

2nd Quarter Commentary

July 2015

More Fun with Non-Predictive Attributes, and Why Perfect Foreknowledge Won't Help

In last quarter's review, we threatened to return to the inflammatory statement that many standard macroeconomic factors that are considered necessary elements of the portfolio management process and security valuation models, such as the expectations for GDP growth or interest rates or oil prices, and so forth, are more the source of bad decision making than good, and probably detract from performance more than they help.

That approach is rooted in an unintended departure from the scientific method, the notion that one can bring a systematic, formulaic approach to perhaps the ultimate non-absolute, interactive environment: namely a marketplace composed of ever-reacting and anticipating participants called human beings—the stock market. For a working example, let's start with the understanding that emerging nation stock markets, though riskier (more volatile and less well regulated), perform better than developed developed-nation stock markets because their economies expand faster. It seems most logical. Herewith, the accompanying table lists the 5- and 10-year growth rates of the gross national income of several emerging market nations, with the U.S. included as well, for comparison. They are listed in descending growth order. Our task is to match the growth rate with the nation. These are the nations: China, Brazil, Malaysia, South Korea, and the U.S.

Growth Rate of Gross National Income, In current U.S. \$	
5 Yrs to 12/31/14	10 Yrs to 12/31/14
25.1%	17.9%
15.5%	14.6%
12.7%	10.4%
4.6%	6.1%
3.7%	3.2%

Source: World Bank

The two easiest to guess are probably China, which is at the top of the list, with almost 18% annualized expansion in national income over the past 10 years, and the U.S. which, as a developed nation, grew at a 3.2% rate and is at the bottom of the list. (These figures are not real growth after deducting inflation, in which case the U.S. figure would be about 1.5%.) In fact, for ease, the rest of the figures are in the country order listed above, with Brazil at a 15% annual 10-year growth rate, Malaysia at 10%, and South Korea at 6%, which was still twice the U.S. rate. The difference between South Korea's 6.1% growth rate and the U.S.' 3.2% rate meant an 82% increase in the size of South Korea's economy versus 38% for the U.S.

Now let's use this data to invent the best investment strategy that has never been invented and the secret dream of so many: true knowledge of the future. Say that you could be presented with this historical data, which comes directly from the World Bank (<http://data.worldbank.org>), but were given it not on this conference call but, rather, on December 31, 2004, ten years ago. It was around that time and a few years earlier that the first single-country emerging market ETFs were created, so that anyone, not merely an institutional or sophisticated investor, could easily invest, in U.S. dollars in a domestic brokerage account, in an exchange traded, liquid index of Malaysian or Chinese stocks. Incidentally, the emerging markets chosen for this discussion were selected primarily because iShares ETFs for those markets existed in 2004, so a continuous record is readily available. Some other emerging markets indexes, such as for India or Indonesia, weren't available until several years later.

Here's the real question. Which of the markets listed above would you have chosen, with precise knowledge of the future, down to the fraction of a percentage point, available to no one else? To sweeten the pot, we'll even make available the iShares MSCI Emerging Markets ETF (ticker EEM), so that you could invest in the higher growth of the worldwide emerging markets index without undue single-country risk.

The actual investment returns are shown below. Also included are a few additional emerging market countries that have 5-year index histories: India, Indonesia and Turkey. It turns out that two of the four single-country emerging market indexes did more poorly than the S&P 500 over the 10-year period and, more to the point, so did the entire Emerging Markets ETF. Perhaps more interesting, for the five-year period, none of the emerging markets came close to the S&P 500 returns. China, with 25% annualized economic expansion, produced 5% stock index returns compared to the U.S.'s 17%; India, even with a 12.7% growth rate returned only 3.5% via its stock index. What should one make of that?

	Gross Nat'l Income, Annualized Growth		ETF Annualized Return	
	5 Yrs to 12/31/14	10 Yrs to 12/31/14	5 Yrs to 12/31/14	10 Yrs to 12/31/14
iShares China Large Cap ETF	25.1%	17.9%	5.34%	11.49%
iShares Brazil Capped ETF	15.5%	14.6%	-8.99%	6.19%
iShares MSCI Malaysia ETF	12.7%	10.4%	4.09%	9.28%
iShares MSCI South Korea Capped	4.6%	6.1%	5.05%	6.72%
iShares MSCI Indonesia ETF	19.9%	14.4%	0.77%	n/a
iShares India 50 ETF	12.7%	11.8%	3.50%	n/a
iShares MSCI Turkey ETF	6.9%	9.3%	-1.16%	n/a
iShares MSCI Emerging Markets ETF	n/a	n/a	3.11%	7.27%
iShares Core S&P 500 ETF	3.7%	3.2%	17.25%	7.83%

