.0	89.98	19,615	1,437	0.20	0.24	05-22-00
iShares Russell 3000 Value IWW	★★★	25.6	4.3	3.0	28.3	16.4	0.47	2.0	118.03	648	36	0.25	0.25	07-24-00
iShares S&P 500 Value IVE	★★★	25.2	4.3	3.1	28.1	16.3	0.50	2.1	81.75	6,158	491	0.18	0.22	05-22-00
PowerShares FTSE RAFI US 1000 PRF	★★★★★	27.9	4.5	4.1	31.2	17.2	0.72	1.7	78.94	2,500	159	0.39	0.37	12-19-05
 PowerShares S&P 500 Low Volatility SPLV	NR	20.5	4.6	1.4	19.5	—	—	2.8	32.57	3,941	1,452	0.25	—	05-05-11
Schwab U.S. Large-Cap Value ETF SCHV	★★★★	24.3	4.2	2.7	25.8	16.4	0.97	2.3	38.92	774	100	0.07	0.12	12-11-09
SPDR Dow Jones Industrial Average DIA	★★★	20.8	2.9	0.9	21.6	14.6	0.89	2.2	155.29	11,299	7,417	0.17	0.17	01-13-98
SPDR S&P Dividend ETF SDY	★★★	26.7	5.0	3.8	28.4	15.9	1.08	2.4	72.34	13,025	680	0.35	0.37	11-08-05
Vanguard High Dividend Yield Indx ETF VYM	★★★★	24.7	4.7	3.0	24.4	17.9	0.57	2.8	60.22	6,918	498	0.10	0.04	11-10-06
Vanguard Mega Cap Value Index ETF MGV	★★★★	25.4	4.5	2.5	26.5	16.2	0.50	2.4	52.57	625	73	0.11	0.31	12-17-07
Vanguard Russell 1000 Value Index ETF VONV	★★★★	25.6	4.4	2.9	28.1	16.6	0.38	2.0	78.79	173	17	0.15	—	09-20-10
Vanguard S&P 500 Value Index ETF VOOV	★★★★	25.3	4.4	3.1	28.2	16.3	0.41	2.0	78.39	122	10	0.15	—	09-07-10
Vanguard Value ETF VTV	★★★	26.3	4.6	3.0	28.0	16.4	0.48	2.3	72.99	11,727	646	0.10	0.01	01-26-04
WisdomTree Dividend ex-Financials DTN	★★★★	22.9	5.0	3.9	23.5	17.6	1.38	3.4	66.63	1,126	59	0.38	0.39	06-16-06
WisdomTree Equity Income DHS	★★★	22.2	5.1	3.3	20.9	17.1	1.43	3.4	54.51	746	40	0.38	0.23	06-16-06
WisdomTree LargeCap Dividend DLN	★★★	21.9	4.8	3.6	22.3	16.7	1.08	2.8	64.10	1,674	92	0.28	0.23	06-16-06
WisdomTree Total Dividend DTD	★★★★	22.8	4.8	3.7	23.5	16.8	1.10	2.8	64.88	378	23	0.28	0.25	06-16-06
Large Growth														
Guggenheim S&P 500 Pure Growth RPG	★★★★★	34.7	4.1	8.0	39.4	18.6	0.24	0.7	66.21	760	88	0.35	0.37	03-01-06
iShares Russell 1000 Growth IWF	★★★★	26.0	4.4	7.2	28.0	16.6	0.32	1.5	81.65	21,166	2,079	0.20	0.21	05-22-00
iShares Russell 3000 Growth IWZ	★★★★	26.7	4.2	7.1	28.9	16.7	0.31	1.4	67.01	445	25	0.25	0.21	07-24-00
iShares Russell Top 200 Growth IWY	★★★★	25.0	5.3	7.9	25.9	16.5	0.37	1.7	42.89	407	18	0.20	—	09-22-09
iShares S&P 500 Growth IWW	★★★★	25.0	4.8	6.3	25.9	16.4	0.36	1.6	93.58	8,359	499	0.18	0.20	05-22-00
PowerShares QQQ QQQ	★★★★★	28.1	5.0	9.6	29.2	17.9	0.39	1.2	82.79	41,430	31,592	0.20	0.21	03-10-99
Schwab U.S. Large-Cap Growth ETF SCHG	★★★★	26.8	4.6	7.1	29.5	16.5	0.44	1.3	43.00	968	128	0.07	0.09	12-11-09
SPDR S&P 500 Growth ETF SPYG	★★★★	24.9	4.8	6.3	25.9	16.8	0.58	1.5	81.16	291	17	0.20	—	09-25-00
Vanguard Growth ETF VUG	★★★★	25.1	4.3	7.4	27.7	16.7	0.25	1.3	88.21	12,201	711	0.10	0.53	01-26-04
Vanguard Mega Cap Growth Index ETF MGK	★★★★	24.9	4.8	8.1	26.8	16.9	0.27	1.5	68.65	1,118	84	0.11	1.03	12-17-07
Vanguard Russell 1000 Growth Index ETF VONG	★★★★	26.1	4.4	7.2	28.1	16.6	0.26	1.5	83.88	220	27	0.15	—	09-20-10
Vanguard S&P 500 Growth Index ETF VOOG	★★★★	25.1	4.8	6.3	26.0	16.5	0.31	1.5	83.87	167	10	0.15	—	09-07-10
Mid-Cap Blend														
iShares Core S&P Mid-Cap IJH	★★★★	27.7	3.7	5.0	33.4	17.4	0.33	1.4	128.54	21,285	1,620	0.17	0.07	05-22-00
iShares Russell Mid-Cap IWR	★★★★	28.5	3.5	5.4	33.6	17.2	0.36	1.5	143.97	8,905	187	0.20	0.17	07-17-01
Schwab U.S. Mid-Cap ETF SCHM	NR	30.3	3.7	6.1	36.0	—	—	1.5	35.88	738	189	0.07	0.08	01-13-11

Ticker	Fundamentals				Valuation						Portfolio Style				Risk			
	5Yr Historical Growth %				Price/ Earn	Price/ Cash Flow	Price/ Book	Price/ Sales	Price/ Fair Value	Covrg Rate %	Style Box	Average Mkt Cap (\$Mil)	# of Holdgs	Assets in Top 10 %	Turnover %	Worst 3Mo Return %	3 Yr Standard Deviation	3 Yr Sharpe Ratio
	Earnings	Sales	Cash Flow	ROE														
Lg Blnd																		
XLG	12.5	3.8	8.3	22.0	15.9	10.7	2.6	2.0	0.9	100		178,657	52	38.4	7	-23.5	11.6	1.3
RSP	5.5	4.5	4.2	17.0	18.4	10.3	2.4	1.3	1.0	91		18,437	501	2.5	20	-36.2	14.3	1.2
IVV	6.7	2.8	6.4	20.0	17.1	10.7	2.5	1.6	1.0	97		63,197	503	18.9	4	-29.6	12.5	1.3
ITOT	6.8	3.1	6.6	19.3	17.4	10.8	2.5	1.5	1.0	90		44,123	1,502	17.4	5	-30.4	12.7	1.3
IYY	-3.2	3.0	6.8	19.0	17.4	10.9	2.5	1.6	1.0	89		42,999	1,261	15.3	7	-31.1	12.9	1.3
IWB	6.0	3.3	6.6	19.3	17.3	10.9	2.5	1.6	1.0	91		47,822	1,012	15.9	5	-30.9	12.8	1.3
IWV	-2.5	-22.5	6.6	18.4	17.4	10.9	2.5	1.5	1.0	84		36,039	2,981	14.7	5	-31.3	13.0	1.3
OEF	6.5	0.0	6.1	21.6	16.2	10.4	2.5	1.8	0.9	100		132,285	101	29.3	5	-26.2	12.0	1.3
MOAT	3.6	10.0	4.5	19.6	17.6	10.6	2.5	1.6	0.9	100		33,005	20	51.1	0	—	—	—
SCHB	-2.9	2.8	6.7	18.6	17.4	10.9	2.5	1.5	1.0	86		37,127	1,991	14.6	4	-15.0	13.0	1.3
SCHD	6.8	2.0	5.3	26.8	16.7	11.4	3.5	1.7	1.0	97		77,771	101	41.2	13	—	—	—
SCHX	5.7	3.2	6.9	19.5	17.2	10.9	2.5	1.6	1.0	94		52,906	753	16.5	5	-14.3	12.6	1.3
SPY	6.7	2.8	6.4	20.0	17.1	10.7	2.5	1.6	1.0	98		63,267	501	18.2	4	-29.6	12.4	1.3
VIG	8.1	7.4	6.3	25.7	16.7	11.7	3.2	1.4	1.0	94		49,461	148	38.3	15	-21.9	10.9	1.4
VV	6.8	3.3	6.7	19.4	17.0	10.4	2.5	1.5	1.0	95		55,584	647	17.1	8	-30.4	12.7	1.3
MGC	6.3	2.4	6.6	20.4	16.8	10.3	2.4	1.6	1.0	99		80,324	294	20.7	10	-28.8	12.3	1.3
VONE	5.7	3.5	6.7	18.9	17.2	10.4	2.4	1.5	1.0	91		45,989	1,010	15.8	11	-14.7	12.8	1.3
VTHR	4.7	-15.6	6.7	18.1	17.3	10.4	2.4	1.5	1.0	84		34,541	2,996	14.6	16	-15.3	13.1	1.3
VOO	6.8	2.9	6.6	19.7	17.2	10.3	2.4	1.5	1.0	98		61,584	512	18.0	3	-13.9	12.5	1.3
VTI	4.5	-4.7	6.8	18.2	17.2	10.4	2.4	1.5	1.0	85		34,690	3,523	14.6	3	-31.1	13.1	1.3
Lg Val																		
HDV	1.4	-1.8	2.5	20.7	17.2	9.1	2.7	2.0	1.0	98		92,139	76	58.7	43	—	—	—
USMV	6.6	5.8	4.1	22.5	17.4	12.1	3.0	1.8	1.0	93		35,510	133	15.8	26	—	—	—
IWD	2.5	-0.4	3.3	13.0	15.0	8.7	1.7	1.3	1.0	91		48,367	655	26.7	16	-28.8	13.4	1.2
IWW	2.4	-8.9	3.2	12.4	15.1	8.6	1.7	1.3	1.0	84		35,998	1,982	24.6	16	-29.1	13.6	1.2
IVE	1.4	-0.3	2.1	15.8	15.4	8.7	1.9	1.2	1.0	97		55,958	356	25.0	35	-30.1	13.7	1.2
PRF	1.2	-0.1	2.4	16.0	15.7	8.8	2.0	1.0	1.0	90		41,368	1,014	18.0	13	-31.4	13.3	1.3
SPLV	6.7	1.6	3.7	19.4	18.3	9.8	2.5	1.5	1.0	98		24,103	100	11.9	17	—	—	—
SCHV	1.0	-1.3	2.5	17.7	15.3	9.2	2.0	1.4	1.0	95		55,098	363	25.7	9	-13.4	12.1	1.3
DIA	9.9	7.4	6.0	26.8	15.2	10.9	2.9	1.7	1.0	100		125,584	31	53.6	6	-22.8	11.3	1.3
SDY	5.7	4.6	4.1	21.3	19.9	11.4	3.0	1.4	1.0	84		22,184	84	28.2	44	-25.5	10.5	1.5
MYM	4.0	2.7	3.5	20.0	16.1	9.3	2.4	1.6	1.0	95		73,004	393	41.3	11	-24.7	10.4	1.6
MGV	1.1	-0.6	2.4	16.4	15.0	8.5	1.9	1.2	1.0	99		83,430	163	32.2	34	-25.5	12.8	1.2
VONV	2.5	-0.1	3.3	12.7	14.8	8.3	1.7	1.3	1.0	91		48,687	650	27.3	26	-16.3	13.4	1.2
VOOV	1.7	-0.2	2.2	15.5	15.9	8.6	1.9	1.2	1.0	97		55,919	359	26.1	25	-16.4	13.8	1.2
VTV	2.5	0.5	2.9	16.3	15.0	8.6	1.9	1.2	1.0	97		64,098	326	27.6	22	-27.2	13.0	1.2
DTN	-1.8	0.7	0.5	18.4	17.7	8.6	2.5	1.3	1.0	99		30,409	84	17.9	34	-26.5	9.8	1.7
DHS	1.0	-0.6	1.7	18.2	17.4	8.5	2.5	1.7	1.0	90		48,773	346	42.6	28	-30.6	9.8	1.7
DLN	6.4	3.8	4.0	20.9	16.3	9.6	2.6	1.6	1.0	99		79,797	297	27.1	14	-25.7	10.2	1.6
DTD	5.0	3.6	4.0	19.7	16.6	9.5	2.5	1.5	1.0	91		50,708	925	23.0	13	-26.6	10.6	1.5
Lg Grw																		
RPG	20.9	11.0	23.1	22.5	19.1	13.6	3.3	2.0	1.0	92		22,747	113	15.2	35	-35.5	14.8	1.2
IWF	12.7	9.9	11.0	25.5	20.3	13.4	4.7	2.0	1.0	91		47,219	616	21.5	17	-32.9	12.5	1.3
IWZ	-2.3	-33.0	11.1	24.4	20.5	13.5	4.6	2.0	1.0	84		35,979	1,715	19.7	18	-33.4	12.8	1.3
IWY	13.0	10.6	11.5	27.6	19.2	13.0	4.7	2.1	1.0	99		96,990	123	31.4	16	-12.3	11.7	1.4
IWV	14.2	9.7	12.3	24.1	19.0	13.0	3.5	2.4	1.0	98		70,749	299	24.5	28	-29.2	11.6	1.4
QQQ	21.1	15.2	16.2	20.8	19.2	13.2	3.8	2.7	1.0	96		82,320	101	55.5	9	-38.6	13.5	1.3
SCHG	15.7	11.6	13.8	21.3	19.9	13.0	3.5	2.0	1.0	92		50,699	392	25.4	11	-15.5	13.8	1.2
SPYG	14.2	9.7	12.3	24.1	19.0	13.0	3.5	2.4	1.0	98		70,757	299	25.8	26	-33.0	11.6	1.4
VUG	16.4	12.7	14.4	23.5	20.4	13.4	3.9	2.6	1.0	94		46,343	344	24.8	21	-33.3	12.9	1.3
MGK	17.3	13.3	15.5	25.5	18.3	12.4	3.8	2.5	1.0	98		68,916	140	31.8	41	-31.7	12.5	1.3
VONG	12.0	10.0	11.2	25.4	20.4	12.8	4.5	1.9	1.0	91		43,486	614	21.2	29	-13.2	12.5	1.3
VOOG	13.9	9.8	12.6	24.0	18.7	12.4	3.4	2.3	1.0	98		67,589	297	24.7	24	-11.7	11.6	1.4
MC Blnd																		
IJH	8.4	5.1	9.5	14.7	21.1	11.8	2.4	1.3	—	46		4,395	403	6.5	9	-36.5	15.5	1.1
IWR	5.5	6.0	5.7	15.5	19.1	11.5	2.5	1.4	1.0	72		9,268	815	4.4	13	-38.7	14.5	1.2
SCHM	-14.0	4.8	9.9	14.4	20.1	11.4	2.4	1.3	—	49		5,264	504	4.1	25	—	—	—

