

3rd Quarter Commentary

October 2014

This year’s commentaries review some of the surprising ways in which scientific-seeming or rule-based approaches to investing, which are now the norm and implemented via exchange-traded funds (ETFs) and index-based mutual funds, are foiled in practice by the social science reality of the fluid marketplace. A formulaic approach can work for a while, until a sufficient number of additional investors apply it. Their aggregate actions impact the supply/demand balance, valuations change, and the formula can no longer work. In reviewing some popular building blocks of the asset allocation model of investing, we have, hopefully, demonstrated:

- *That an emerging markets index probably does not contain much in the way of emerging markets exposure, so much as exposure to large, relatively mature companies, many of which are exporters that, economically, are really global companies, not local. That the historical excess returns recorded by emerging markets indexes are probably not a reliable set of figures. That a non-indexed approach, or a different form of index, could better capture the local-economy potential of emerging markets.*
- *That private equity index returns are probably not as uncorrelated with the stock market as the historical results suggest. That a semantic correction from the common-use term ‘private equity’ to the more financially accurate term ‘leveraged equity’ might better capture the pricing risk inherent in private equity investing. Looking forward, private equity investors, providing the small slice of equity collateral that backs the substantial borrowing in these acquisitions, are essentially leveraged backers of low quality debt (or debt that can rapidly become lower quality) during a period of historic low interest rates. What might happen in several years if interest rates for those private equity companies are meaningfully higher? The private equity limited partner is taking on serious refinancing or duration risk, something that bond investors are now loath to do.*

In the asset allocation framework of investing, investors who buy short-maturity bonds in order to avoid duration risk may also be purchasing private equity in the belief that they are diversifying their portfolios away from interest rate risk.

In this quarter’s commentary, we continue to explore the question of whether one actually achieves, though a typical asset allocation approach, meaningful diversification at all.

The Absence of Sectoral Diversification in the S&P 500® Index

There was a time when institutions could achieve some measure of diversification by employing a variety of money managers with varying sectoral exposures at different points of time. That as a tactic, with diversification as an end, has become difficult to a startling degree, for reasons that the following statistics make clear. Table 1, below, records the correlation coefficients with the S&P 500 of various industry-specific ETFs between December 31, 2007 and September 30, 2014.

Table 1: Correlation Coefficient with the S&P 500 Index
12/31/07-9/30/14

IYW	iShares US Technology	0.903
RTL	iShares Retail Real Estate Capped	0.733
RTH	Market Vectors Retail	0.864
BJK	Market Vectors Gaming	0.810
IYH	iShares US Health Care	0.825
IYE	iShares Energy	0.795
ITB	iShares US Home Construction	0.680
IYT	iShares Transportation Average	0.870

Source: Bloomberg using monthly returns, Horizon Kinetics Research

The iShares U.S. Technology ETF (IYW), as an example, and which does not even contain exactly the same technology stocks as the S&P 500® Index (“S&P 500” or “S&P”), has a correlation coefficient of 0.903, which means that its price behavior over almost seven years is 90% synchronous with the S&P 500. Another ETF, the iShares U.S. Retail Real Estate Capped, which holds REITs, or real estate investment trusts, that own retail properties and is part of the NAREIT real estate index, has a correlation coefficient of 0.733. Market Vectors Retail, an ETF which

includes actual retailers like Target, comes in at 0.864. The iShares U.S. Healthcare ETF figure was 0.825, and so on.

The various industry sectors in this table were chosen on the belief that their particular business characteristics were distinct enough that they would be rather uncorrelated with the S&P 500. Not having much success with broader industry sectors, how about more narrowly drawn industries sub-sets, such as the Market Vectors Gaming ETF, which is comprised solely of casino companies, which are unusually volatile. The result: 0.810. How surprising that even this very narrowly constructed index has such a high correlation coefficient with the S&P. This means that one can sell all of one's investments in constituents of the S&P 500 and replace them with gaming stocks, and still have a correlation of 0.810 with the S&P 500. It is an incredible statistic when you think about it.