Source: World Bank, ETF providers

The simplest observation is that GDP growth, even for periods of 5 and 10 years, did not have ANY predictive power for stock market returns. Even magic foreknowledge did not help. There must be other factors at work, perhaps a confounding variable. And that's one of the problems with the application of even seemingly intuitively obvious investment models – which other factors? How many? How do you know

what you don't know? This level of rule-based decision making does not even take account of the constituents of these ETFs, of the individual businesses, their character or valuations. How many buyers of an India ETF review the holdings with any care? Does an ETF investor really have any idea what they're buying? We suggest that they do not.

A second observation is how much superior the S&P 500 was during the 5-year period, relative to the emerging nation stock indexes, than during the 10-year period. While the 10-year period commenced well in advance of the financial crisis of 2008/2009, the 5-year period commenced at the end, 12/31/09. It was in the aftermath of that crisis that the demand for ETFs and other passive, indexed-based investment products began in earnest – the desire to avoid security-specific risk, to minimize portfolio volatility via asset allocation building blocks that could be easily bought or sold and hedged. This is another confounding variable, because such ETFs were not as widely available or as widely used prior to the financial crisis. And it is in the U.S. that the demand was earliest and greatest. The volume of that demand was unprecedentedly large and continuous: between 12/31/08 and 12/31/14, while \$448 billion was withdrawn from actively managed domestic equity mutual funds, there was over \$720 billion of net demand for domestic equity ETFs and index domestic equity mutual funds¹, and in no single year, including 2008 and 2009, was there net outflow. Indeed, as an indication that indexation passed from crisis reaction into orthodox practice, there was more active outflow/index inflow in 2014 (\$84 billion withdrawn from actively managed domestic equity mutual funds, and \$223 billion added to indexed products) than there was in the crisis year 2009 (\$27 billion out / \$66 billion in).

That is an enormous, extended supply/demand differential. Can it suggest the possibility that indexes might have shifted in their function from passively providing performance measurement information about the market and facilitating passive participation in the market (the free-rider principle), to impacting prices? When money flows into an ETF, it is automatically allocated to each of the index constituents in their assigned proportions, based on their stock market values, and this is done by purchasing shares of those companies. Once upon a time, there were the thousands of companies on the NYSE and Nasdaq that might have been relatively indiscriminate recipients of those flows. Today the flows are concentrated, like a cataract in a mountain stream, not through a narrowing of the rocks but through ETFs, into the relatively limited number of securities that are sufficiently liquid to be included in those ETFs. How can this not have an impact on their prices and valuations, which is to say, by extension, the price of the S&P 500? And if this has an impact upon the price of the S&P 500, then how can the S&P 500 any longer be considered a passive measure of stock market performance (or even a valid measure of the relative performance of any manager)? It has become part of a self-referential loop.

¹ Source: ICI Fact Book

There is yet another, related confounding variable, one which further illustrates the infinitely interactive nature of the competing self-interested parties in the market place – and why a simplistic model cannot work. Volatility in the U.S. stock market has been declining for years to record lows. This is measured for us by another index, the Volatility Index, or VIX, which is a value calculated from the prices of the near-term options on the S&P 500. At the end of 2007 the VIX was 26, and at the end of 2009 it was just under 25, although in between it hit 80. It's currently 16 and in the last year or so has been below 11 and 12 fairly often. Perhaps the volatility of the S&P 500 has been declining because of the steady influx of capital into those relatively few companies. As a consequence, the supply/demand patterns for the shares of the individual companies in the index became more predictable. As a further consequence, the attractiveness of the S&P 500 in modern asset allocation methodology has increased, because the combination of elevated returns and lower volatility results in a much superior risk-adjusted return than the emerging markets have been putting up, which by asset allocation standards virtually demands additional capital allocation. That would describe the type of self-referential circle of investing and price behavior that is characteristic of bubbles.

