

# BALTIMORE BUSINESS REVIEW

2014

A MARYLAND JOURNAL



CFA Society  
Baltimore



## Baltimore Business Review A Maryland Journal — 2014

Produced jointly by the CFA Society Baltimore and the Towson University College of Business and Economics

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This publication is available online at [www.baltimorebusinessreview.org](http://www.baltimorebusinessreview.org)

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## Message from the Dean

Towson University College of Business and Economics



Dear Colleagues and Friends,

I am delighted to share with you the fifth issue of the *Baltimore Business Review – A Maryland Journal*. As a joint effort between the CFA Society Baltimore and the faculty of the College of Business and Economics (CBE) at Towson University, this innovative publication is dedicated to providing timely and informative articles from faculty and local business practitioners to the Baltimore business community and beyond. The feedback we have received over the past several years solidifies that the *Baltimore Business Review* has established itself as an active forum for discussions about opportunities and challenges in Baltimore and Maryland, and has been successful in providing genuine added value to the community.

More importantly, the *Baltimore Business Review* has become an additional avenue for CBE students to gain professional development and capitalize on our strategic partnerships with the business community. Several students who have contributed to the journal through the Towson University Investment Group have gone on to intern for other contributors and partners. Providing these types of hands-on business opportunities combined with rigorous academic preparation was applauded in 2013 by the AACSB International—The Association to Advance Collegiate Schools of Business. In 2013, the college maintained its accreditation from this organization for both its business and accounting programs, sealing the college's place in the top 1 percent of business schools worldwide.

This issue covers a variety of topics including supply chain management, real estate, financial markets, and small businesses in Maryland, and I sincerely hope that each article is thought-provoking and provides some significant stimulation to our community of readers. I can't thank this issue's contributors enough for their hard work, time and intellectual efforts. It is their generous contributions that made this issue possible. As always, we welcome your feedback and impressions of this publication as well as ideas for contributions. Also, if you wish to help sponsor future issues, please contact me at any time.

Best regards,

Shohreh A. Kaynama, Ph.D.  
Dean, College of Business and Economics

## Message from the President

[www.baltimorecfasociety.org](http://www.baltimorecfasociety.org)



Dear Colleagues and Friends,

We at the CFA Society Baltimore are excited and proud to launch this fifth edition of the *Baltimore Business Review*, our collaborative publication with the Towson University College of Business and Economics.

The designation of Chartered Financial Analyst (CFA) is widely recognized in the investment industry, and by sophisticated investors, as a paragon of investment excellence. CFA charterholders pursue a rigorous course of three exams, covering ethics, economics, accounting, bonds, equities, derivatives, portfolio analysis, and other investment subjects. The study of ethics is particularly important in an era when some investment practitioners have engaged in unsavory practices. Even if a candidate passes every other section of the exams by a wide margin, he or she will fail the exams without passing the ethics portion.

The CFA Society Baltimore was founded in 1948 as the Baltimore Society of Security Analysts. Membership of the society is approaching 700, drawn from a diverse cross section of local investment firms, commercial banks, educational institutions, and government agencies. The Society provides a variety of services to its members. Foremost is a program of luncheons featuring renowned speakers on a variety of investment topics. We offer scholarships and study group opportunities for those who wish to pursue the CFA Charter. Additionally, we participate in the Global Investment Research Challenge. Teams from local universities prepare competing equity analyses of a particular company and defend them to a panel of experienced equity analysts. This year the company is U.S. Silica.

In this publication you will find a variety of articles written by both Society members and Towson University students. Two articles are written in the spirit of the CFA Institute's ethics agenda, called the Future of Finance. One article addresses shareholder rights and activism. The second article details the screening of asset managers for ethical behavior. Another article describes today's central asset allocation conundrum: where to invest when bond prices are threatened by rising rates, stocks may be reaching overvalued levels, and cash yields next to nothing. Two articles address key trends in the U.S. economy: the impact of the U.S. energy revolution on domestic industrial investment and variation in local unemployment rates across the country. Further articles address the likely impact of Panama Canal expansion on the Port of Baltimore; the issuance and trading of Credit Default Swaps (CDS) on Maryland companies; and the performance of a custom index of Maryland-oriented index constructed by Towson students.

Credit for this publication goes to Farhan Mustafa and Niall O'Malley of the CFA Society Baltimore, as well as Rick Pallansch and Chris Komisar of Towson University Creative Services for their generous support.

Please enjoy this great publication. We look forward to hearing any feedback you might have.

We wish you the best of luck in your investing.

Clement K. Miller, CFA  
President, CFA Society Baltimore



## Top 10 Employer's CFA Charterholders

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**Clement K. Miller** is an Investment Strategist serving with Wilmington Trust Investment Advisors (WTIA), the investment advisory subsidiary of M&T Bank. He is a member of the Investment Research Team, which fashions investment policy. He is co-Portfolio Manager for the Wilmington Trust Multi-Manager International Fund, and manages relationships with third-party international equity and fixed-income managers. He earned a Bachelors' Degree in International Finance from Georgetown University's School of Foreign Service, an MBA in Finance from George Washington University, and the designation of Chartered Financial Analyst (CFA).



## Screening Asset Managers for Ethical Behavior

Clement K. Miller, CFA

*President of the CFA Society Baltimore,  
Investment Strategist, Wilmington Trust Investment Advisors*

Members of CFA Society Baltimore work for many investment firms, large and small, well-known and less well-known, around the Baltimore region.

The Baltimore society is the local chapter of the global CFA Institute. Among other things, the Institute administers exams for those seeking the designation of Chartered Financial Analyst (CFA).

The CFA Institute has always placed ethics at the core of its agenda. For example, any candidate who fails the ethics section of the exam will fail the entire exam, even if he excels in the other sections.

The Institute also investigates allegations of ethical misconduct and issues disciplinary sanctions against those CFA charter holders and candidates found to have engaged in such misconduct.

In recent years, a string of highly publicized incidents of unethical behavior have adversely impacted the public's trust in the investment industry. While the government has stepped up its regulation of financial services, there are increasing worries about the benefits and costs of well-intentioned regulation, such as those embodied in the Dodd-Frank Act.

Earlier this year, the Institute commissioned a survey of investor attitudes toward the investment industry. The survey was conducted by the market survey firm Edelman. The survey found that only about half of investors had trust in the investment management industry. The industry scored a significantly lower level of trust than non-financial industries.

In an effort to proactively address the trust issue, the Institute has amplified its focus on ethics by issuing an "Asset Manager Code of Professional Conduct" as well as an "Investor Bill of Rights."

Of course, any principles-based professional code of conduct is, at least in part, aspirational. An asset manager's adoption of the code does not guarantee ethical behavior, just as non-adoption does not imply unethical behavior.

A critical question for investors in the Baltimore region, as well as elsewhere, is how best to evaluate asset managers for ethical behavior, or possible indications of unethical behavior. One is reminded of what President Reagan said of nuclear arms control agreements with the Soviet Union: "Trust but Verify."

Fortunately, there is a good base already for "verification." SEC regulations enacted pursuant to the

Investment Company Act of 1940 ensure that covered mutual funds offer daily pricing and liquidity, as well as quarterly reporting of performance and holdings, among other things. Of course, hedge funds report less information, less frequently, and liquidity is often constrained.

However, whether an asset manager's strategy is embodied in a mutual fund or a hedge fund, an investor cannot simply assume trustworthiness on the basis of adherence to minimal regulatory requirements. An investor must dig deeper in order to validate sufficient trust.

Institutional investors, by virtue of the actual and potential size of their investments, often have direct access to a fund's portfolio specialists and even portfolio managers. Retail investors can gain indirect access by working with an investment advisor who selects and monitors asset managers.

So, what screens should investors use for evaluating the ethical behavior of asset managers?

A key screen for ethical behavior is whether a portfolio manager is "eating his own cooking." Is the portfolio manager investing a substantial portion of their liquid personal wealth, alongside other investors, in the strategy they manage? If that is not the case, then the portfolio manager's personal financial interests may not be aligned with the fund's investors.

A related screen is whether a significant portion of the portfolio manager's compensation, as well as of the analysts working on the strategy, is tied to his strategy's performance. Ideally, the marker should be several years of trailing performance. The asset manager and his analysts should reap significant bonuses only if investors reap significant returns.

Another screen is whether the asset manager's investment team has been stable. Staff turnover may be explained by a number of professional and personal factors, but issues bearing on ethics may be one consideration. Under pressure to engage in ethically questionable conduct, some professionals may choose to leave a firm. Likewise, employees may be asked to leave a firm after having been discovered to be engaging in ethically questionable conduct. It is important to get a sense of the reasons for key personnel departures.

Turning to performance measurement, a key question is whether performance is measured in accordance with common Global Investment Performance Standards (GIPS). Before GIPS, there was lack of commonality

in reporting, frustrating investors' ability to compare asset managers. Lack of compliance with GIPS should be a red flag.

Another performance-related screen is whether the strategy's benchmark is an index commonly used by asset managers in the same space, and is available on-line, free, and updated daily. Application of a unique or rarely used benchmark, available only through subscription, should be treated with caution if not skepticism.

A third performance-related screen may seem counter-intuitive: whether the strategy's performance has been very consistently superior to that of the respective benchmark. Strategies typically outperform benchmarks in some parts of the business cycle, and underperform in others. They aim to generate excess returns, or alpha, over the course of a business cycle. Reported outperformance during all parts of a business cycle could indicate undue risk-taking, or, in extreme cases, even outright manipulation of the performance data. This is a critical red flag requiring investigation.

Turning to a strategy's investment process, a key screen is whether an asset manager provides adequate description of their investment process. Of course, for competitive reasons, one cannot expect an asset manager to disclose all ingredients of, and exact recipe, for his "secret sauce." However, investors must be able to comprehend, in a general way, the reasons why the process can be expected to generate consistent alpha, returns in excess of the strategy's benchmark.

Some strategies are defined as opportunistic, idiosyncratic, or eclectic. The challenge faced by investors is that asset managers pursuing such loosely defined strategies may not be able to adequately communicate their investment process to potential investors. Investors need to demand much greater clarity from such asset managers, perhaps by asking the asset managers to provide examples of investment activity to outline the practical application of their approaches. An investor who feels that a strategy is too vague or flexible probably should not invest with that asset manager.

It is important to ascertain whether the asset manager's holdings are aligned with their stated investment strategy. The typical rule for a mutual fund is 80-20: no less than 80% of the market value of holdings must be

consistent with the firm's stated strategy. For example, an international manager whose strategy is to invest in developed countries should limit his emerging market exposure to less than 20% of market value. A red flag should be raised when an asset manager invests significantly more than 20% outside of a stated strategy.

Some asset managers' investment strategies include the use of leverage, currency hedges, and other derivatives, sometimes in so-called overlay strategies. An asset manager using such tools should not only disclose their use, but also provide information on their impact on relative performance.

Another question occurs when the asset manager is part of a larger financial services firm which also includes an investment banking arm. Does the asset manager's portfolio hold securities placed by the investment banking arm, for example, during the pre-IPO period. If so, how does the firm avoid conflicts of interest?

If an asset manager operates in the international space, particularly in emerging markets, it may be important to determine whether they consider corporate governance, namely protection of shareholders' rights, in their selection of the securities for the portfolio. Some international asset managers prefer to avoid some countries altogether, because they consider local laws protecting shareholder rights to be too weak. This is not a question of advancing a noble cause, but rather one of avoiding negative performance due to poor securities selection.

Finally, it may be useful to require a list of institutions, for example, retirement plans and endowments, which have invested with the asset manager. One can take some comfort from the fact that reputable institutions have performed due diligence. However, that cannot substitute for your own.

In conclusion, it is important to validate ethical behavior when investing with asset managers. CFA Society Baltimore, together with the CFA Institute, is committed to the pursuit of the highest standards of ethical behavior.

## Are the right investment professionals working for you?

For investment advice you can trust, look no further than the **Chartered Financial Analyst** designation.

**ETHICS.** Charterholders adhere to the highest standards of ethical behavior, which prevents conflicts of interest and fosters trust. The CFA Institute's peerless system is one of integrity-based professional conduct, supported by a signed annual statement of ethical behavior.

**EXPERTISE.** CFA Charterholders have successfully completed a minimum of three years of rigorous academic study and testing covering an expansive Body of Knowledge.

**KNOWLEDGE.** In addition, comprehensive continuing education programs provide opportunities for lifetime learning.



For more information about the society please visit [www.BaltimoreCFASociety.org](http://www.BaltimoreCFASociety.org)

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## Maryland's Housing Recovery and a Nobel Perspective

Matthew Chambers, Ph.D.

Associate professor in the Department of Economics,  
College of Business and Economics at Towson University

Since February 2013, we have seen a sizeable uptick in home prices. Over the last three months, the S&P Case-Shiller seasonally adjusted 20-City Home Price Index has reported price increases in May (2.48%), June (2.18%), and July (1.85%). Over the same time horizon, the Federal Housing Finance Agency's (FHFA) seasonally-adjusted purchase-only House Price Index (HPI) showed similar price appreciation with changes in May (0.7%), June (0.7%), and July (1.0%). This trend shows the potential of substantial house price recovery.

### Residential Housing Prices Comparison

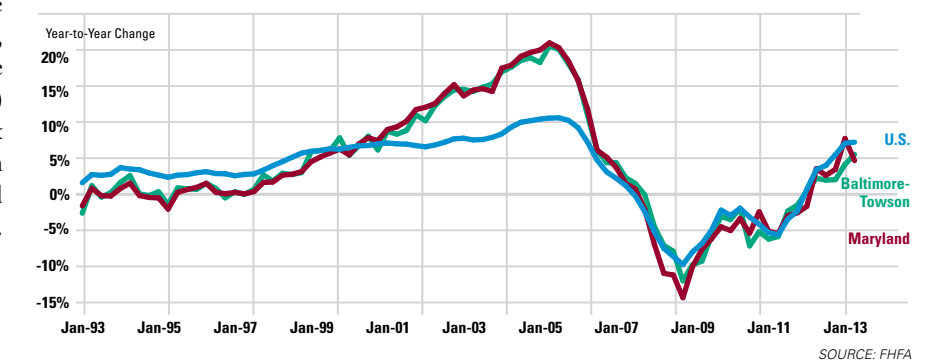
#### National Comparison

Given the MSA level indexes available through the FHFA, we can study how home prices in the Baltimore market are behaving during this housing recovery. From the peak of the housing bubble in the 1<sup>st</sup> quarter of 2007 to the 2<sup>nd</sup> quarter of 2013, average housing prices in Baltimore have dropped 16.4% from their peak and have risen 5.5% over the last year. This is worse than the national reading that shows only an 11.7% drop from the peak with a 7.2% rise over the last 12 months. Baltimore has also fared worse than Washington DC where house prices are rising faster than the national average. Prices in DC have actually reached new all-time highs and grew at a 12.9% rate over the last 12 months.