Another interesting point is that the correlation coefficient over the time period in question of the Market Vectors

Table 2: 10 Largest Holdings and Weights of BJK

<u>Market Vectors Gaming (BJK)</u>	
Melco Crown Entertainment	7.94%
Las Vegas Sands	7.78%
Sands China	7.02%
Galaxy Entertainment	6.95%
Wynn Resorts	5.91%
MGM China	5.78%
MGM Resorts	4.87%
Genting Berhad	3.79%
Genting Singapore	3.76%
Wynn Macau	3.27%
	57.07%

Source: Fund Sponsors

To lend a somewhat less abstract character to this line of reasoning, we'll focus just on the holdings of the Market Vectors Gaming ETF, ticker BJK. A popular strategy in the modern era is to diversify equity exposure internationally by allocating some proportion of a portfolio to emerging markets. Here is the exercise: to calculate the emerging market exposure of BJK in the most conservative manner possible, since we know it has a very high correlation to the S&P, by eliminating U.S. companies. We will eliminate companies such as Las Vegas Sands and Wynn Resorts, and consider them to be U.S. companies since they trade in the U.S., ignoring entirely the fact that the preponderance of their earnings comes from emerging markets and that most of their assets trade as emerging market stocks on emerging markets exchanges. Going though each holding in this way, as depicted in Table 3, the remainder of the holdings in BJK are obviously emerging market stocks, and these remaining companies

account for 51.7% of the net asset value of the ETF. Despite Gaming stocks with the S&P 500—which is 0.810—is almost the same as the correlation coefficient of the iShares U.S. Healthcare ETF, which is 0.825. Is it possible—and this is a rhetorical question—that after a sober, realistic assessment of the available data, the aggregation of participants in the efficient market has arrived at the collective conclusion that the business fundamentals of gaming relate closely to those of the healthcare sector, the largest components of which are the likes of Johnson & Johnson, Amgen, and United Healthcare?

Table 3: Conservative Calculation of BJK's Emerging Markets Exposure

Melco Crown	7.94%
Sands China	7.02%
Galaxy Entertainment	6.95%
MGM China	5.78%
Genting Berhad	3.79%
Genting Singapore	3.76%
Wynn Macau	3.27%
SJM Holdings	2.66%
Kangwon Land	2.61%
Genting Malaysia	2.40%
OPAP	1.57%
Melco Intl.	1.06%
Berjaya Sports	0.87%
Paradise Co.	0.70%
Macau Legend	0.68%
Multipurpose	0.49%
Intralot	<u>0.15%</u>
Total Exposure	51.70%

Correlation Coefficient to S&P 500 0.666

Source: Bloomberg, Horizon Kinetics Research, Van Eck, <http://www.vaneck.com/market-vectors/equity-etfs/bjk/holdings/>

this effort, and despite the concentration in one very volatile industry, and which indeed is concentrated to a very great extent in the city of Macau, the correlation coefficient drops only from 0.810 to 0.666

The iShares Mexico ETF has an S&P 500 correlation coefficient of 0.844; MSCI Japan: 0.734. Here is a good one: Wisdom Tree Japan Hedged Equity (DXJ), in which all the currency risk was hedged out, was able to achieve a correlation coefficient to the S&P 500 of 0.679, which is slightly higher than the Europe and emerging markets ETFs.

In this context, one can easily understand why gold has become a popular asset allocation move. The SPDR Gold Trust ETF (GLD) has a correlation coefficient with the S&P 500 of 0.081, using the same December 31, 2007 to September 30, 2014 period. Of course, these figures are heavily time-dependent. If starting from GLD’s November 18, 2004 inception date to December 31, 2007, the correlation coefficient with the S&P 500 SPDR is 0.188.

There is a solution to this problem of convergent correlations. First, though, some exploration of why this phenomenon that is confounding asset allocation plans exists.

Who Owns the S&P 500?

It is illuminating to see, at the granular level of individual stocks, who actually owns the S&P 500 companies. Beginning with Apple, the largest capitalization stock in the S&P 500, the largest holders of Apple are Vanguard, State Street, and BlackRock. Together they hold 13% in their funds. How interesting that the same three companies, although with slightly different weightings, own 14.9% of Exxon, and as can be seen in Table 4, the same three companies have major holdings in other large S&P 500 companies, with very similar ownership levels. Even excluding some large holdings by these companies’ own savings plans or the Capital Group (a large asset manager with about \$1 trillion of assets under management), the indexation total (with the exception of Berkshire Hathaway) is in the 12% to 16% range even if you count only Vanguard, State Street, and BlackRock.¹