Now for two more confounding variables. There are, on the one hand, the return figures for the S&P 500 over the past 30, 40 or more years, which seem quite a powerful statistical foundation for expected returns of 10% or more. On the other hand, central banks around the world have been lowering interest rates for over 30 years. That raises the valuation multiple investors will pay for financial assets, plain and simple. And for about 50 years, governments around the world have been engaged, to a greater or lesser extent in various forms of deficit financing, spending money at a greater rate than their GDP growth and spending it broadly, so that most companies enjoyed the benefit of that fiscal expansion. One could bask in the decades' worth of good results and conclude, "how marvelous the long-term returns have been", not realizing that two of the variables upon which those returns are based are such powerful determinants of valuation that all the individual company failures are really lost in relation to that. Take away those two variables, and you'll still have individual company failures, but no compensating variable.

The 6% Conventional Portfolio Return is No Longer Achievable

Now to the 6% solution. That's not a bad return target to select for a balanced portfolio, as for one's retirement account. That would be the combined results of the various portfolio asset classes, the stocks, bonds and cash reserves. The question is, is it any longer achievable? The AT&T pension plan, which is over \$45 billion, assumed a 7.75% long term rate of return on plan assets in 2014 and 2015. However, the company lowered its 2015 expected rate of return for its \$8 billion post-retirement plan assets to 5.75%. Not knowing the current makeup of that fund, we can only engage in our own exploratory exercise.

To keep it simple, our test portfolio will be 50% fixed income and 50% stocks. Figuring the fixed income portion is easy, since one can use the iShares Core U.S. Aggregate Bond ETF (AGG) as a proxy – it represents the breadth of the investment grade bond market, including corporate and Treasury bonds, municipals and mortgage backed securities. It yields 2%. If 50% of one's retirement account, or AT&T's, earns 2%, then that's equal to a 1% impact on the whole portfolio. Therefore, to get to 6%, another 5% has to be supplied by stocks. If stocks are only 50% of the portfolio, then they need to provide a 10% return to produce a 5% portfolio impact. And that 10% needs to be net of fees. Over the last 20 years, the S&P 500 returned 7.8% annually, before fees or taxes². Over the last 30 years, it was 8.7%. Recalling the powerfully determinant variables from the discussion above, which supported both corporate profit growth as well as valuation multiples for the S&P 500 companies, how likely is that 10% to occur over the next 10 or 20 years? Interest rates aren't declining by another 15% points, and the government won't be spending at the same rate. Is it really feasible? Maybe that's why AT&T lowered its expectations.

² 20 years ending 12/31/2014. Source: Bloomberg

Predictive Attributes as a Solution to the 6% Problem

One of the challenges of investing via indexes is that they are constructed on the basis of descriptive attributes of various companies – their stock market value, their industry sector, P/E ratio, dividend yield, and so forth. But however detailed and however statistically arranged, these descriptors don't actually suggest much about how the business or share price will do in the future. They are not predictive. One example of a predictive attribute is valuation – how expensively or cheaply is one buying into a business? But as described earlier, the manner in which ETF-based investing focuses all the inflow of capital into the very limited universe of larger, liquid companies must tend to inflate their valuations, which must tend to depress the expected future returns from those stocks. The S&P 500 does not include or exclude Coca-Cola or Facebook on the basis of valuation, only on their market value, as adjusted for insider ownership.

As an example of how narrowly ETFs focus investors' capital, take the concept of investing in an emerging market for superior long-term returns, which is a sound idea. Between the idea and the results, though, stands another confounding variable: by investing in an India ETF, do you really purchase exposure to the expanding Indian economy and at a price that permits the expected benefit? First, some factual framework.

India is a vast nation with a truly broad range of publicly traded companies. The number exceeds 4,000³. Many are quite small by U.S. public market standards. There are, though, about 740 with stock market capitalizations above \$100 million, and 480 with market values above \$250 million⁴. However, there are only about 65 companies with market capitalizations above \$5 billion; in the U.S. that would be mid-cap range. This might be a problem because the average daily trading volume on the NSE, the National Stock Exchange of India, is about \$2.9 billion. If that seems like a lot, the average daily turnover of Apple's shares is \$6.4 billion. The assets under management of merely the two largest India ETFs in the U.S., the Wisdom Tree India Earnings Fund and the iShares MSCI India ETF, amount to \$6.4 billion. Add in that portion of the Vanguard FTSE Emerging Markets ETF and the iShares MSCI Emerging Markets ETF that are invested in India, and the total comes to \$14.3 billion of investments in India just from four ETFs. And all these funds have turnover. That is an awful lot of money to absorb relative to the volume of activity on the NSE.