Figure 1 compares housing price changes in the Baltimore-Towson MSA, Maryland, and the U.S.

The figure shows two distinct trends for Baltimore and Maryland versus the U.S. Between 1992 and 1997 house prices were mildly appreciating nationally, but were pretty much flat in Baltimore and Maryland as a whole. This indicates that Maryland was a late entry in the housing bubble. After 2001, the Baltimore area entered a period of price inflation that exceeded national levels. In early 2005, the annualized percentage change in home prices peaked out at over 20%, more than double the national rate. As of the 2<sup>nd</sup> quarter of 2013 home prices were increasing at the city, state, and national levels. Though increasing the Maryland and Baltimore region appear to be lagging slightly behind the national numbers

**Figure 1: Housing price changes in the Baltimore-Towson MSA, Maryland, and the U.S.**



#### Comparison with other MSAs

The simplest way to gauge the speed of the Baltimore housing recovery is by comparing the data at the MSA level. There are four indexes which cover parts of Maryland, the Baltimore-Towson index, the Silver Spring-Frederick-Rockville index, the Hagerstown-Martinsburg index, and the Salisbury index. The Silver Spring index captures more of the DC effect in Maryland home prices. These MSAs cover the majority of the urban areas in Maryland. To help shed some light on potential differences between urban and rural home price movements we would need to compare the MSA level data with the state level data. If the MSAs are growing faster than the state average, then one could argue that rural areas are lagging behind in the housing recovery. The empirical evidence suggests that the cities have experienced very similar price movements during most of the housing bubble. However, over the last year or so we have seen a marked difference between the Hagerstown and Salisbury areas and the more urban areas. Prices appear to be inflating much faster in the areas of Maryland closer to Washington DC. The FHFA tracks 12 month price changes for 297 MSAs in the U.S. The majority of these areas, led by Stockton, CA

**Table 1: Ranking of Maryland MSAs**

Area	Rank	12 Month Percent Price Change
Stockton, CA	1	19.40
Silver Spring-Rockville-Frederick, MD	85	4.32
California- Lexington Park, MD	100	3.39
Baltimore-Towson, MD	146	2.17
Hagerstown-Martinsburg, MD	165	1.74
Salisbury, MD-DE	280	-0.59
Norwich-New London, CT	297	-3.36

at +19.40%, displayed positive price changes between Q2 2012 and Q2 2013. The preceding table shows the ranking of Maryland MSAs.

The above table (Page 9) has changed substantially in the last 12 months. The areas experiencing price appreciation has spread across many MSAs. Salisbury is one of only 35 areas in the nation to experience falling house prices over the last 12 months.



*Are we on the verge of another round of irrational exuberance? One quick check is to see how home prices are comparing against basic fundamentals. One belief is that home price increases cannot consistently outpace the sum of income growth and inflation.*

### **Is the Housing Recovery Sustainable?**

There are many uncertainties surrounding the current turnaround in the housing market. The main question is whether or not these rising home prices will persist. The macroeconomic evidence is generally not supportive to this pace of home price growth.

#### **Income Growth**

Given that a mortgage payment is typically the largest bill facing a household, it would make sense that income should have a high correlation with homeownership and home prices. Affordability of housing primarily depends on home prices, income level, and mortgage rates. Holding everything else constant, any growth in income should increase the affordability of houses. According to the Bureau of Labor Statistics (BLS), over the last 12 months, weekly earnings have risen 2.1%. This number looks decent until we notice that over the last 6 months weekly earnings have only risen 0.8%. Earnings growth is slowing and is much lower than the pace of home price appreciation.

#### **Unemployment and Government Policy**

Not only is the level of income an important component to the housing market, but also is the riskiness of income. Thinking of housing as an investment good, low risks makes investing more attractive. Persistent higher than average unemployment increases the probability of negative income shocks which lowers the incentive to commit to a long term mortgage arrangement. Additionally, the behavior of the federal government has only increased the risks in the economy. Shutdowns generate income fluctuations and threats of default only serve to increase interest rates. These increased interest rates would pull at mortgage rates thus reducing the affordability of housing.

#### **Speculative Buying**

Another theory behind the turnaround in home prices is that there has been an injection of speculative buying by landlords and flippers. This money generates an increase in the demand for housing which should be identified by increases in home sales and increased home prices. The difficulty is in measuring the amount of speculative buying. It is not easy to come up with data on how much speculative buying is occurring, but looking at state level data we may be able to tease out where it is occurring. The states with the fastest rates

of home price appreciation over the last 12 months are Nevada (22.8%), California (19.1%), and Arizona (18.3%). These three states were hit particularly hard during the housing bubble so it stands to reason that house prices in these states were exceptionally low and ripe for speculative buying. The main question is how long will the speculative money stay in these states? The fear is that these double digit price increases will shut down the flow of speculative money. Without the support of speculators, these markets could dry up and home price could stall or even decline. All we can do is watch the data to get a sense on this.

#### **Mortgage Finance**

We have been experiencing an extremely long period of record or near record low mortgage interest rates. In recent months, the combination of slightly improved economic numbers and risk premiums brought on by government action have led to an increase in bond rates which has filtered into higher mortgage rates. According to the FHFA in December 2012 the average mortgage interest rate was 3.28%. Over the next few months, rates floated up to around 3.50%. By August 2013 the average mortgage had increased to 4.25%. Although low against historical norms, further increases in mortgage rates will only serve to slow the demand for purchasing housing.

### **A Nobel Perspective: The Return of Irrational Exuberance**

On October 14<sup>th</sup> 2013 it was announced that Robert Shiller had become a co-recipient of the 2013 Nobel Prize in Economics with Eugene Fama and Peter Hansen for his work on the analysis of asset prices. In 1996 Alan Greenspan was credited with first using the phrase “Irrational Exuberance” when speaking about some of the effects of a low inflation environment. This environment brings about lower risk which generated smaller risk premiums and in general higher rates of market returns. The general definition is that Irrational Exuberance is an unusually high level of investor optimism which generates higher market returns that over time disconnect market prices from their underlying fundamentals. Shiller used this phrase as a title of his 2000 book. In the second edition in 2005, he expanded the theories of irrational exuberance from stock markets to real estate markets. He argued that, with exception of areas with restricted supplies of land, the growth of home prices should follow macroeconomic funda-

mentals. In his 2005 book, Shiller could see a pattern of irrational exuberance occurring and warned of the potential collapse of the U.S. housing market.

Are we on the verge of another round of irrational exuberance? One quick check is to see how home prices are comparing against basic fundamentals. One belief is that home price increases cannot consistently outpace the sum of income growth and inflation. Over the past 12 month home prices have increased by 7.2%. At the same time income growth is 2.1% and inflation is around 1.8%. This would put the fundamental level of home price growth at around 4% which is over 3% lower than the current reading. This pattern of home price growth would be unsustainable over the long run and would either need to return to fundamentals or we could be seeing the beginning of another asset bubble. Time will only tell.



## Put the Investor First by Advocating for Shareholder Rights

Erica D. Niemann, CFA

*Analyst at Lane Five Capital Management, a long-biased, concentrated valuation-driven hedge fund based in Towson, MD*

The CFA Institute and Edelman, one of the world's largest public relations firms, conducted an Investor Trust study this past June. The study surveyed over 2,100 retail and institutional investors in the United States, United Kingdom, Hong Kong, Australia and Canada, and the results are alarming. Of those surveyed, only 52% of investors trust the financial services industry. In the U.S., only 45% of investors trust the financial services industry to "do what is right" when making ethical decisions. Relationships based on trust are the foundation of the entire capital markets structure. If half of investment professionals don't even trust each other, then how do we expect the general public, regulators, and future clients to trust us?

Participants in the Investor Trust Study were also asked what mattered most to them in hiring a new investment manager. Overwhelmingly, "trust to act in my best interest" was the biggest factor. CFA charterholders, the majority of whom are investors, can be integral in bringing trust back to our profession with demonstrated efforts such as Activism and shareholder engagement that clearly put the investor first. Our strong commitment as CFA charterholders to ethics makes this an imperative.

### The Evolution of Activism

Over the past decade, we've witnessed the growth in: (i) the number of active investment managers engaging company boards, (ii) Directors participating in dialog on best practices in governance and (iii) compensation of CEOs and managements tied more thoroughly to company and investor success. Furthermore, the financial crisis has highlighted the need for Corporate Governance reform. Well-governed companies recover and adapt more readily than poorly governed companies with entrenched managements and unengaged Boards.

Historically, activist investors have been perceived very negatively – being called "corporate raiders" and generally given stereotypes denoting greed and short-term thinking. Those stereotypes emboldened many publicly-traded companies to create defensive policies such as staggered Boards and poison pills in the name of protecting shareholders, but which have served to entrench Boards and lower shareholder rights. Over the past decade, activists have been more clearly focusing on creating long-term value by throwing out underperforming managers and Boards, pushing for smart spin-offs and share repurchases and other value-creating efforts. Evidence is strong that these efforts have paid off for shareholders. For example, a study in 2008

by Alon Brav, Wei Jiang, Frank Partnoy, and Randall Thomas, entitled "The Returns to Hedge Fund Activism", concluded that abnormal returns in excess of the market are not just tied to announcement of shareholder activism but persist the entire holding period, which averages over 20 months. Further, empirical evidence shows that in the five-year period following an activist intervention companies experience improved operating performance (measured by operating profit) and return on assets.<sup>2</sup> This is not corporate raiding. When an investment manager takes a more active role on a company's board or engages constructively with the management team to encourage best practices, it can have a tremendous impact. Not only does it put the best interests of the investment managers' clients first, it improves trust in the industry. It builds awareness of fiduciary responsibilities at all levels.

Activist hedge funds had less than \$12 billion in assets under management just ten years ago, and today that number is over \$65.5 billion according to the *Wall Street Journal*<sup>3</sup>. The growth in the number of activist investment managers is indicative of the success of the strategy.

### The Cost of Activism

If activist investors improve the operating performance of the company and the stock performance relative to the market, then the basis for limiting the rights or involvement of shareholders is false. Companies use the excuse of the costs involved in activism to establish classified boards, limit the ability of shareholders to call special meetings, and install golden parachutes and poison pills – tactics used to entrench the current management team and directors. In Delaware, where a majority of U.S. public companies are domiciled, Boards have the right to install a poison pill or golden parachute at any time. So what are the "costs" so often alluded to? The fees are usually large fees to lawyers, proxy solicitors, PR firms, and potentially the cost of replacing management. But, all of these costs are voluntary. Directors have a choice. If they view activists as adversaries, and choose to fight through expensive PR campaigns and proxy fights, costs will be high. But, if they choose to engage, examine corporate practices and cooperate to the mutual goal of optimizing long-term returns of the company, costs will be minimal and justifiable.

Removing a Classified Board or Poison Pill requires a simple resolution by the Board. It costs nothing

Shareholders can easily attach a resolution to the annual proxy, also very inexpensive. Requesting these changes in the proxy is often a starting point for activists today. Once a shareholder resolution addressing one of these issues is included in a proxy it regularly passes by a large majority, because it is universally accepted as good corporate governance. Still, Boards are not required to make the changes shareholders vote in favor of, and often ignore the shareholder vote entirely. Rarely do Boards voluntarily make these changes. If we all agree these are clear best practices in corporate governance, why does it even take an activist investor to force them to be addressed?

Perhaps we've applied the "corporate raiders" nickname to the wrong constituency.

The next level of changes, including separating the chairman and CEO roles, optimizing capital allocation, nominating engaged directors, and facilitating change in management and/or management incentives are more challenging and require careful consideration. However, even the engagement by activist investors in thoughtful, productive discussions, can facilitate positive changes without a full-blown proxy battle. Ultimately, the entire investment community benefits from the diligence with which activists promote best practices in governance.

### Say-On-Pay

"Say-on-Pay", a provision in the Dodd-Frank Wall Street Reform and Consumer Protection Act, is a positive development in corporate governance. Though it is only an advisory vote, investors have increased transparency into compensation practices and have the opportunity for a simple up or down vote on the plans. Companies receiving low approval ratings on their pay practices are showing an increased tendency to make changes, including more shareholder return oriented performance pay, inclusion of returns-based metrics in compensation plans and other efforts that ultimately could lead to improved accountability and performance.

Say-on-pay was originally adopted in the UK in 2002. This market has served as a case study that helped create widespread support for the provision. Research reports based on companies in the U.K. have concluded say-on-pay has had positive effects including: (i) improving the link between executive pay and company performance, (ii) prompting firms to adopt better pay practices, and

(iii) leading activist shareholders to target firms with weak pay-performance links and those with higher than expected executive compensation<sup>4</sup>.

### Pay for Performance and Share Ownership

Two practices that have grown in acceptance over the past couple of years are performance based restricted stock units in long-term equity compensation plans and share ownership guidelines for directors and executives.

Performance based restricted stock units (PSUs) capture the benefit of tying management compensation to long-term stock performance and remove many of the flaws of options grants. Options grants vest based only on time passing, while PSUs only vest when certain operating metrics are met over a specific time period (typically three years). Additionally, PSU grants are not as dilutive as options grants, because dollar value based option grants are typically based on a Black-Scholes model. Thus with options, the number of shares granted actually increases dramatically if the stock price declines. This is a perverse incentive.

Share ownership guidelines require individuals, either directors or executive officers, to maintain a certain ownership level. Typically, these ownership levels are designated as a multiple of an individual's base salary. As an example, a CEO may be required to hold shares worth five or ten times their base salary. Guidelines often exclude any unvested stock or options grants and exceptional plans require individuals to reach the designated amount in a limited time frame.

Combined with a proper PSU grant, ownership guidelines magnify the importance of driving operational performance of the company. Retaining talented executives while also maintaining a reasonable level of dilution and emphasizing long-term performance is not easy. PSUs and ownership guidelines are great examples of safeguarding investor interests whilst incentivizing executives to maximize the business's performance.

### It's Still an Uphill Battle

When an activist investor engages a company, the first question asked is whether current shareholder base will support the effort. Despite the evidence that activists have driven solid long-term results, winning a vote on a shareholder resolution, or even a proxy fight, is never certain.