Table 4: Top Holders & the Indexation Influence

	Apple	Exxon	Microsoft	J & J	Chevron	GE	Wells Fargo	Procter & Gamble	Berkshire Hathaway	JPMorgan Chase
Vanguard	5.46%	5.39%	4.61%	5.38%	5.14%	4.99%	4.77%	5.02%	3.41%	4.99%
State Street	4.16%	4.14%	3.77%	5.33%	5.25%	3.95%	3.92%	4.16%	3.25%	4.45%
BlackRock	3.38%	5.37%	5.42%	5.35%	3.04%	3.02%	2.81%	3.06%	3.19%	6.31%
Berkshire Hathaway							8.80%			
Capital Group	1.58%	0.33%	4.88%	1.37%			3.15%			3.22%
Fidelity							3.01%			
Company Savings Plan					4.67%	4.29%		3.09%		
Cascade*									3.55%	
Bill & Melinda Gates Foundation									3.30%	
TOTAL	14.58%	15.23%	18.68%	17.43%	18.10%	16.25%	26.46%	15.33%	15.70%	18.97%
Indexation Total (Vanguard, State Street, Blackrock)	13.00%	14.90%	13.80%	16.06%	13.43%	11.96%	11.50%	12.24%	8.85%	15.75%

*Cascade is Bill Gates’ Personal Investment Company.

Source: Bloomberg

¹ While BlackRock manages substantial assets via active strategies, the majority of their assets are invested via indexed strategies. Given the weights of the companies listed in major indexes, we believe it is reasonable to assume that majority of BlackRock’s holdings in these companies is via indexed products.

What can be concluded from these statistics? The first point is that the indexation movement is obviously much bigger than merely Vanguard, State Street, and BlackRock. A full computation of the percentage of stocks owned by index funds would produce a much higher figure. The second is that an unintended consequence of the indexation movement is the creation of quasi-permanent holding companies for these securities.

The third point, which follows from the second, is that if these securities were to trade, it would be as a result of asset allocation decisions, not individual stock selection decisions, meaning all the stocks would trade together, which would lower security-specific price volatility or variance with the market, increasing the correlations between all the individual securities comprising the market. In other words, if investors decide to have lower equity exposure, they are, effectively, selling their Exxon and their Apple shares simultaneously.

That brings us to the correlation coefficients of the top 10 holdings of the S&P. In Table 5, we look at the same period from December 31, 2007, to September 30, 2014. They range from 0.63 to 0.81. For comparison, for the decade ending 12/31/2004, the correlations of these companies with the S&P were in the 0.3 to 0.5 range. Now how about this: all of the 2007/2014 correlations are about 0.7 to 0.8 except for two: Apple and Berkshire Hathaway at 0.6, rounded. What they have in common is that they are owner-operator companies (or were, in Apple’s case, until three years ago this month), willing and able to make very different capital allocation and timing decisions than the typical agency-operated company.

More broadly, looking at the Russell 2000® Index (“Russell 2000”) and the S&P 500 for the post-crash period—this

Table 5: Correlations of Top 10 Holdings with S&P 500
12/31/2007-9/30/2014

Apple	0.626
Exxon	0.811
Microsoft	0.713
Johnson & Johnson	0.725
GE	0.756
Chevron	0.831
Wells Fargo	0.704
Berkshire Hathaway	0.649
JPMorgan Chase	0.750
Procter & Gamble	0.686

Source: Bloomberg using daily returns, Horizon Kinetics Research

time assessing the period from March 31, 2009, to September 30, 2014—the correlation coefficient of the Russell 2000, the predominant small-cap index, with the S&P 500 is 0.918, which is an incredibly high figure. It is significant that the Russell 2000 is universally regarded as a separate and distinct asset class, yet it has a high correlation coefficient relative to the S&P 500—a fact that is not much remarked upon by the very people who propound these asset allocation theories. That is also startling. In a future commentary, we will discuss this phenomenon as well as why the Russell 2000 has not actually produced the small-company excess returns relative to the S&P 500 that it was supposed to and that investors probably believe that it has. Perhaps this is surprising, but the Russell 2000 reached a moment of truth in September 2014, because for the almost 20 years from December 1994 through September 2014, the Russell 2000

underperformed the S&P 500, despite its presumably small-company growth advantage and despite its higher price risk (volatility).

