THE SPIN-OFF REPORT COMPENDIUM

April 2015

Note: The below selections represent sample research reports as of the listed publication dates. There have been no edits made to these research reports since they were published.

Featured Companies

Armstrong World Industries (AWI)
The Babcock & Wilcox Company (BWC)
Barnes & Noble Inc. (BKS)
E.I. du Pont de Nemours and Company (DD)

Exclusive Marketers of
The Spin-Off Report

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Murray's Musings

INDEXATION VERSUS THE FEDERAL RESERVE

On September 13, 2012, the Federal Reserve announced its so-called QE3, or third quantitative easing program, a plan for the Federal Reserve to purchase $40 billion of agency mortgage-related securities per month. On December 12, 2012, the Federal Reserve announced it would increase this sum to $85 billion a month.

In the fall of 2013, the so-called tapering of the program commenced; on October 29, 2014, the program was finally halted. Given that the typical month has 22 business days, on average the Federal Reserve purchased $3.86 billion worth of bonds per day. During the course of the program, as well as at inception, many argued that the Federal Reserve should not try to alter market interest rates for longer-dated securities in this manner. All would agree that such a program, if continued indefinitely, would become problematic. Currently the Federal Reserve has total assets on its balance sheet of $4.5 trillion.

If it can be justifiably said that $3.8 billion to $3.9 billion of daily Federal Reserve bond purchases might distort the bond market, let us consider the following statistic: According to ETF.com earlier this year, the ETF assets of the three largest ETF providers—BlackRock, Vanguard, and State Street—totaled $1.68 trillion. This is not the total AUM of these three firms, nor is it the total ETF assets in the United States, nor is it even close to a majority of the index assets under management in the United States. Nevertheless, as Table 1 shows, on March 17, 2015, these three organizations had the following inflows just in ETF assets:

Table 1: Net Inflows on 3/17/2015

	($ in billions)
BlackRock	$1.08
Vanguard	4.87
State Street	5.67
Total	$11.62

Source: ETF.com

The total, $11.62 billion, is not quite, but almost three times what the Federal Reserve had been purchasing in bond securities, and the bond market has to be bigger than the stock market.

Most of the in-flow money is used to purchase the shares of companies with the largest float. Although this was an unusually large day in terms of new money flowing into the

ETFs, one can get a sense of just how large these flows can be by studying the inflow data and the AUM of four ETFs in the 10-week period from December 31, 2014 to March 18, 2015, as shown in Table 2.

Table 2: Inflow Data of Four ETFs Dec. 31, 2014 to Mar. 18, 2015

		Inflow	AUM
		($ in billions)	
HEDJ	Wisdom Tree Europe Hedged Equity	$8.815	$15.997
DBEF	Deutsche X-trackers MSCI EAFE Hedged Equity	4.05	6.30
DXJ	Wisdom Tree Japan Hedged Equity	2.48	15.80
USO	United States Oil	1.95	2.90

Source: ETF.com

One clearly can see, for instance, that more than half the investment in the Wisdom Tree Europe Hedge Equity ETF was made the past 10 weeks. In the case of Deutsche X-tracker, the figure is closer to two-thirds. The year-to-date cash flow into Wisdom Tree Japan Hedge Equity is only about 15% of the current AUM. This, however, is because the great flow occurred in 2013, with cash inflow of $9.7 billion. In fact, from February 1, 2013 to March 31, 2013, Wisdom Tree Japan Hedged Equity experienced cash inflow of $6.7 billion.

This necessarily raises the question: Are the inflows influenced by fundamental factors and hence investors are merely rational and being influenced by pricing information, or do investors merely influence index prices? If the latter is true, it would be a very serious problem since the index being used as an investment vehicle is also being used to measure the skill—or lack thereof—of active managers.

In order to reflect upon this question let us consider the case of United States Oil (USO). As one can see in the inflow data above in Table 2, roughly 67% of the current AUM was gathered in the past 10 weeks. Viewed from the perspective of investors, this may be a well-considered contrarian move. One can reasonably argue that the decline of more than 50% in the price of crude oil since June 2014 is excessive. U.S. Oil uses the funds at its disposal to purchase crude oil futures on the commodity exchanges. All crude oil futures at the current time—and especially West Texas Intermediate (WTI) futures, which is what the fund buys—are in contango position. For instance, on March 20, 2015, the June 2015 futures for WTI closed at $48.34, which was a 4.07% premium above the May contract of $46.45. The investors in U.S. Oil will pay this contango, or negative roll yield, every month. Assuming the contango remains constant, which might not necessarily be the case, and assuming that investors maintain a position in U.S. Oil for 12 months, this would amount to a 61.38% negative roll yield.

There is also a fee in U.S. Oil and monthly trading within the ETN does generate commissions, which is another expense. Consequently, an investor of the sort just described would need to envisage a WTI price above $76 a barrel one year hence just to break even. Investors, however, might not necessarily be long-term investors. Perhaps the price of WTI will increase by 10% or more in one week. In this circumstance, contango, or negative roll yield, would be more or less irrelevant.

The question therefore arises: Does the contango reflect an efficient market view of the prospects of oil prices, or are investors indifferent to contango since the investment is essentially short-term in nature?

If investors were concerned by the negative roll yield, they might wish to consider the other U.S. commodity oil fund, the United States 12 Month Oil Fund (USL). This fund seeks to limit negative roll yield, or at least mitigate these negative effects, by purchasing 12 consecutive-month futures for a one-year period of time, thereby rolling one-twelfth of the fund per month instead of the entire fund. One might assess investors' interest in this tactic by considering USL's assets under management, as shown in Table 3, and it is obvious that they are not very interested.

Table 3: Differing Strategies in a Shifting Oil Market

		AUM	Trading Volume	5-yr Ann. Performance
		($ in billions)		*(at NAV)*
USO	United States Oil	$2.9	6,200,000	(48.54)%
USL	United States 12 Month Oil Fund	0.07	11,349	(34.13)%

Source: Fund reports

This table also shows daily trading volume for the two funds. The five-year annualized performance of these funds at net asset value might indicate what negative roll yields can do. Remember that this is an annualized figure. Since we know that oil has not declined in the last five years at the rate of 48% a year, obviously the contango is a serious problem.

It is also worthy of note that both funds usually trade at premiums to net asset value, which is the reason to look at the net asset value statistics. One might wish to consult more detailed information regarding this question on the website for the United States Commodity Index Funds (http://www.unitedstatescommodityfunds.com/).

It is also interesting to observe that USL has the further advantage of lower margin maintenance requirements as it spreads the expense over the course of the year. The future contracts have lower margin maintenance per contract than the current month contract, as shown in Table 4. For the May 2015 contract, the margin maintenance requirement is $4,900 but the April 2016 contract has a margin maintenance requirement of $3,900.

Table 4: CME WTI Margin Maintenance Per Contract

May 2015	$4,900
June 2015	4,800
July 2015	4,700
August 2015	4,500
September 2015	4,350
October 2015	4,250
November 2015	4,150
December 2015	4,100
January 2016	4,050
February 2016	4,000
March 2016	3,950
April 2016	3,900

Source: CME

Even if one accepts the efficient markets hypothesis, there is still a difference between the viewpoint of a longer-term investor and that of a trader. If traders predominate, what, if any, conclusions may be drawn from the performance figures? In the case of WTI crude oil, according to the CFTC's Disaggregated Commitments of Traders report for March 17, 2015 the total open interest outstanding in WTI crude was 1,760,721 contracts (cftc.gov). Each contract represents 1,000 barrels. Each barrel was worth roughly $45. Therefore, the notional value of the open market interest was $79.2 billion. That is the whole thing.

The same report enumerates the producer/merchant/processor positions, for the unit holders who actually are in the oil business, as shown in Table 5:

Table 5: Producer/Merchant/Processor Positions

	Contracts	% of Open Interest
Long	205,668	11.70%
Short	338,359	19.20%

Source: cftc.gov

The managed money positions are shown in Table 6. As you can see, money managers account for 44.6% of the total open interest both on long and short.

Table 6: Managed Money Positions

	Contracts	Open Interest
Long	314,564	17.9%
Short	170,068	9.7%
Spreads	299,396	17.0%
	Total	44.6%

Source: cftc.gov

If analysts were concerned with the impact of a Federal Reserve that owns $4 trillion in Treasury and agency paper, should there be concern that the money management industry owns nearly half of the WTI crude oil open interest? Even if this is of no concern from a political perspective, is this not something interesting from an academic perspective? If a money manager chooses to overweight or underweight energy, is this a sober, reasoned judgment or merely an example of crowd behavior? Furthermore, if one studies volatility and, therefore, standard deviation, does this merely reflect crowd mentality? Most important, if diversification is generally desired, should money managers be encouraged and rewarded for crowd emulation or should they be rewarded for crowd avoidance?