An activist starts from a significant disadvantage when building shareholder support. First, it's generally understood that 20% of shareholder votes for any given year are not cast. Second, a significant number of large investors vote as recommended by the company. As an example, the Vanguard funds, owners of over \$1 trillion in common stock and a large shareholder for many companies, have adopted guidelines that govern proxy voting decisions. Those guidelines have led the company to vote with management nominations 81% of the time when dissident shareholders have sought board seats over the past year.<sup>5</sup> Lastly, many investment managers rely on a third party services for advice on proxy voting such as Glass Lewis or ISS. These proxy advisors reportedly affect 38% of votes cast at US public companies – that's an enormous amount of influence without having any stake in the results. So, it's common for 50% to 60% of a company's shares to be passively voted or not voted at all, and the position of proxy advisory firms are large enough to swing a vote. But, how did they proxy advisors grow to wield so much influence?

In 2003, the SEC required investment advisers who exercise voting authority over client proxies to adopt various policies and procedures designed to ensure their proxy votes coincide with the best interests of their clients. For many advisors concerned about their legal liability to fulfill a fiduciary obligation to vote the safe and more cost-efficient solution was to rely on a "professional" consultant. The ensuing run to safety from potential litigation created the unintended consequence of reliance on ISS and Glass Lewis, with the thought that no one can be negligent for following "professional" advice. The notion that the incentive to provide thorough advice is low when the two firms operate as a duopoly was not considered.

The duopoly has not gone unnoticed. Lawmakers are increasingly investigating proxy advisors and the heightened level of scrutiny and increased activist activities has caused the firms to make improvements. However, Glass Lewis and ISS remain a critical cog in shareholder voting until more large money management firms choose to make themselves less reliant.

### All Investors Have a Say

While the average investor doesn't have the ability to take a stake in a company large enough to apply pressure for change, every share has a vote. A company's proxy contains valuable information about the structure of its board of directors, the backgrounds of those directors, compensation practices, long-term incentive goals, and if it exists any defensive posturing by the management team and the board. Given all of the information in a company's proxy, it is important to understand your investment manager's process and procedures for voting proxies.

Many small investment managers read and vote their own proxies regularly. Large investment managers typically have documented procedures for proxy voting that are available upon request. Some large, historically passive, investment management companies like Fidelity have taken a more active approach to proxy voting as of late, which is a positive turn of events for the whole industry. Voting on shareholder matters is one of the most important responsibilities of investment managers, and rebuilding trust starts with embracing those responsibilities.

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## Distance in Small Business Lending in Maryland

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On July 9<sup>th</sup>, 2013, Eileen Ambrose<sup>1</sup> from The Baltimore Sun, reported that “Maryland institutions have increased their lending to small business by \$337.7 million since the low point of the recession.” This is welcome news following last year’s state government initiative that saw the enactment of The Lend Local Act: community banks were set to receive millions of dollars in state deposits so long as they issued local small business loans. Senate Majority Leader Robert J. Garagiola, D-Montgomery, was quoted saying: “We know that community banks are more likely to provide capital and enable debt financing for small business in a very tight economy.”<sup>2</sup> In the following, we take a long view of small business lending in Maryland over the past 30 years.

### Historical small business loans supply in Maryland

Total small business loans issuance to Maryland companies was \$37 million in 1980 and \$163 million in 2008; the peak was \$231 million in 2006. In Figure 1, we show the 30-year path of small business loans issuance in Maryland as supplied by in-state institutions versus out-of-state institutions. Two patterns of interest emerge from the figure. First, small business lending took off dramatically in the 1990’s, increasing 21% annually on average. The favorable economic climate, characterized by relatively low interest rates and large productivity gains, boosted GDP growth and fueled this fast expansion in small business lending. We note that, during that period, in-state institutions remained the primary source of financing for Maryland small businesses. The second discernible pattern sees out-of-state institutions overtake state lenders as the primary source of funding to Maryland small businesses. As seen in Figure 1, out-of-state lenders first overtook in-state lenders in 2002 and have continued to be the dominating player in small business lending.

In Figure 2, we explore this trend in more detail by charting the relative percentage of small business loan supply across the state line divide. Two rounds of deregulation helped propel the shift in the roles played by in-state institutions and out-of-state institutions. First, in 1994, the passage of the Riegle-Neal Interstate Banking and Branching Efficiency Act<sup>3</sup> spurred consolidation in the banking industry, a process that continues to this day and one that has changed the landscape of Maryland institutions. According to the Maryland Department of Labor, Licensing, and Regulation, there are currently

Figure 1: Historical Small Business Loan Issuances in Maryland - 1980 to 2009

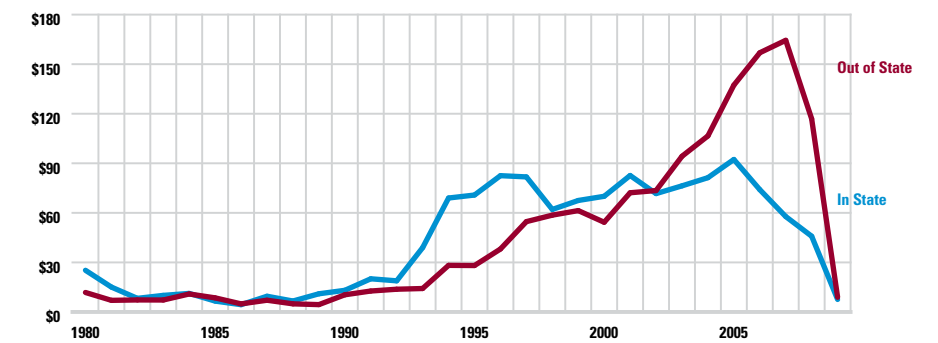
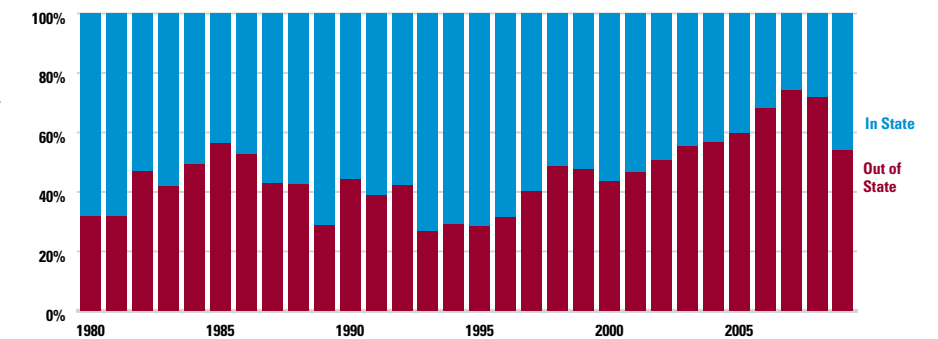


Figure 2: Historical Distribution of In State versus Out of State Loan Supply



45 Chartered banks in Maryland<sup>4</sup>. Historically, the number was higher before the passage of the Riegle-Neal Interstate Banking and Branching Efficiency Act. It was as high as 106 in 1989<sup>5</sup> and dwindled via mergers over the past three decades with 9 mergers in the 1980’s, 44 mergers in the 1990’s, and 42 mergers in the 2000’s particularly with a high point of 10 mergers in 2007 alone before the financial crisis. Another reason for the attrition of local institutions is recent failures during the financial crisis. Eight Maryland banks failed from 2009 to 2012, the largest failure that of K Bank of Randallstown, whose deposits were assumed by M&T Bank under the auspices of the Federal Deposit Insurance Corporation (FDIC)<sup>6</sup>. As a result of mergers and acquisitions, total assets held by institutions located in Maryland drew down from a peak of \$87 billion in 1994 to \$26 billion at 2012 year end. However, one should note that the reduction in institutions did not diminish the number of branches as these have shot to almost 1,600 in 2012, up from as few as 1,000 in 1980, indicating that institutions have strived to make themselves more accessible to local clients.

A second round of deregulation helped cement the switch in the source of small business loan supply, which was observed to decline from 75% of loan supply sourced locally in 1993 to 75% sourced across state lines in 2007. The Gramm-Leach-Bliley Act, also known as the Financial Modernization Act of 1999, permits the combination of banking, securities and insurance operations, an act that ushered the age of “mega-banks”. Interestingly, mega-banks are not necessarily interested in servicing “hard to evaluate” small business loans – small business loans are banker-time intensive, more difficult to automate, bear higher underwriting and servicing costs and are more difficult to securitize<sup>7</sup> – but sheer size allowed them to dominate the Maryland market. These large entities’ heavy reliance on interbank funding and securitization immediately impacted banks’ lending negatively during the economic downturn when funding evaporated and liquidity was constrained. As a result, we see the balance reestablished itself with local lenders reclaiming close to 50% of the local lending market share.

### The case for local lenders

Traditionally, small business lending has largely relied upon the model of “relationship lending”. Bankers, through repeated interactions and multiple transactions with the same customer over time, obtain customer-specific proprietary information about the borrowers

and their ability to repay. Boot and Thakor<sup>8</sup> (2000) further claim that these ongoing relationships facilitate lenders’ information acquisition and hence should benefit borrowers with more credit availability and reduced lending costs. Indeed, these relationships are symbiotic in that they allow the borrowers greater funding availability and they afford lenders to have an informational advantage. The information can be used in multiple interactions with the same customer, creating an opportunity to benefit from inter-temporal information reusability. Moreover, lending relationships typically induce lenders to extend non profitable loans to client with the long view in mind. Lending to a borrower today will increase the likelihood the borrower continues its relationship with the bank in later periods and the overall value of the relationship allows for this temporary loss. On the flip side, once the borrower is held up in the relation, it may receive loans at non-competitive rates in exchange for continued credit access. Yet, overall, the relationship benefits the borrower in many ways such as bundled services from the lender and continuity in receiving loans in the long run.

Obviously, a close relationship is more easily achievable locally than from a great distance. Local lenders have an advantage in collecting soft information about the borrowers and applying it in their loan decisions. This is particularly important in the current environment in which lending institutions tightened their lending criteria in the aftermath of the financial crisis<sup>7</sup>. For long-distance lenders, although progresses in technology have virtually eliminated some of the issues in communicating, it remains that they will have to rely more on hard information rather than soft information. Whereas improved credit scoring techniques have helped large distant institutions make better lending decision, local lenders should still maintain an advantage in this market as soft information is costly to acquire, a cost that mega-banks are not willing to expand on lower profitability loans.

In Figure 3, we track the distance between lenders and small business borrowers over time. We observe the significant impact that advanced lending techniques and deregulation have had on the distance landscape for Maryland borrowers. In the 1980’s, small business lending was truly a local affair with an average distance between lender and borrower in Maryland of 130 miles<sup>9</sup>. Over time, this distance slowly increases

as lenders merge with distant parent bank holding companies and finally, once mega-banks appear in the market, the distance explodes to be as far as 900 miles away from the borrower.

Ironically, the trend in default rate is sharply in contrast to the increase in distance. From as high as an average of 15% default in the 1980’s, improved lending practices and better economic conditions have reduced these defaults to about 5% in the 1990’s and as low as 2% in the 2000’s during the pre-crisis period. On the surface, it appears that the increase in distance did not hurt the performance of small business loans, even though longer distances might create difficulties for banks to monitor their loans. We take a deeper look at the default rates for in-state lenders versus out-of-state lenders in Figure 4.

Figure 4 reveals the differences in default rates for loans issued from within or from outside the state lines. Whereas the long-term trends in performance of both categories of loans are similar, we note that 1) default rates for out-of-state originated loans are more volatile, and 2) in the recent period, in-state originated loans experience lower default rates. There are two potential sources for these differences. First, as discussed above, local lenders should have superior information and therefore be more astute in their lending practices. Another reason might stem from the fact that locally established lending relationship are more informed about local conditions and are more willing to renegotiate terms or extend timelines to borrowers rather than to force default. As such, local lending relationships provide stability to the state economy and in fact will further benefit the local economy by providing stable and effective allocation of funds to successful enterprises. This is critical in times of tumult as resources scarce up.

In all, it appears that, while distant lenders did provide valuable capital during the expansion period, these lenders are more fickle and are less informed compared to local lenders. Local lenders play a nontrivial role in providing financing support to small business owners, which help further strengthen and stabilize the state’s economy. In this light, the current initiatives are a step in the right direction.

Figure 3: Historical Distance and Loan Default Rate

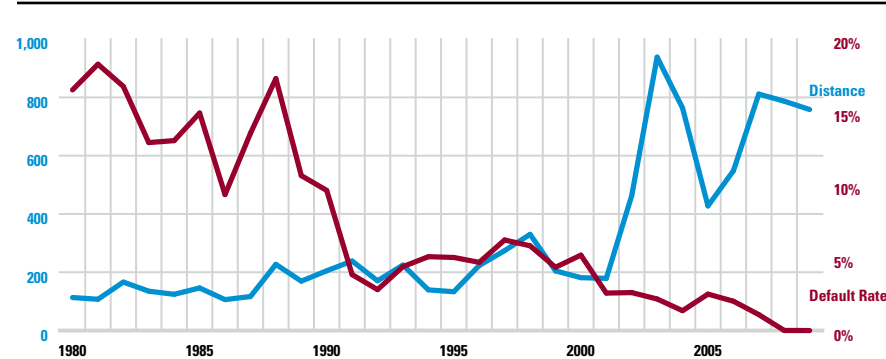
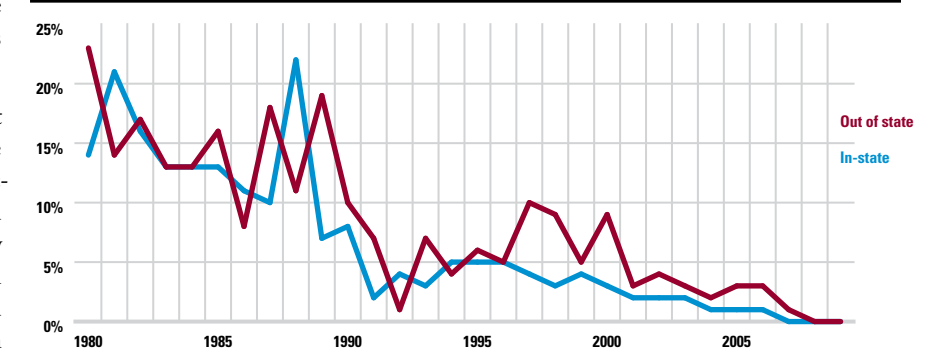


Figure 4: Historical Small Business Loan Default Rate



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- <sup>7</sup>Wiersch, Ann Mary and Scott Shane. Why small business lending isn’t what it used to be. Economic Commentary, Federal Reserve Bank of Cleveland, August 14, 2013.
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- <sup>9</sup>Readers should note that we measure distance as the distance between counties in which the lenders and borrowers are located so that our measures might inflate those numbers when lenders and borrowers are both locally situated. Nevertheless, the method works well to illustrate long-term trends.