The Weight of Indexation Money on Stocks

In order to comprehend the scale upon which modern indexation operates, consider that the indexation assets of only three firms—Vanguard, State Street, and BlackRock—amount to \$8.3 trillion. This sum includes non-equity assets—the SPDR Gold or the iShares Barclays Aggregate Bond Index ETFs, for example—but the total is primarily equity. Because the figure excludes pension funds and foundation equity index assets, as well as other lesser but substantial ETF firms, one might assert that the \$8.3 trillion figure for equity index assets errs on the side of caution. In any case, few would argue that the equity index fund business is not huge and growing larger every day. What portion of the market does indexation demand represent?

Standard & Poor's calculates the float of the S&P components, which excludes the value of shares held by insiders, in contrast to its total market capitalization, at roughly \$14 trillion. If total indexation assets exceed \$8 trillion, how can one resist the conclusion that the amount of money programmed to purchase index assets does not influence the measurement standard of the index itself? Even if one expands the definition of the equity market beyond that of the S&P 500 to the smaller companies of the Russell 2000, the proportions are not much different. If the float of the Russell 2000 were no higher than the 21.4% that Standard & Poor's calculates for the S&P 500 (although it probably is higher for the Russell companies), then the Russell 2000 has a float of roughly \$1.3 trillion. In that case, the total available float in both indexes is \$15.3 trillion. It is very difficult to believe that equity index assets are less than one-half of this figure. Therefore, the question arises as to how much, if at all, index activities affect the index. If \$8 trillion of assets are purchased for indexation purposes, out of an available supply of \$14 trillion, it seems that might have an influence on the stock prices.

In any event, as more shares are purchased by index buyers, such as ETFs, the supply of shares available for purchase will diminish, and the law of supply and demand will once again be illustrated upon a vast scale, in a manner unpredictable at the moment. We are approaching certain finite limitations of how many shares can be purchased in index portfolios. It will not happen in a week or a month, but in a few years we will unquestionably approach that limit. The marginal price is always set by the marginal buyer. For the time being, the marginal buyer is the index buyer. But, unlike in the past, when security selection and price were determined on a company by company basis, the index funds are determining price on an industry sector and even market sector and asset class basis; it is an automated system.

Why do we have idiosyncratic portfolios?

Returning to the question of how to solve the problem of convergent correlations, if one wants a portfolio that is more properly diversified and not tightly correlated with the various index building blocks and indexation flow of funds, one approach is to invest at the individual security level. An individual firm, with its unique risk/reward profile, can be sufficiently idiosyncratic to provide true diversification. For instance, for the same period as used above, from December 31, 2007, to September 30, 2014, an idiosyncratic equity like Silver Wheaton (SLW), the precious metals royalty company that we'll discuss later, had a correlation coefficient to the S&P 500 of 0.298. Icahn Enterprises has a correlation coefficient of 0.338; DreamWorks Animation, 0.367; Wendy's 0.457; Greenlight Reinsurance 0.482; Federated Investors 0.590; Dominion Diamond 0.444; McDermott 0.596; Tejon Ranch 0.497; and St. Joe, a fairly substantial company 0.548.

As can be seen, it would be relatively easy to create a portfolio of unique uncorrelated assets, so as to give investors genuinely uncorrelated equity exposure. It might be a very good idea and a very interesting investment product. Unfortunately, there are limitations to the amount of money that can be raised among these companies for ETF management purposes, due to their more modest market capitalizations and, often, high level of inside ownership. So, unfortunately, few would undertake the effort, based on the well-known principle of "Business before pleasure."

What's Been Driving the Market, and Some More Diversifying Securities

The third best-performing industry sector of the stock market this year is utilities. That is very important to note, because it is one of the sectors most at risk for a very serious decline. While we could write an entire study of this sector (actually, we are about to release one), a highly abridged summation of the general situation might be as follows. As an asset allocation building block, most particularly in this yield-starved environment, the utility sector has become very popular because it is perceived to be both a bond substitute and relatively non-volatile. The demand has been such that the iShares US Utilities ETF (IDU), which has a 70% exposure to electric utilities, currently yields only 3%, a yield not seen in the utility sector in the past 15 years. At these valuation levels, there are a range of risks, including disruptive changes in the industry fundamentals that are clearly not being priced in. Aside from

the obvious interest rate risk, in that a repricing to merely a 4% or 5% dividend yield would produce a principal loss on the order of 25% to 40%, it is clear that historical returns cannot be used as a proxy for future returns.