Industry Thoughts

ENERGY ROYALTY TRUSTS

Energy royalty trusts offer an alternative to buying crude oil futures in the form of the various commodity funds. An energy royalty trust conveys the right to receive payment for a period of time until a trust has extracted all of its hydrocarbons and receives payment for extraction. Of course, that payment is at market risk. If energy prices fall, the payment will fall. If they rise, the payment will rise. Furthermore, the investment is only for a limited amount of time. Termination dates vary; they could be 30 years, six years, or some other length of time. All of those considerations, presumably, are factored into the various prices.

Table 7 lists many of the popular royalty trusts.

Table 7: Energy Royalty Trusts

		Yield	Market Cap
			($ in millions)
BPT	BP Prudhoe Bay Royalty Trust	19.79%	$1,100.00
CHKR	Chesapeake Granite Wash Trust	44.10%	301.00
CRT	Cross Timbers Royalty Trust	12.36%	115.00
DOM	Dominion Resources Black Warrior Trust	11.47%	50.70
NDRO	Enduro Royalty Trust	14.39%	129.00
HGT	Hugoton Royalty Trust	17.24%	232.00
MTR	Mesa Royalty Trust	16.10%	35.80
MVO	MV Oil Trust	26.44%	174.20
ROYT	Pacific Coast Oil Trust	23.64%	145.00
PBT	Permian Basin Royalty Trust	10.70%	375.60
SBR	Sabine Royalty Trust	11.28%	577.00
SJT	San Juan Basin Royalty Trust	9.44%	556.00
SDR	Sandridge Mississippi II	34.09%	218.00
PER	Sandridge Permian Trust	37.31%	359.00

Someone studying this table will observe that the yields are very high. Those are not the yields that one should expect to get, however, because the payouts are based upon oil price utilizations of about four months ago. In other words, it takes about four months before the dividend payments catch up with the reality of the new oil price level.

For example, BP Prudhoe Bay Royalty Trust yields almost 20% theoretically, but the yield is almost certainly unsustainable unless oil prices go up. In principle, the trust should terminate in 2028, but it could be sooner if cash flow distributions fall below $1 million for

two years. The market cap of this company is currently $1.1 billion. The yield will be much less but, even at a lower yield—even at a bit more than half the yield—you could probably get your money back in 10 years. You basically have an option on oil that lasts for 10 years, meaning that if the price of oil goes higher you would make a lot more money.

In any event, if the alternative is paying a 60+ percent annual contango it would seem that this is a better deal for the so-called efficient market. Another variable to consider is that there are constant improvements in oil extraction technology, which have made the U.S., and others, powerful producers and created the supply glut contributing to the current decline in price. That very same supply glut (and technology), however, is ultimately what enables trusts to produce for much longer periods of time. In other words, the same glut extends the reserve life. Therefore, someone has to look at these trusts in two dimensions: not merely what the current price of oil is and therefore what the payout is, but also the fact that the technology is improving the reserve life of the fields in many instances.

Another factor to consider when evaluating these companies is that net asset values are calculated at very high discount rates even though interest rates are low. In present value there are high discount rates because oil is very volatile.

One can think about royalty trusts as cheap call options on oil; instead of paying a premium, you receive a premium and, even if oil prices remain low, some part of the purchase price would be recovered, and there is a good chance that all of it would be recovered. Ultimately, however, the oil trusts, as noted previously, are depleting assets and they should only be purchased when oil prices are low, which they are right now. These are clearly far superior to the various commodity-based ETFs. No one, however—and we can say this authoritatively—is going to make an ETF of royalty trusts, and that is why we present this table.

You will note that BP Prudhoe Bay Oil Royalty Trust (BPT) has a $1.1 billion market capitalization. That is very unusual. More typical, as in Table 7, the Chesapeake Granite Wash Trust has a market capitalization of $301 million; the Cross Timbers Royalty Trust has a market capitalization of $115 million; Dominion Resources Black Warrior Trust, which is 100% gas, has a market capitalization of $50 million. The Enduro Royalty Trust has a market capitalization of $129 million.

No one will create a royalty trust ETF, because it is not possible to raise the amount of money that is raised for a standard oil ETF (and which is necessary for an adequate fee base for the creator). The liquidity of a fund of this type is limited by the liquidity of the least liquid members, so there would have to be at least 17 or 18 names and there are barely 17 or 18 oil royalty trusts. Some have market capitalizations as low as $50 million so an ETF comprised of these trusts is not a practical proposition as a business, even though it is a much better alternative than the various commodity funds.

Facts & Figures

S&P 500 ETFs

The three largest S&P 500 ETFs, as shown in Table 8, are the SPDR S&P 500 with $193 billion in assets, the iShares Core S&P with $69.7 billion, and the Vanguard S&P 500 with $30.7 billion.

Table 8: Three Largest S&P 500 ETFs

		AUM	Fees	Daily Trading Volume	YTD Flows *(12/31/2014-3/20/2015)*
		($ in billions)	*(basis points)*	*($ in millions)*	*($ in billions)*
SPY	SPDR S&P 500	$193.1	9.45	$7,950	$(23.1)
IVV	iShares Core S&P 500	69.7	7.00	114	(1.3)
VOO	Vanguard S&P 500	30.7	5.00	47	2.80

Source: ETF.com, Fund Reports

The largest, SPY, has a fee of 9.45 basis points, the second largest, IVV, has a fee of 7 basis points, and the third largest, VOO, charges 5 basis points.

If they were all the same—which they would have to be if they were all S&P 500 index portfolios— you would think that the cheapest one would have the most money, not the least money, which is an interesting observation. The table also shows daily trading volume measured in dollars. The SPY trades $7.95 billion per day—almost $8 billion, meaning that in 24 days it gets turned over 100 percent, which is notable. IVV trades $114 million a day, and VOO trades $47 million a day.

The year-to-date inflows are also significant. Year-to-date inflow for SPY is negative $23.1 billion, and IVV is negative $1.3 billion. The money, however, did not go to VOO, which, though it did have net inflows, only collected $2.8 billion. It seems to be going somewhere else. In theory, the money is supposed to flow to the fund with the lowest cost fee structure, but the money is flowing out of these S&P 500 products and it is flowing elsewhere.

Next, consider the most shorted ETFs. An example of a heavily shorted stock—and this is offered to establish a comparison—is Pilgrim's Pride (PPC); 58.3% of its float is sold short. Investors would call that a crowded short. Another example of a crowded short is Cliffs Natural Resources (CLF), with roughly 50% of its float sold short.

In principle, you really cannot have a crowded ETF short. It is hard to appreciate that, but the reason you cannot have a crowded ETF short is because any short can always cover by depositing money in the ETF in question and obtaining units in exchange. It can always be done.

Table 9 shows that the most heavily shorted ETF is the Market Vectors Semiconductor ETF (SMH), with 214.5% of its shares sold short. Another interesting one is the SPDR Standard and Poor's Retail ETF (XRT), at 120.2 %. These numbers are rising.

Table 9: Most Heavily Shorted ETFs

		(% Share Short)
SMH	Market Vectors Semiconductor	214.51%
XRT	SPDR Standard & Poor's Retail	120.26%
XOP	SPDR Standard & Poor's Oil & Gas	115.23%
XBI	SPDR Standard & Poor's Biotech	108.96%
DRV	Direxion Daily Real Estate Bear	71.89%
IYR	iShares US Real Estate	71.01%
KRE	SPDR KBW Regional Banking	64.81%
TAN	Guggenheim Solar ETF	43.95%
OIH	Market Vectors Oil Services	43.75%
IWM	iShares Russell 2000	40.32%

Source: ETFChannel.com

It might be quite logical to sell short the shares of a real estate ETF, given current valuations. However, one of the ironies is that Simon Properties is trying to acquire Macerich, and both of these companies are in the iShares Real Estate Index (IYR) and Simon Properties, in fact, is the largest company in that index. Thus by selling short the real estate index, one thereby sells short a company that, however expensive, might actually be acquired. The acquisition might not even be by Simon Properties; it could be made by some other company acting as a white knight. Thus, huge positions in ETF shorts means effectively being short perfectly well-run companies for no reason other than that these companies happen to be in an index.

Ultimately, hedge funds will prefer ETF shorts to individual shorts, because there is less infinite liability risk, and no one is going to acquire the ETF. It is a security that is very easy to borrow, very easy to cover, there are no crowded shorts. This will become a very prolific field, and when it does perhaps the experience of the last number of years might run in reverse.