## Reversal of Fortune - Competitive Advantages Redefining Industrial Investment in the U.S.

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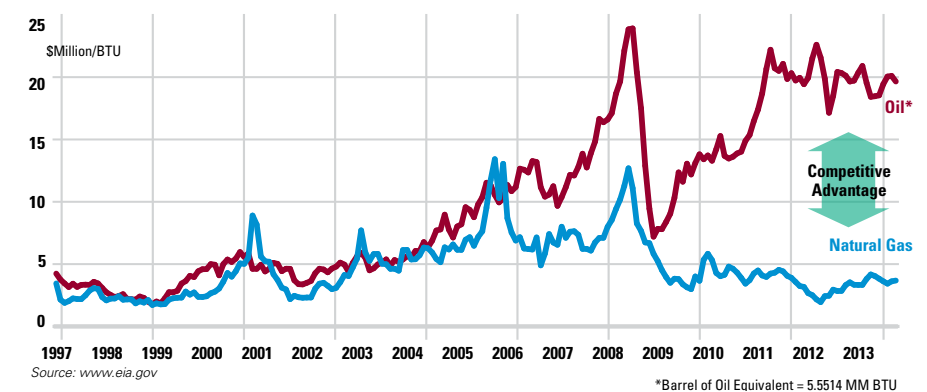
As an investment manager, I seek investments with sustainable growth. I have the freedom to look anywhere in the world. Quietly, the U.S. has developed a competitive advantage in energy costs that is rewriting the history books, see Chart 1. For the first time in generations an abundant energy supply has the potential to improve the air we breathe while creating hundreds of thousands of new jobs. It is creating opportunities where just five years ago energy intensive industrial production was being shuttered in the U.S.

### Reversal of Fortune

Forty years ago the crippling oil dependency of the U.S. was brought home with gasoline rationing during the 1973 Oil Embargo that caused crude oil prices to quadruple. By 1980 the price of crude was 10 times what it had been in 1973. Presidential Commissions looked for alternatives while recommending higher energy efficiency standards. The trending outlook was alarming and U.S. companies in industry were deeply challenged by the rising cost of energy. Higher U.S. energy costs have been a contributing factor to the steady erosion of the U.S. industrial base.

By 2005, the U.S. dependency on imports of petroleum products had grown to 60%. The trend line was going up and the outlook was increasingly dire. Quietly, drillers were implementing new directional drill technology that allowed horizontal drilling through oil-bearing deposits. New seismic sounding and visualization technologies created underground pathways that optimized the horizontal drilling to deep narrow banded shale deposits. High pressure – hydraulic – fracturing is not new. It was used on thousands of gas wells during the 1970's to increase production yields. The fracturing techniques used in shale deposits have been pioneered in the last decade. The rock-like shale formations require proppants and lubricants to keep the fractured channels in the shale rock open. Due to the rocklike characteristics of shale, creating fracture channels and keeping them open with proppants and lubricants is key development that allowed enabled the fracking of shale. To keep the channels open, proppants – silica or ceramic spheres – are injected at enormous pressure into the fracture channels. A combination of water, proppants and lubricants are injected at enormous pressures that range from a staggering 10,000 to 20,000 pounds per square inch. A typical well in the Bakken is 5,000 to 20,000 feet below the surface. There are

**Figure 1: The U.S. Shale Gas Competitive Advantage**



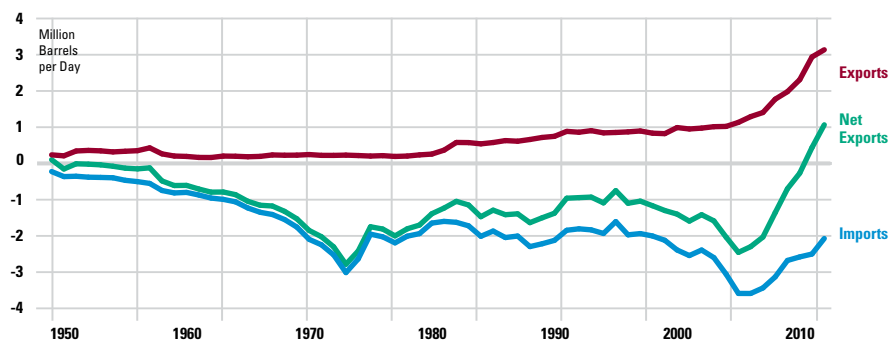
One million (MM) British Thermal Units (BTU) is the measurement standard for natural gas. A 42 gallon barrel of oil contains 5.55 MM BTU which is referred to as the Barrel Oil Equivalent (BOE).

9,000 wells in the Bakken. A significant production well will require 2 million gallons of water, 4 million pounds of proppants and approximately 350 barrels of chemical lubricants.

In 2009, domestic U.S. petroleum production increased for the first time in 17 years. U.S. consumption is running at 18.7 million barrels a day, which is down 10% from 2005. There are a number of factors behind this change, the biggest one was the 2008 financial crisis. Other contributing factors are higher fuel efficiency in vehicles, alternative energy sources, lower electrical demand from LED lights, and lower car ownership among young people.

Since 2008 U.S. domestic crude oil production has increased 50%. In June 2013, the U.S. trade deficit fell more than expected and the biggest contributing factor was that net petroleum imports fell 24% year-over-year. Crude oil imports are the single biggest source of the U.S. trade deficit. From 2003 to 2013 the U.S. paid \$2.4 trillion dollars to import crude oil to meet its import dependency. In the fourth quarter of 2012 the U.S. became a net petroleum exporter for the first time since 1949, (Figure 2).

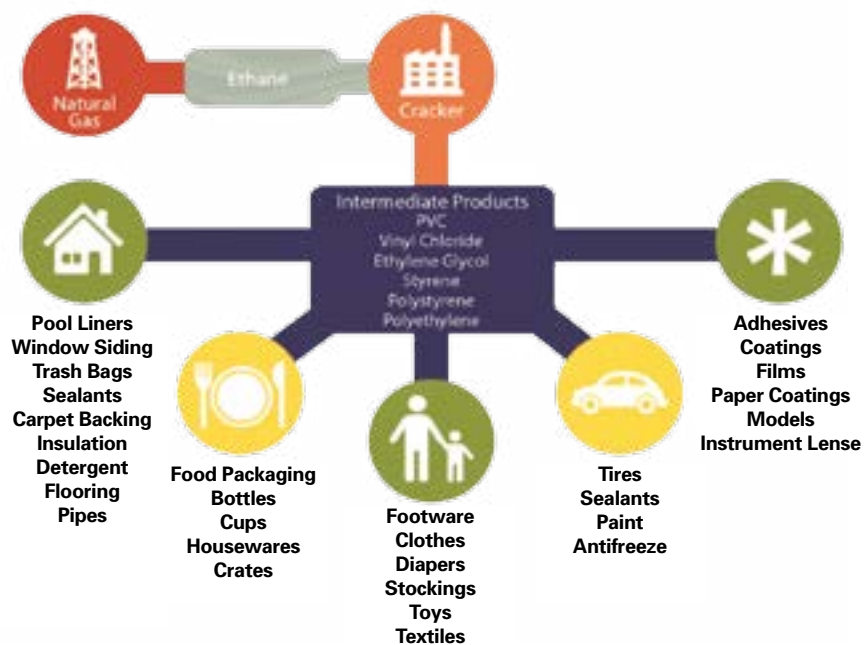
**Figure 2: U.S. Petroleum Product Exports Exceed Imports in 2011 for First Time in Six Decades**



**What is the Shale Gas Advantage?**

There are many advantages inherent in shale gas -energy independence, cleaner air – green energy source with less the 50% less CO 2 emissions than coal, see Table 1. The U.S. now offers energy intensive industries a clear energy cost and environmental advantage that is enhanced by their proximity to markets. The competitive advantages on a global basis are reshaping the capital investments of energy intensive industries which include – chemicals, plastics, fertilizers, metal foundries and mills.

**Figure 3: Byproducts for Ethane — a Natural Gas Liquid**



Source [http://www.chicagofed.org/digital\\_assets/others/events/2013/detroit\\_energy/moore\\_830am\\_040913.pdf](http://www.chicagofed.org/digital_assets/others/events/2013/detroit_energy/moore_830am_040913.pdf)

**Table 1: Pounds of CO2 emitted**

Pounds of CO2 emitted per million Btu of energy:		
Coal (anthracite)	228.6	195.4%
Coal (bituminous)	205.7	175.8%
Coal (lignite)	215.4	184.1%
Coal (subbituminous)	214.3	183.2%
Diesel fuel & heating oil	161.3	137.9%
Gasoline	157.2	134.4%
Propane	139.0	118.8%
Natural gas	117.0	100.0%

Source: [www.eia.gov/tools/faqs/faq.cfm?id=73&t=11](http://www.eia.gov/tools/faqs/faq.cfm?id=73&t=11)

“Wet” natural gas is unprocessed gas that comes directly out of the well head. “Wet” natural gas has a number of naturally occurring by-products that must be separated from the methane or “dry” natural gas. A familiar “wet” natural gas by-product is propane. Other less familiar cousins are butane and ethane; however, once separated as liquids these valuable byproducts are referred to as natural gas liquids. Ethane has a myriad of uses (Figure 3). The by-products from ethane are really quite amazing and include pool liners, tires, to paper coatings. “Dry” natural gas – methane - can be found heating homes and burning on cooktops. Dry natural gas burns cleanly with half the carbon dioxide emissions of coal.

**The Infrastructure Challenge**

The benefits of the U.S.’s new energy independence are not uniformly distributed. In some cases the benefits have not been distributed at all. Unlike the alternative energy space where aggressive tax subsidies were established for wind, solar and bio fuels, the federal government has not offered adequate incentives for pipeline construction, and the dated use tax credits need to be overhauled. The U.S. needs a long-term national energy plan that matches the scale of the shale gas and oil revolution.

The Environmental Protection Agency (EPA) wants to reduce carbon dioxide emissions but the lack of a federal energy policy that endorses the building of interstate pipelines from the geographically remote Bakken fields in North Dakota leaves producers with no access to storage, process facilities or end markets. It is creating unintended consequences which defy common sense and run completely contrary to the stated goal. During the first seven months of 2013, 50.4 billion

cubic feet of wet natural gas was flared – burned – at the wellheads across the Bakken formation in North Dakota. The burning well flares and production lights can be seen in space. NASA Earth Observatory satellite from hundreds of miles above the earth without image enhancement can clearly capture the light emissions from the Bakken region in North Dakota where no major cities exist (Figure 4). The scale of the wasted energy from no pipeline access to end markets is equivalent to the annual heating needs of 1.3 million homes or 8.6 billion kilowatt-hours of electricity on an annualized basis per the Department of Energy.

To be fair, the speed of discovery and development of shale gas and oil is astonishing and the right-of-way process for pipelines is time consuming. Given the clear example of undesirable unintended environmental consequences, environmental impact studies of new interstate pipelines need to be expedited. The North Dakota state government needs to create incentives that discourage flaring. Amazingly, addressing infrastructure needs for North Dakota’s 9,000 wells will only increase the supply side of the U.S.’s new competitive advantages. Federal initiatives are also needed to help build and create domestic demand for the cleaner burning natural gas fuel that will help create demand for this cheaper source of energy. Ultimately, the cost advantage offered by natural gas will diminish and investments and market forces will take advantage of the arbitrage. Chemical industry alone accounted for one-quarter of foreign investment in the U.S. last year. Abundant natural gas and natural gas liquids are improving the air we breathe while creating hundreds of thousands of new jobs. Shale gas and shale oil have also created a healthier balance of payments. The U.S. is becoming a world leader in natural gas technology. While there are winners there are also losers, the dramatically lower natural gas prices have created challenges for companies that bought resource rights at higher price levels. Natural gas drilling activity associated with new wells has steadily fallen while drilling for new shale oil wells has steadily increased.

**Figure 4: Bakken Shale Gas Flares Visible from Space**



Source: <http://www.newscientist.com/blogs/shortsharpscience/2013/01/julia-sklar-reporter.html>

**Environmental Considerations**

The EPA has authority under the Clean Water Act to regulate discharge water produced by hydraulic fracturing; however, the EPA does not have authority to regulate subsurface fluids and proppants used for hydraulic fracturing. Each state has the authority to regulate and/or authorize hydraulic fracturing. Water table contamination is a very serious issue and is often not reversible. Well casements must be designed to stand the test of time as well as exposure to extraordinary pressure. A direct benefit of horizontal drilling is that a single well head can be used to drill miles in every direction at depths that are thousands of feet deep. To reduce the amount of water required, drillers are expanding the recycling of drill waste water. A significant concern is the chemical lubricants mixed in with the proppants and hydraulically pressurized with water. There are clearly issues with shallow wells but wells that are one to four miles beneath the surface pose a much more limited threat to the water table.

One area that gets overlooked with these deep wells is the enormous pressures within the well that can create discharge from a well not properly capped. Drillers have the ability to place smart drill caps on wells to monitor and insure well integrity.

### Maryland's Opt Out

The State of Maryland has opted for a three-year study. Rather than proceed with caution, the State has opted to not proceed at all. This does not mean the private sector in Maryland has not found ways to meaningfully contribute to the competitive advantages associated with developing a cleaner energy source. U.S. Silica Holdings, based in Fredrick (ticker SLCA), is a leading supplier of silica proppants to drillers. Silica is found in nature in sand or quartz and used as a proppant. It is used to make glass but silica is known for its hardness. A significant fracking well can use 4 million pounds of proppants to keep the fracture channels lines in shale deposits under enormous pressure. Colfax Corporation based in Fulton (ticker CFX), is a manufacturer of gas and fluid handling equipment. Colfax serves both the oil and gas industry and the chemical industry. The systems manufactured assist with production, storage, refining and transportation. The current valuations of both companies are rich, and are dependent on continued demand. Assuming the price of oil does not collapse, it is reasonable to consider the U.S. energy cost advantage as being sustainable in the near term but the cost differential between oil and natural gas spot prices will likely close as myriad of supply and demand factors come to bear.