Historical Performance

Nuts and Bolts

ETF Watchlist Domestic Equity	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Tax Cost Ratio %	Yield %	Current Market Price \$	Total Assets (\$Mil)	Daily Vol. (Thou)	Exp. Ratio %	Est. Holding Costs	Inception Date
		YTD	1Mo	3Mo	1Yr	3Yr								
Mid-Cap Blend (cont'd)														
SPDR S&P MidCap 400 MDY	★★★★	27.5	3.7	5.0	33.1	17.2	0.42	1.2	234.52	16,224	3,009	0.25	0.31	05-04-95
Vanguard Extended Market Index ETF VXF	★★★★	31.1	2.8	5.9	37.0	18.3	0.29	1.3	79.19	3,005	219	0.10	0.12	12-27-01
Vanguard Mid-Cap ETF VO	★★★★	28.6	3.4	5.4	33.8	16.9	0.29	1.1	105.91	6,223	258	0.10	0.15	01-26-04
Vanguard S&P Mid-Cap 400 Index ETF IVOO	★★★★	27.7	3.7	5.0	33.3	17.4	0.13	0.8	86.92	235	12	0.15	—	09-07-10
WisdomTree MidCap Earnings EZM	★★★★★	32.8	4.2	6.6	40.4	20.0	0.51	1.3	82.20	382	25	0.38	—	02-23-07
Mid-Cap Value														
iShares Russell Mid-Cap Value IWS	★★★★	28.3	4.5	5.1	33.1	17.3	0.47	1.7	63.70	5,247	463	0.25	0.24	07-17-01
iShares S&P Mid-Cap 400 Value IJJ	★★★★	29.0	4.2	4.8	35.4	17.5	0.40	1.6	112.57	3,493	119	0.25	0.22	07-24-00
iShares Select Dividend DIVY	★★	25.0	5.3	4.2	24.9	17.4	0.77	3.1	69.80	13,317	846	0.40	0.30	11-03-03
Vanguard Mid-Cap Value ETF VOE	★★★★	30.1	4.5	5.5	34.9	17.5	0.46	1.5	76.55	2,013	108	0.10	0.59	08-17-06
Vanguard S&P Mid-Cap 400 Value Index ETF IVOV	★★★★	29.0	4.2	4.8	35.4	17.5	0.21	1.3	85.25	34	5	0.20	—	09-07-10
WisdomTree MidCap Dividend DON	★★★★	28.9	4.8	5.4	31.5	18.2	1.12	2.9	72.71	861	53	0.38	—	06-16-06
Mid-Cap Growth														
Guggenheim S&P Midcap 400 Pure Growth RFG	★★★★★	27.1	3.9	6.7	32.1	18.4	0.17	0.9	115.36	738	27	0.35	—	03-01-06
iShares Russell Mid-Cap Growth IWP	★★★★	28.5	2.6	5.6	33.7	16.9	0.22	1.1	80.25	4,472	277	0.25	0.17	07-17-01
iShares S&P MidCap 400 Growth IJK	★★★★	26.2	3.2	5.2	31.1	17.2	0.22	1.0	143.48	4,448	150	0.25	0.18	07-24-00
Vanguard Mid-Cap Growth ETF VOT	★★★★	26.8	2.2	5.2	32.5	16.1	0.09	0.6	87.03	1,838	78	0.10	0.92	08-17-06
Vanguard S&P Mid-Cap 400 Growth Idx ETF IVOG	★★★★	26.2	3.2	5.2	31.1	17.2	0.09	0.6	88.65	208	12	0.20	—	09-07-10
Small-Cap Blend														
iShares Core S&P Small-Cap IJR	★★★★	33.4	3.6	7.4	39.1	20.4	0.31	1.3	103.37	13,266	962	0.17	0.03	05-22-00
iShares Russell 2000 IWM	★★★★	30.9	2.5	5.6	36.3	17.7	0.43	1.6	109.19	27,054	37,883	0.20	0.01	05-22-00
PowerShares FTSE RAFI US 1500 Small-Mid PRFZ	★★★★	33.1	3.0	6.0	39.9	18.4	0.47	1.3	92.00	814	36	0.39	0.23	09-20-06
Schwab U.S. Small-Cap ETF SCHA	★★★★	31.8	3.3	5.9	37.7	19.1	0.54	1.6	49.78	1,679	275	0.09	0.01	11-03-09
Vanguard Russell 2000 Index ETF VTWO	★★★★	30.9	2.5	5.6	36.3	17.6	0.20	1.2	87.72	298	33	0.15	—	09-20-10
Vanguard S&P Small-Cap 600 Index ETF VIOO	★★★★★	33.1	3.6	7.3	38.9	20.2	0.17	1.1	93.82	112	10	0.15	—	09-07-10
Vanguard Small Cap ETF VB	★★★★	30.8	3.3	5.7	36.4	18.7	0.35	1.4	105.75	8,058	351	0.10	0.56	01-26-04
Small-Cap Value														
iShares Russell 2000 Value IWN	★★	26.9	3.2	4.3	32.6	16.2	0.56	2.0	94.58	5,853	1,033	0.25	0.18	07-24-00
iShares S&P Small-Cap 600 Value IJS	★★★★	32.0	3.5	6.5	38.8	19.6	0.34	1.4	105.78	2,898	130	0.25	0.19	07-24-00
Vanguard Russell 2000 Value Index ETF VTWV	★★★★	26.9	3.2	4.3	32.6	16.1	0.28	1.5	82.64	58	4	0.20	—	09-20-10
Vanguard S&P Small-Cap 600 Value Idx ETF VIOV	★★★★★	32.0	3.5	6.5	38.8	19.6	0.18	1.0	91.25	36	5	0.20	—	09-07-10
Vanguard Small Cap Value ETF VBR	★★★★	29.1	3.9	4.8	34.6	17.4	0.55	2.0	93.78	3,612	111	0.10	2.43	01-26-04
WisdomTree SmallCap Dividend DES	★★★★	30.9	4.4	4.8	34.9	18.2	1.30	3.0	65.28	979	74	0.38	—	06-16-06
Small-Cap Growth														
iShares Russell 2000 Growth IWO	★★★★	35.0	1.9	6.8	40.0	19.1	0.24	1.1	127.94	6,054	1,052	0.25	0.09	07-24-00
iShares S&P Small-Cap 600 Growth IJT	★★★★	34.4	3.7	8.2	39.1	21.0	0.23	1.0	112.24	2,692	278	0.25	0.07	07-24-00
Vanguard Russell 2000 Growth Index ETF VTWG	★★★★	34.9	1.8	6.8	39.9	18.9	0.08	0.6	93.31	84	8	0.20	—	09-20-10
Vanguard S&P Small-Cap 600 Gr Idx ETF VIOG	★★★★	34.3	3.7	8.2	39.0	20.9	0.12	0.8	96.85	34	7	0.20	—	09-07-10
Vanguard Small Cap Growth ETF VBK	★★★★	31.8	2.5	6.8	37.5	19.6	0.12	0.8	117.30	3,513	135	0.10	0.93	01-26-04
Communications														
iShares Global Telecom IXP	★★★★	22.1	6.0	11.1	21.5	9.6	0.91	3.7	68.38	561	47	0.48	0.78	11-12-01
iShares US Telecommunications IYZ	★★★★	23.2	6.2	5.6	23.5	13.1	0.63	2.6	29.32	463	270	0.46	0.44	05-22-00
Vanguard Telecom Services ETF VOX	★★★★	23.3	6.9	5.0	23.9	14.3	0.47	2.9	86.51	596	49	0.14	—	09-23-04
Consumer														
Consumer Discret Select Sector SPDR XLY	★★★★	34.9	4.6	7.2	39.8	23.6	0.54	1.3	63.41	6,942	6,108	0.18	0.23	12-16-98
Consumer Staples Select Sector SPDR XLP	★★★★	23.5	6.3	3.1	23.0	17.1	0.98	2.6	42.35	6,663	8,150	0.18	0.23	12-16-98
iShares Global Consumer Staples KXI	★★★★	18.7	4.5	4.1	20.4	14.6	0.48	2.3	86.37	628	67	0.48	—	09-12-06
iShares Globl Consumer Discretionary RXI	★★	32.5	3.6	7.7	41.5	18.7	0.31	1.3	80.83	230	22	0.48	—	09-12-06
iShares US Consumer Goods IYK	★★★★	26.3	4.8	4.0	28.6	17.2	0.45	1.9	93.50	463	20	0.46	—	06-12-00
iShares US Consumer Services IYC	★★★★	33.7	5.0	6.8	37.0	23.1	0.24	1.1	115.47	473	33	0.46	—	06-12-00
iShares US Home Construction ITB	★★	6.9	1.0	1.5	10.3	26.4	0.10	0.5	22.52	1,771	6,537	0.46	0.51	05-01-06
SPDR S&P Homebuilders ETF XHB	★★★★	15.1	-0.1	1.5	17.8	26.9	0.37	0.5	30.52	1,994	6,258	0.35	0.30	01-31-06
SPDR S&P Retail ETF XRT	★★★★★	35.7	2.7	3.2	37.1	26.1	0.43	1.1	84.17	909	2,860	0.35	0.30	06-19-06
Vanguard Consumer Discretionary ETF VCR	★★★★	35.5	4.1	7.2	40.6	23.6	0.19	1.1	102.97	1,204	111	0.14	0.13	01-26-04
Vanguard Consumer Staples ETF VDC	★★★★	24.9	6.0	3.2	24.7	17.7	0.38	2.4	109.84	1,617	64	0.14	0.15	01-26-04