For instance, the 33-year decline in 10-year Treasury bond yields from 15.3% in 1981 to 2.4% today has benefitted utilities through a lower cost of capital, improving their earnings dramatically. It is impossible to replicate this event (unless Treasury yields decline by another 12.9%, which would put them at *negative* 10.5%). Moreover, the regulated rate of return on utility company capital continues to follow their cost of capital downward, but with a long lag through the public utility commission rate-setting process, such that the average return on equity for the industry gets lower by the year.

There is another traditional source of earnings growth, which is the increased demand for electric power, a phenomenon that has been a reality in this country ever since Thomas Edison's day—until now. For the first time in U.S. history, electricity demand actually contracted during the past six years, even as GDP expanded by 17.1% on a nominal basis (5.5% in inflation-adjusted terms). There are two reasons. The less threatening one is the diminution of demand from improvements in energy-efficiency. The sources of increased efficiency range from improved appliances such as refrigerators and other machinery, to the mandated shift away from incandescent 60-watt light bulbs to 13W compact fluorescents or even lower power LEDs, and improvements in home and building construction.

The more serious, structurally disruptive threat to electric power demand and utility profitability is the galloping arrival of solar power. The rooftop solar panel industry has reached a critical mass and tipping point of which few investors are now aware, particularly since the investing public has been long accustomed to the failed promises and initiatives of this business. However, unit costs have continued to decline (by 60% since the beginning of 2011) and, importantly, suppliers have developed effective financing tools, so that a buyer does not have to make any capital investment. Essentially, one can agree to lease a rooftop solar panel installation for a monthly fee that is less than the cost of electricity from the local utility. A market-based confirmation of "arrival" is that homebuilder Lennar Corp. now automatically installs, with arranged financing, rooftop panels in new subdivisions in California.

The true, if startling, evidence: of all the incremental electric power capacity additions in the U.S. in 2013, 29% was from rooftop solar panel installations. While the actual market share of solar power in the U.S. might seem marginal, at 3% of U.S. households, it has been at the margin, the 1% or 2% per year of historical demand growth that has permitted electric utilities to increase their asset base, earnings and dividends. What would annual declines of that magnitude precipitate? While contemplating that question, in the fourth quarter of 2013, solar power capacity in the U.S. increased by 60%, as astounding as that might seem, which is consistent with the 60% annualized expansion rate since 2008. So, even though utilities are considered safe yield investments within the asset allocation models, please be careful here.

An idiosyncratic security with benefits – a diversifier

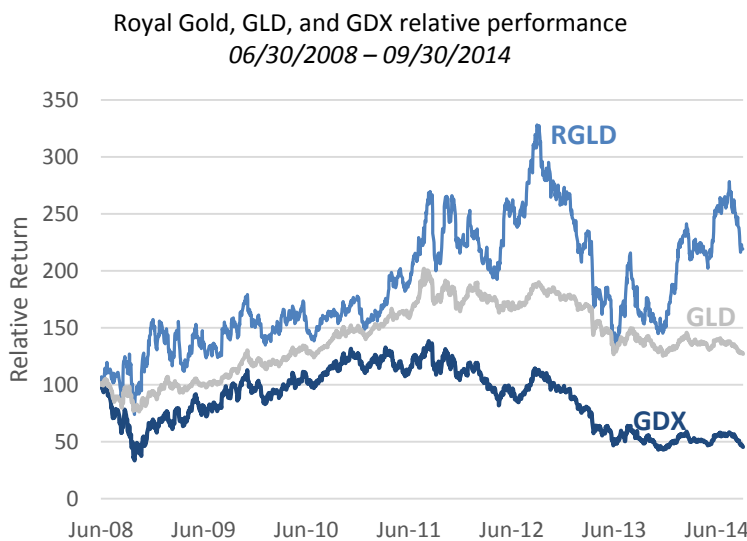
Let's find a contrasting investment to a utility index or a REIT index, which are front and center as bond substitutes or asset allocation building blocks. They are therefore closely governed in valuation and price behavior by the asset flows of index investors and, so, might be particularly vulnerable to a rise in interest rates. Consider, instead, a very distinctive security like Royal Gold, Inc. It is categorized in financial securities databases like a gold mining company. Yet it does not do any mining, and on a balance sheet and income statement basis has as little in common with gold mining as Microsoft: it has virtually no property, plant, or equipment, it carries no net debt, it has extremely high after-tax cash flow margins—well over 50%. Microsoft's are roughly 25%. Its financial statements and casually observable economics say that it really does not belong with the gold mining group.