### The Future is Happening Now

As a portfolio manager, I turn over a lot of rocks looking for sustainable growth. In October, the U.S. Energy Information Agency announced that it expects the U.S. to become the world's largest producer of petroleum products in 2013. There is an enormous need for infrastructure to support this dramatic change. Selectively, there are sustainable growth opportunities for companies providing the picks and shovels that will enable the U.S. to take advantage of this dramatic reversal of fortune. The air in cities will benefit from the cleaner natural gas emissions. Enormous shale deposits exist in New York and California that have not been developed. The shale deposit in California is nearly four times the Bakken deposit. The estimate of recoverable oil - not including gas - in California alone stands at 15.4 billion barrels of oil. The scale and scope of the energy independence offered by shale gas and shale oil is revitalizing the U.S.'s industrial base while offering cleaner natural gas and energy security. The development of the technology associated creates a new export that goes beyond just petroleum products. Over time, as the infrastructure is built and the technology spreads, natural gas will become a global commodity rather than a regional commodity. Between now and then the U.S. has clear competitive advantages.

### Resources:

[www.eia.gov](http://www.eia.gov)  
<http://www.eia.gov/tools/faqs/faq.cfm?id=73&t=11>  
<http://ngm.nationalgeographic.com/2013/03/bakken-shale-oil/dobb-text>  
<http://www.census.gov/foreign-trade/statistics/historical/petr.pdf>  
[http://www.eia.gov/environment/emissions/co2\\_vol\\_mass.cfm](http://www.eia.gov/environment/emissions/co2_vol_mass.cfm)  
<http://www.midwestenergynews.com/2011/11/14/the-bakken-north-dakota-oil-field-from-space/>  
<http://nation.time.com/2013/10/16/40-years-after-the-1973-oil-embargo-the-u-s-is-stronger-on-energy-but-so-is-the-middle-east/>  
<http://aleklett.wordpress.com/2013/01/29/gas-flaring-at-bakken-and-eagle-ford/>  
<http://www.newscientist.com/blogs/shortsharpscience/2013/01/julia-sklar-reporter.html>  
<http://www.census.gov/foreign-trade/statistics/historical/petr.pdf>  
<http://energy.gov/articles/producing-natural-gas-shale>  
<http://www.argusmedia.com/pages/NewsBody.aspx?id=862063&menu=yes>  
<http://ngm.nationalgeographic.com/2013/03/bakken-shale-oil/dobb-text>

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Towson University's College of Business and Economics (CBE) specializes in providing high-quality, applied business education with an international perspective that prepares individuals for positions of responsibility and leadership in business and society. CBE programs are entrepreneurial, innovative and market-driven, and attract top talent from across the country. CBE is the largest undergraduate business school in Maryland and is the only institution in the University System of Maryland to offer a major in e-Business. For those that want to take their education to the next level, Towson University has enriched its graduate education opportunities by offering two graduate programs with the University of Baltimore, the UB/Towson MBA program and the Master's of Accounting and Business Advisory Services, as well as the Master's of Supply Chain Management.

## Towson University

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## Credit Default Swaps of Maryland Based Firms

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College of Business and Economics at Towson University

Credit Default Swaps (CDS), according to the definition of the International Swaps and Derivatives Association (ISDA), are privately-negotiated contracts designed explicitly to shift credit risk between two parties.<sup>1</sup> With CDS, a protection buyer (e.g., a bondholder) pays a periodic fee to a protection seller (e.g., an insurance company) in return for protection from a credit event by a reference entity or borrowing company.

Suppose bondholders of *Ciena Corporation* are concerned about the company's default risk. In this case, bondholders can buy insurance from a CDS seller and pay premiums to the seller over time (typically on a quarterly basis). If *Ciena* does not default, bondholders lose the premiums while the CDS seller keeps the premium payments. If *Ciena* defaults, bondholders can exchange their bonds with the CDS seller for the principal amount of the bonds or, in some cases, payment equal to the bonds' principal amount minus the current value at the time of default. The settlement method in the event of default can include physical settlement or cash settlement. In short, CDS allow bondholders to protect their investments from credit events in exchange for premium payments. A credit event may include bankruptcy filing, non-payment of debt, debt restructuring, technical default and credit-rating downgrade. Figure 1 illustrates the mechanism of Credit Default Swaps.

First adopted by J.P. Morgan in 1995, the CDS market has grown exponentially, with outstanding notional value peaking at \$58.2 trillion dollars in 2007. As of December 2010, the total notional amount of CDS contract outstanding was \$29.9 trillion, \$18.1 trillion of which was traded on single name reference entities. Of the total notional, \$15.1 trillion was traded with dealers, \$14.5 trillion with other financial institutions, and \$0.3 trillion with non-financial customers.<sup>2</sup> In other words, the CDS market is dominated by institutional investors, with banks accounting for the majority of trading.

This study investigates CDS of Maryland based firms and its potential effects. Over the period of 2001 to 2010, 16 Maryland based companies have had traded CDS, as indicated by *Bloomberg*. Table 1 presents a list of Maryland based firms with CDS and Figure 2 plots the number of CDS firms. As indicated in Figure 2, the number of CDS firms in the U.S. increased substantially from around 200 to over 600 during the period between 2001 and 2005, while the number of CDS firms in Maryland decreased slightly over time. One possible explanation is that there was not enough

Figure 1: What is a Credit Default Swaps?

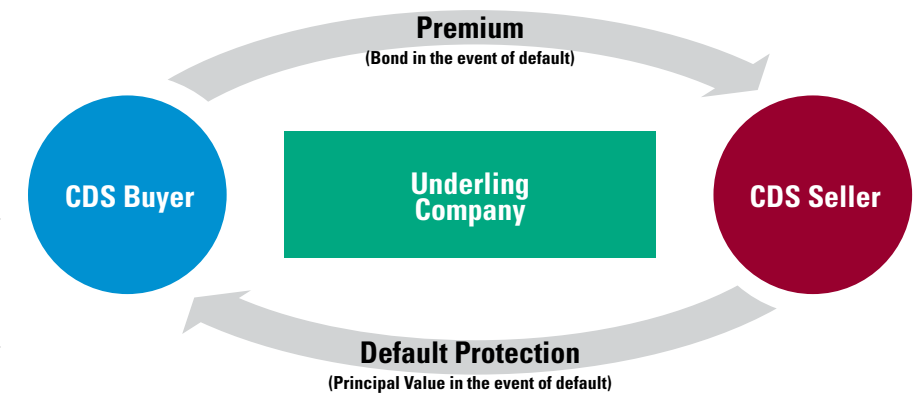
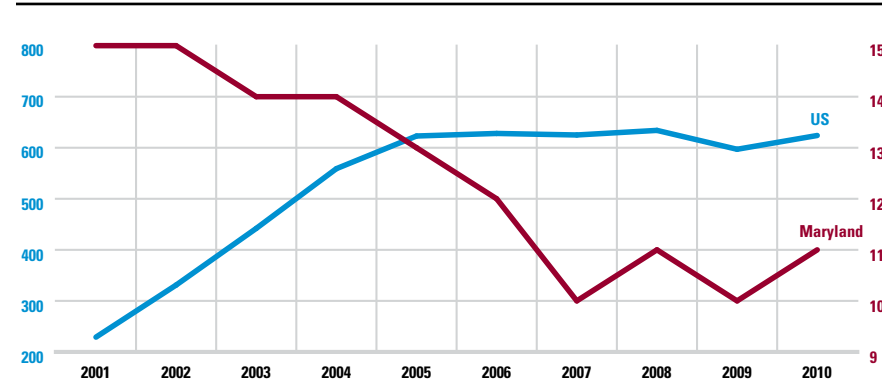


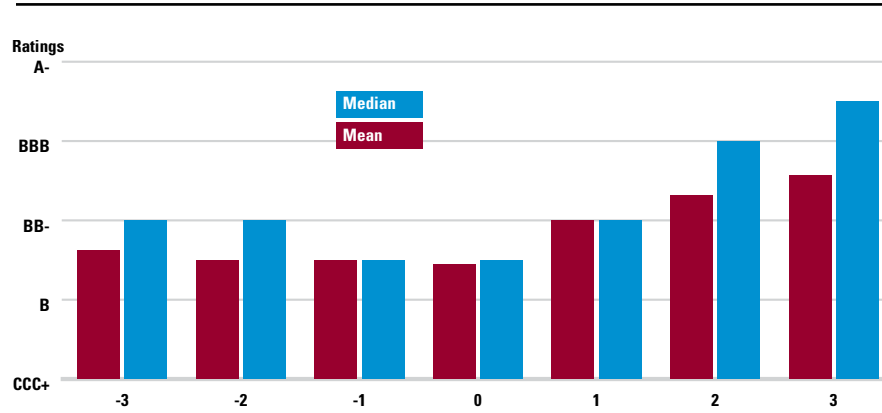
Table 1: List of Maryland based firms with CDS

Name	City	Year of CDS Initiation
ARBITRON INC	Columbia	2006
BLACK & DECKER CORP	Towson	2001
CIENA CORP	Hanover	2005
CONSTELLATION ENERGY GRP INC	Baltimore	2001
COVENTRY HEALTH CARE INC	Bethesda	2005
FEDERAL REALTY INVESTMENT TR	Rockville	2003
HOST HOTELS & RESORTS INC	Bethesda	2001
LOCKHEED MARTIN CORP	Bethesda	2001
MARRIOTT INTL INC	Bethesda	2001
MCCORMICK & CO INC	Sparks	2005
MEDIMMUNE INC	Gaithersburg	2003
MERISTAR HOSPITALITY CORP	Bethesda	2003
NEIGHBORCARE INC	Baltimore	2001
OMEGA HEALTHCARE INVS INC	Hunt Valley	2001
SINCLAIR BROADCAST GP	Hunt Valley	2003
WASHINGTON REIT	Rockville	2001

**Figure 2: Number of CDS firms over time**



**Figure 3: Average and median credit rating around CDS initiations**



interest in trading against credit events of Maryland based companies; that is, creditors were not concerned about these companies' default risk. The decline was also driven by mergers and acquisitions between 2007 and 2009, such as the acquisition of MedImmune by AstraZeneca in 2007 and the merger between the Stanley Works and Black & Decker in 2010.

While companies do not initiate CDS trading on their own debt, their debt holders do, so the initiation of CDS trading is non-random. Why do creditors initiate CDS against the underlying firm? How do firms with CDS differ from those who do not have CDS against their debt? Compared to other Maryland based companies, CDS companies tend to be bigger firms with higher credit rating, lower market-to-book ratio, higher profit margin, higher return on assets, higher operation cash flow ratio, and lower receivable and inventory ratio.

### Impact of Credit Default Swaps

Prior work highlights potential inefficiencies from CDS contracts. CDS allow a creditor to avoid exposure to financial risk from a bad debt, while still maintaining formal contractual control rights to enforce the terms of the debt agreement and legal rights under bankruptcy laws. While creditors are normally interested in keeping a solvent firm out of bankruptcy and in maximizing the value of an insolvent firm, this may no longer be valid for insured creditors. Hu and Black (2008a) refer to debt holders who retain formal contractual control rights and legal rights, yet have partly or fully hedged their economic risk as "empty creditors". Such creditors lack incentives to monitor a debtor's actions or to save the company from bankruptcy, as they can receive payment from the CDS protection seller.

Despite the concerns associated with CDS, there are potential benefits of CDS trading to the borrowing company. Hu and Black (2008a) argue that CDS allow lenders to diversify risk; in addition, prior work observes that firms with traded CDS contracts on their debt are able to maintain higher leverage ratios and hold longer debt maturities. Having traded CDS contracts on its debt may afford the company better access to capital and favorable credit terms, all of which dampens the company's business risk.

Figure 3 compares credit ratings for Maryland based CDS firms for the seven years centered on the CDS initiation year. Prior to CDS initiations, the median of S&P long-term credit ratings for CDS companies was around BB-. From the year of CDS initiation onward, the median credit ratings increased monotonically to BBB-. On average, Maryland based firms held more assets and had higher credit ratings after the initiation of CDS trading against their debts. However there is no evidence that CDS trading affects a firm's ability to borrow debt.

### Does CDS market provide timely signal? The case of the Black & Decker merger announcement

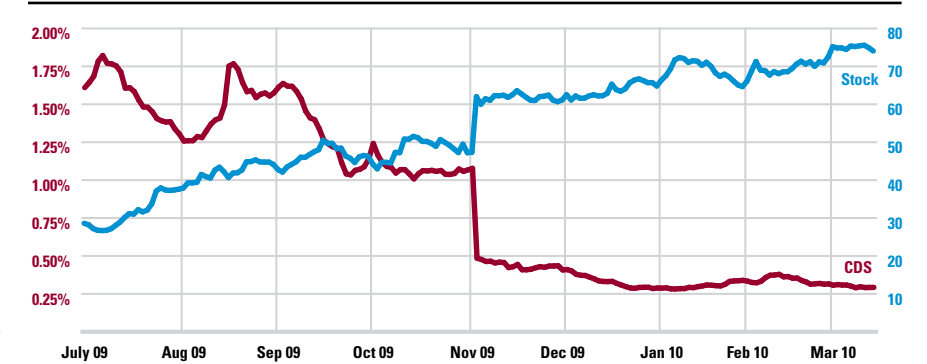
Several studies document that CDS prices provide a timely measure of underlying firm's default likelihood. To illustrate, Figure 4 plots stock market and CDS market reactions to the merger announcement between Stanley Works (NYSE: SWK) and Black & Decker (NYSE: BDK) on November 2<sup>nd</sup>, 2009. The merger was later

completed on March 12<sup>th</sup>, 2010. As indicated in Figure 4, the stock price of Black & Decker jumped from \$47.34 per share to \$62 per share following the announcement, implying a one-day return of 30.97%. Figure 4 also plots CDS spreads of Black & Decker for the five-year contract with modified restructuring clauses – the most popularly traded CDS contracts in the U.S. market.<sup>3</sup> On November 3<sup>rd</sup>, the spread of the five-year CDS contract dropped from 1.08% to 0.49%, indicating a return of -54.98%. In other words, investors in the CDS market believe that the default risk of Black & Decker decreased significantly after the merger announcement. To be more specific, on November 3<sup>rd</sup>, 2009, if a bondholder of Black & Decker was concerned about the default possibility of Black & Decker, he or she could pay an annual fee of 0.49% (as compared to 1.08% on November 2<sup>nd</sup>, 2009) per par value to a CDS seller, in return for protection from a credit event by Black & Decker. In addition, Figure 4 shows that CDS spread started to decrease gradually before the merger announcement, which suggests that the CDS market anticipated the merger before the actual announcement.