Ticker	Fundamentals				Valuation						Portfolio Style				Risk			
	5Yr Historical Growth %				Price/ Earn	Price/ Cash Flow	Price/ Book	Price/ Sales	Price/ Fair Value	Covrg Rate %	Style Box	Average Mrkt Cap (\$Mil)	# of Holdgs	Assets in Top 10 %	Turnover %	Worst 3Mo Return %	3 Yr Standard Deviation	3 Yr Sharpe Ratio
	Earnings	Sales	Cash Flow	ROE														
MC Blnd																		
MDY	8.7	5.2	9.3	14.7	20.5	11.3	2.3	1.2	—	47	■	4,235	400	6.5	14	-36.6	15.5	1.1
VXF	0.7	-46.4	8.1	11.2	17.8	10.7	2.3	1.2	—	32	■	2,979	3,053	4.6	12	-38.3	16.3	1.1
VO	10.1	7.3	7.1	14.9	18.0	10.7	2.6	1.3	1.0	78	■	9,317	369	6.3	17	-38.3	14.9	1.1
IVOO	8.3	5.3	9.5	13.4	20.4	11.4	2.3	1.3	—	46	■	4,271	403	7.5	10	-19.9	15.5	1.1
EZM	-6.0	4.3	9.4	15.5	17.2	9.8	2.1	1.0	—	37	■	3,659	607	8.5	39	-34.7	16.1	1.2
MC Val																		
IWS	3.0	4.4	2.6	9.7	16.0	8.8	1.7	1.1	1.0	70	■	8,439	528	7.6	23	-36.7	14.3	1.2
IJJ	1.6	3.9	3.1	11.1	19.3	9.8	1.9	0.9	—	41	■	3,873	296	9.5	38	-34.7	16.0	1.1
DVY	5.5	-0.6	1.8	20.7	17.1	8.8	2.3	1.4	1.0	80	■	13,809	103	21.7	13	-30.1	9.8	1.7
VOE	8.8	5.8	4.9	12.9	13.8	8.1	2.0	0.9	1.0	76	■	8,639	206	10.8	33	-34.7	14.2	1.2
IVOV	1.3	4.2	3.5	10.6	18.9	9.4	1.8	0.9	—	50	■	3,670	297	22.2	74	-21.0	16.0	1.1
DON	2.0	3.4	3.2	14.0	19.5	8.6	2.3	1.2	—	60	■	5,354	366	12.8	33	-32.6	12.9	1.4
MC Grw																		
RFG	27.6	9.6	27.9	18.0	19.4	13.7	3.0	1.7	—	47	■	4,329	93	23.4	56	-36.1	15.6	1.2
IWP	11.8	8.7	9.7	21.0	23.1	14.5	4.7	1.8	1.0	74	■	10,088	494	7.7	25	-40.7	15.1	1.1
IJK	19.3	7.8	20.1	18.4	23.0	14.4	3.3	1.9	—	50	■	4,991	231	12.3	46	-38.4	15.4	1.1
VOT	13.9	12.4	11.4	17.1	26.9	15.5	3.8	2.4	1.1	79	■	10,117	170	12.5	38	-42.0	15.9	1.0
IVOG	19.5	7.8	19.2	16.2	22.1	14.2	3.2	2.0	—	50	■	4,960	229	13.8	35	-18.9	15.4	1.1
SC Blnd																		
IJR	5.1	4.8	7.9	12.0	20.5	12.0	2.2	1.2	—	12	■	1,456	603	5.4	12	-34.3	15.9	1.2
IWM	-24.0	-61.4	6.6	8.3	19.5	11.0	2.2	1.2	—	10	■	1,352	1,983	2.7	19	-35.6	17.1	1.0
PRFZ	-16.9	-51.6	0.1	8.7	18.6	9.8	1.8	0.9	—	12	■	1,234	1,449	3.0	30	-37.7	17.6	1.1
SCHA	-13.4	-43.4	4.7	9.9	19.6	10.7	2.2	1.1	—	18	■	1,967	1,738	2.5	22	-21.5	16.9	1.1
VTWO	-9.7	-60.7	6.8	7.9	19.3	10.8	2.1	1.1	—	10	■	1,257	1,993	2.5	32	-21.9	17.1	1.0
VIOO	6.9	4.6	7.9	11.7	20.7	11.7	2.1	1.2	—	12	■	1,384	602	5.6	12	-19.9	15.9	1.2
VB	-1.7	2.0	8.1	11.3	19.5	10.5	2.2	1.2	—	26	■	2,501	1,439	3.6	14	-37.0	16.7	1.1
SC Val																		
IWN	-3.1	-28.5	3.0	5.7	16.1	8.2	1.5	1.0	—	9	■	1,156	1,369	4.2	29	-32.5	16.5	1.0
IJS	-0.1	3.5	6.2	8.4	18.7	9.8	1.8	0.9	—	11	■	1,305	445	8.5	44	-33.0	16.7	1.2
VTWV	-2.1	-29.3	3.2	5.9	16.0	8.3	1.4	0.9	—	9	■	1,094	1,353	4.1	60	-21.4	16.5	1.0
VIOV	2.0	3.5	6.6	8.3	19.0	9.4	1.7	0.8	—	12	■	1,252	444	8.4	37	-20.1	16.7	1.2
VBR	0.8	0.5	6.0	11.2	16.6	8.2	1.7	0.9	—	29	■	2,440	808	5.4	25	-33.6	16.1	1.1
DES	1.1	1.9	5.1	12.3	17.5	9.1	2.1	1.0	—	12	■	1,308	623	12.3	49	-28.8	14.4	1.2
SC Grw																		
IWO	-29.7	-71.0	12.0	10.9	24.1	14.6	4.0	1.5	—	11	■	1,572	1,147	5.2	32	-38.9	17.9	1.1
IJT	14.4	7.9	11.0	15.7	22.6	15.5	2.9	1.9	—	12	■	1,629	356	10.8	47	-35.5	15.5	1.3
VTWG	-16.7	-71.0	11.9	9.9	24.2	14.0	3.9	1.5	—	12	■	1,427	1,143	4.8	50	-22.3	17.9	1.1
VIOG	15.1	7.6	10.2	15.3	22.7	15.5	2.8	1.9	—	12	■	1,535	356	10.4	39	-19.7	15.5	1.3
VBK	-3.0	8.6	13.3	11.4	25.5	15.1	3.2	2.3	—	21	■	2,578	669	6.0	37	-40.5	17.5	1.1
Comm																		
IXP	-14.1	2.4	-0.7	13.3	16.9	5.0	2.0	1.3	—	65	■	80,865	48	70.5	7	-25.1	12.3	0.8
IYZ	-18.3	3.8	-2.6	-1.0	23.6	5.4	2.4	1.1	—	63	■	11,401	26	67.9	40	-30.4	15.0	0.9
VOX	-20.8	2.9	-0.4	3.4	26.5	5.0	2.4	1.1	1.0	69	■	15,519	34	68.4	19	-26.6	12.9	1.1
Consmr																		
XLY	4.2	7.2	11.5	23.5	19.8	12.8	4.0	1.4	1.0	97	■	42,022	84	45.5	5	-32.5	12.9	1.7
XLP	6.9	8.0	5.2	27.9	19.2	14.7	3.9	1.2	1.0	99	■	69,959	41	64.5	12	-17.6	9.8	1.7
KXI	5.8	4.6	6.2	25.0	19.0	13.6	3.4	1.2	1.0	71	■	69,006	113	43.7	6	-17.8	10.8	1.3
RXI	10.2	5.3	7.8	20.7	16.8	11.3	2.7	1.1	—	63	■	38,951	181	30.1	8	-34.1	14.8	1.2
IYK	-4.2	3.7	8.1	28.5	18.6	14.4	3.9	1.4	1.0	89	■	41,024	119	52.9	7	-20.0	9.9	1.7
IYC	16.7	9.2	9.0	21.4	19.8	12.3	3.8	1.1	1.0	89	■	35,968	185	37.9	9	-30.5	11.8	1.8
ITB	78.9	2.4	74.1	25.5	10.3	14.1	2.2	1.2	—	62	■	5,046	33	59.5	17	-43.1	25.2	1.1
XHB	26.4	3.4	16.5	24.4	13.8	15.7	2.8	1.2	—	39	■	4,362	36	40.1	36	-39.6	22.3	1.2
XRT	11.7	5.5	9.6	15.5	20.2	11.8	3.1	0.5	—	54	■	4,672	98	14.1	29	-42.7	15.4	1.6
VCR	4.0	6.8	11.8	22.7	18.0	12.6	3.6	1.3	1.0	83	■	23,189	378	33.2	6	-35.9	13.8	1.6
VDC	4.1	6.6	6.9	27.4	19.9	13.8	3.7	1.0	1.0	91	■	53,827	114	61.5	18	-15.3	9.5	1.8

ETF Watchlist Domestic Equity	Historical Performance								Nuts and Bolts					
	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Tax Cost Ratio %	Yield %	Current Market Price \$	Total Assets (\$Mil)	Daily Vol. (Thou)	Exp. Ratio %	Est. Holding Costs	Inception Date
		YTD	1Mo	3Mo	1Yr	3Yr								
Energy														
Energy Select Sector SPDR XLE	★★★★★	22.6	4.2	5.3	22.4	15.4	0.61	1.7	86.39	8,398	9,945	0.18	0.20	12-16-98
iShares Global Energy IXC	★★★★	13.5	4.0	6.0	12.9	9.2	0.49	2.3	42.80	994	170	0.48	0.64	11-12-01
iShares US Energy IYE	★★★★★	21.7	4.3	5.0	21.3	14.8	0.35	1.6	49.10	1,654	794	0.46	0.27	06-12-00
iShares US Oil&Gas Explor&Prodn IEO	★★★★	31.1	6.3	10.6	34.4	16.5	0.18	0.8	82.80	430	110	0.46	0.46	05-01-06
JPMorgan Alerian MLP Index ETN AMJ	★★★★★	25.5	2.6	2.2	18.6	14.6	1.85	4.7	45.82	5,800	831	0.85	4.91	04-02-09
Market Vectors Oil Services ETF OIH	NR	28.5	5.4	10.7	30.1	—	—	0.8	49.62	1,799	3,676	0.35	—	12-20-11
SPDR S&P Oil & Gas Explor & Prod ETF XOP	★★★★★	29.8	5.7	11.8	31.3	17.9	0.38	1.2	69.58	926	4,756	0.35	0.29	06-19-06
Vanguard Energy ETF VDE	★★★★	21.8	4.4	5.3	21.6	14.6	0.24	1.6	124.72	2,425	86	0.14	0.13	09-23-04
Financial														
Financial Select Sector SPDR XLF	★	26.8	3.3	0.8	31.7	14.1	0.59	1.6	20.57	15,345	41,640	0.18	0.20	12-16-98
iShares Global Financials IXG	★★	23.0	4.3	6.7	30.8	9.7	0.55	2.1	54.82	326	39	0.48	—	11-12-01
iShares US Financial Services IYG	★	30.1	3.4	0.9	36.6	15.4	0.25	1.1	76.64	582	75	0.46	—	06-12-00
iShares US Financials IYF	★★	25.9	3.5	1.6	30.4	14.5	0.37	1.4	75.95	1,313	257	0.46	0.45	05-22-00
SPDR S&P Bank ETF KBE	★★	32.6	3.9	0.2	34.6	13.3	0.64	1.8	31.23	2,490	1,362	0.35	0.41	11-08-05
SPDR S&P Regional Banking ETF KRE	★★★	35.1	4.9	2.0	36.2	20.3	0.65	1.7	37.37	2,285	3,211	0.35	0.39	06-19-06
Vanguard Financials ETF VFH	★★	25.7	3.6	1.4	30.0	14.2	0.49	1.9	42.31	1,586	175	0.14	0.08	01-26-04
Health Care														
Health Care Select Sector SPDR XLV	★★	33.8	4.3	3.8	34.3	21.6	0.69	1.6	52.77	7,907	6,331	0.18	0.24	12-16-98
iShares Global Healthcare IXJ	★★	29.8	3.9	4.8	31.4	19.4	0.44	1.7	82.67	920	68	0.48	0.71	11-13-01
iShares Nasdaq Biotechnology IBB	★★★★	49.7	-2.1	3.8	55.8	32.2	0.03	0.1	205.33	3,858	1,046	0.48	0.29	02-05-01
iShares US Healthcare IYH	★★★★	33.9	3.6	3.2	34.5	21.8	0.32	1.2	110.93	1,806	402	0.46	0.48	06-12-00
SPDR S&P Biotech ETF XBI	★★	35.5	-7.8	-2.7	42.3	26.2	0.05	0.3	118.99	970	328	0.35	0.18	01-31-06
SPDR S&P Pharmaceuticals ETF XPH	★★★★	40.8	1.6	3.0	39.8	21.3	0.45	0.8	78.31	576	113	0.35	—	06-19-06
Vanguard Health Care ETF VHT	★★★	34.7	3.6	3.9	36.0	22.3	0.25	1.2	96.54	2,116	153	0.14	0.12	01-26-04
Industrials														
Industrial Select Sector SPDR XLI	★★★	30.1	4.8	8.2	36.1	17.2	0.75	1.8	48.62	7,489	9,985	0.18	0.18	12-16-98
iShares Global Industrials EXI	★★	25.3	3.6	9.1	32.5	12.9	0.43	1.8	67.95	288	30	0.48	—	09-12-06
iShares US Industrials IYJ	★★★	29.9	4.3	7.7	36.0	18.3	0.32	1.3	94.40	1,448	291	0.46	0.45	06-12-00
Vanguard Industrials ETF VIS	★★★	31.5	4.8	8.2	38.2	18.2	0.26	1.6	93.67	1,293	130	0.14	0.10	09-23-04
Natural Resources														
FlexShares Mstar Gbl Upstrm Nat Res ETF GUNR	NR	-1.4	3.2	7.6	-0.3	—	—	1.1	34.73	2,764	186	0.48	—	09-16-11
iShares Global Materials MXI	★★★★	0.9	2.6	10.1	6.0	-0.5	0.49	2.4	61.36	421	31	0.48	0.61	09-12-06
iShares North American Natural Resources IGE	★★★★	14.9	4.3	6.9	13.4	7.7	0.35	1.6	43.20	2,151	290	0.48	0.53	10-22-01
iShares US Basic Materials IYM	★★★★	13.0	4.4	9.1	17.6	6.1	0.44	2.0	77.18	737	528	0.46	0.40	06-12-00
Market Vectors Agribusiness ETF MOO	★★★★	-0.7	2.7	5.4	4.0	2.3	0.36	1.9	52.41	4,662	227	0.54	—	08-31-07
Materials Select Sector SPDR XLB	★★★★	18.5	4.2	8.7	24.6	10.5	0.80	2.3	43.77	3,806	5,831	0.18	0.28	12-16-98
SPDR S&P Metals & Mining ETF XME	★	-11.9	7.2	10.7	-10.2	-10.0	0.43	1.6	39.33	547	2,523	0.35	0.09	06-19-06
Vanguard Materials ETF VAW	★★★★	17.9	4.2	8.5	23.8	11.7	0.31	1.6	99.25	888	62	0.14	0.10	01-26-04
Real Estate														
Schwab US REIT ETF SCHH	NR	6.4	4.1	0.0	9.8	—	—	2.3	32.17	578	105	0.10	—	01-13-11
SPDR Dow Jones REIT ETF RWR	★★	6.3	4.0	0.0	9.7	11.6	1.15	3.1	75.88	2,269	204	0.25	0.27	04-23-01
Vanguard REIT Index ETF VNQ	★★★	7.8	4.5	0.5	11.4	12.2	1.34	3.7	69.13	18,352	3,195	0.10	0.03	09-23-04
Technology														
iShares Global Tech IXN	★★	16.8	4.3	8.0	20.7	11.2	0.20	1.1	78.25	578	40	0.48	0.56	11-12-01
iShares US Technology IYW	★★★	17.3	4.4	6.8	18.5	11.0	0.21	1.2	82.28	2,792	384	0.46	0.28	05-15-00
Technology Select Sector SPDR XLK	★★★	17.9	4.9	6.6	18.8	13.3	0.60	1.8	33.65	12,853	7,503	0.18	0.19	12-16-98
Vanguard Information Technology ETF VGT	★★★	21.0	3.7	7.3	23.2	13.2	0.13	1.0	83.65	3,984	364	0.14	0.14	01-26-04
Utilities														
iShares Global Utilities JXI	★	13.7	3.2	3.5	11.3	3.3	0.86	3.9	45.29	220	27	0.48	—	09-12-06
iShares US Utilities IDU	★★	15.7	3.9	-0.3	11.3	11.9	0.76	3.1	97.51	668	664	0.46	0.45	06-12-00
Utilities Select Sector SPDR XLU	★★	14.2	3.8	-0.3	9.3	11.3	1.40	3.8	38.78	5,465	13,155	0.18	0.19	12-16-98
Vanguard Utilities ETF VPU	★★	15.8	3.9	-0.2	11.6	12.2	0.71	3.7	84.88	1,397	108	0.14	0.16	01-26-04