THE SERIOUS DECLINE IN RIG COUNTS

Here are some statistics to consider from the Baker Hughes Rig Count, which tallies North American rigs. On March 20, 2015, there were 1,069 rigs operating. A year earlier, on March 21, 2014, there were 1,803 rigs. That is a 40.7% decline.

By contrast, on January 7, 2000, as U.S. oil production was declining and before current technological innovations, the rig count was 786. By September 1, 2000, the count jumped to 1,019. Table 10 shows year-end rig count statistics for comparisons.

Table 10: Rig Count

9/1/2000	1,019
12/29/2000	1,114
12/28/2001	887
12/27/2002	862
12/31/2003	1,126
12/31/2004	1,243
12/30/20054	1,471
12/29/2006	1,710
12/28/2007	1,782
12/31/2008	1,721
12/31/2009	1,189
12/30/2010	1,694
12/31/2011	2,007
12/28/2012	1,763
12/27/2013	1,757
12/26/2014	1,840
3/20/2015	

Source: Baker Hughes

At year-end 2000, the number was 1,114, but by year-end 2001, that number had declined to 887, and to 862 at year-end 2002. The only comparable time period for this level of collapse was the period from the end of 2008 to the end of 2009, when the number went from 1,721 to 1,189, and that was in a huge recession when no one knew how deep the recession was going to be. By the end of 2010 it was back at 1,694 and by the end of 2011 it was at 2,007.

We do not know what is going to happen now. The March 20, 2015 drop to 1,069 is a lot more serious than might appear because, on December 26, 2014, which was the last Baker Hughes Rig Count report for 2014, the rig count was 1,840. So, that drop took place over the course of only 11 weeks. It is an unprecedented decline, and it is reflected in the energy

service stocks. The decline is taken to be equivalent to a decline in exploration and production activity, which it is not. It takes only about seven weeks with modern technology to drill a well. They drill it and cap it. If oil prices rise, the wells can be reinstituted very rapidly, as anybody can see from these numbers.

It should be noted that the Market Vectors Oil Service ETF (OIH) and the SPDR Standard & Poor's Oil and Gas ETF (XOP) are heavily shorted. As noted in Table 9, 43.75% of the OIH shares are short and 115.2% of the XOP shares are sold short. One might posit that there is a possibility of volatility in those sectors.

Featured Companies

ARMSTRONG WORLD INDUSTRIES (AWI)

Armstrong World Industries looks expensive but it is not as expensive as it looks. On 2015 earnings its P/E ratio is 25.2x earnings and on 2016 earnings it is 20x. The company has a market capitalization of $3.1 billion.

This company provides an example of how spin-offs are being done now. Historically, many spin-offs were dormant assets with considerable value. The theory behind the transaction was that dormant assets can be made productive. Examples included the Howard Hughes spin-off from General Growth Properties and, two decades ago, the Vodafone spin-off from Racal Electronics in the United Kingdom.

In the case of Armstrong World Industries, the company has two businesses: ceilings and floorings. The flooring business, which is less than half the business, is very competitive and very cyclical, with much lower margins than the ceilings business. The ceilings business is growing at a moderate pace and has reasonable margins. The European segment of the floorings business, and Armstrong World itself, loses $20 million to $30 million a year.

The company's hardwood flooring business is about 20% of revenues and has a 4% EBITDA margin. It is barely profitable. Ceilings, by contrast, have margins between 35% and 45% on an EBITDA basis; it is half of revenue and is expanding to emerging markets. In spin-off mode, this is what the two businesses would look like in principle: There would be commercial ceilings, with $1.3 billion of revenue and $330 million of EBITDA, and floorings, with $1.2 billion of revenue and $114 million EBITDA (or half the business with a quarter of the EBITDA).

This spin-off is probably being done under pressure from various activists. The theory is that as a spin-off, the floorings business might trade at nine times EBITDA, and some low interest debt would be loaded on to that operation. The ceilings business, post-spin, would

have a market cap of about $1.5 billion, assuming that it trades at the level discussed here, with $330 million in EBITDA, and that could enhance the value of the parent. In other words, the purpose of the spin-off is to enhance the value of the parent.

The question is: Why does the ceilings business have margins so much higher than the floorings business? You would think they would be tied to the same economic factors. Ironically, they are not. It turns out that in the commercial space, the current trend is for ceilings to be designed as one-of-a-kind specialty ceilings, especially in places like lobbies of buildings. This trend is associated with publicly-traded REITs. It has been found that buildings with a dynamic lobby command a higher rent than a building that does not have a dynamic, unique lobby. As a result, there is a demand for specialty ceilings.

In flooring, even beautifully impressive floorings with unique designs are off-the-shelf products. There is no market for one-of-a-kind flooring because the flooring spaces are usually in homes. Therefore, the flooring business has much lower margins as a spin-off business. The idea is to spin off the floorings business and maybe get a higher valuation for the ceilings business. It is a reasonable theory and it tells us what is going to happen in future spin-offs. A lot of the spin-offs in the last year have been oriented that way.

Armstrong has $860 million of net debt and $125 million/$150 million in capital expenditures. The EBITDA for the combined company now is about three times that number.

THE BABCOCK & WILCOX COMPANY (BWC)

Babcock & Wilcox is also doing a spin-off. The company has a $3.3 billion market cap and a number of businesses. It designs and constructs power plants and also services and monitors nuclear power plants and related facilities.

The power generation business, which builds power plants, also installs scrubbers and air pollution control systems, and performs plant maintenance. That is a pretty stable business. It is hard to say that it is growing, but it is certainly not shrinking; there is some cyclicality to it, but not to an excessive degree. The reason it is not as cyclical as one might think is that 37% of the business is outside of the United States, which actually experiences some growth, and 60% of the business is the aftermarket maintenance—just maintaining the facilities, which is a necessity.

The nuclear business is much more cyclical in revenue. One part of the business is maintaining and repairing nuclear facilities and although recently its backlog started rising, the revenue from that business is down by more than 50%.

There is another business within the nuclear division that is called nuclear operations: manufacturing nuclear reactors used in U.S. government nuclear-powered submarines and aircraft carriers. It also manufactures nuclear fuel for the United States government and manages 18 sites for the U.S. government. Some are very high-end facilities; it manages, for example, the Lawrence Livermore Laboratory and the Los Alamos Laboratory. These contracts are critical to what the United States government does in its nuclear defense program.

One big problem for the company is its pension funds. In the last two years, there have been enormous charges for the pension funds—enormous given the size of the company—and they remain underfunded. Eventually, however, they will be properly funded and, if you normalize the business for the pension funds, but do not normalize it for the cyclicality, in 2014 the company would have earned net income of $220 million. That is even with the nuclear business declining by 50%.

The thrust of the spin-off is to separate the necessarily cyclical nuclear business from the power systems business. Power systems could, in principle, grow internationally and it should get a better valuation, because its business is more stable.

This logic is a similar to that of the Armstrong World spin-off. The company's balance sheet would not be a bad balance sheet were it not for the pension liability. It has $350 million of cash, $600 million of net current assets (a lot of those receivables from the government), and $285 million of debt; the unfunded pension liability, however, is $563 million. There is also $1 billion in equity.

There is an important unknown here, yet which will become known before the spin-off: How much of the pension liability belongs to each of the component parts? That clearly will determine the valuation of the component parts.

BARNES & NOBLE INC. (BKS)

Barnes & Noble, with a $1.5 billion market capitalization, operates retail bookstores and college bookstores, and it produces the Nook electronic book reader, which competes with the Kindle.

The college bookstores are very different from the conventional retail bookstores. The company has 661 retail bookstores in the United States and 700 college bookstores. Retail bookstores make up about 66% of revenue, college bookstores are 30% of revenue, and the Nook makes up the balance. The Nook loses about $100 million EBITDA a year even though the company has partners that absorb some of that.

Retail makes about $400 million EBITDA a year. It is very profitable, even though it is challenged and is not growing. The college bookstores make about $100 million EBITDA.

The thrust of this spin-off is to separate the college bookstores from the retail bookstores. This is proposition is very different from the other separations we talked about.

The company's balance sheet is actually pretty good. It has $300 million of cash, $214 million of debt, and $1.2 billion of equity. The retail business is still profitable and, although it is not growing, it is definitely not a Borders situation. It is well-managed, it has its challenges, and time will tell how it meets those challenges.

The college bookstores, however, even though they earn about $100 million EBITDA a year, are in the process of radical change. That is because university education materials are in the process of shifting to digital delivery. That is a huge challenge for college bookstores.

For instance, at MIT.edu, students can obtain—for free—lecture notes, past exams, lecture videos. It is the policy of the university to publish and make available all course material online worldwide to anyone for free, and MIT is not the only university to do so. In principle, I could take thousands of courses, including single variable calculus, electronics, multivariable calculus, differential geometry, marine hydrodynamics, and many, many more. I could have all the course materials at my disposal and if a textbook were needed, I could purchase it online in used condition from a multiplicity of vendors, none of which are college bookstores.