### Credit Default Swaps: Dear or Dangerous?

The recent credit crisis has brought intense debates over the impact of CDS. On the one hand, CDS facilitate more efficient risk sharing among lenders, which can improve a company's access to capital and credit terms. CDS prices also provide investors with forward-looking market signals of their clients' survival probabilities. On the other hand, CDS may create an "empty creditor problem", where debt holders are able to insure against default but still retain control rights.<sup>4</sup> Because CDS offer creditors protection against default, these "empty" creditors are less forgiving in debt renegotiations and more likely to force debtors into bankruptcy. Empty creditors also lack incentives to monitor managerial actions, which reduce debt governance. However, for this ongoing debate on CDS, the answer is far from obvious.

**Figure 4: CDS market reaction to merger announcement**



### References

- <sup>1</sup>ISDA (2012). [www.isdacdsmarketplace.com/](http://www.isdacdsmarketplace.com/).
- <sup>2</sup>Credit Derivatives Report (2006). British Bankers' Association. Available at [www.bba.org.uk/publications/entry/bba-credit-derivatives-report-2006/books-reports-subscriptions/](http://www.bba.org.uk/publications/entry/bba-credit-derivatives-report-2006/books-reports-subscriptions/)
- <sup>3</sup>Modified restructuring has become common practice in North America. It limits deliverable obligations to bonds with maturity of less than 30 months after a restructuring.
- <sup>4</sup>Hu, H., Black, B., 2008a. Equity and debt decoupling and empty voting II: importance and extensions. *University of Pennsylvania Law Review* 156, 625-739.
- Hu, H.T.C., Black, B., 2008b. Debt, equity and hybrid decoupling: Governance and systemic risk implications. *European Financial Management* 14 (4), 663-709.



## What's an Investor To Do?

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Chief Investment Officer, Portfolio Manager and Partner at Hardesty Capital Management

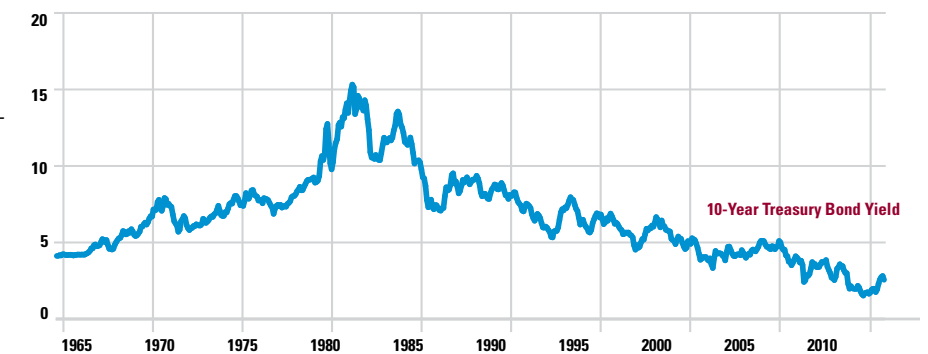
As we begin the New Year, Maryland investors find themselves in a bit of a quandary: where to invest in 2014. There do not appear to be any clear options. The consensus view on Wall Street is that interest rates will move higher. If correct, that would mean their more safe investments, bonds, are headed for another difficult year. Stocks are up significantly since the financial crisis and appear fully valued. Perhaps the year will not be kind to stocks either. Cash is yielding nothing and unless the Fed has a drastic change of heart, that is not expected to change. So, what's an investor to do in this environment?



*For Maryland residents, Maryland municipal bonds offer an excellent relative value. Yields on Maryland bonds for most of 2013 were actually higher than yields on the equivalent Treasury. Of course, the added bonus Maryland bonds provide to Maryland residents is they do not pay federal or state income tax on the interest.*

The bond market is probably not the answer as we are most likely headed for another difficult year. The Quantitative Easing program should end in 2014 and the Fed may begin to seriously contemplate increasing the Fed Funds rate. The mere threat of tapering the QE program in 2013 caused a violent reaction as the yield on the 10-year Treasury spiked from 2% in June to 3% in September. The 10-year Treasury began 2013 yielding 1.76%. An upward bias to yields of most maturities longer than 2 years persisted throughout 2013 and many pundits suggest 2014 will likely be no different.

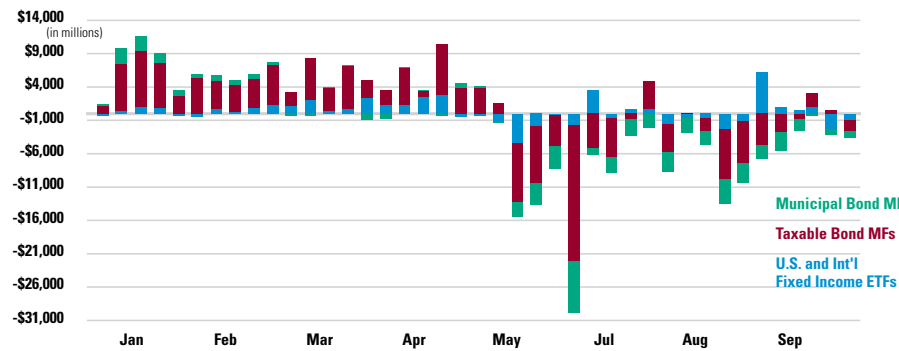
Figure 1: Yield on 10-year Treasury bonds, NSA (pct.)



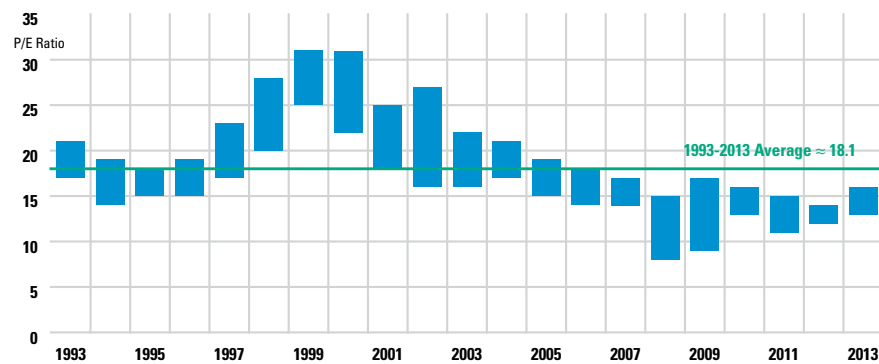
Investors are not used to losing money in their bond investments. When yields are moving lower, bond prices move higher and vice versa. As we can see from the chart of the 50-year history of the 10-year Treasury yield, bond investors have experienced a long and strong bull market since about 1982. But the bull market in bonds has to come to an end at some point, as yields cannot go to zero because investors require a return on their investment. Lending money to the government at 1.40% for 10 years, as was the case in July of 2012, is unattractive at best. In fact, not only were real rates of return (the yield minus the inflation rate) negative but the equity market, as measured by the S&P 500, provided a higher yield.

If the yield on the 10-year Treasury increases by 1% during 2014, that will work out to a drop in that bond's price of roughly 9%. If the yield on that same bond increases by 2% next year, the price will drop by 16%. Given the incredibly long run of this bull market in bonds, many have forgotten that money can be lost in this asset class. 1999 and 1994 were the last years when bonds experienced a negative return for investors. During 1994, the yield on the 10-year ranged between roughly 6% and 8%. During 1999, the yield ranged between 5% and 6.5%. Given today's lower nominal yield level, the price volatility will be higher because, all things being equal, the lower the yield and longer the maturity the more leveraged is the price of a bond to interest rate movements. For example, if one felt strongly that interest rates were going to move lower in a meaningful way, the best way to invest for that forecast would be to purchase a zero coupon bond with the longest maturity available.

**Figure 2: Estimated Weekly Bond Mutual Fund & ETF Inflows/Outflows, 2013**



**Figure 3: S&P P/E Valuation**



As the consensus forecast for 2014 is for higher yields, investors have already started to move. Bond mutual funds are witnessing what can only be described as massive withdrawals (see table). These withdrawals began in earnest when the Fed began openly discussing tapering the QE program. Selling bond mutual funds before individual bond holdings is a very good strategy. With an individual bond, investors typically receive a fixed coupon and maturity date. Bond mutual funds provide neither. These two elements of an individual bond provide some assurances to investors that bond funds cannot provide. A \$25,000 investment in an individual bond will provide the investor with two important outcomes: a fixed return until maturity (3% per year for example) and the face amount of the bonds at maturity (in this case \$25,000). Assuming no credit default, no matter what happens to yields between the time of purchase and maturity, investors will get their money back at maturity with a fixed annual rate of return along the way. In contrast, a \$25,000 investment in a bond fund can go up or down in value and yield on any given day. There are no assurances at all that investors will get their original investment back or what rate of return they might earn. In a bond bull market, bond mutual funds are perfectly good investments. We will see how they hold up in a rising interest rate environment.

For Maryland residents, Maryland municipal bonds offer an excellent relative value. Yields on Maryland bonds for most of 2013 were actually higher than yields on the equivalent Treasury. Of course, the added bonus Maryland bonds provide to Maryland residents is they do not pay federal or state income tax on the interest. Not only was the nominal yield higher but when one considers the after tax benefits, municipal bonds were far more attractive. That situation remains in place today. Due to the relatively high tax rate in Maryland, demand for Maryland bonds is typically very high making them hard to find. Other states that are triple-A-rated may offer equal or better after-tax yields and there are more bonds from which to choose. Municipal bonds, however, are subject to the same issues as other bonds, so investors need to analyze these securities carefully.

Although bonds could be the least attractive asset class in 2014, cash is not far behind. At least with cash reserves, there is no real risk to losing money. Banks and investment firms that manage most of the money market investments are very well positioned to keep

**Table 1: S&P 500 (Operating Basis)**

Estimate Tables - EPS

	FY '04	FY '05	FY '06	FY '07	FY '08	FY '09	FY '10	FY '11	FY '12	FY '13	FY '14	FY '15
	Dec '04	Dec '05	Dec '06	Dec '07	Dec '08	Dec '09	Dec '10	Dec '11	Dec '12	Dec '13E	Dec '14E	Dec '15E
Fiscal Year	67.68	74.94	87.38	89.00	67.80	62.64	83.78	96.90	101.55	108.76	117.78	130.91
P/E (x)	17.9	16.7	16.2	16.5	13.3	17.8	15.0	13.0	14.0	16.3	15.0	13.5
CY Ending	Dec '04	Dec '05	Dec '06	Dec '07	Dec '08	Dec '09	Dec '10	Dec '11	Dec '12	Dec '13E	Dec '14E	Dec '15E
Cal. Year	67.68	74.94	87.38	89.00	67.80	62.64	83.78	96.90	101.55	108.76	117.78	130.91
P/E (x)	17.9	16.7	16.2	16.5	13.3	17.8	15.0	13.0	14.0	16.3	15.0	13.5

money market funds safe. We remember the terrible experience the financial crisis created in the money market industry. Several local firms had to inject hundreds of millions of dollars into their money market funds to keep their prices at \$1. In a few well-known specific examples, the \$1 price was broken and investors lost money in their money market investments. New regulations make a repeat of this situation highly unlikely. Money market funds, though, are not paying investors anything. This is the equivalent of putting your money under the mattress. With no return, inflation eats away at the value of the investment.

As we begin to witness what could be the end of a huge bull market in bonds, stocks are facing issues of their own. Outside of the obvious (politics, disappointing economic growth, global debt, etc.), valuation could be the most difficult obstacle of all. The valuation of the overall market is at a critical threshold. As you can see from the chart, the price-earnings (P/E) multiple on forward operating earnings of the S&P 500 is at the high end of the range experienced since the financial crisis. Since 1922, the market has averaged a P/E multiple of approximately 16 times forward earnings. For long periods of time, however, the market tends to settle into a P/E range with which it is comfortable. Typically, some kind of significant event (good or bad) will shift the multiple to a new range. By way of example, we can look at two distinct periods of time to illustrate this point. In the 1970's, inflation became a significant problem. Because of this, the market took the range for the P/E multiple from average levels all the way down to high single digits. For a decade, the market went nowhere as the P/E multiple contracted to this low level. In the 1990's, the US economy experienced the longest uninterrupted economic expansion since World War II. For that and other reasons, investors expanded the P/E multiple well beyond anything normal to greater than 30 times earnings.

The financial crisis of 2008 and 2009 brought with it a significant and dramatic resetting of the P/E multiple. Earnings for the S&P 500 dropped by 30% from a peak of \$89 in 2007 to a trough of \$62.64 in 2009 (see table). The market, however, dropped over 50% from peak to trough, effectively lowering the P/E multiple from 16.5 before the crisis to 13.3 as the crisis abated. Earnings recovered relatively quickly. By 2011, earnings of the S&P 500 had already exceeded the 2007 peak. The market, however, was not to reach the 2007 peak until the spring of 2013. Investors have not been willing to pay higher P/E multiples for current earnings streams because of all of the global financial issues that the crisis created. Currently, the P/E multiple is at the high end of this new range established after the crisis.

So, the market is now at a crossroads: either the P/E multiple will remain within the post-crisis range or it will begin to reset to a higher range. Should the market remain within the current range, the best investors can hope for is returns that roughly equate to the level of earnings growth. According to FactSet Research, the consensus view for 2014 and 2015 earnings growth for the S&P500 is 9% and 10%, respectively. Given that we are currently trading at the high end of the P/E multiple range, it is very likely that if earnings expectations begin to come down investors would experience a P/E multiple contraction. It would then follow that stock returns could be in for a below-average year. If, however, investors reset the P/E multiple range higher, closer to its "normal" range in the high teens, we could see significant upside from current levels. For this to occur, we would need a much stronger economy that would drive earnings higher than the consensus expectations. Given the current economic backdrop, it seems unlikely that we will be breaking out of this 2% real GDP level for a while.

The market, therefore, will most likely continue to pay below-average P/E multiples, given all of the pressures on the stock market. In this environment, stocks do not appear to have much near- to intermediate-term upside. We are expecting below-average returns in the market in 2014. In this type of environment, dividend paying stocks tend to perform better than non-dividend paying stocks. Moreover, stocks with higher yields would be more attractive, as a large percentage of the expected return in a low-return environment would come from the dividend. For example, if the expectation is for a five to eight percent return, stocks that yield four percent will provide a very large portion of the expected return. There are some Maryland-based companies worth taking a look at. Bethesda-based Lockheed Martin (LMT) yields 4%. Rockville-based Washington Real Estate Investment Trust (WRE) yields 4.5%. Columbia-based Corporate Office Properties (OFC) yields 4.5%.