Ticker	Fundamentals				Valuation							Portfolio Style				Risk		
	5Yr Historical Growth %				Price/ Earn	Price/ Cash Flow	Price/ Book	Price/ Sales	Price/ Fair Value	Covrg Rate %	Style Box	Average Mrkt Cap (\$Mil)	# of Holdgs	Assets in Top 10 %	Turnover %	Worst 3Mo Return %	3 Yr Standard Deviation	3 Yr Sharpe Ratio
	Earnings	Sales	Cash Flow	ROE														
Energy																		
XLE	9.9	3.5	5.5	13.7	14.2	7.5	2.0	1.1	0.9	99		61,762	45	60.8	5	-32.1	20.6	0.8
IXC	-0.3	5.0	5.1	14.0	12.3	6.7	1.7	0.8	0.9	78		77,477	98	51.5	6	-30.7	19.0	0.6
IYE	11.1	2.3	5.8	14.9	13.6	7.5	2.0	1.1	0.9	93		66,631	82	63.6	9	-30.5	19.8	0.8
IEO	5.8	-8.6	4.9	10.2	16.0	6.0	2.0	0.9	0.9	83		22,018	70	60.9	13	-40.0	26.4	0.7
AMJ	—	—	—	—	—	—	—	—	—	0		—	—	—	0	-9.3	14.3	1.0
OIH	3.1	12.4	13.7	15.1	16.7	10.8	2.0	1.8	0.9	88		22,784	25	71.7	6	—	—	—
XOP	9.3	10.1	6.5	8.2	16.3	5.4	1.9	0.7	—	44		5,429	73	17.9	40	-43.3	27.9	0.7
VDE	11.1	3.0	5.4	15.8	12.6	7.1	1.9	1.0	0.9	90		57,020	164	58.4	9	-33.8	20.5	0.8
Fin																		
■ XLF	7.9	-8.9	49.0	11.3	14.3	—	1.3	2.0	1.0	95		57,100	82	49.4	8	-39.8	18.9	0.8
IXG	1.8	-4.0	-32.4	10.6	9.9	—	1.2	1.6	—	64		51,907	233	24.4	5	-42.0	20.2	0.6
IYG	12.3	-5.5	52.9	14.4	14.0	—	1.4	2.7	1.0	92		53,896	110	61.2	7	-42.1	20.5	0.8
IYF	5.8	-7.8	31.2	12.2	14.8	—	1.4	2.2	1.0	83		36,004	268	38.8	10	-37.1	17.4	0.9
KBE	11.4	-7.8	310.5	6.2	13.7	—	1.3	3.0	—	61		7,575	47	23.5	28	-50.2	20.6	0.7
KRE	11.3	-17.6	-5.1	9.7	14.8	—	1.4	3.4	—	36		2,757	80	20.5	29	-37.6	21.6	1.0
VFH	6.6	-7.9	32.0	10.4	15.3	—	1.3	2.1	1.0	75		26,803	536	42.7	9	-36.0	17.9	0.8
Hlth Cr																		
XLV	4.2	9.2	5.2	21.5	20.4	15.8	3.5	1.7	1.0	100		62,587	56	55.8	5	-23.0	11.2	1.8
IXJ	2.5	6.9	0.9	26.1	21.0	15.4	3.5	2.0	1.0	82		69,653	98	47.1	6	-22.7	11.5	1.6
IBB	14.2	13.6	12.6	15.1	30.0	23.7	6.4	7.1	1.0	73		13,094	119	54.3	14	-34.1	16.7	1.8
IYH	4.5	9.9	6.6	20.8	20.1	15.6	3.5	2.1	1.0	94		49,984	114	52.6	6	-24.1	11.5	1.8
XBI	127.5	12.3	-4.8	-8.5	—	—	6.5	9.8	—	37		2,720	57	37.6	61	-24.2	22.8	1.1
XPH	-3.5	9.1	3.0	15.9	19.3	16.4	4.1	3.6	—	58		8,405	31	45.3	44	-17.3	13.0	1.6
VHT	5.3	9.1	5.7	17.4	21.0	14.5	3.5	1.7	1.0	90		38,475	294	47.6	5	-24.5	11.7	1.8
Indstrls																		
XLI	10.7	5.8	3.2	22.3	19.0	11.8	3.4	1.5	1.0	98		42,589	64	48.3	8	-33.8	15.5	1.1
EXI	7.0	-2.7	3.1	17.7	18.1	10.7	2.5	1.1	—	57		31,692	206	28.3	8	-36.0	16.1	0.8
IYJ	-8.3	5.9	4.6	21.0	20.0	12.5	3.3	1.4	1.0	86		26,643	223	37.0	7	-35.7	15.9	1.1
VIS	7.3	5.1	4.6	20.1	18.9	11.2	3.0	1.3	1.0	82		23,450	349	40.4	6	-35.7	16.2	1.1
Nt Rsrc																		
GUNR	0.7	4.8	-2.3	10.8	12.7	7.3	1.6	0.8	1.0	76		35,975	155	39.3	5	—	—	—
MXI	-1.2	-1.6	-3.9	9.9	17.8	8.8	1.8	1.0	—	57		27,482	127	35.2	7	-47.7	21.4	0.1
IGE	0.9	0.7	1.9	10.9	15.6	7.4	1.9	1.2	0.9	91		33,296	142	43.9	7	-39.0	21.3	0.5
IYM	1.4	-1.4	1.0	19.7	18.9	11.1	2.6	1.3	1.0	80		19,634	58	59.6	8	-51.0	22.0	0.4
MOO	5.0	8.8	-3.0	18.2	13.2	11.2	1.9	0.7	—	59		14,801	49	58.9	19	-51.4	19.0	0.2
XLB	3.3	2.8	0.1	20.9	18.3	11.4	2.9	1.4	1.0	93		24,975	32	66.1	12	-40.9	19.3	0.6
XME	11.7	0.6	-23.5	-5.2	22.2	7.9	1.1	0.6	—	58		2,461	40	33.0	36	-62.9	30.4	-0.2
VAW	4.2	0.1	3.9	19.5	17.7	10.5	2.5	1.2	1.0	76		13,165	136	48.2	7	-44.9	19.9	0.7
Real Est																		
SCHH	3.8	-3.2	15.3	8.4	37.2	—	2.3	6.4	—	51		9,829	86	47.4	7	—	—	—
RWR	3.8	-3.2	15.5	8.4	37.2	—	2.3	6.4	—	53		9,845	85	45.5	7	-49.0	16.7	0.7
VNQ	3.3	-3.4	12.8	7.3	41.9	—	2.2	6.2	—	48		8,261	134	41.7	9	-47.3	16.6	0.8
Tech																		
IXN	16.6	7.5	13.2	23.4	15.8	10.2	2.9	2.1	1.0	80		89,554	114	54.8	7	-36.8	14.4	0.8
IYW	18.0	11.8	12.4	22.9	16.6	11.2	3.4	2.6	0.9	93		87,868	142	66.8	5	-40.2	14.9	0.8
XLK	14.0	10.0	11.7	23.8	16.6	9.3	3.4	2.5	1.0	99		109,439	73	63.2	5	-38.3	12.6	1.1
VGT	16.5	10.2	11.9	23.0	16.6	10.8	3.3	2.3	1.0	88		55,739	418	54.0	6	-36.7	14.6	0.9
Utilities																		
JXI	-15.5	-2.9	-2.9	8.2	17.1	5.8	1.3	0.8	1.0	69		20,532	78	38.1	8	-27.1	12.0	0.3
IDU	-5.2	-3.7	0.7	7.7	20.0	6.9	1.7	1.6	1.0	90		14,983	65	47.0	5	-22.8	10.6	1.1
XLU	-6.7	-3.7	0.1	6.9	20.1	6.6	1.6	1.5	1.0	97		19,463	32	57.4	4	-22.8	11.0	1.0
VPU	-5.4	-3.9	0.8	8.1	19.6	6.8	1.7	1.6	1.0	88		13,963	80	46.2	7	-22.0	10.7	1.1