This trend reflects the response of universities to online education and the financial pressures students face. It also poses a huge threat to the college bookstore. A brand new textbook could cost $140. For a student taking four or five courses, with two or three books per course, and adds up to quite a lot of money. So, the universities are responding, especially since the universities do not publish the textbooks. This is a radical change and

it appears that Barnes & Noble is reacting to that change. Once the college bookstores are in a separate company, they will have to find another way to make money, which they might do, but that business appears to be under some degree of pressure.

E.I. DU PONT DE NEMOURS AND COMPANY (DD)

DuPont, a huge chemicals company with a $67 billion market capitalization, is proposing to spin off its so-called performance chemicals into a separate company to be called Chemours,

The performance chemicals business produces three types of chemicals. The titanium technologies unit is in the business of titanium dioxide, which is used primarily as white pigment in paint, coatings, laminates, and paper products. This comprises 44% of revenues. Second, there is the fluoro products business, the material from which refrigerants are made. (In your refrigerator, for example, are gases known as fluorocarbons.) Fluoro products provide 35% of revenues. Then there is the business of chemical solutions, which is 21% of revenue. Chemical solutions are primarily sodium cyanide and sulfuric acid, low-margin chemicals used in gold mining, oil refining, and agriculture.

The performance chemicals business, with $3.9 billion of equity, is highly cyclical and it is the business that DuPont proposes to spin off. The basic idea is wholly consistent with the animating motive of contemporary spin-offs, which is to shed low-margin businesses and the parent will have higher margins and, therefore, a better valuation. It seems logical and is probably going to happen. This represents a shift in the world of spin-offs, however, one we have not seen for many years. The focus of the spin-off now is to improve the valuation of the parent rather than bring to light a spin-off or a business that is inherently undervalued (and for which the parent does not get any credit). It is hard to believe that the businesses DuPont is spinning off will become high return-on-equity businesses, although it is possible.

Post-Musings

INTERNATIONAL DIVERSIFICATION

In the *Musings*, we saw the move to diversify away from an index like the S&P 500 towards a broader exposure, one that is more international and not focused on a single country. Consider the following statistics for two companies, one that is clearly an American company and one clearly a non-American company. Let us compare and contrast their various geographic diversification aspects.

Starting with Procter & Gamble, the geographic diversification, as presented by the company in terms of revenue, is shown in Table 11, and we can well understand how a company like Procter & Gamble does not provide the degree of international diversification an investor would like.

Table 11: P&G Geographic Diversification by % of Revenue

North America	39%
Europe	28%
Asia	16%
Latin America	10%
India, Middle East, Africa	7%

Source: Company reports

In an EAFE index, one would find a company like Unilever, which categorizes its geographic diversification somewhat differently, as shown in Table 12:

Table 12: Unilever Geographic Diversification by % of Revenue

Asia, Africa, Middle East, Turkey, Russia, Ukraine, Belarus	41%
Americas, North and South	32%
Europe	27%

Source: Company reports

Let us compare and contrast the two companies. If one were interested in selling Procter & Gamble and buying Unilever—which one does, in essence, when selling the S&P 500 and buying EAFE—one is moving from 28% exposure to Europe, in the case of Procter & Gamble, to 27% exposure to Europe, in the case of Unilever. It does not seem like such a move provides that much global diversification. The idea of diversifying by buying the major European multinationals that dominate the EAFE Index is ludicrous on its face; it makes no sense. To package it with a currency hedge is an escape from reality. A reality based, entirely appropriate currency hedge would apply if one were buying a Swiss

cantonal bank, for instance, the business of which is conducted entirely in the Swiss franc, if one were worried about the currency.

But for a company like Unilever, which derives revenue from every area of the world, the business is going to be valued based on its economic characteristics; the fact that it is priced in euros on a certain exchange merely reflects a unit of account. For example, if the management of Unilever decided it did not wish to have its shares traded on the London Stock Exchange but rather on the Bovespa in Brazil, the company would trade at the very same market cap it trades right now but the unit account would be Brazilian reals and we would not have to sell short reals to appease our worry about currency hedges. If the company preferred to list on the Tokyo Stock Exchange, the unit account would be yen, but the valuation would be based on whatever the company is worth as a business, not its quotational currency.

It is the same concept as if one owned a diamond that has a certain value and is held in a safe-deposit box in New York City; if one moved to London, where the unit of account is the British pound, and one placed the diamond in a safe-deposit box in London, one would not need a currency hedge for the diamond; it would have a universal value expressed differently in a different currency's account.

We now see some of the investment and transactional decision making taking place in the world of exchange-traded funds. In the case of the oil sector, of AUM flows, of diversification, and of currency hedges, it is now escaping reality and we know what happens when reality is left behind. Ultimately, reality cannot be escaped.

THE NEW NATURE OF SPIN-OFFS

Historically spin-offs were a dormant asset within a larger company or, if not a dormant asset, then a low profit margin asset that might have a higher value and higher profit margin outside the company. Once independent, the company would have access to its own cash flow for reinvestment and expansion. It would normally improve its margins and, not infrequently, become a much more substantial company. That was one of the reasons for the success of spin-offs.

The spin-off by MeadWestvaco, whose main business is paper, and its subsequent merger with Rock-Tenn expresses a very different dynamic. MeadWestvaco in its paper business has a $1.4 billion overfunded pension fund. Rock-Tenn’s pension fund is underfunded by $1 billion, as Table 8 shows.

Table 8: Maximizing the Value of MWV's Pension Surplus

Combined Financial Profile for Calendar Year 2014,

	MWV	Rock-Tenn	NewCo
US Qualified Pension:			
Funding surplus/(deficit)	$1.4 billion	$(1.0)	0.4 billion
Forecasted cash contributions thru 2024 *(after 7/1/2015)*	$0.0	$0.55 billion	$0.55 bill. in savings
Non-Qualified/Foreign:			
Funding surplus/(deficit)	$(0.2 billion)	$(0.2 billion)	No change
Forecasted cash contributions thru 2024 *(after 7/1/2015)*	0.0	0.1 billion	No change

Source: Company reports

Combining the two makes Rock-Tenn overfunded by $400 million. If this merger had not been negotiated, Rock-Tenn would have needed to make cash contributions of $550 million into its pension plan between now and 2024. This is an enormous savings even on its own. The table also shows some non-qualified foreign plans that have much lower benefits for which no material benefit is anticipated. There are, however, economies of scale. This is an example of new spin-off logic.

Beyond that, the new spin-off dynamic is also a function of terms-of-trade logic. Prior to the 1980s, the large cap quality companies with stable businesses and stable margins—which today we regard as the major quality companies—had very low margins. Look at Procter & Gamble's S&P tear sheets from the 1960s or the 1970s, or even the 1950s and 1940s—and see margins that were mere fractions of what they are today. The businesses were very competitive. Retailers had a lot of power over the fragmented consumer products business.

Once the consumer products industry consolidated, the balance of power went to what have come to be known as the dominant consumer franchise businesses. (We call it a franchise simply because we believe that the earnings are stable.) To some small degree, the companies have lost that pricing power because of the emergence of very large retailers, like Wal-Mart and Target and, to a lesser extent, to the emergence of in-store brands. Historically, supermarkets believed they had to carry branded products just to bring people into the store even though they did not make any money on those products. Now supermarkets offer their own branded in-store products, which make a much higher profit margin. Any visitor to a supermarket will observe the branded companies are gradually, but inexorably, losing shelf space. (That is true also in a company like McDonalds. Self-serve fountains offer a much greater assortment of drinks, so you could say Coca-Cola is gradually, but inexorably, losing shelf space as McDonalds seeks to capture margin as it faces enhanced competition.)

These mergers among low-margin suppliers only become necessary once the consolidation phase ends among the branded products companies, which capture a very high degree of pricing power. It is only logical that the suppliers will attempt reclaim their pricing power. This happened in the auto parts business. Not that many years ago, auto parts companies were all unprofitable, having been forced over many years into lower and lower margins by the automobile manufacturers, and most became bankrupt. Now it is not uncommon for the parts companies, cyclical and unbranded as they are, to have higher profit margins than the major automobile companies with their branded products, and that might happen again in other industries.

Since the stable quality companies comprise such large parts of indexes, given their market capitalizations, this consolidation trend has major implications for indexes' performance going forward.

Q: Will the number of spin-offs increase or maintain momentum going forward?

A: I think the number is going to remain high. Spin-off activity always waxes and wanes, so it will do that in the future, but I think it will stay high. What 2008 brought us was not just lower interest rates but interest rates worldwide that were inconceivable in 2007. There are many businesses in various indexes that have little or no organic growth, but they trade at much higher valuations than they did in 2007—even given the financial crisis.