US equities appear to be the best investment alternative. Even though we are only anticipating single digit returns for 2014, that should prove to be better than any other asset class. International equities may offer the best relative value. Emerging markets are depressed and Europe is just coming out of a long, deep recession. Even China has been affected by the global economic slowdown as its growth rate has slowed from around 11% to 7%. Keeping in mind that international markets tend to be more volatile than the US market, international stocks may offer better returns in 2014 as countries and regions begin their recovery.

For 2014, there is a very good chance we will experience another year of rising interest rates. Individual bonds are, therefore, preferred over mutual funds. In addition, investors will generally want bonds with higher coupons and shorter maturities to avoid the large potential losses possible holding lower coupon, longer maturity bonds. In 2014, limiting the damage in bonds might be the best strategy. As has been the case for a few years, cash returns should be non-existent for most of 2014.

So what is an investor to do in 2014? Focus on dividend paying stocks with low valuations, lower your expectations, beware of bond funds and cash and have an eye toward international markets.

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## Baltimore Poised to Profit in New-Panamax Economy

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Ocean ports are the gateway to the global economy. In 2012, \$2.3 trillion in imports and \$1.56 trillion in exports flowed through U.S. ports which resulted in 13 million jobs (Asbury, 2013). Last year Baltimore's port moved up in the national rankings to 9<sup>th</sup> in terms of dollars of commerce. According to a Maryland Port Commission report, the dollars of freight processed at the Port of Baltimore showed an overall upward trend for the past ten years even with the recessionary effects of 2009 and 2010 (Maryland Port Administration, 2012).

The Port of Baltimore includes both private and public terminals. Twenty-eight private terminals process 74% of the freight moving through the port. These private terminals process primarily bulk cargo including; coal, gypsum, sugar, salt, sand, gravel, petroleum products and iron ore (Maryland Port Administration, 2012). Six public terminals are operated by the Maryland Port Administration. The public terminals process automobiles, Roll-On/Roll-Off, steel, containerized freight, and forest products (Figure 2). Containerized freight represents 66% of the cargo processed by the Maryland Port Administration.

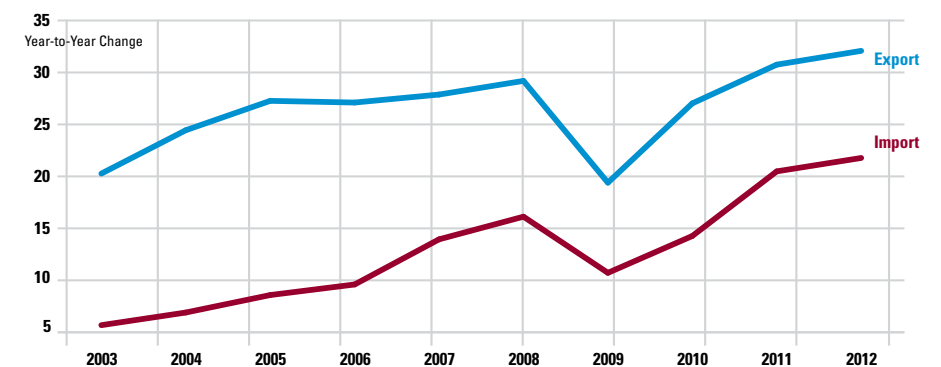
While Baltimore has a significant port operation, there is the potential to increase cargo volumes over the next several years. Ships that are too large to transit the Panama Canal are often unloaded at west coast ports including Los Angeles, Long Beach, Oakland, and Seattle. Currently, east coast bound containers can be unloaded on the west coast and then moved eastward using the "land bridge" facilitated by trucks and rail service. Using rail service to transfer a container from the west coast to Baltimore can add \$1000 in shipping costs compared to water delivery direct to Baltimore.

The larger west coast ports have long dominated the fight for Asian containerized cargo. However, the bottlenecks that slow down container processing at those busy ports, coupled with additional rail costs and the expansion of the Panama Canal, may tip the scale and make east coast ports like Baltimore viable alternatives.

### Panama Canal Expansion

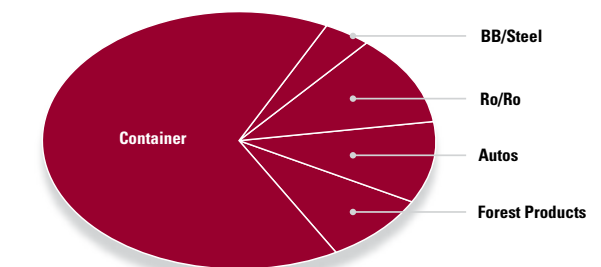
Since opening in 1914, the Panama Canal has provided a vital trade route from Asia to the gulf and east coast ports of the U.S. By transiting the 48 mile long canal, ships from Asia avoid the additional 12,000-mile trip around the treacherous southern tip of South America (Zelasney, 2010).

**Figure 1: Dollars of Baltimore Port Commerce**



Maryland Port Administration, 2012 Foreign Commerce Statistical Report

**Figure 2: Types of Cargo Processed**



Source: [http://www.mpa.maryland.gov/\\_media/client/cargo/cargo\\_statistics/cargo1.pdf](http://www.mpa.maryland.gov/_media/client/cargo/cargo_statistics/cargo1.pdf)

The Panama Canal uses three sets of locks to raise and lower ships in order to crossover Central America, thus connecting the Atlantic and Pacific Oceans. The size of the ships that can traverse the canal is limited by the capacity of the locks. "Panamax" is the term used to describe the largest ships that can fit through the original locks (1,050 ft. long, 110 ft. wide, and a draft less than 41.2 ft). The largest Panamax container ships carry 5,000 twenty-foot long containers. The standard measure of ship's capacity is based on how many twenty-foot long containers it will hold, which is known as twenty-foot equivalent units (TEU).

Ships are much larger since the opening of the canal nearly 100 years ago. Today's largest container ships, Maersk's new Triple-E Series, are over 1,300 ft. long and can carry more than 18,000 TEU. Accommodat-

**Table 1: World's Largest Container Shipping Lines**

Rank	Operator	TEU	Market Share
1	APM-Maersk	2,630,861	14.9%
2	Mediterranean Shipping Company	2,382,755	13.5%
3	CMA-CGM Group	1,507,019	8.5%
4	Evergreen Line	813,015	4.6%
5	Cosco Container Line	790,939	4.5%
6	Hapag Lloyd	733,939	4.1%

*Retrieved from [www.alphaliner.com/top100/](http://www.alphaliner.com/top100/)*

ing larger vessels translates into greater efficiency and lower transportation costs between Asia and the U.S. gulf and east coast ports.

When the \$5.25 billion canal expansion project is completed in 2015, the canal will double its throughput capacity and be able to accommodate ships over 12,000 TEU. The “New Panamax” constraint will be ships 1,200 ft. long, 160.7 ft. wide with a draft of 49.9 ft. Without the expansion, Panamanian officials estimate that the canal will soon reach its maximum sustainable capacity. With completion of the expansion, officials predict that canal volumes will increase 3% per year through 2025.

### Baltimore Prepares for New-Panamax Ships

Currently, only three ports on the east coast will be ready to handle the larger New-Panamax ships by 2015. Baltimore and Norfolk have completed infrastructure improvements including deeper channels and larger cranes (Conway, 2012). Dredging and crane installations at the Port of Miami are expected to be completed by the time the expanded canal opens in 2015.

The Port of Baltimore became “big ship ready” with the recent completion of a \$100 million upgrade. Modifications to the container processing facility at the Seagirt Marine Terminal created a 50-foot deep berth, installed four long-reaching cranes that can stretch across the wider ships, and increased cargo processing capabilities.

Other competing east coast ports will not be “big ship ready” by 2015. Most notably, the Port of New York – New Jersey, which is the third largest container port in the country, will not be welcoming the New-Panamax ships for several years. The Bayonne Bridge stands in the way of ships reaching the port’s four largest container terminals. A project is now underway to raise the bridge deck from 151 ft. to 215 ft. above the water, with completion of the project targeted for 2017.

The Port of Baltimore is currently called on by three major container shipping companies. They include the Mediterranean Shipping Company, the second-largest container shipping line in the world; Evergreen Marine Corp., the fourth-largest container shipping line; and Hapag-Lloyd, the sixth-largest (Table 1). All three of these companies currently have New-Panamax sized ships in their fleet.

A newly formed shipping alliance, called P3, may soon be calling on Baltimore as well. P3 is a coalition of the three largest container shipping lines in the world (Maersk, Mediterranean and CMA-CGM). An agreement between the Port of Baltimore and P3 would have five of the top six shipping companies calling on Baltimore.

Logistics analysts suggest that the creation of P3 could result in efficiencies that force other shippers to transform their fleets to the lower cost mega-ships (Tirschwell, 2013). For Baltimore that could mean even more ships on the water that will require the New-Panamax infrastructure that is already in place here.

### The Double-edged Sword of Competition

When larger ships begin calling on Baltimore, area businesses could see savings in shipping costs. However, without being able to call on the major port of New York and New Jersey, will the shipping companies even send the mega-ships to the east coast? The combined strength of Norfolk and Baltimore being ready to accept bigger ships may or may not be enough to attract them. Norfolk could become our partner in success rather than our long standing rival.

Angela Czajkowski, Manager of Global Supply Chain at Samuel Shapiro & Company, adds that it remains to be seen whether the carriers will recognize the value in adding these mega-ships to the east coast or whether Norfolk and Baltimore will be enough of a draw on their own to get the larger ships calling on the east coast.

“One of our goals is to attract a first port in service,” notes Joseph Greco, Deputy Director of Marketing for the Maryland Port Administration. Being the first port in service means that ships would come to Baltimore before calling on any other U.S. port. That would position Baltimore to be a gateway for a large volume of cargo looking to move quickly inland. Then with a lighter load, the ships would not require a 50-foot deep channel when calling on subsequent east coast ports.

### Stimulating Growth in Exports

Saving costs in water transportation goes both ways. U.S. exporters as well as importers can see great benefits. Of the \$58.85 billion shipped from the Port of Baltimore in 2012, only \$11.72 billion was manufactured here. A recent Brookings Institute report ranks Baltimore 32<sup>nd</sup> of 100 U.S. metro areas based on the value of exports (McDearman, Donahue, & Marchio, 2013).

Regional companies like Allied International Corp. and Barcelona Nut Company are just dipping their toes in the export market water but decreased shipping costs could accelerate use of that strategy (Hopkins, 2013). Foreign markets offer a world of opportunity to a manufacturer with access to low cost shipping.

### Intermodal Cargo Movement

When shipping containers are received into a port, they need to be moved to their final destination using truck or rail. Intermodal facilities transfer the cargo from one mode of transportation to another. Intermodal facilities are designed to efficiently move cargo from ships to trucks or ships to trains. When it comes to shipping large quantities over long distances, rail is substantially cheaper. Rail cars can now carry two containers end-to-end and stacked two high – called double-stack. From an efficiency standpoint, a train of the same length can now carry twice as many containers using double-stacking. Unfortunately, rail cars leaving the Seagirt Marine Terminal cannot be double-stacked due to the limited height of the Howard Street Tunnel.

A proposed expansion of the CSX rail yard at Mount Clare in southwest Baltimore would result in nearly 300 trucks per day shuttling containers from Seagirt Marine Terminal to the Mount Clare yard. Double-stacking the containers at the Mount Clare rail yard would allow trains to avoid the Howard Street Tunnel. However, that could create significant congestion and traffic in the surrounding neighborhood of Morrell Park. On the positive side, the intermodal facility would create



jobs and stimulate the flow of cargo into Baltimore that could be efficiently shipped via rail throughout the east and midwest. The \$90 million project is on hold while CSX officials resolve differences with area residents and city officials.

### Warehousing and Distribution

When cargo enters the port, it is often stored locally and then redistributed which requires trucks and warehouses. Rukert Terminal Corporation is a bulk cargo handler with outdoor storage and one million square feet of inside storage. “The far east is a growing market and we hope to gain additional business with the canal expansion,” states Rukert Terminals Vice President, Andrew Nixon. Similar to Seagirt, Rukert also has a 50-foot depth berth to unload bulk and general cargo (cargo that is not in shipping containers) from New Panamax ships.

Many markets (i.e., Washington DC, Pittsburgh, Philadelphia, some Midwest cities) can be served by truck and can be reached within 6 – 8 hours driving from the port. Expanded cargo operations coupled with the recently announced 1 million square-foot Amazon distribution center being built in Baltimore could put a squeeze on the supply of truck transportation resources. “The trucking industry will need to be increased, but with new regulations and an aging workforce, this could be tough,” notes Nixon.

### A Driving Force of Regional Economic Growth

In the era of global supply chains, the economy of the Baltimore Metropolitan Area is linked to the global economy via the Port of Baltimore. The port expansion and further investments are expected to produce the following benefits: (1) decreasing material costs for manufacturers located in this region; (2) reducing transit times for goods routing through the port due to improved operational efficiency; (3) providing local manufacturers greater access to foreign markets via exports; (4) and a well-positioned port will attract more shipping lines to make stops, which would attract more businesses to be located in the proximity of the port. This virtuous cycle will add more jobs directly in the sectors along the Port of Baltimore supply chain and indirectly in the related service sectors.

### We Built It – Will They Come?

“It’s simple economics,” explains Stu Tobin, co-owner of Thunderbolt Global Logistics, “shippers select a port which is cheapest and easiest to move their goods through.” With few east coast ports ready to serve the New-Panamax ships, the Port of Baltimore could secure the coveted “First Mover Advantage”.

Marketing research shows that a significant advantage is gained by the first occupant of a market. McDonalds, Starbucks, and Walmart were quick to establish locations in many markets which shut out their competition, built customer loyalty, or forced the later competitors to

take less prime locations. First Mover Advantage often translates into larger market shares and greater profits which are both slow to erode as competition arrives.

When the Panama Canal expansion is completed in 2015, the Port of Baltimore will be ready to receive the larger New-Panamax ships. However, capitalizing on that position could be difficult. Larger ships will call on ports where there is demand for imports and exports. If Baltimore can build that traffic before other east coast ports are ready, the economic benefits can be secured.