ETF Watchlist Fixed Income	Historical Performance							Nuts and Bolts							
	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Tax Cost Ratio %	Current Market Price \$	Total Assets (\$Mil)	Daily Vol. (Thou)	Expense Ratio %	Est. Holding Costs	SEC Yield %	12Mo Yield %	Inception Date
		YTD	1Mo	3Mo	1Yr	3Yr									
Domestic															
FlexShares iBoxx 3Yr Target Dur TIPS ETF TDTT	NR	-1.7	0.1	-0.2	-1.4	—	—	24.99	1,969	227	0.20	—	—	0.4	09-19-11
FlexShares iBoxx 5Yr Target Dur TIPS ETF TDTF	NR	-3.4	0.5	0.6	-3.2	—	—	25.26	392	168	0.20	—	—	0.3	09-19-11
iShares 1-3 Year Credit Bond CSJ	★★★★	1.0	0.3	0.6	1.1	1.7	0.60	105.44	11,440	657	0.20	0.42	0.75	1.3	01-05-07
iShares 20+ Year Treasury Bond TLT	★★	-9.8	1.4	0.8	-10.6	5.8	1.18	107.64	2,680	8,353	0.15	0.02	3.59	2.9	07-22-02
iShares 3-7 Year Treasury Bond IEI	★★★★	-0.7	0.5	1.0	-0.5	2.1	0.43	121.84	2,620	1,083	0.15	0.10	1.15	0.7	01-05-07
iShares 7-10 Year Treasury Bond IEF	★★★★	-3.4	0.9	1.3	-3.2	3.6	0.79	102.75	4,245	1,063	0.15	0.07	2.20	1.7	07-22-02
iShares Core Long-Term US Bond ILTB	★★★★	-6.8	2.0	1.5	-7.5	5.9	1.54	56.86	37	9	0.16	—	4.48	4.5	12-08-09
iShares Core Short-Term US Bond ISTB	NR	0.4	0.3	0.6	0.5	—	—	100.60	65	8	0.12	—	0.83	0.5	10-18-12
iShares Core Total Aggregate US Bond AGG	★★★★	-1.2	0.8	1.2	-1.2	2.9	1.08	107.90	14,635	901	0.16	0.11	2.22	2.4	09-22-03
iShares Credit Bond CFT	★★★★	-1.8	1.4	1.5	-1.9	4.3	1.39	108.36	879	67	0.20	0.32	2.93	3.5	01-05-07
iShares iBoxx \$ High Yield Corporate Bd HYG	★★★★	5.2	2.6	2.8	7.5	8.4	2.54	93.43	16,579	4,063	0.50	0.18	4.88	6.2	04-04-07
iShares iBoxx \$ Invst Grade Crp Bond LQD	★★★★	-2.1	1.9	2.0	-2.2	5.2	1.51	115.20	16,690	1,832	0.15	0.08	3.43	3.8	07-22-02
iShares Intermediate Credit Bd CIU	★★	0.0	1.0	1.4	0.2	3.6	1.22	108.93	5,766	479	0.20	0.20	2.12	2.8	01-05-07
iShares Intm Government/Credit Bond GVI	★★	-0.4	0.6	0.9	-0.2	2.3	0.83	110.47	1,243	57	0.20	0.21	1.24	1.8	01-05-07
iShares MBS MBB	★	-0.7	0.7	1.7	-0.8	2.2	1.12	106.45	5,726	623	0.25	0.44	2.65	1.1	03-13-07
iShares National AMT-Free Muni Bond MUB	★★★★★	-2.6	0.9	1.4	-2.7	3.1	0.00	105.49	3,102	224	0.25	0.06	2.70	2.9	09-07-07
iShares Short Treasury Bond SHV	★	0.0	0.0	0.0	0.0	0.1	0.01	110.24	3,043	680	0.14	0.13	0.00	0.0	01-05-07
iShares TIPS Bond TIP	★★★★★	-6.3	0.5	0.5	-6.4	3.2	0.96	112.92	13,852	595	0.20	0.02	1.43	1.6	12-04-03
iShares US Preferred Stock PFF	★	0.1	1.2	-0.5	0.7	5.0	1.71	38.20	9,246	1,568	0.48	0.49	6.45	5.5	03-26-07
PIMCO 0-5 Year High Yld Corp Bd Idx ETF HYS	NR	6.9	1.7	2.7	8.8	—	—	106.07	3,445	305	0.55	—	3.29	4.5	06-16-11
PIMCO 1-5 Year US TIPS Index ETF STPZ	★★	-1.6	0.3	0.2	-1.2	1.7	0.50	53.16	1,285	103	0.20	0.15	1.11	0.2	08-20-09
PIMCO Enhanced Short Maturity ETF MINT	★★★★	0.6	0.1	0.3	0.8	1.2	0.37	101.51	3,889	502	0.35	—	0.53	0.8	11-16-09
PIMCO Intermediate Municipal Bond ETF MUNI	★★★★	-1.8	0.6	1.6	-1.5	2.7	0.04	52.31	197	30	0.35	—	1.70	2.3	11-30-09
PIMCO Short Term Municipal Bond ETF SMMU	★★	0.3	0.2	0.3	0.1	0.8	0.01	50.21	76	7	0.35	—	0.19	0.7	02-01-10
■ PIMCO Total Return ETF BOND	NR	0.0	0.9	1.9	0.9	—	—	106.68	3,836	360	0.55	—	1.91	2.4	02-29-12
Schwab Intermediate-Term U.S. Trsy ETF SCHR	★★★★★	-1.3	0.6	1.0	-1.1	2.5	0.46	53.05	236	92	0.11	—	1.56	0.9	08-05-10
Schwab Short-Term U.S. Treasury ETF SCHO	★★★★	0.3	0.1	0.2	0.4	0.6	0.12	50.58	427	97	0.11	—	0.31	0.3	08-05-10
Schwab U.S. Aggregate Bond ETF SCHZ	NR	-1.2	0.8	1.3	-1.2	—	—	51.14	470	61	0.08	—	2.05	2.0	07-14-11
Schwab U.S. TIPS ETF SCHK	★★★★★	-6.3	0.5	0.5	-6.4	3.2	0.65	54.30	413	29	0.12	—	0.88	1.3	08-05-10
SPDR Barclays Capital Short Term Corp Bd SCPB	★★★★	1.2	0.4	0.7	1.3	2.0	0.60	30.77	2,877	1,138	0.13	—	1.00	1.2	12-16-09
SPDR Barclays High Yield Bond JNK	★★★★	5.0	2.7	2.9	7.6	8.1	2.74	40.63	10,005	4,449	0.40	0.81	5.26	6.2	11-28-07
SPDR Nuveen Barclays Capital Muni Bond TFI	★★★★	-2.9	0.9	2.1	-2.6	3.3	0.11	23.01	960	311	0.23	0.63	2.59	2.7	09-11-07
SPDR Nuveen Barclays Capital S/T Muni Bd SHM	★★★★	1.0	0.7	1.1	0.8	1.6	0.04	24.30	2,031	525	0.20	0.31	0.60	1.0	10-10-07
Vanguard Intern-Tm Corp Bd Idx ETF VCIT	★★★★	-1.0	1.5	1.7	-0.9	5.1	1.40	84.24	3,353	261	0.12	0.17	3.36	3.5	11-19-09
Vanguard Intern-Tm Govt Bd Idx ETF VGIT	★★★★★	-1.2	0.5	0.9	-1.0	2.5	0.81	64.02	118	23	0.12	—	1.36	1.4	11-19-09
Vanguard Intermediate-Term Bond ETF BIV	★★★★★	-1.8	1.1	1.5	-1.6	4.0	1.48	84.39	3,737	218	0.10	0.05	2.62	3.0	04-03-07
Vanguard Long-Term Bond Index ETF BLV	★★★★	-6.7	2.0	1.2	-7.6	6.1	1.83	84.62	558	78	0.10	0.23	4.52	4.4	04-03-07
Vanguard Long-Term Corp Bond Idx ETF VCLT	★★★★★	-5.0	2.3	1.2	-6.4	6.8	1.81	83.73	577	110	0.12	—	5.09	5.2	11-19-09
Vanguard Long-Term Govt Bd Idx ETF VGLT	★★★★	-8.5	1.3	0.8	-9.1	5.1	1.18	67.28	67	13	0.12	—	3.45	3.3	11-19-09
Vanguard Mortgage-Backed Sec Idx ETF VMBS	★★	-0.3	0.6	1.6	-0.4	2.5	0.82	51.72	419	68	0.12	—	1.63	0.8	11-19-09
Vanguard Short-Term Bond ETF BSV	★★★★	0.4	0.3	0.6	0.6	1.5	0.67	80.54	13,798	952	0.10	0.10	0.74	1.3	04-03-07
Vanguard Short-Term Corp Bd Idx ETF VCSH	★★★★★	1.4	0.6	1.2	1.5	2.9	0.82	80.09	6,901	631	0.12	0.18	1.45	2.0	11-19-09
Vanguard Short-Term Govt Bd Idx ETF VGSH	★★★★	0.3	0.1	0.2	0.4	0.6	0.19	60.93	344	58	0.12	—	0.23	0.3	11-19-09
Vanguard Shrt-Term Infl-Prot Sec Idx ETF VTIP	NR	-1.1	0.2	0.1	-0.7	—	—	49.54	1,016	124	—	—	-0.88	0.1	10-12-12
Vanguard Total Bond Market ETF BND	★★	-1.2	0.7	1.1	-1.2	2.9	1.16	81.40	16,903	1,031	0.10	0.14	2.15	2.5	04-03-07
Foreign															
iShares JPMorgan USD Emerg Markets Bond EMB	★★	-5.8	2.7	2.7	-4.0	4.4	1.72	111.35	3,850	708	0.60	1.10	4.77	4.6	12-17-07
Market Vectors EM Local Curr Bond ETF EMLC	★★	-4.9	2.9	2.9	-1.6	1.9	1.74	24.76	1,106	509	0.47	0.81	5.97	4.7	07-22-10
PIMCO Global Advantage Infl-Lkd Bd ETF ILB	NR	-7.6	0.5	1.1	-6.1	—	—	49.41	112	7	0.60	—	0.35	0.7	04-30-12
PowerShares Emerging Mkts Sovereign Debt PCY	★★★★★	-7.6	2.8	2.7	-5.9	4.8	1.84	27.91	2,008	758	0.50	1.10	5.21	4.6	10-11-07
WisdomTree Emerging Markets Local Debt ELD	★★	-6.5	2.5	2.0	-3.9	1.2	1.50	48.04	1,351	311	0.55	—	—	4.1	08-09-10

Portfolio Style

Ticker	Style Box	# of Holdings	Assets in Top 10 %	Turnover %	Avg Credit Quality	Effective Duration	Asset Allocation %				Credit Quality (% of Bonds)				Risk		
							Cash	U.S. Bond	Non-U.S. Bond	Other	High	Med	Low	Not Rated	3 Yr Standard Deviation	Worst 3 Mo Return %	3 Yr Sharpe Ratio
Dom																	
TDIT	■	8	100.0	55	AAA	—	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	—	—	—
TDTF	■	12	97.3	60	AAA	—	0.1	100.0	0.0	0.0	100.0	0.0	0.0	0.0	—	—	—
CSJ	■	877	7.8	8	BBB	2.0	2.6	54.8	42.6	0.0	33.0	61.7	0.6	4.8	1.1	-4.7	1.5
TLT	■	21	77.1	19	AA	16.4	0.3	99.7	0.0	0.0	99.0	0.0	0.0	1.0	14.3	-11.8	0.5
IEI	■	68	45.7	51	AA	4.5	0.2	99.9	0.0	0.0	99.4	0.0	0.0	0.6	3.1	-2.9	0.7
IEF	■	14	83.8	47	AA	7.6	1.5	98.5	0.0	0.0	97.6	0.0	0.0	2.4	6.1	-6.0	0.6
ILTB	■	435	21.0	50	A	13.0	0.7	84.8	14.5	0.0	46.1	49.9	1.4	2.6	9.1	-9.8	0.7
ISTB	■	387	31.1	0	A	2.7	1.7	87.4	10.8	0.0	76.6	20.4	0.1	3.0	—	—	—
AGG	■	1,984	20.7	110	A	5.0	10.5	78.8	10.7	0.0	76.2	21.4	0.3	2.2	2.9	-3.3	1.0
CFT	■	2,089	3.3	10	BBB	6.4	3.3	67.4	29.3	0.1	20.2	74.4	1.1	4.3	4.5	-11.5	0.9
HYG	■	874	3.8	19	B	4.3	1.0	84.4	14.3	0.3	0.0	1.0	95.4	3.6	7.6	-28.8	1.1
LQD	■	1,114	3.6	5	BBB	7.5	0.4	80.5	19.1	0.0	13.7	83.8	0.3	2.1	5.6	-13.1	0.9
CIU	■	2,723	3.1	7	BBB	4.3	2.3	65.1	32.5	0.1	22.9	72.9	0.9	3.4	3.2	-9.4	1.1
GVI	■	1,112	32.9	15	A	3.8	1.9	87.0	11.1	0.0	71.6	25.7	0.3	2.4	2.3	-2.8	1.0
MBB	■	480	17.1	581	A	4.4	19.9	71.6	8.5	0.0	97.1	0.0	0.0	2.9	2.1	-2.9	1.0
MUB	■	2,216	2.9	9	A	7.2	4.2	95.8	0.0	0.0	56.6	34.4	0.0	9.0	4.9	-5.5	0.6
SHV	■	26	—	95	A	0.5	100.0	0.0	0.0	0.0	95.5	0.0	0.0	4.5	0.1	0.0	-0.5
TIP	■	38	45.0	10	AA	7.6	2.5	97.5	0.0	0.0	99.6	0.0	0.0	0.4	5.5	-11.7	0.6
PFF	■	314	18.0	32	—	—	0.5	0.6	0.2	86.8	—	—	—	—	7.2	-29.2	0.7
HYS	■	352	12.9	33	—	2.0	10.0	78.2	12.1	-0.3	—	—	—	—	—	—	—
STPZ	■	14	88.3	11	—	2.7	0.5	99.5	0.0	0.0	—	—	—	—	2.5	-2.9	0.7
MINT	■	674	16.3	100	—	1.0	28.0	40.7	31.7	-0.4	—	—	—	—	0.6	-0.6	1.8
MUNI	■	159	14.8	35	—	5.4	20.1	79.9	0.0	0.0	—	—	—	—	3.8	-4.8	0.7
SMMU	■	79	30.9	42	—	1.3	20.8	79.2	0.0	0.0	—	—	—	—	0.7	-0.6	1.2
■ BOND	■	825	67.8	449	—	4.9	-22.7	95.0	23.9	3.9	—	—	—	—	—	—	—
SCHR	■	59	32.6	47	AAA	5.1	0.0	99.8	0.0	0.2	99.8	0.0	0.0	0.2	3.8	-3.2	0.7
SCHO	■	44	44.1	101	AA	1.9	0.7	99.3	0.0	0.0	99.4	0.0	0.0	0.6	0.5	-0.2	0.9
SCHZ	■	1,212	9.6	151	A	5.1	3.8	86.0	10.2	0.1	77.6	21.2	0.2	1.0	—	—	—
SCHP	■	35	46.1	22	AAA	7.6	0.0	99.9	0.0	0.1	99.9	0.0	0.0	0.1	5.5	-7.1	0.6
SCPB	■	844	5.5	46	A	1.9	2.0	75.5	22.3	0.3	15.2	84.8	0.0	0.0	1.2	-0.5	1.6
JNK	■	665	5.2	49	B	4.4	1.2	82.0	16.8	0.0	0.0	0.9	99.1	0.0	8.1	-32.5	1.0
TFI	■	432	12.3	18	AA	8.7	0.3	98.5	1.2	0.0	98.3	1.6	0.0	0.1	5.3	-6.0	0.6
SHM	■	494	10.2	20	AA	2.9	0.3	99.7	0.0	0.0	99.6	0.3	0.0	0.1	1.4	-1.0	1.1
VCIT	■	1,367	3.9	73	A	6.5	0.7	84.2	15.1	0.0	8.8	91.2	0.0	0.0	5.1	-4.7	1.0
VGIT	■	171	18.8	54	AAA	5.2	0.3	99.7	0.0	0.0	100.0	0.0	0.0	0.0	3.7	-3.0	0.7
BIV	■	1,495	28.9	65	A	6.5	0.2	86.4	13.4	0.0	58.2	41.8	0.0	0.0	4.6	-6.8	0.9
BLV	■	1,571	29.1	41	A	14.0	0.5	85.3	14.1	0.1	45.3	54.7	0.0	0.0	9.4	-9.9	0.7
VCLT	■	1,229	5.7	57	A	13.2	0.8	85.3	13.7	0.2	8.0	92.1	0.0	0.0	8.9	-8.3	0.8
VGLT	■	64	41.8	54	AAA	16.0	0.5	99.5	0.0	0.0	100.0	0.0	0.0	0.0	12.4	-10.9	0.5
VMBS	■	1,558	18.2	840	AAA	5.0	12.3	85.8	1.9	0.0	100.0	0.0	0.0	0.0	2.0	-2.3	1.2
BSV	■	1,705	16.8	51	AA	2.7	1.1	87.9	11.0	0.1	79.4	20.6	0.0	0.0	1.3	-1.2	1.1
VCSH	■	1,545	3.3	61	A	2.9	0.1	80.6	19.0	0.3	13.7	86.3	0.0	0.0	2.3	-1.2	1.3
VGSH	■	107	28.5	73	AAA	1.9	0.8	99.2	0.0	0.0	100.0	0.0	0.0	0.0	0.6	-0.2	1.0
VTIP	■	17	67.6	—	AAA	2.5	24.6	75.4	0.0	0.0	100.0	0.0	0.0	0.0	—	—	—
BND	■	16,057	6.1	80	AA	5.5	2.7	88.3	9.0	0.1	75.5	24.5	0.0	0.0	2.9	-3.2	1.0
Foreign																	
EMB	■	210	14.1	30	BB	7.1	1.0	0.5	92.3	6.3	2.9	60.8	23.7	12.6	8.4	-20.9	0.6
EMLC	■	204	18.3	16	BB	4.7	7.6	0.0	92.4	0.0	6.9	43.3	8.7	41.1	12.8	-10.4	0.2
ILB	■	82	47.8	216	—	7.9	8.8	25.8	64.3	1.1	—	—	—	—	—	—	—
PCY	■	68	18.8	4	BB	—	0.5	0.0	99.5	0.0	4.9	57.1	38.0	0.0	9.3	-24.5	0.5
ELD	■	119	17.5	57	BBB	4.3	4.8	0.2	95.0	0.0	23.9	66.4	9.8	0.0	11.7	-10.3	0.2