Royal Gold is one of several publicly traded precious metals royalty companies. They solve a unique problem of miners, which must find a way to fund the massive capital costs of developing a new mine yet cannot afford the risk

of taking on too much debt, since such a project might not be productive for many years, during which time input and output costs can drastically alter the anticipated profitability. The standard alternative, issuing more shares, is often too dilutive. The royalty companies extend cash to a miner in exchange for a percentage of the production. The royalty company is not directly exposed to the operating costs or liabilities of the miner and earns its revenues even if the miner produces at only a breakeven level of profitability.

However, the royalty business is far better than merely that. When Royal Gold purchases a revenue interest, it might be for the life of the mine, which could exceed 20 years. But the purchase price is calculated as the present value of the future estimated revenues, based on the current gold price. As an example, if the interest rate used to calculate that present value is 10%, and if the mine will start production next year, then the price paid for the first year's production will be 10% less than the gold price. So, if today's gold price is \$1,300 per ounce, Royal Gold will pay only \$1,170 for next year's gold production. But the 2nd year's production will cost 10% less than that, or \$1,050. The 20th year's gold price for Royal Gold would be only 15% of today's price, or \$193. In total, Royal Gold would advance \$11,068 for what will be \$26,000 of gold production (\$1,300/year x 20 years).

There are other aspects to such a contract that provide additional financial benefits. But staying with this information for the moment, one can say that Royal Gold has the safety of paying drastically less than the current price of gold for its future production. There is a great deal of protection from downward volatility in gold prices in that contract. Additionally, the royalty percentage is often of the sliding variety: it might start at 1% of mine output, but with scheduled increases as the gold price rises above certain levels, up to 5% or more. Accordingly, there is positive operating leverage for Royal Gold in the event that gold prices rise.



Source: Bloomberg

Viewed this way, Royal Gold is better described as a merchant bank than a gold mining company. In a sense, it has as much in common with the activity of gold mining as JP Morgan Chase has with an automobile manufacturer merely because the bank might have lent money to the car company. In actuality, the comparison with JP Morgan Chase is a poor one, since banks operate with extreme debt leverage, and Royal Gold operates with none. A further differentiation of Royal Gold's business model from that of either Microsoft or JPMorgan Chase: while Royal Gold has a \$4 billion stock market capitalization,

how many employees do you think it has? The answer is 20. For what it's worth, the company states that none of them are subject to a labor contract or a collective bargaining agreement.

In a portfolio context, Royal Gold has long-term growth characteristics, because it does add new contracts to its portfolio of interests, and its earnings are positively associated with whatever economic conditions might lead to higher gold prices, one of which is inflation or the anticipation of inflation or geopolitical risk. Yet, because of its contract structure, it is remarkably well-insulated from price declines in that commodity. Accordingly, its profitability is not closely tied to the factors that impact the typical industrial or financial company and it should be a diversifying

element in a portfolio. Its remarkably low correlation with the S&P 500 over the past half-dozen years, at 0.1334, is the statistical evidence. The visual evidence, from the pre-crisis date of mid-2008, is shown in the accompanying chart of Royal Gold relative to both a gold mining company index (Market Vectors Gold Miners ETF, GDX) and the SPDR Gold Shares ETF (GLD), which holds gold bullion.

Both Royal Gold and Silver Wheaton, which acquires primarily silver royalty interests and manifests somewhat different price patterns, are new holdings in the Core Value strategy. These follow, as mentioned in last quarter's Commentary, additional investments in land companies such as Tri Pointe Homes and Brookfield Residential Properties. They also exhibit the characteristic of trading at prices well below the long-term realizations they should draw from their asset portfolios. They are, in practice, idiosyncratic securities that, much more than the large-cap companies that comprise the asset allocation index and ETF building blocks, will exhibit stock prices tied to their own financial development rather than to the public flow of funds. A portfolio comprised of such companies will be a more effectively diversified investment.

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The S&P 500 Index represents an unmanaged, broad-based basket of stocks. It is typically used as a proxy for overall market performance. The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. Index returns assume that dividends are reinvested and do not include the effect of management fees or expenses. You cannot invest directly in an index.

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