Accordingly, the India focused ETFs cannot possibly do other than limit themselves to the few handfuls of the largest, most liquid of the Indian companies. How limited? Between 45% and 57% of the value of three of the largest India ETFs (the two mentioned above and PowerShares India ETF) is in their top 10 holdings⁵. That is not the security diversification that indexes are intended to provide. Each of the three ETFs happen to hold, among their top 10, Reliance Industries, Infosys Ltd., and Tata Consultancy Services. In order, these three companies get 68%, 98% and 93% of their revenues from *outside* India⁶. Some of the valuations for the top holdings are quite elevated.

One can see how investing in an India ETF might provide rather limited exposure to the legitimate expansion of the Indian economy, and how excessive the valuations might be for those securities that do indeed benefit from that growth and happen to be large enough to attract ETF capital. India might do quite well, and a large swath of Indian companies might do quite well, yet the India ETF might not. There are ways to design more effective fund-based exposure to India; they just don't happen to exist yet.

Now here is a company, temporarily referred to as Company X, held in the Horizon Core Value strategy. Over the past 5 years and 7 years, or since year-end 2007 and 2009, which straddle the 2008/2009 financial crisis, its book

³ Source: Bloomberg

⁴ Source: Bloomberg

⁵ Source: ETF Providers

⁶ Source: Company reports

value per share has increased at about a 23% annual rate. This may be compared with S&P 50-type companies like Disney, Johnson & Johnson, Wal-Mart and General Electric, which grew book value more at a 3% to 7% rate. Only Wal-Mart, with 50% inside ownership, and Company X, with 17%, have any meaningful inside ownership. Company X is owner-operated, which is another attribute associated with higher than average returns over time. The P/E ratio for Company X is also about twice as high, at 40x consensus estimates of this year’s earnings, as the other companies. A high valuation, of course, is not associated with excess future returns.

For those passingly familiar with the holdings in Core Value, one might think that this is Google. However, if a Disney or Wal-Mart rate 30 or more Wall Street analyst earnings estimates,

	Book Value Per Share Growth, to 12/31/14			Inside Owner- ship	# Analyst Earnings Estimates	P/E on Estimated 2015 Earns.
	7 years	5 Years	1 Year			
Company X	22.5%	23.5%	5.6%	17%	4	40.3x
Walt Disney Co.	7.8%	7.4%	4.8%	0%	31	23.3x
Johnson & Johnson	7.4%	6.4%	-4.5%	0%	18	16.3x
Wal-Mart	6.5%	6.3%	6.8%	50%	30	15.5x
General Electric	1.4%	3.0%	-1.9%	0%	14	20.5x

Source: Company reports, Bloomberg

ergo Company X, with only 4 estimates, cannot possibly be Google. Google has 37. Company X, clearly, is not much followed on Wall Street. Google is a significant holding in 30 ETFs⁷; Disney is a significant holding in 31. Company X is a significant holding in none.

So why is it held in Core Value? Company X is LSB Industries. It has a \$925 million market value, and was founded in 1968 by Jack Golsen, who was the company’s Chairman and CEO until Jan 2015, when those posts were assumed by his son Barry Golsen; Jack Golsen is now Executive Chairman. Barry Golsen is 64 and has worked in increasingly senior capacities at LSB Industries since 1978. LSB Industries operates two sets of businesses. It has a chemicals business, the primary output of which is nitrogen based chemicals such as ammonium nitrate, nitric acid and ammonia. These are sold predominantly to agricultural users for fertilizer, to a broad range of industrial clients as ingredients for other processes, and to mining companies. It also has a climate control business. This segment manufactures geothermal heat pumps, which are used for efficient, ‘green’ heating and cooling for both residential and commercial buildings, and hydronic fan coils and specialty HVAC products for large commercial structures such as office buildings and hotels. About 60% of sales and 70% or more of operating income in recent years have come from the chemicals business.