People draw conclusions because these are big companies and they are members of certain indexes and there are many countries where interest rates are negative. It is hard to imagine that interest rates will go any lower. You could debate whether they are going higher but it is hard to imagine them going lower. So, that is the end of the valuation lift for companies.

There are hundreds, possibly thousands, of big companies with multiplicities of divisions that are not growing or that have lower margins than the parent company. The idea is that you could still get a higher valuation if you get rid of the lowest-margin businesses. There are many low-margin businesses within big companies or, if they do not have low margins, they are cyclical and the market generally assigns a premium for earnings stability. Elimination of whatever businesses are cyclical, or even the most cyclical businesses, means the rest of the business is considered more stable and should get a higher valuation.

That is the thrust behind most of the spin-offs, and that is a very big change from the historical spin-off. Historically, the spin-off was a business with low margins. The idea was to show that the divested division had value but was not getting appropriate recognition within the parent company; the spin-off itself was the previously unrecognized value.

The focus now appears to be getting the value in the parent. You might say it is six of one, half a dozen of the other, but the thrust clearly is to improve the valuation. Many spin-offs

now are being instigated by the activists and the activists prefer the parent company because it is the more liquid of the two, and activists prefer the larger, more liquid company.

The tactics of the spin-off investor might have to shift, though. Historically, one would discard the parent and keep the spin-off. Now it might not be a bad idea to keep both. I do not think anyone has come close to exhausting what can be done in the world of large capitalizations and spin-offs. If spin-offs were to continue at the current pace, which is significant, it might go on for five, six or seven years.

Q: Are the same kinds of returns possible?

A: Yes, the same kind of return is possible but it is a question of how you measure it. If the thrust is to achieve value enhancement in the parent, then you have to measure the parent. Previously, the focus had been on the spun-off company.

To show that the glass is not half empty, but half full, consider that in the days when the thrust of the spin-off was to get value from the spun-off company, the spin-off companies, generally speaking, had limited liquidity in relation to the parent. Now the thrust is to put the value in the parent. You can invest much more money in spin-offs today if you take the all-encompassing approach (and you could have done so historically). Historically, there were a lot of relatively small capitalization spin-offs, and the small size limited how much could be invested. I would say the capacity is rising by leaps and bounds. We are not used to measuring the parents, even though some studies show the parents also usually do well after the spin-offs. Previously, the big money was made in the spun-off entity. I think the big money is going to be made now in the parent, but I am not disputing that you might make money in the spin-offs too.

Q: Will there just be a one-time re-rating in a parent?

A: It is more complicated than that. Understand that it will not be a one-day rerating; rather, it will be a re-rating that takes place over time. The second point is that it will leave the parent company with more cash flow per share and probably that will be used for stock buybacks.

The corporate parent has to be very careful with respect to post-spinoff corporate actions such as stock buybacks or other restructurings, because if it violates the change-of-ownership rules that govern tax-free spinoffs, it could thereby lose the tax-exempt character of the distribution. You might have more flexibility now in the parent. There are negatives and positives, but net, it might be a better situation from the point of view of liquidity, stock buybacks, parent balance sheets, and parent margins. It seems to me that the positives outweigh the negatives.

Q: Historically you would have a spin-off characterized by low returns on assets and low returns on equity. If you had earnings improvement, meaning return on capital improvement, as well as a valuation re-rating, you had a huge rate of return and the parent companies did not have depressed earnings or a depressed rating. So is it not true that net-net, the return should be lower now?

A: I do not think that is true and I will tell you why. If you had taken all the spin-offs and constructed an index from them, it is true you would have had some massive returns. It is also true that there were companies with very poor returns that kept deteriorating, and that such companies might almost be forced out of existence.

For example, many years ago Hansen Trust spun off Smith Corona, which made typewriters. Margins were depressed, because nobody needed typewriters. They were replaced by word processing software and eventually there was no business there. So when you calculate the spin-off index you have to take into account the loss ratio from the poorest spin-offs, which were on the order of 90 or 100 percent in some cases. I do not think you are going to see that now. There will always be spin-offs that, for whatever reason, decline in value. It is part of the business. I do not think, however, that you are going to see these spectacular losses. An exception might be, though one can't yet know, the college bookstores. You could devise a scenario wherein the college bookstore business could be under severe pressure. But the company itself says it is going to expand into all sorts of interesting software areas and delivery of educational materials and maybe it can overcome the pressure on the business. It is not inconceivable.

Q: Is the current universe of spin-offs more driven by financial engineering than the historical group of spin-offs, which were driven more by opportunistic value enhancement?

A: The current group of spin-offs has one thing going for it that we never had before, and that is low interest rates. Let's say a business is not growing, but has a cash flow that can support a certain amount of debt. If you put a lot of low interest debt onto the books, the valuation on the day of spin-off obviously will reflect that and will depress the value of the equity. Yet, if the cash flow is sufficiently robust just to pay off the debt, that in itself, through the operation of what is called the Modigliani-Miller capital structure capital invariance theorem,[1] can produce as robust, if not more robust, a rate of return than anything you made historically. Thus, when you look at the balance sheets of various spin-offs you can see where debt is being moved. If the company is not going to need its cash flow to expand very much and does not seem to be interested in paying a dividend, with interest rates currently very low, the spin-off is a once-in-a-lifetime opportunity. In a way it will almost be like publicly-traded private equity.

[1] The Modigliani-Miller capital structure invariance theorem basically states that, under certain assumptions, the enterprise value of a company is invariant to changes in its capital structure.

If you look at it that way, and if enough companies are spun out that way, you could see an institution deciding that it could reproduce and enhance its private equity returns by buying the spin-offs and having the benefit of daily liquidity and daily mark-to-market pricing. It is possible. I personally think it is even likely, but time will tell. Obviously it depends on the number of spin-offs and we cannot know that with certainty, but I think it is going to be a fairly busy time.

Q: In the past, if the spun off entity was desirable, a good entry point would be when there was a selloff of the spin-off by, for example, shareholders only interested in keeping the parent. How would the changing nature of spin-offs affect that phenomenon?

A: Historically, in the first five or six months after a spin-off, there was often, although not always, a sell off and that would be a good entry point. I used to like to focus on the ones that were publicly traded for six months; maybe that will happen again. We will just have to see. But now, the activists are involved, and they are interested in immediate value enhancement, so that is now the thrust of spin-offs. That is unlike the historical pattern, where an asset that no one understood was spun off and it would trade off in the aftermarket and, in six months or so, some people would discover it and make a large sum of money.

Q: If, generally speaking, the opportunity now is in the parent, do you want to be invested in the parent pre-spin? When do you want to get involved in the transaction?

A: Although activists currently drive many of the spin-offs—and you can see it in the case of Armstrong World and DuPont—I do not think it is entirely fair to say that the spin-off is done at the behest of the activist but, rather, the activist seems to support the idea of spin-off. It is viewed as a valuation enhancing measure. If the spin-off is used as a value enhancing measure, and you believe the activist is rational, it is much more logical to buy the company before the spin takes place as opposed to what we did historically, which was to wait six months until the spin happened and await the likelihood of the shares trading down. There are going to be examples of both, though.

Q: What about forced selling pressure?

A: I think in the years to come there will be less forced selling pressure, not more, and here is why I say that. Time will tell if I am right or wrong, but you saw in this Compendium the outflow from the S&P 500. Now if that money is going into investments like the S&P 500 SPDR, with its 9.45 basis point fee, and into the Vanguard S&P 500 ETF that has a fee of 5 basis points, then, obviously, in most instances the index is not going to hold the spin-off. However, that is where the money is going.

The various orchestrators of indexes cannot compete with a Vanguard and still make money, so what you will see in new filings is that the indexes are becoming much more all-inclusive and much more esoteric. They are becoming much more idiosyncratic and, therefore, there are other indexes that are getting cash flow which, I would argue, are very likely to contain the spin-off entity. So I do not think the spin-off market is going to develop in a simple fashion, like there is either an index or a large cap manager that is forced to shed the spin-off. I think there are going to be indexes that are going to buy the spin-off and buy the parent, too, so the dynamic is going to be different and that already seems clear in the data.

Q: The Russell indexes, for example, do not even kick them out necessarily.

A: Well, it is true. The Russell indexes do not necessarily even remove them once they are spun off. They may be caught in an index. If you were a large company in the Russell 1000 index, the spin-off might be better off, from an index weighting and share demand perspective, in the Russell 2000 small-cap index than in the lower reaches of the Russell 1000 index where it would be competing with the likes of Apple and Exxon for shelf space. A spin-off in the Russell 2000 index would be competing with much smaller companies.