Historical Performance

Nuts and Bolts

ETF Watchlist International	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Tax Cost Ratio %	Yield %	Current Market Price \$	Total Assets (\$Mil)	Daily Vol. (Thou)	Expense Ratio %	Est. Holding Costs	Inception Date
		YTD	1Mo	3Mo	1Yr	3Yr								
Foreign Large Cap														
iShares Core MSCI EAFE IEFA	NR	20.9	3.3	9.9	27.7	—	—	1.6	59.59	1,082	186	0.05	—	10-18-12
iShares Core MSCI Total Intl Stk IXUS	NR	14.5	3.6	9.5	20.8	—	—	1.8	56.89	284	86	0.05	—	10-18-12
iShares International Select Div IDV	★★★★★	20.2	5.0	13.6	24.0	10.5	1.26	4.5	38.03	2,889	551	0.50	0.38	06-11-07
iShares MSCI ACWI ex US Index ACWX	★★★★	13.9	3.6	9.3	20.1	5.7	0.60	2.4	46.40	1,884	310	0.34	0.09	03-26-08
iShares MSCI EAFE EFA	★★★★	20.0	3.3	9.5	26.7	8.3	0.66	2.7	65.88	48,486	15,776	0.34	0.11	08-14-01
iShares MSCI EAFE Growth EFG	★★★★	19.2	2.5	8.1	25.5	8.3	0.47	1.9	69.91	1,646	79	0.40	0.66	08-01-05
 iShares MSCI EAFE Minimum Volatility EFAV	NR	16.3	2.0	5.9	17.0	—	—	2.1	62.06	911	110	0.20	—	10-18-11
iShares MSCI EAFE Value EFV	★★★★	20.2	4.1	10.7	27.4	7.9	0.81	3.0	56.58	2,348	168	0.40	0.83	08-01-05
PowerShares FTSE RAFI Dev Mkts ex-US PXF	★★★★	20.8	4.0	11.2	29.2	6.5	1.10	2.4	43.20	636	55	0.75	0.90	06-25-07
PowerShares Intl Dividend Achievers PID	★★★★★	14.8	3.6	7.1	19.7	8.9	1.15	2.2	17.89	1,044	166	0.56	—	09-15-05
PowerShares S&P Intl Dev Low Volatility IDLV	NR	15.0	3.2	6.4	16.2	—	—	2.6	31.64	136	72	0.25	—	01-13-12
Schwab International Equity ETF SCHF	★★★★	17.7	3.3	9.3	24.1	7.8	0.89	2.3	31.35	1,779	292	0.09	0.07	11-03-09
SPDR MSCI ACWI (ex-US) CWI	★★★★	13.7	3.4	9.1	19.6	5.7	1.03	2.8	35.42	511	62	0.34	0.96	01-10-07
SPDR S&P International Dividend DWX	★★	8.5	3.5	9.3	14.1	1.4	2.38	6.5	48.21	1,399	168	0.45	1.71	02-12-08
SPDR S&P World ex-US GWL	★★★★	17.2	2.9	9.3	23.3	7.8	0.94	2.4	28.91	755	151	0.34	—	04-20-07
Vanguard FTSE All-World ex-US ETF VEU	★★★★	13.0	3.5	9.0	20.1	6.0	0.81	3.0	50.22	11,102	1,109	0.15	0.24	03-02-07
 Vanguard FTSE Developed Markets ETF VEA	★★★★	19.3	3.2	9.4	26.9	8.4	0.66	3.0	40.85	17,807	3,608	0.10	1.15	07-20-07
Vanguard Total Intl Stock Idx ETF VXUS	NR	13.6	3.5	9.1	20.5	—	—	3.1	51.99	2,198	243	0.16	0.01	01-26-11
WisdomTree DEFA DWM	★★★★★	19.8	3.8	10.6	26.1	8.2	1.45	3.4	53.48	523	28	0.48	0.19	06-16-06
WisdomTree DEFA Equity Income DTH	★★★★	21.9	4.5	12.2	27.1	8.4	1.69	3.9	47.05	277	21	0.58	—	06-16-06
WisdomTree International Div ex-Finncs DDO	★★★★	18.5	3.8	12.3	22.6	6.1	1.62	3.6	47.25	355	32	0.58	0.04	06-16-06
WisdomTree International LargeCap Div DOL	★★★★	18.9	4.0	10.5	24.2	7.8	1.43	3.2	51.28	281	17	0.48	0.56	06-16-06
Foreign Small and Mid-Cap														
iShares MSCI EAFE Small-Cap SCZ	★★★★	25.5	2.8	11.6	31.8	11.3	0.80	2.7	49.96	2,902	552	0.40	0.22	12-10-07
PowerShares FTSE RAFI Dev Mkts ex-US S/M PDN	★★★★	19.3	3.1	11.1	26.6	8.7	0.89	2.1	27.91	99	23	0.75	—	09-27-07
Schwab International Small-Cap Eq ETF SCHC	★★	19.0	3.1	10.2	24.4	8.0	1.03	2.6	31.89	339	58	0.21	—	01-14-10
SPDR S&P International Small Cap GWX	★★	19.5	2.0	10.1	24.7	8.1	0.88	2.1	33.48	837	91	0.59	0.18	04-20-07
Vanguard FTSE All-World ex-US SmCap Idx ETF VSS	★★	15.4	3.4	9.6	21.5	6.0	0.89	3.1	102.89	1,723	59	0.25	0.06	04-02-09
WisdomTree International MidCap Dividend DIM	★★	19.9	3.2	10.2	27.8	8.1	1.36	3.3	58.01	133	8	0.58	—	06-16-06
WisdomTree International SmallCap Div DLS	★★★★★	25.5	3.5	13.1	35.1	12.3	1.50	3.7	62.18	749	54	0.58	0.09	06-16-06
Diversified Emerging Markets														
iShares Core MSCI Emerging Market IEMG	NR	0.5	4.7	9.4	7.2	—	—	1.1	50.64	2,885	898	—	—	10-18-12
iShares Emerging Markets Dividend DVYE	NR	-3.1	4.8	10.1	4.6	—	—	3.8	51.71	177	27	0.49	—	02-23-12
iShares MSCI Emerging Markets EEM	★★★★	-0.3	4.8	9.6	6.0	-0.4	0.46	1.8	42.46	44,736	60,977	0.68	0.55	04-07-03
 iShares MSCI Emerging Mkts Min Vol EEMV	NR	3.1	3.7	5.7	8.1	—	—	1.7	60.25	2,894	556	0.25	—	10-18-11
PowerShares FTSE RAFI Emerging Markets PXH	★★	-3.1	5.3	11.6	3.7	-2.2	0.96	2.5	21.23	367	61	0.85	0.17	09-27-07
PowerShares S&P Emerging Mkts Low Vol EELV	NR	1.9	3.9	6.1	7.3	—	—	1.7	28.56	217	60	0.29	—	01-13-12
Schwab Emerging Markets Equity ETF SCHE	★★★★	-0.6	5.1	9.1	5.6	-0.6	0.64	2.2	25.56	942	265	0.15	0.02	01-14-10
SPDR S&P Emerging Markets Dividend EDIV	NR	-5.4	4.3	10.6	2.9	—	—	5.0	41.90	562	95	0.61	—	02-23-11
SPDR S&P Emerging Markets Small Cap EWX	★★★★	4.6	4.1	7.2	13.2	-1.4	1.16	2.2	47.26	774	80	0.66	0.82	05-12-08
Vanguard FTSE Emerging Markets ETF VWO	★★★★	-2.2	4.7	8.6	5.0	-0.4	0.76	3.2	41.87	51,083	18,243	0.18	0.15	03-04-05
 WisdomTree Emerging Mkts Equity Inc DEM	★★★★★	-0.5	4.0	10.6	5.9	2.2	1.50	3.8	53.40	5,295	600	0.63	1.21	07-13-07
WisdomTree Emerging Mkts SmallCap Div DGS	★★★★★	2.8	4.1	6.7	10.3	1.2	1.29	3.2	48.29	1,816	172	0.63	1.03	10-30-07
Country/Region Specific														
iShares Asia 50 AIA	★★★★★	3.4	3.4	9.2	10.4	6.0	0.67	2.1	48.02	261	48	0.50	—	11-13-07
iShares Europe IEV	★★★★	21.2	4.3	10.4	27.8	8.5	0.69	2.5	45.93	2,312	837	0.60	0.98	07-25-00
iShares Latin America 40 ILF	★★★★	-6.9	4.4	10.3	-3.1	-6.0	0.58	2.8	39.77	1,157	421	0.50	0.53	10-25-01
iShares MSCI All Country Asia ex Jpn Idx AAXJ	★★★★	3.3	4.3	8.2	9.5	1.3	0.49	1.7	60.21	2,701	751	0.67	0.94	08-13-08
iShares MSCI Australia EWA	NR	10.6	5.5	14.8	15.0	8.4	1.03	5.4	26.67	2,098	1,534	0.53	0.39	03-12-96
iShares MSCI Austria Capped EWO	NR	14.1	3.7	14.9	26.6	1.0	0.60	1.7	20.01	104	77	0.52	—	03-12-96
iShares MSCI Brazil Capped EWZ	★	-6.8	5.8	16.0	-2.8	-10.2	1.03	2.7	50.16	5,787	14,181	0.61	—	07-10-00
iShares MSCI Canada EWC	NR	4.7	3.3	6.2	5.8	2.6	0.43	2.3	29.36	3,675	1,205	0.53	0.15	03-12-96
iShares MSCI Chile Capped ECH	NR	-17.4	0.5	3.9	-16.8	-11.1	0.51	1.4	50.03	412	316	0.61	—	11-12-07
iShares MSCI China MCHI	NR	1.9	2.5	10.3	8.7	—	—	2.2	46.95	1,060	537	0.61	—	03-29-11
iShares MSCI EMU Index EZU	★	24.5	5.8	13.0	33.2	6.3	0.72	2.3	39.78	6,614	3,855	0.53	0.95	07-25-00
iShares MSCI France EWQ	NR	24.0	4.0	10.0	33.8	6.6	0.67	2.4	27.90	615	370	0.53	1.02	03-12-96