In 2013, after a history of operating with very limited debt (between about \$70 and \$120 million during the prior decade), the company borrowed almost \$400 million, primarily through the sale of senior notes due in 2019. The purpose was to fund both an upgrade of its chemical plants and to expand their capacity. The most significant project is an expansion of the company’s El Dorado Ammonia Plant. There are two dimensions to this project. The first is that capacity at that plant will increase by 70%. The second is that the company will no longer have to buy ammonia as a feedstock, but will be able to produce it internally. The primary feedstock for ammonia is natural gas which, as is widely known, is now plentiful and cheap in the U.S. Over the past three years, the price spread between the company’s expected cost to manufacture versus purchase ammonia has averaged over \$300 per ton. That savings, multiplied by the 220,000 tons of existing capacity at the El Dorado plant, without factoring in the 155,000 tons of increased capacity, would add \$66 million of pre-tax income. LSB’s published estimates are for a \$90 million increase in operating cash flow (EBITDA) based on normalized production at El Dorado and its associated benefits in the production of other products, like nitric acid. Less a rough estimate for increased depreciation and income tax expense, net income could be \$50 million higher. LSB is also engaged in enhancing sales and efficiency at its climate control business and expects to roughly double the income from that segment over the next two years, but that will be ignored for the purpose of this exercise.

⁷ Source: www.etfdb.com

The nature of the LSB business is that the revenues are fairly cyclical (down 39% in 2009, for instance, down 10% in 2013), despite a long-term trend upwards, but the company has been profitable each year for well longer than the past decade. The low in net income since 2004 was \$19 million in 2014, despite higher revenues and higher gross profit. The decline was attributable mainly to higher administrative costs and interest expense, which is coincident with the major capital projects now under way. The high in net income was \$84 million in 2011, and it was \$55 million in 2013. The average earnings for the past 10 years is \$37 million. If that is considered base earnings and if the company will earn an additional \$50 million from the chemical expansion projects, then normalized earnings would be \$87 million, and relative to its market capitalization of \$925 million, the company trades at only 10.6x those earnings.

At the moment, those earnings are not visible. However, the expansion and upgrade projects will begin concluding in the last quarter of this year. The first increase in production should start in the first quarter of 2016, which means that increased earnings should begin to appear in financial statements around mid-2016. The full benefit, then, will not be visible for a year and longer. It is typical in the marketplace that positive events that will occur beyond the standard institutional time frame are largely ignored, a practice that translates into a higher discount rate/lower share price, which is available to the patient – the equity yield curve in action.

Moreover, there is a form of pending catalyst. In March of this year, Starboard Value LP, which had acquired 7.6% of LSB Industry shares, published an open letter of the scathing type that such activists tend to compose to the LSB Board. The letter was a detailed critique of the company's operational performance and oversight, and suggested a variety of ways in which profitability and the valuation multiple could be improved. One of the suggestions was a separation or spin-off of the climate control business from the chemicals business, including an observation about the much higher profit margins of a competitor climate control business and relatively high valuation multiple at which that company was acquired. Another was for the creation of a master limited partnership (MLP) for the chemicals business, a structure that has become popular in recent years because of the high dividend stream that can be created, high dividends, of course, being in great demand. Spin-offs may also be considered a predictive attribute, since such restructurings have been demonstrated to be associated with superior long-term investment returns.

The following month, in April, LSB announced an agreement with Starboard to elect 5 new Starboard nominated directors to its Board, alongside two resignations and, indeed, to seek both to separate the two business divisions and establish an MLP structure for the chemicals business following the completion of the El Dorado facility expansion. Should this come to pass, it is far more likely that each of the two businesses will trade at higher valuations than the current valuation multiple of LSB Industries. Should it not come to pass, there is little reason to suspect that the shares will trade at a lower valuation.

As to the double digit annualized per-share historical increase in book value, there was little subtlety involved; it essentially reflects the accumulation of annual income, so as to future return, one might reasonably expect a reasonable rate of profit growth. As well, at some point, the P/E ratio will no longer be 40, nor will it stay at 10. Even in the absence of a restructuring, it will normalize eventually. Excluding the 40x figure for 2014, in the preceding 7 years the average P/E ratio was about 15x. A 15x P/E multiple, if that's reasonable, on the earnings calculated above would produce about a 50% increase in price. Accordingly, LSB possesses a number of positive predictive attributes and appears to manifest an asymmetrically favorable risk/reward profile, which is to say that the downside risk seems rather modest while the opportunity for a double-digit annualized return appears quite plausible.

Irrespective of the ultimate fate of LSB Industries, securities like this, with idiosyncratic reasons for their earnings growth and positive valuation multiple changes, are more likely to be able to deliver the required 10% stock returns

than those for which their earnings growth and valuations are more closely a function of common systematic variables like ETF fund flows.

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