Therefore, I think the dynamic is very, very different than it was in the past and, although there will be exceptions, generally speaking it is a plus for the spin-off, not a negative for the spin-off if that answers your question.

Q: Other than if a spin-off sells off, what attributes would make it a perfect spin-off?

A: There is no such thing as the perfect anything. You might ask: What makes a spin-off desirable? The way I looked at it, historically, was that you had a business with very low margins, a very low return on equity, a very low return on assets and it was valued as if that was a permanent condition. If you could find a spin-off for which that was not going to be a permanent condition you could make a lot of money. If you had a business with, say, a 1% margin that subsequently rose to 10% , which is not even that high, you would make, in principle, 10 times your money even with no organic growth. Throw a little organic growth in there and you would make a tremendous amount of money, even without a higher valuation.

You see some of that right now, for example, in the spin-offs of the various publishing companies and the newspaper publishing companies— newspapers and magazines, *Time*, the Scripps newspapers plus Journal Communications, the *Tribune*, News Corp, New Media Properties, there are many. They are all valued, or they will be valued when they are all spun-off, kind of on the idea that the margin is going to be low forever and the revenue is shrinking and the companies are cutting costs. These companies realize there is a problem, but they are reorganizing themselves to meet that challenge.

In Gannett's case, for example, there is no market for a newspaper that reports international events, which you can get off the internet or TV, but there is a market for a newspaper or a website that reports local events. It is really a question of taking your fixed assets and redirecting them toward content that some people want. There are a lot of people who want information about their local community that they really cannot get because there is no economy of scale there for the big news organizations to be in that market segment.

Assuming newspapers can address this, and I think they can, although it will take time, the local news model has every reason to be successful. What an activist like Carl Icahn in the case of Gannett asks for is something very reasonable. I think they realize it will take time to accomplish. Nothing is the perfect spin-off, but you are going to have a business with a very low margin, such that if they can raise that margin, a lot of money can be made in those spin-offs. Is it not better that the parent company will get a value boost as well? Maybe the sequence of events in the first valuation boost is in the parent and the second valuation boost, because it takes a longer time, is going to be in the spin-off. I think the capacity of the whole universe of spin-offs, however, will be orders of magnitude larger.

WEALTH INDEX (Ticker: RCH Index)

As of December 31, 2014

Annualized Total Return	**1 Year**	**3 Years**	**5 Years**	**7 Years**	**10 Years**	**15 Years**	**20 Years**	**Since Incep. 1991 - Dec '14**
Wealth Index	7.06%	19.69%	18.84%	12.68%	11.51%	7.85%	13.02%	13.48%
S&P 500	13.69%	20.41%	15.45%	7.27%	7.67%	4.24%	9.85%	10.18%
S&P 500 Eq. Wgt.	14.49%	22.41%	17.44%	10.17%	9.61%	9.09%	11.85%	12.56%
Russell 3000	12.56%	20.51%	15.63%	7.54%	7.94%	4.82%	9.96%	10.45%
Russell 2000	4.89%	19.21%	15.55%	8.18%	7.77%	7.38%	9.63%	11.17%
Excess Return vs. S&P 500	-6.63%	-0.72%	3.38%	5.41%	3.84%	3.61%	3.17%	3.29%
Excess Return vs. S&P 500 Eq. Wgt.	-7.43%	-2.72%	1.40%	2.52%	1.90%	-1.24%	1.16%	0.91%
Excess Return vs. Russell 3000	-5.50%	-0.82%	3.21%	5.14%	3.57%	3.03%	3.06%	3.03%
Excess Return vs. Russell 2000	2.17%	0.48%	3.29%	4.50%	3.74%	0.47%	3.38%	2.30%

**Note: Calculated Using Total Returns*

Risk Adjusted Return	**1 Year**	**3 Years**	**5 Years**	**7 Years**	**10 Years**	**15 Years**	**20 Years**	**Since Incep. 1991 - Dec '14**
Wealth Index	0.58	1.64	1.18	0.56	0.57	0.34	0.60	0.65
S&P 500	1.66	2.24	1.19	0.43	0.52	0.28	0.65	0.70
S&P 500 Eq. Wgt.	1.54	2.24	1.20	0.51	0.55	0.51	0.70	0.78
Russell 3000	1.43	2.18	1.15	0.43	0.52	0.31	0.64	0.71
Russell 2000	0.32	1.44	0.86	0.37	0.39	0.36	0.49	0.59

**Note: Calculated As Annualized Total Return Divided By Annualized Total Return Volatility (Uses Monthly Total Returns)*

Information Ratio	**1 Year**	**3 Years**	**5 Years**	**7 Years**	**10 Years**	**15 Years**	**20 Years**	**Since Incep. 1991 - Dec '14**
Wealth Index vs. S&P 500	(1.21)	(0.14)	0.61	0.57	0.44	0.33	0.30	0.32
Wealth Index vs. S&P 500 Eq. Wgt.	(2.04)	(0.74)	0.33	0.44	0.34	(0.12)	0.12	0.10
Wealth Index vs. Russell 3000	(1.27)	(0.18)	0.66	0.60	0.45	0.29	0.32	0.32
Wealth Index vs. Russell 2000	0.27	0.08	0.52	0.55	0.51	0.04	0.31	0.22

**Note: Calculated As Annualized Excess Total Return Divided By Annualized Excess Total Return Volatility (Uses Monthly Excess Total Returns)*

Wealth Index Batting Average	**Roll. 1 Year**	**Roll. 3 Year**	**Roll. 5 Year**
vs. S&P 500	60.65%	67.98%	71.62%
vs. S&P 500 Eq. Wgt.	57.76%	62.45%	60.70%
vs. Russell 3000	63.18%	68.38%	77.29%
vs. Russell 2000	61.73%	67.59%	74.67%

**Note: Calculated Using Total Returns*

Annualized Volatility	**1 Year**	**3 Years**	**5 Years**	**7 Years**	**10 Years**	**15 Years**	**20 Years**	**Since Incep. 1991 - Dec '14**
Wealth Index	12.23%	11.98%	15.97%	22.75%	20.16%	22.84%	21.82%	20.72%
S&P 500	8.26%	9.10%	13.00%	16.82%	14.67%	15.26%	15.15%	14.48%
S&P 500 Eq. Wgt.	9.42%	9.99%	14.56%	20.13%	17.53%	17.69%	16.88%	16.13%
Russell 3000	8.78%	9.42%	13.55%	17.46%	15.25%	15.66%	15.44%	14.75%
Russell 2000	15.52%	13.31%	17.98%	22.00%	19.75%	20.42%	19.81%	18.96%

**Note: Calculated Using Total Returns*

Annualized Tracking Error	**1 Year**	**3 Years**	**5 Years**	**7 Years**	**10 Years**	**15 Years**	**20 Years**	**Since Incep. 1991 - Dec '14**
vs. S&P 500	5.46%	5.32%	5.57%	9.44%	8.78%	11.09%	10.56%	10.18%
vs. S&P 500 Eq. Wgt.	3.64%	3.68%	4.22%	5.70%	5.60%	10.19%	9.79%	9.31%
vs. Russell 3000	4.33%	4.43%	4.83%	8.53%	7.92%	10.32%	9.70%	9.36%
vs. Russell 2000	7.95%	5.63%	6.35%	8.16%	7.41%	11.89%	11.08%	10.54%

**Note: Calculated Using Total Returns*

Wealth Index Beta	**1 Year**	**3 Years**	**5 Years**	**7 Years**	**10 Years**	**15 Years**	**20 Years**	**Since Incep. 1991 - Dec '14**
vs. S&P 500	1.38	1.20	1.16	1.26	1.27	1.36	1.29	1.28
vs. S&P 500 Eq. Wgt.	1.27	1.15	1.06	1.10	1.11	1.17	1.17	1.16
vs. Russell 3000	1.35	1.20	1.13	1.23	1.24	1.35	1.30	1.29
vs. Russell 2000	0.68	0.82	0.83	0.97	0.95	0.96	0.95	0.94