Valuation						Portfolio Style											Risk		
Ticker	ROE	Price/ Earn	Price/ Cash Flow	Price/ Book	Price/ Sales	Style Box	Avg Mkt Cap (\$Mil)	# of Holdgs	Assets in Top 10 %	Turnover %	Regional Exposure (% of Stock)						Worst 3 Mo Return %	3 Yr Standrd Deviatn	3 Yr Sharpe Ratio
											UK/W. Europe	North Amer	Latin Amer	Japan	Asia ex- Japan	Other			
Fgn LC																			
IEFA	14.0	13.2	8.8	1.6	0.9		25,918	2,477	11.5	1	36	0	0	12	7	0	—	—	—
IXUS	14.5	13.0	8.4	1.6	1.0		22,213	3,365	8.4	5	25	3	2	9	12	2	—	—	—
IDV	16.4	13.9	6.0	1.8	0.7		14,300	113	28.2	24	44	2	0	1	17	0	-43.8	18.1	0.6
ACWX	15.0	12.9	8.2	1.6	1.0		33,286	1,182	9.9	7	27	4	2	9	13	2	-38.5	17.2	0.4
EFA	14.6	13.0	8.8	1.6	1.0		37,739	932	13.1	3	40	0	0	13	8	0	-35.2	17.3	0.5
EFG	20.3	18.6	12.3	2.4	1.4		35,614	533	20.7	26	36	0	0	12	7	0	-36.0	16.5	0.6
EFAV	18.6	16.2	9.8	2.0	1.5		22,843	194	15.7	27	52	0	0	27	19	2	—	—	—
EFV	9.1	10.0	6.6	1.2	0.8		39,886	519	19.9	27	34	0	0	11	7	0	-34.5	18.4	0.5
PXF	9.3	12.1	6.3	1.2	0.6		31,655	1,022	13.3	17	37	3	0	12	6	0	-35.5	19.5	0.4
PID	19.8	15.9	8.4	2.1	1.4		31,142	60	32.4	46	23	21	2	1	3	3	-39.5	13.9	0.7
IDLV	17.4	14.4	10.4	2.0	1.5		18,270	202	7.5	41	28	16	0	1	16	1	—	—	—
SCHF	13.8	13.0	8.5	1.6	1.0		33,616	1,158	11.1	9	32	4	0	11	9	0	-19.7	17.2	0.5
CWI	15.2	13.4	8.0	1.6	1.0		37,153	620	10.5	8	29	4	2	9	14	2	-36.3	17.1	0.4
DWX	16.0	12.0	5.9	1.5	1.0		9,917	122	18.5	127	33	3	2	0	19	6	-44.4	19.3	0.2
GWL	13.7	13.4	8.4	1.5	0.9		25,229	735	11.1	8	31	4	0	11	9	0	-35.1	16.9	0.5
VEU	14.7	14.2	7.9	1.5	1.0		27,321	2,336	9.2	6	46	7	4	16	23	4	-37.1	17.5	0.4
VEA	14.2	15.1	8.2	1.5	0.9		30,333	1,299	12.3	7	61	0	0	22	17	1	-34.4	17.5	0.5
VXUS	14.5	14.3	8.0	1.5	0.9		20,326	5,605	8.3	3	46	8	4	16	23	4	—	—	—
DWM	15.2	14.1	7.5	1.5	0.9		33,392	747	15.2	20	42	0	0	7	13	0	-34.6	17.4	0.5
DTH	14.2	13.6	6.5	1.5	0.9		39,678	383	22.7	31	43	0	0	2	15	0	-36.2	18.2	0.5
DOO	14.2	14.9	6.5	1.6	0.8		37,847	91	21.6	50	53	0	1	4	10	1	-38.5	17.1	0.4
DOL	15.7	14.3	7.6	1.6	1.0		66,198	228	20.2	19	36	0	0	5	10	0	-33.8	17.6	0.5
Fgn SM																			
SCZ	10.0	14.9	8.4	1.4	0.7		1,820	1,331	3.8	12	31	0	0	14	7	1	-40.6	17.5	0.7
PDN	9.8	15.3	7.3	1.2	0.6		1,995	1,614	2.3	28	20	4	0	16	9	1	-34.9	16.1	0.6
SCHC	11.4	14.9	9.0	1.5	0.8		1,840	1,338	3.8	20	31	6	0	8	8	0	-20.9	18.1	0.5
GWX	10.7	14.3	8.3	1.2	0.7		1,218	1,257	4.8	2	20	3	0	19	10	0	-39.3	17.1	0.5
VSS	11.4	13.8	7.5	1.3	0.7		1,334	3,179	2.8	18	41	14	4	12	28	2	-22.3	18.4	0.4
DIM	14.5	14.6	7.8	1.5	0.8		6,380	564	7.6	38	33	0	0	9	11	0	-35.9	17.0	0.5
DLS	13.7	13.6	7.4	1.2	0.6		1,185	872	5.3	56	24	0	0	13	15	2	-39.1	16.0	0.8
Div EM																			
IEMG	16.8	11.5	7.0	1.5	1.1		13,336	1,768	14.5	15	0	0	8	0	35	9	—	—	—
DEVE	21.1	10.6	6.8	1.5	0.9		3,559	111	23.0	41	0	0	8	0	30	12	—	—	—
EEM	17.4	11.3	7.0	1.5	1.1		20,221	834	16.5	24	0	0	10	0	35	10	-42.8	19.9	0.1
EEMV	19.5	12.2	7.1	2.0	1.2		10,607	229	14.5	23	0	0	9	0	35	6	—	—	—
PXH	16.0	8.8	4.9	1.2	0.8		28,493	340	28.0	33	0	0	11	0	28	16	-40.6	20.2	0.0
EELV	14.8	15.6	8.8	1.7	1.3		9,174	228	8.7	50	0	0	11	0	35	9	—	—	—
SCHE	18.3	11.1	7.3	1.6	1.2		19,486	679	14.9	15	0	0	11	0	30	11	-21.9	19.6	0.1
EDIV	21.4	8.6	4.9	1.5	0.8		6,421	129	23.2	134	2	0	12	0	21	17	—	—	—
EWX	12.1	12.0	6.7	1.2	0.8		927	824	4.5	22	0	0	6	0	38	9	-45.7	20.4	0.0
VWO	18.0	11.5	7.3	1.5	1.1		17,541	923	13.4	8	0	0	21	0	58	20	-44.2	20.1	0.1
DEM	20.2	8.3	4.6	1.2	0.9		19,427	320	33.5	47	0	0	8	0	24	21	-35.9	17.1	0.2
DGS	15.7	12.3	6.6	1.4	0.8		1,344	571	—	44	0	0	7	0	36	10	-41.4	18.9	0.2
C/R Spc																			
AIA	17.0	10.1	7.3	1.4	1.2		59,223	53	48.8	11	1	0	0	0	99	0	-37.6	17.9	0.4
IEV	16.3	12.1	8.8	1.7	1.0		53,181	361	20.6	6	74	0	0	0	0	0	-36.7	19.8	0.5
ILF	18.5	11.2	7.1	2.0	1.3		37,546	44	59.8	11	0	1	49	0	0	0	-47.7	21.0	-0.2
AAXJ	17.0	11.4	7.8	1.5	1.2		21,435	618	21.4	13	0	0	0	0	50	0	-39.0	18.6	0.2
EWA	14.0	17.4	10.5	2.0	2.1		33,669	72	62.3	9	0	0	0	0	100	0	-42.9	22.6	0.5
EWO	8.3	14.8	4.9	0.9	0.7		4,504	30	65.0	26	100	0	0	0	0	0	-58.7	24.8	0.2
EWZ	18.8	15.8	6.8	1.7	1.3		12,309	81	49.5	56	0	0	100	0	0	0	-53.4	26.6	-0.3
EWC	11.5	15.6	8.4	1.9	1.8		23,625	98	41.1	7	0	100	0	0	0	0	-40.9	16.4	0.2
ECH	9.8	19.8	—	1.6	1.2		7,213	43	61.9	34	0	0	50	0	0	0	-37.3	23.9	-0.4
MCHI	18.3	9.2	6.6	1.5	1.1		43,366	139	51.5	8	0	0	0	0	50	0	—	—	—
EZU	11.0	15.6	7.1	1.3	0.8		38,759	248	24.5	5	100	0	0	0	0	0	-39.8	23.8	0.4
EWQ	9.8	17.6	8.1	1.3	0.8		42,257	72	49.2	5	100	0	0	0	0	0	-37.3	23.3	0.4

Historical Performance

Nuts and Bolts

ETF Watchlist International

Country/Region Specific

	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Tax Cost Ratio %	Yield %	Current Market Price \$	Total Assets (\$Mil)	Daily Vol. (Thou)	Expense Ratio %	Est. Holding Costs	Inception Date
		YTD	1Mo	3Mo	1Yr	3Yr								
iShares MSCI Germany EWG	NR	22.5	5.6	11.8	30.7	10.0	0.52	1.5	29.34	5,484	2,239	0.53	0.93	03-12-96
iShares MSCI Hong Kong EWH	★★★★	9.2	2.1	6.5	13.6	6.1	1.06	2.7	20.37	2,285	3,031	0.53	0.74	03-12-96
iShares MSCI India INDA	NR	-4.0	10.5	7.9	0.2	—	—	0.3	24.34	432	313	0.67	—	02-02-12
iShares MSCI Indonesia EIDO	NR	-12.3	8.9	-11.0	-13.8	-2.9	0.32	1.8	25.68	428	611	0.61	—	05-05-10
iShares MSCI Italy Capped EWI	NR	21.8	11.4	20.7	28.7	-1.3	0.64	2.0	15.67	880	1,435	0.53	—	03-12-96
iShares MSCI Japan EWJ	★★★	23.7	-0.1	5.8	33.0	7.5	0.30	1.3	11.91	12,485	27,770	0.53	0.91	03-12-96
iShares MSCI Malaysia EWM	NR	7.6	5.7	5.3	8.7	7.6	1.08	2.3	15.86	862	1,575	0.53	0.57	03-12-96
iShares MSCI Mexico Capped EWW	NR	-4.8	3.4	-0.4	1.4	5.9	0.26	1.0	65.43	2,541	2,970	0.53	—	03-12-96
iShares MSCI Netherlands EWN	NR	25.8	4.9	9.7	33.3	8.9	0.48	1.4	25.02	298	201	0.53	—	03-12-96
iShares MSCI New Zealand Capped ENZL	NR	18.9	2.9	13.3	21.8	16.7	1.28	4.2	39.53	149	29	0.53	—	09-01-10
iShares MSCI Pacific ex-Japan EPP	★★★	9.5	4.4	11.5	14.0	7.5	1.04	4.1	49.72	3,520	750	0.50	0.48	10-25-01
iShares MSCI Philippines EPHE	NR	4.9	6.9	-1.9	13.2	12.2	0.22	0.9	35.20	296	303	0.61	—	09-28-10
iShares MSCI Poland Capped EPOL	NR	7.9	8.0	16.7	23.1	0.6	0.59	2.8	30.87	264	366	0.61	—	05-25-10
iShares MSCI Russia Capped Index ERUS	NR	0.6	3.7	12.7	6.5	—	—	2.6	22.36	339	466	0.61	—	11-09-10
iShares MSCI Singapore EWS	NR	3.9	3.5	4.3	8.6	4.7	1.46	4.2	13.81	1,234	1,242	0.53	0.98	03-12-96
iShares MSCI South Africa Index EZA	NR	-4.2	5.1	11.5	4.4	2.3	0.64	2.7	65.62	619	393	0.61	1.05	02-03-03
iShares MSCI South Korea Capped EWY	NR	2.9	3.9	14.6	11.4	6.6	0.12	0.6	63.90	4,408	2,694	0.61	—	05-09-00
iShares MSCI Spain Capped EWP	NR	30.3	9.1	21.2	38.6	2.1	1.11	3.3	37.71	793	680	0.53	—	03-12-96
iShares MSCI Sweden EWD	NR	18.8	0.1	3.8	27.7	9.1	0.81	3.0	34.19	477	161	0.53	0.20	03-12-96
iShares MSCI Switzerland Capped Index EWL	NR	24.1	2.7	8.1	30.5	13.6	0.54	1.9	32.21	978	315	0.53	—	03-12-96
iShares MSCI Taiwan EWT	★★	8.8	4.4	6.6	17.5	4.5	0.93	1.9	14.52	2,879	6,488	0.61	0.37	06-20-00
iShares MSCI Thailand Capped THD	NR	0.4	6.1	4.6	8.1	11.1	0.56	2.4	78.50	686	218	0.61	—	03-26-08
iShares MSCI Turkey TUR	NR	-9.8	5.6	3.0	-2.9	-5.6	0.53	1.9	57.75	511	311	0.61	0.47	03-26-08
iShares MSCI United Kingdom EWU	NR	15.8	3.5	8.7	19.7	9.5	0.61	2.5	20.35	3,268	2,449	0.53	0.54	03-12-96
Market Vectors Brazil Small-Cap ETF BRF	★	-22.6	-2.6	3.9	-18.7	-11.8	1.59	1.9	32.63	248	105	0.59	0.78	05-12-09
Market Vectors Indonesia Index ETF IDX	NR	-14.5	4.7	-11.3	-14.6	-4.7	0.50	2.1	24.02	242	251	0.58	0.46	01-15-09
Market Vectors Russia ETF RSX	NR	-0.8	4.2	13.8	7.5	-3.2	0.59	2.5	29.19	1,219	3,660	0.62	1.91	04-24-07
SPDR EURO STOXX 50 FEZ	★	23.7	6.6	13.7	32.7	5.8	1.45	2.8	40.83	4,224	1,683	0.29	—	10-15-02
SPDR S&P China GXC	★★★★	6.9	2.5	11.7	13.5	0.8	0.79	2.1	75.48	920	199	0.59	1.66	03-19-07
SPDR S&P Emerging Asia Pacific GMF	★★★★	4.0	4.2	6.4	9.7	0.8	0.96	2.2	78.00	416	29	0.60	1.73	03-19-07
SPDR S&P Emerging Europe GUR	NR	1.1	5.7	12.5	8.4	-1.1	1.03	3.9	42.33	89	16	0.60	—	03-19-07
Vanguard FTSE Europe ETF VGK	★★★★	20.4	4.1	9.9	27.7	8.9	1.06	3.2	56.78	12,061	4,462	0.12	0.29	03-04-05
Vanguard FTSE Pacific ETF VPL	★★	17.5	1.8	8.7	25.9	8.0	0.83	2.8	61.71	2,645	468	0.12	2.27	03-04-05
WisdomTree Europe Hedged Equity HEDJ	★★★★★	19.1	3.2	7.5	28.0	8.7	0.97	1.7	54.76	467	106	0.58	—	12-31-09
WisdomTree Europe SmallCap Dividend DFE	★★★★★	37.6	6.4	17.4	49.1	13.7	1.51	3.0	53.65	331	179	0.58	—	06-16-06
 WisdomTree Japan Hedged Equity DXJ	★★	31.5	-0.2	5.1	51.1	12.8	0.61	1.0	47.73	10,727	5,158	0.48	0.73	06-16-06
WisdomTree Japan SmallCap Dividend DFJ	★★★★	20.7	0.3	7.3	25.6	11.2	0.83	2.0	51.45	287	31	0.58	—	06-16-06
World Stock														
iShares Global 100 IOO	★★	19.7	4.0	5.7	23.2	10.2	0.56	2.4	75.03	1,433	53	0.40	0.63	12-05-00
iShares MSCI ACWI Index ACWI	★★★★	19.0	4.1	7.1	23.2	10.3	0.46	2.0	56.05	4,608	1,194	0.34	0.62	03-26-08
iShares MSCI All Country World Mini Vol ACWV	NR	17.2	3.5	3.9	17.1	—	—	2.4	64.26	1,077	49	0.23	—	10-18-11
iShares MSCI Kokusai TOK	★★★★	21.9	4.3	6.9	25.3	12.5	0.52	2.3	51.05	530	23	0.25	—	12-10-07
Vanguard Total World Stock Index ETF VT	★★★★	19.0	3.8	7.0	24.0	10.5	0.57	2.4	57.61	2,837	307	0.19	0.30	06-24-08
Global Real Estate														
iShares International Dev Rel Est IFGL	★★★★	7.2	1.3	7.3	13.7	7.8	1.64	6.1	33.96	747	145	0.48	—	11-12-07
SPDR Dow Jones Global Real Estate RWO	★★★★★	7.3	3.4	3.5	11.4	10.4	1.80	4.3	43.68	1,081	168	0.50	—	05-07-08
SPDR Dow Jones Intl Real Estate RWX	★★★★★	8.4	2.6	7.7	13.4	9.4	2.35	6.1	43.15	4,276	359	0.59	0.88	12-15-06
Vanguard Global ex-US Real Estate ETF VNQI	NR	6.5	2.1	7.2	14.8	—	—	4.4	57.85	1,306	265	0.32	—	11-01-10