**Note: Calculated Using Total Returns*

Calendar Year Total Returns	**Wealth Index**	**S&P 500**	**S&P 500 Eq. Wgt.**	**Russell 3000**	**Russell 2000**	**ER v. SP500**	**ER v. SP500 EW**	**ER v. R3000**	**ER v. R2000**
1991	44.25%	30.47%	35.51%	33.68%	46.04%	13.78%	8.73%	10.57%	-1.80%
1992	20.20%	7.62%	15.63%	9.59%	18.41%	12.58%	4.56%	10.61%	1.79%
1993	3.38%	10.08%	15.12%	10.88%	18.88%	-6.70%	-11.75%	-7.50%	-15.50%
1994	0.33%	1.32%	0.95%	0.19%	-1.82%	-0.99%	-0.62%	0.14%	2.15%
1995	31.31%	37.58%	32.03%	36.80%	28.45%	-6.27%	-0.72%	-5.49%	2.86%
1996	23.09%	22.96%	19.02%	21.82%	16.49%	0.13%	4.06%	1.27%	6.59%
1997	27.31%	33.36%	29.05%	31.78%	22.36%	-6.06%	-1.74%	-4.48%	4.94%
1998	24.95%	28.58%	12.19%	24.14%	-2.55%	-3.63%	12.76%	0.81%	27.49%
1999	44.68%	21.04%	12.03%	20.90%	21.26%	23.64%	32.66%	23.78%	23.43%
2000	-19.16%	-9.10%	9.64%	-7.46%	-3.02%	-10.06%	-28.80%	-11.70%	-16.14%
2001	-10.80%	-11.89%	-0.39%	-11.46%	2.49%	1.08%	-10.41%	0.65%	-13.29%
2002	-15.49%	-22.10%	-18.18%	-21.54%	-20.48%	6.61%	2.69%	6.05%	4.99%
2003	45.41%	28.68%	40.97%	31.06%	47.25%	16.72%	4.44%	14.35%	-1.85%
2004	17.97%	10.88%	16.95%	11.95%	18.33%	7.09%	1.02%	6.02%	-0.36%
2005	3.30%	4.91%	8.06%	6.12%	4.55%	-1.61%	-4.76%	-2.82%	-1.25%
2006	22.61%	15.79%	15.80%	15.71%	18.37%	6.81%	6.81%	6.89%	4.24%
2007	1.73%	5.49%	1.53%	5.14%	-1.57%	-3.76%	0.20%	-3.41%	3.30%
2008	-43.67%	-37.00%	-39.72%	-37.31%	-33.79%	-6.68%	-3.95%	-6.37%	-9.89%
2009	72.80%	26.46%	46.31%	28.34%	27.17%	46.33%	26.49%	44.46%	45.62%
2010	31.51%	15.06%	21.91%	16.93%	26.85%	16.45%	9.60%	14.58%	4.65%
2011	5.11%	2.11%	-0.11%	1.03%	-4.18%	3.00%	5.22%	4.09%	9.29%
2012	13.53%	16.00%	17.65%	16.42%	16.35%	-2.48%	-4.13%	-2.89%	-2.82%
2013	41.08%	32.39%	36.16%	33.55%	38.82%	8.69%	4.92%	7.53%	2.25%
2014	7.06%	13.69%	14.49%	12.56%	4.89%	-6.63%	-7.43%	-5.50%	2.17%

**Note: Calculated Using Total Returns*

Source: Horizon Kinetics LLC, International Securities Exchange, Bloomberg

See important disclosures for additional information.

Index Constituent Changes: 1. Nuveen Investments Inc (JNC US) was delisted from the US Security Exchange effective 11/14/2007 and has been removed from the index. 2. Alliance Financial Corp (ALNC US) was delisted from US Security Exchange effective 03/11/2013 and has been removed from the index. The divisor has been adjusted accordingly for each of these changes.

Money Manager Index

From Aug 1983 to Feb 2015

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr. End	Index	Yearly return	Annualized return (since inception)
1983								1.00	0.81	0.76	0.87	0.75	1983	0.75	(60.5)%	(50.2)%
1984	0.75	0.71	0.70	0.66	0.67	0.67	0.61	0.83	0.79	0.76	0.67	0.65	1984	0.65	(13.5)%	(26.5)%
1985	0.92	0.93	0.99	0.95	1.20	1.30	1.32	1.38	1.28	1.50	1.86	2.02	1985	2.02	211.8%	33.7%
1986	2.46	2.78	2.47	2.31	2.36	2.33	2.03	2.23	1.98	2.37	2.34	2.34	1986	2.34	15.9%	28.2%
1987	3.21	3.27	3.16	2.55	2.37	2.30	2.39	2.47	2.22	1.56	1.44	1.52	1987	1.52	(35.0)%	9.9%
1988	1.80	1.87	1.78	1.79	1.69	1.94	1.92	1.96	2.01	1.97	1.95	2.07	1988	2.07	36.0%	14.3%
1989	2.42	2.37	2.54	2.63	2.64	2.64	2.93	3.12	3.07	3.05	3.23	3.26	1989	3.26	57.8%	20.2%
1990	3.12	3.15	3.53	3.06	3.47	3.45	3.30	2.70	2.68	2.40	2.52	3.02	1990	3.02	(7.3)%	16.1%
1991	3.08	3.49	3.70	3.68	3.71	3.61	3.86	4.05	4.07	4.69	4.47	5.72	1991	5.72	89.4%	23.0%
1992	5.76	5.61	5.30	5.12	4.98	4.99	5.93	6.06	6.19	6.56	7.25	7.36	1992	7.36	28.6%	23.6%
1993	8.06	8.04	8.20	7.94	8.15	8.57	9.05	10.00	9.99	9.31	8.97	8.90	1993	8.90	21.0%	23.4%
1994	9.52	8.73	8.05	7.85	7.81	7.53	7.66	8.31	8.15	8.52	7.88	7.95	1994	7.95	(10.6)%	19.9%
1995	7.74	8.38	8.72	8.77	9.20	9.35	9.93	10.78	11.22	10.53	10.89	10.40	1995	10.40	30.8%	20.8%
1996	11.12	11.50	11.33	11.62	11.86	12.53	11.91	12.36	13.32	14.03	14.42	15.02	1996	15.02	44.4%	22.4%
1997	16.04	16.81	15.32	17.27	18.42	20.29	22.28	21.39	25.31	24.95	24.95	25.50	1997	25.50	69.8%	25.2%
1998	25.67	29.00	29.89	30.60	28.90	30.44	27.67	21.33	21.74	25.16	27.27	25.41	1998	25.41	(0.4)%	23.3%
1999	26.00	23.71	23.92	26.77	28.94	29.74	28.78	26.74	25.89	27.73	28.54	30.55	1999	30.55	20.2%	23.2%
2000	31.07	31.19	36.01	35.60	35.20	40.32	43.58	45.75	45.62	48.69	44.05	49.84	2000	49.84	63.1%	25.2%
2001	50.23	46.41	44.27	46.96	48.90	49.98	50.67	49.70	46.47	44.81	48.04	51.91	2001	51.91	4.2%	23.9%
2002	53.62	53.74	55.11	52.52	52.83	50.48	42.58	44.92	41.54	42.66	45.78	43.17	2002	43.17	(16.8)%	21.4%
2003	42.72	41.18	42.36	45.98	49.02	50.71	53.47	53.97	53.46	56.12	55.83	58.49	2003	58.49	35.5%	22.1%
2004	64.38	65.08	64.63	61.68	60.86	62.30	58.71	64.08	65.73	68.86	73.53	78.16	2004	78.16	33.6%	22.6%
2005	76.46	77.94	74.06	72.83	77.02	80.25	83.59	83.07	86.03	89.19	96.58	97.35	2005	97.35	24.6%	22.7%
2006	107.62	111.44	110.75	111.88	101.89	100.61	100.62	104.98	114.61	116.64	113.78	118.05	2006	118.05	21.3%	22.6%
2007	125.73	123.77	122.62	127.58	133.57	134.68	126.61	124.07	133.57	148.09	135.13	135.56	2007	135.56	14.8%	22.3%
2008	127.53	115.76	115.94	121.58	130.51	115.68	119.94	120.55	109.69	72.70	62.95	67.91	2008	67.91	(49.9)%	18.1%
2009	57.51	51.76	65.63	79.49	85.67	90.79	99.97	101.69	107.32	107.36	110.94	115.01	2009	115.01	69.4%	19.7%
2010	106.84	110.32	118.13	114.91	100.18	88.17	97.65	89.64	103.59	108.29	108.64	119.58	2010	119.58	4.0%	19.1%
2011	122.80	128.28	127.94	127.97	126.06	121.03	115.49	104.25	91.32	102.44	103.79	103.98	2011	103.98	(13.1)%	17.8%
2012	109.46	120.12	125.37	121.64	108.44	114.12	113.56	118.33	123.18	127.91	131.76	135.00	2012	135.00	29.8%	18.1%
2013	151.20	155.13	165.52	166.55	174.89	164.20	179.01	168.47	176.12	192.14	197.16	208.44	2013	208.44	54.4%	19.2%
2014	194.17	196.87	203.88	196.24	195.40	206.41	194.00	207.06	201.07	205.28	212.28	215.25	2014	215.25	3.3%	18.6%
2015	203.96	217.70	215.97										2015	215.97	0.3%	18.5%

S.No.	Ticker	Name	Amount Invested	Shares Purchased	Date of Investment	Current Index Value
1	AMG US Equity	Affiliated Manager	$22,947	1,377	11/30/1997	$295,711
2	BLK US Equity	BlackRock	$23,205	1,658	9/30/1999	$609,998
3	WDR US Equity	Waddell & Reed	$27,513	1,587	3/31/1998	$78,634
4	EV US Equity	Eaton Vance	$2,641	3,998	1/31/1986	$166,493
5	TROW US Equity	T. Rowe Price	$2,423	2,014	4/30/1986	$164,129
6	BEN US Equity	Franklin resources	$908	1,263	4/30/1985	$195,040
7	LM US Equity	Legg Mason	$1,000	462	8/31/1983	$25,587
8	FII US Equity	Federated Inv	$26,381	2,206	5/31/1998	$74,764
9	FIG US Equity	Fortress Investment Group	$102,249	3,389	2/28/2007	$27,621
10	PZN US Equity	Pzena Investment Management	$122,426	6,317	10/31/2007	$57,928

Index Constituent Changes: 1.New Star Asset Management (NSAM LN) was delisted from the London Security Exchange effective 03/10/2009 and has been removed from the index. 2. Australia Wealth Management (AUW AU) was delisted from Australian Security Exchange effective 05/18/2009 and has been removed from the index. 3. Bluebay Asset Management/UNI (BBAY LN) was delisted from the London Security Exchange effective 12/20/2010 and has been removed from the index. 4.Everest Financial Group Limited (EFG AU) was delisted from the Australian Security Exchange effective 7/19/2011 and has been removed from the index. 5. RAB Capital Plc (RAB LN) was delisted from the London Security Exchange effective 9/2/2011 and has been removed from the index. 6. Invista Real Estate (INRE LN) was delisted effective 8/13/2012 and has been removed from the index. 7. F&C Asset Management Plc (FCAM LN) was delisted effective 5/8/2014 and has been removed from the index.The divisor has been adjusted accordingly for each of these changes.

International Money Manager Index

From Nov 1986 to March 2015

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yr. End	Index	Yearly return	Annualized return (since inception)
1986											1.00	1.02	1986	1.02	10.0%	10.0%
1987	1.25	1.37	1.48	1.48	1.37	1.33	1.39	1.40	1.33	0.81	0.76	0.73	1987	0.73	(27.7)%	(23.3)%
1988	0.75	0.92	1.02	0.95	0.80	0.89	0.88	0.82	0.86	0.88	0.89	0.93	1988	0.93	26.4%	(3.4)%
1989	1.03	1.02	1.06	1.17	1.19	1.18	1.25	1.16	1.17	1.20	1.21	1.28	1989	1.28	37.8%	8.1%
1990	1.24	1.24	1.18	1.19	1.22	1.24	1.26	1.26	1.23	1.24	1.25	1.33	1990	1.33	3.7%	7.0%
1991	1.34	1.52	1.56	1.58	1.57	1.47	1.52	1.64	1.81	1.89	1.94	1.92	1991	1.92	44.8%	13.5%
1992	2.01	1.93	1.88	2.14	2.19	2.13	2.08	1.99	1.95	1.77	1.76	1.96	1992	1.96	1.9%	11.5%
1993	1.98	2.03	2.20	2.39	2.42	2.45	2.54	3.05	3.01	3.07	3.01	3.30	1993	3.30	68.7%	18.1%
1994	3.72	3.39	3.17	3.04	2.99	2.89	3.01	3.14	3.13	3.19	3.15	3.15	1994	3.15	(4.7)%	15.1%
1995	3.07	3.12	3.28	3.41	3.56	3.59	3.87	3.76	3.76	3.77	3.70	3.73	1995	3.73	18.6%	15.4%
1996	3.76	3.85	3.70	3.79	3.96	3.90	3.75	3.96	4.16	4.47	4.90	4.86	1996	4.86	30.3%	16.8%
1997	5.11	5.37	4.99	4.96	5.43	5.94	6.57	6.32	7.45	7.24	6.80	7.19	1997	7.19	47.9%	19.3%
1998	7.12	8.05	8.78	9.25	8.95	8.74	8.91	6.67	6.08	7.01	7.51	7.71	1998	7.71	7.3%	18.3%
1999	7.99	8.21	8.68	9.07	8.71	8.61	8.63	8.43	8.47	8.79	9.80	10.79	1999	10.79	39.9%	19.8%
2000	11.23	12.27	13.95	13.50	13.73	15.39	15.85	16.82	17.07	16.31	14.43	16.76	2000	14.43	33.8%	20.7%
2001	17.42	15.88	13.46	15.14	15.84	15.15	14.21	13.61	10.77	11.43	13.90	14.12	2001	14.12	(2.2)%	19.1%
2002	14.74	13.78	15.09	15.11	16.38	14.14	12.92	12.10	11.23	11.06	11.33	10.50	2002	10.50	(25.6)%	15.7%
2003	10.18	9.52	9.69	10.62	12.17	13.04	13.98	15.38	16.67	17.88	18.16	18.07	2003	18.07	72.1%	18.4%
2004	20.00	22.41	29.98	35.46	26.68	30.80	25.37	25.20	23.67	23.34	27.56	31.48	2004	31.48	74.2%	20.9%
2005	32.19	32.57	31.88	27.79	27.36	29.05	30.38	31.49	33.39	32.24	32.95	37.18	2005	37.18	18.1%	20.8%
2006	41.01	40.97	43.69	46.45	42.39	41.58	40.60	43.32	43.55	43.70	44.58	49.38	2006	49.38	32.8%	21.3%
2007	50.95	51.18	53.59	56.09	58.16	56.37	53.90	48.65	50.96	57.03	48.21	45.75	2007	45.75	(7.3)%	19.8%
2008	38.71	39.71	38.59	40.18	39.25	35.10	34.59	33.33	26.09	18.72	14.50	15.79	2008	15.79	(65.5)%	13.3%
2009	14.62	13.24	14.96	19.63	22.82	23.73	26.14	27.05	28.41	28.53	28.69	29.83	2009	29.83	89.0%	15.8%
2010	28.50	27.58	29.90	29.58	25.53	24.72	27.82	26.74	30.36	33.68	31.85	34.52	2010	34.52	15.7%	15.8%
2011	34.91	36.17	36.51	39.63	37.86	35.31	35.83	32.76	29.28	32.04	31.23	30.59	2011	30.59	(11.4)%	14.56%
2012	32.12	34.36	35.67	35.08	31.03	32.92	32.66	34.17	36.33	37.28	38.11	40.73	2012	40.73	33.1%	15.22%
2013	43.61	42.58	44.42	49.29	50.40	47.75	50.58	49.32	52.49	55.65	55.41	58.88	2013	58.88	44.6%	16.19%
2014	55.35	58.98	61.86	59.92	59.05	59.89	57.84	58.64	55.47	54.37	55.77	54.31	2014	54.31	(7.8)%	15.24%
2015	52.77	58.87	58.99										2015	58.99	8.6%	15.43%

S.No.	Ticker	Name	Initial Amount Invested	Shares Purchased	Date of Investment	Current Index Value
1	IGM CN Equity	IGM Financial Inc	$1,000	73	31/11/1986	$2,640
2	IVZ US Equity	Invesco Plc (Previously Amvescap)	$1,357	1,153	1/31/1991	$22,872
3	SDR LN Equity	Schroders Plc	$1,208	505	3/31/1991	$24,431
4	RAT LN Equity	Rathbone Brothers Plc	$1,208	736	3/31/1991	$22,646
5	ADN LN Equity	Aberdeen Asset Mgmt Plc	$1,208	1,827	3/31/1991	$12,466
6	CIX CN Equity	CI Financial Corp.	$2,585	3,224	6/30/1994	$90,310
7	EMG LN Equity	Man Group Plc	$2,862	6,344	10/31/1994	$14,588
8	AGF/B CN Equity	AGF Management Ltd-Cl B	$3,343	1,346	1/31/1996	$8,853
9	8739 JP Equity	Sparx Group Co Ltd	$11,762	108	12/31/2001	$19,915
10	HGG LN Equity	Henderson Group Plc	$14,447	8,666	12/31/2003	$28,937
11	AZM IM Equity	Azimut Holding Spa	$21,908	4,977	7/31/2004	$141,872
12	CCAP LN Equity	Charlemagne Capital Ltd	$36,848	22,300	3/31/2006	$4,208
13	PGHN SW Equity	Partners Group-Reg	$36,848	578	3/31/2006	$172,697
14	ASHM LN Equity	Ashmore Group Plc.	$36,688	9,873	10/31/2006	$42,451