Valuation						Portfolio Style											Risk		
Ticker	ROE	Price/ Earn	Price/ Cash Flow	Price/ Book	Price/ Sales	Style Box	Avg Mkt Cap (\$Mil)	# of Holdgs	Assets in Top 10 %	Turnover %	Regional Exposure (% of Stock)						Worst 3 Mo Return %	3 Yr Standrd Deviatn	3 Yr Sharpe Ratio
											UK/W. Europe	North Amer	Latin Amer	Japan	Asia ex- Japan	Other			
C/R Spc																			
EWG	11.6	14.8	9.0	1.6	0.7	■	47,917	56	59.7	4	100	0	0	0	0	0	-39.9	24.7	0.5
EWH	17.7	11.0	17.0	1.3	3.1	■	25,517	45	58.7	11	0	0	0	0	50	0	-38.5	19.1	0.4
INDA	22.5	16.3	11.7	2.8	1.7	■	16,223	74	54.9	4	0	0	0	0	50	0	—	—	—
EIDO	24.5	9.7	—	2.6	1.8	■	7,121	107	58.2	8	0	0	0	0	50	0	-27.5	22.5	0.0
EWI	3.8	13.7	2.8	0.7	0.4	■	20,296	25	63.8	45	100	0	0	0	0	0	-38.4	31.0	0.1
EWJ	8.5	15.1	7.9	1.3	0.7	■	19,709	318	24.1	3	0	0	0	50	0	0	-27.4	15.4	0.5
EWM	18.3	16.9	—	2.0	2.5	■	9,791	44	52.3	17	0	0	0	0	100	0	-31.3	14.8	0.6
EWV	18.5	16.5	10.1	2.6	1.5	■	13,369	49	59.3	10	0	0	100	0	0	0	-41.8	20.1	0.4
EWN	16.0	12.7	7.4	1.4	0.7	■	20,099	55	71.8	11	100	0	0	0	0	0	-43.5	20.8	0.5
ENZL	11.1	15.9	9.2	2.1	1.5	■	2,123	25	68.5	12	0	1	0	0	98	0	-11.0	18.0	0.9
EPP	14.7	14.9	12.0	1.7	2.2	■	28,549	151	41.5	8	0	0	0	0	75	0	-41.0	20.5	0.5
EPHE	15.6	19.1	11.3	2.2	3.4	■	5,422	42	62.9	25	0	0	0	0	50	0	-18.7	22.8	0.6
EPOL	13.9	11.7	—	1.3	0.7	■	5,042	44	64.0	15	1	0	0	0	0	50	-34.0	30.3	0.2
ERUS	17.2	5.6	3.7	0.8	0.8	■	41,528	25	76.1	14	0	0	0	0	0	50	—	—	—
EWS	13.3	12.2	—	1.3	1.3	■	15,446	33	65.8	3	0	0	0	0	50	0	-44.1	20.3	0.3
EZA	17.6	16.5	14.0	2.6	1.7	■	13,202	52	58.2	4	0	1	0	0	0	99	-40.8	21.7	0.2
EWY	13.4	11.1	6.0	1.2	0.8	■	20,176	107	50.0	13	0	0	0	0	50	0	-45.2	22.9	0.4
EWP	11.5	14.7	5.0	1.3	0.8	■	35,551	29	73.1	24	100	0	0	0	0	0	-35.5	32.1	0.2
EWD	18.4	13.9	13.5	2.2	1.7	■	24,305	34	61.7	7	100	0	0	0	0	0	-42.9	23.7	0.5
EWL	23.6	17.8	13.4	2.3	1.8	■	67,112	41	72.9	13	100	0	0	0	0	0	-28.1	17.2	0.8
EWT	15.4	17.9	9.3	1.8	1.0	■	12,724	113	47.8	22	0	0	0	0	50	0	-41.2	18.8	0.3
THD	23.7	6.6	4.0	1.1	0.6	■	3,156	110	49.7	24	0	0	0	0	50	0	-45.3	24.7	0.6
TUR	20.5	10.8	9.1	1.4	1.2	■	5,988	99	58.7	9	0	0	0	0	0	50	-51.1	29.6	-0.1
EWU	17.8	15.0	8.8	1.8	1.0	■	55,551	110	42.1	4	100	0	0	0	0	0	-35.4	16.6	0.6
BRF	4.5	19.0	11.4	1.4	0.9	■	1,387	78	31.1	76	0	3	96	0	1	0	-29.1	29.3	-0.3
IDX	22.9	14.5	—	2.1	1.9	■	8,034	51	54.1	19	0	0	0	0	100	0	-24.9	21.4	-0.1
RSX	17.9	7.8	4.4	1.0	0.9	■	24,048	49	60.0	41	4	0	0	0	0	96	-62.2	29.8	0.0
FEZ	12.0	15.6	7.5	1.3	0.8	■	72,044	54	38.2	9	50	0	0	0	0	0	-37.3	25.1	0.4
GXC	18.1	10.0	7.0	1.5	1.1	■	27,524	240	42.8	10	0	0	0	0	50	0	-42.7	21.8	0.1
GMF	18.2	12.2	7.7	1.6	1.1	■	16,067	349	20.6	7	0	0	0	0	58	0	-39.7	18.6	0.1
GUR	17.3	7.3	4.3	1.0	0.8	■	18,443	111	45.7	6	2	0	0	0	0	49	-52.5	26.6	0.1
VGK	16.8	15.2	8.3	1.6	0.9	■	42,833	508	19.5	7	100	0	0	0	0	0	-37.0	19.8	0.5
VPL	10.4	14.6	7.9	1.3	0.9	■	17,842	814	18.5	4	0	0	0	28	22	0	-29.8	15.4	0.6
HEDJ	14.4	14.5	9.7	1.6	0.8	■	38,319	125	45.3	43	50	0	0	0	0	0	-14.2	12.5	0.7
DFE	14.5	13.6	7.7	1.4	0.6	■	1,330	236	17.8	48	63	0	0	0	0	0	-46.2	21.5	0.7
DXJ	9.3	14.5	8.4	1.2	0.7	■	17,236	312	37.3	36	0	0	0	50	0	0	-24.0	17.4	0.8
DFJ	7.5	14.2	7.3	0.9	0.4	■	864	555	5.7	41	0	0	0	50	0	0	-20.2	14.1	0.8
Wd Stk																			
IOO	18.3	14.4	9.0	1.9	1.2	■	126,342	110	28.8	5	22	26	0	3	2	0	-27.8	14.8	0.7
ACWI	17.2	14.9	9.5	2.0	1.3	■	45,204	1,376	8.3	6	13	26	1	4	6	1	-34.4	14.8	0.7
ACWV	20.7	16.0	10.4	2.4	1.6	■	24,486	311	13.3	13	5	29	0	7	8	0	—	—	—
TOK	18.3	15.2	10.2	2.1	1.4	■	51,631	1,277	10.4	4	16	33	0	0	3	0	-33.7	14.9	0.9
VT	16.5	15.6	9.1	1.8	1.2	■	27,812	5,052	7.2	16	24	53	2	8	12	2	-33.5	14.9	0.7
Gbl RE																			
IFGL	9.2	12.2	—	1.1	4.9	■	7,880	204	34.3	16	36	6	0	37	53	0	-40.5	19.0	0.5
RWO	8.7	18.1	—	1.5	5.7	■	8,661	217	28.5	8	14	56	0	10	17	0	-45.5	16.4	0.7
RWX	9.3	11.9	—	1.1	5.1	■	7,541	134	42.2	11	17	5	1	12	21	0	-41.5	17.9	0.6
VNQI	10.2	10.6	—	1.1	2.9	■	5,794	468	26.5	10	20	4	2	25	46	3	—	—	—

ETF Watchlist Alternatives	Historical Performance						Nuts and Bolts						Risk		
	Star Rating	NAV Return % Trailing			NAV Rtn % Ann.		Total Assets (\$Mil)	Daily Vol. (Thou)	Expense Ratio %	Est. Holding Costs	Inception Date	Fund Legal Structure	3 Yr Standrd Deviation	Worst 3 Mo Return %	3 Yr Sharpe Ratio
		YTD	1Mo	3Mo	1Yr	3Yr									
Commodities															
ELEMENTS Rogers Intl Commodity ETN RJ1	★★★	-5.6	-1.8	-1.1	-4.8	-0.8	777	771	0.75	0.85	10-17-07	Uncoll Debt	16.4	-42.3	0.0
ETFS Physical Silver Shares S1VR	NR	-26.1	2.4	11.3	-31.4	-2.8	399	101	0.30	0.23	07-24-09	Grantor Trst	45.3	-34.2	0.2
ETFS Physical Swiss Gold Shares SGOL	NR	-20.7	-0.2	0.6	-23.3	-1.0	1,231	45	0.39	0.43	09-09-09	Grantor Trst	21.6	-25.5	0.1
iShares Gold Trust IAU	NR	-20.6	-0.2	0.6	-23.2	-1.1	7,315	4,483	0.25	0.30	01-21-05	Grantor Trst	22.5	-25.5	0.1
iShares Silver Trust SLV	NR	-26.2	2.4	11.2	-31.6	-3.0	7,493	9,430	0.50	0.44	04-21-06	Grantor Trst	45.3	-47.0	0.2
PowerShares DB Commodity Index Tracking DBC	★★★	-7.1	-0.3	-0.7	-6.8	0.8	6,131	2,352	0.87	1.02	02-03-06	Partnership	16.8	-39.2	0.1
SPDR Gold Shares GLD	NR	-20.7	-0.2	0.6	-23.3	-1.0	37,106	9,694	—	0.45	11-18-04	Grantor Trst	21.6	-25.5	0.1

OK, but what about stocks? In *Stocks for the Long Run*, Wharton economist Jeremy Siegel found the U.S. stock market grew 7% annualized after inflation with surprising consistency. The number has been enshrined as “Siegel’s constant.” Siegel deserves credit for the widespread belief that stocks are safe if held for 30 years or more.

However, extrapolating the U.S. experience to the future is a questionable leap. Over the past 200 years, the U.S. went from emerging market to sole superpower, without losing a major war or experiencing a significant period of economic discontinuity.

Ask the poor investors who bought Japanese stocks in the 1980s or the 1930s or European stocks in the 1900s if “Siegel’s constant” or dollar-cost averaging worked out for them. They were never made whole or had to wait several decades to break even.

Some stock markets have even disappeared. In early 20th century, Tsarist Russia had one of the bigger equity markets in the world. The 1917 Russian Revolution turned stock certificates into fancy facial tissue. Russia’s stock market didn’t reopen until the Soviet Union fell nearly 90 years later. Philippe Jorion and William Goetzmann document numerous examples of countries with stock markets that disappeared at some point in the 20th century: Greece, Romania, Czechoslovakia, Hungary, Chile, Argentina, and Poland.²

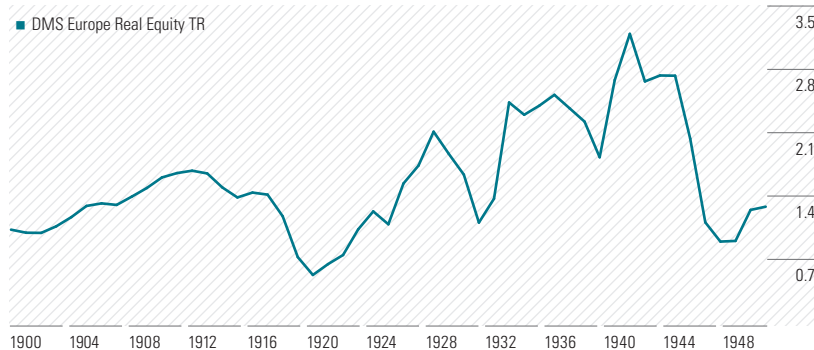
Buy and hold isn’t a sure-fire recipe for preserving or growing wealth, even over several decades, nor is the contrarian strategy of buying the dips. (Outside of the U.S. and U.K., evidence of mean reversion in stock prices is weak—a beaten-down market can be broken.) History shows markets can go to zero or experience multidecade periods of low returns. Common causes include revolution, losing a big war, and expropriation.

The only way a buy-the-dip or a buy-and-hold strategy makes sense for equities is if you’re confident the market you’re investing in is highly unlikely to experience a permanent loss of capital. I do think much of the rich world, with its democratic institutions, rule of law, mostly capitalist economies, and vibrant civic societies, is unlikely to experience disaster. I’m not so confident in emerging markets, which is why I would never own a 100% emerging-markets stock portfolio, even if valuations fell to rock-bottom levels.

Finally, the buy-and-hold investor is vulnerable to valuation risk. Investors who bought Japanese stocks at their 1989 peak have yet to break even. This is one of the rarer risks. Japan’s cyclically adjusted price/earnings ratio reached more than 80 at its peak, a bubble of monstrous portions. The U.S. during the dot-com bubble hit only 44.

In sum, history suggests buy and hold is a terrible strategy for bonds; the past 30 years were an aberration. Buy and hold is justifiable for stocks, but only if you’re confident the market you’re investing in is unlikely to experience a permanent loss of capital. Even then, you can still lose big if you buy at extreme prices. ■■■

After Two World Wars, \$1 in European Stocks Would Have Barely Grown in Real Terms After 50 Years



Data from 12/1900–12/1950.

¹ Chancellor, E. “Reflections on the Sovereign Debt Crisis.” GMO, 2010.

² Jorion, P., and Goetzmann, W. N. “Global Stock Markets in the Twentieth Century.” *Journal of Finance*, Vol. 54, No. 3. 1999.

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