Which came first, the port or the demand? That question may actually be easier to answer than the old “chicken and egg” question. We can be 100% confident that if the Maryland Port Administration had not stepped up with an extensive investment in infrastructure to be New Panamax ready, none of the larger ships would call on Baltimore - ever. However, only time will tell if the increased cargo traffic will come, and more importantly if it will stay.

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## Differences in US States' Unemployment over the Last 36 Years

David J. Merkel, CFA

Principal of the equity and bond asset management firm Aleph Investments, LLC

Unemployment is often treated as a national issue, but unemployment is often driven by regional or industry sector issues. This article pries apart the causes of unemployment since 1976, state-by-state.

Though there is a national component to every US state's unemployment level, it is notable that local factors often dominate national trends. Here are some examples:

- North Dakota has an energy boom amid increasing unemployment following the housing bust in 2008.
- Texas had increasing unemployment in the mid-1980s as energy prices fell dramatically, in the midst of an economic boom.
- Coastal economies benefited during the housing boom (pre-2008), and were punished in the bust – this is parallel to the US economy as a whole, but more severe.
- The Rust Belt prospered slowly in the early 1980s as the rest of the nation began to prosper rapidly.

The rest of this article will explain the causes of unemployment over the last 36 years, related to how connected a state is to the rest of the US economy, and how well the industry mix in a given state is doing.

### Data & Method

Unemployment data for each state and the US as a whole was obtained from the St. Louis Federal Reserve's Federal Reserve Economic Data (FRED) database. The data covers the period from 1976 to August 2013. Ordinary least squares regression was used to calculate how sensitive unemployment rates were in each state relative to overall US unemployment rates. The equation looks like this:

$$U_{state,t} = \alpha_{state} + \beta_{state}U_{US,t} + \epsilon_{state,t}$$

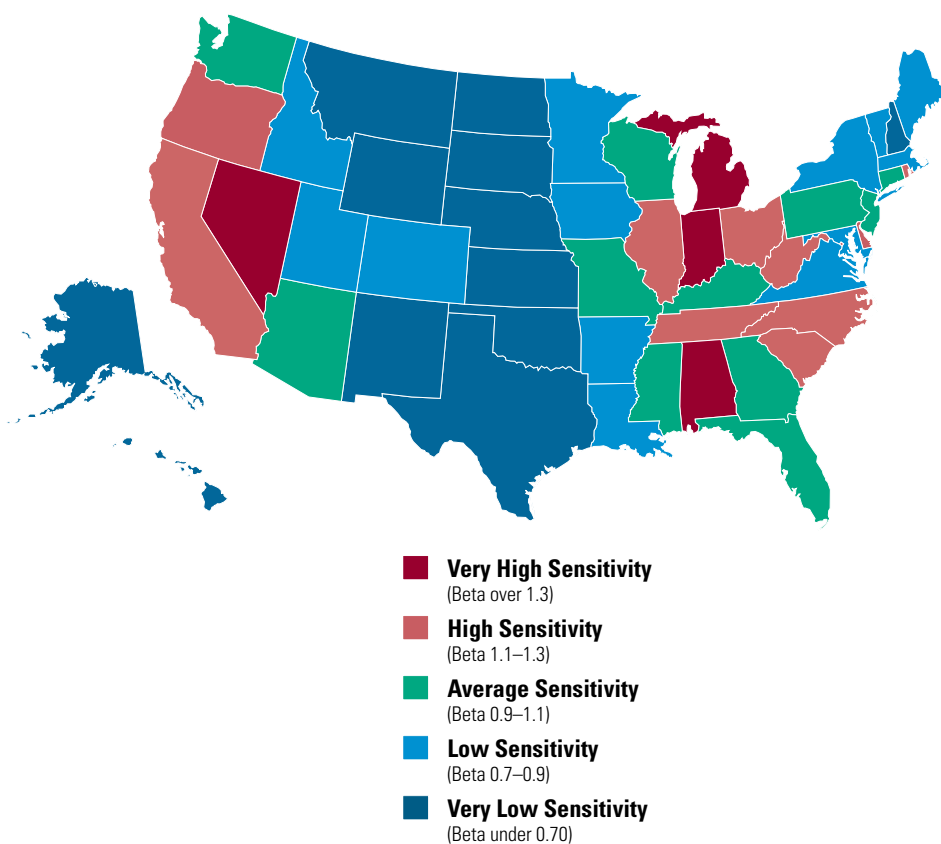
The intuition behind this equation is that the unemployment rate of a given state can be explained by the amount that it varies in proportion to the unemployment rate for the US as a whole (the beta term), a fixed difference (the alpha term), and the error term. Here were the results by State: (Figure 1).

Figure 1: Individual State Sensitivity to National Unemployment

State	Alpha	Beta	Alpha SD	Beta SD	R-squared	Alpha T-stat	Beta T-Stat	Correlation Group
Michigan	(2.50)	1.67	0.25	0.04	81.46%	(9.98)	17.82	3
Nevada	(2.44)	1.42	0.22	0.03	80.77%	(11.22)	12.80	2
Indiana	(2.47)	1.35	0.20	0.03	81.90%	(12.42)	11.63	3
Alabama	(1.80)	1.32	0.23	0.03	75.95%	(7.72)	9.06	6
West Virginia	0.28	1.24	0.48	0.07	40.15%	0.59*	3.42	6
Ohio	(1.10)	1.23	0.17	0.03	83.93%	(6.49)	9.21	3
Rhode Island	(1.03)	1.17	0.26	0.04	65.95%	(3.88)	4.33	5
Illinois	(0.51)	1.17	0.14	0.02	87.48%	(3.64)	8.08	3
Tennessee	(0.86)	1.17	0.15	0.02	85.25%	(5.65)	7.29	3
North Carolina	(1.44)	1.14	0.19	0.03	77.35%	(7.40)	4.85	2
Oregon	(0.00)	1.13	0.17	0.03	80.95%	(0.03)*	5.11	3
South Carolina	(0.72)	1.13	0.18	0.03	79.11%	(3.94)	4.69	2
California	0.20	1.12	0.18	0.03	79.43%	1.14*	4.61	5
Washington	0.07	1.09	0.15	0.02	83.84%	0.49*	3.98	6
Florida	(0.53)	1.07	0.18	0.03	78.09%	(2.93)	2.80	5
Pennsylvania	(0.33)	1.07	0.14	0.02	85.43%	(2.40)	3.52	6
Wisconsin	(1.30)	1.07	0.17	0.03	78.88%	(7.49)	2.57	3
Arizona	(0.50)	1.06	0.18	0.03	77.62%	(2.81)	2.28	2
Kentucky	0.20	1.05	0.20	0.03	72.97%	1.00*	1.56*	3
New Jersey	(0.10)	1.01	0.21	0.03	68.87%	(0.47)*	0.32*	5
Mississippi	1.57	0.99	0.27	0.04	57.37%	5.86	(0.29)*	3
Missouri	(0.28)	0.97	0.12	0.02	86.47%	(2.35)	(1.54)*	4
Georgia	(0.22)	0.96	0.16	0.02	78.07%	(1.37)*	(1.81)*	2
Delaware	(0.83)	0.95	0.20	0.03	67.93%	(4.05)	(1.73)*	1
Connecticut	(0.41)	0.91	0.23	0.03	61.44%	(1.80)*	(2.79)	5
Utah	(0.60)	0.88	0.15	0.02	76.69%	(3.91)	(5.13)	3
Idaho	0.36	0.88	0.20	0.03	65.13%	1.77*	(4.09)	6
Colorado	(0.01)	0.87	0.17	0.03	71.86%	(0.04)*	(5.06)	4
Maine	0.31	0.87	0.19	0.03	66.45%	1.61*	(4.49)	1
Massachusetts	0.17	0.86	0.24	0.04	55.28%	0.72*	(3.94)	5
Minnesota	(0.29)	0.82	0.12	0.02	82.17%	(2.43)	(9.78)	3
District of Columbia	2.45	0.81	0.18	0.03	66.11%	13.40	(6.86)	1
New York	1.48	0.81	0.18	0.03	67.90%	8.45	(7.28)	1
Arkansas	1.46	0.79	0.18	0.03	66.27%	8.23	(7.87)	6
Virginia	(0.30)	0.78	0.08	0.01	90.79%	(3.84)	(18.90)	1
Maryland	0.31	0.78	0.12	0.02	81.92%	2.66	(12.83)	1
Iowa	(0.17)	0.77	0.19	0.03	61.15%	(0.86)*	(7.98)	3
Vermont	0.06	0.74	0.19	0.03	60.28%	0.34*	(9.04)	1
Louisiana	2.45	0.73	0.38	0.06	26.41%	6.40	(4.69)	6
New Hampshire	0.12	0.68	0.20	0.03	52.48%	0.60*	(10.73)	1
New Mexico	2.67	0.64	0.21	0.03	48.44%	12.78	(11.36)	6
Montana	1.84	0.61	0.21	0.03	45.25%	8.65	(12.16)	6
Oklahoma	1.49	0.59	0.22	0.03	41.23%	6.70	(12.25)	3
Wyoming	1.48	0.56	0.29	0.04	26.35%	5.08	(10.17)	3
Alaska	4.52	0.53	0.28	0.04	25.87%	16.05	(11.13)	6
Hawaii	1.46	0.52	0.27	0.04	27.58%	5.52	(12.07)	1
Texas	2.89	0.52	0.19	0.03	41.71%	15.10	(16.90)	4
Kansas	1.68	0.48	0.13	0.02	55.86%	12.53	(25.79)	4
Nebraska	0.61	0.46	0.13	0.02	54.10%	4.62	(27.48)	3
South Dakota	0.95	0.45	0.11	0.02	63.95%	8.93	(34.82)	3
North Dakota	1.49	0.39	0.18	0.03	31.54%	8.14	(22.19)	6

\* Indicates not statistically significant from zero for alpha, and one for beta at a 5% level.

**Figure 2: Sensitivity of State Unemployment Rates as a Function of US Average Unemployment Rates**



The difference in sensitivity to the US unemployment rate is considerable by state. If the unemployment rate rose 1% in the US, Michigan's unemployment rate would tend to rise 1.67%, while the North Dakota's unemployment rate would only tend to rise 0.39%.

The states were then divided into five beta groups, symmetric around 1.0, with a width of 0.2 for the three middle groups. On a map, it looks like this: (Figure 2).

The highest sensitivity states to US unemployment rates are largely found in states with high exposure to the Auto and Gambling industries. When times are bad, people shepherd their money more carefully. They cut back on buying new cars, and gambling. High sensitivity states tend to have a lot of gearing to industrial activity, which tends to be more boom-bust than other economic activity. Average sensitivity states tend to have balanced economies, reflecting a mix of business similar to that of the US as a whole. Low-sensitivity states tend to have a large amount agriculture, resource

extraction, financial sector concentration, or Federal government work.

Note that the recent boom and bust would argue that financials are more cyclical than previously believed, but that was during a small period during the study period. The same applies in reverse to agriculture and resource extraction, which benefited from increased demand for raw materials from the developing world, making these industries appear less cyclical than previously believed.

Betas reflect the overall sensitivity to moves in US unemployment rates from 1976 to 2013, but the correlation of the residuals of the states highlight hidden factors that were influential in unemployment rate movements. Typically, the factors stemmed from the economic sectors prominent in each group of states, as their profitability waxed and waned.

Starting with ten groups of states randomly divided, the groups were iteratively adjusted, combining groups that were highly correlated with each other until there were no more improvements possible, ending with six groups. Here is the average correlation matrix:

**Figure 3: Average Correlation Matrix**

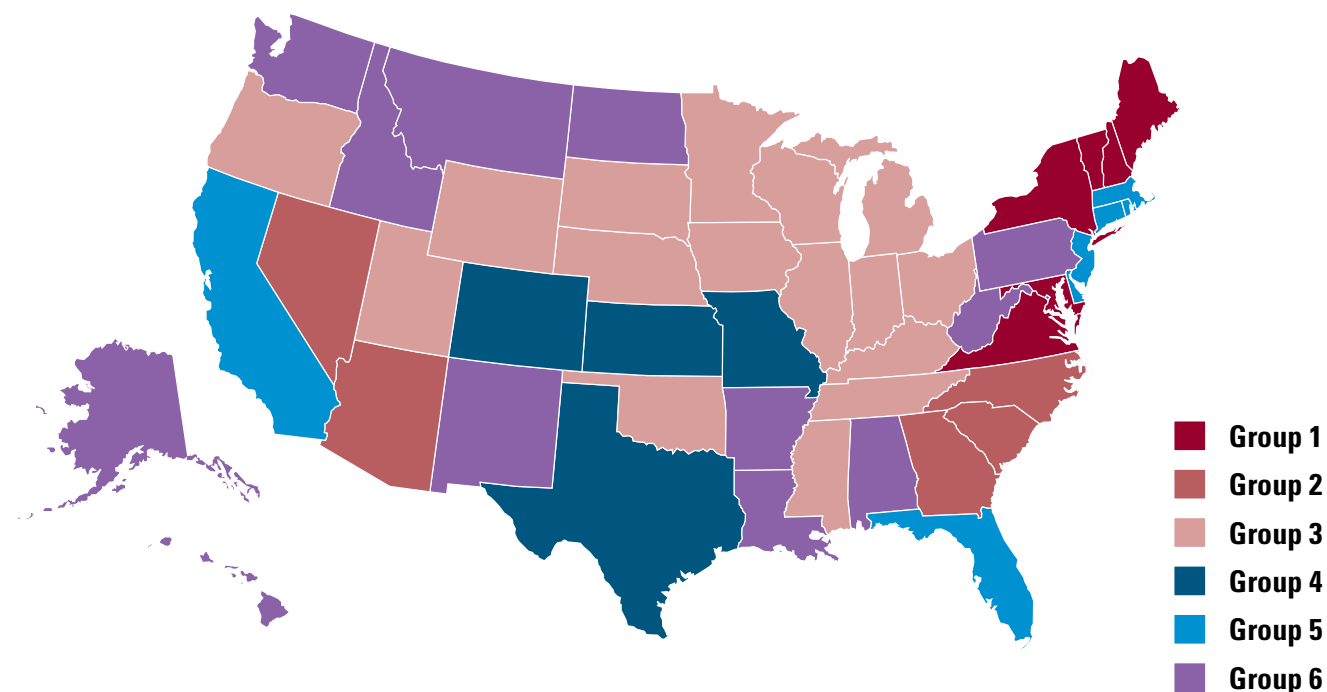
Avg Corr	1	2	3	4	5	6
Group 1	40%					
Group 2	-4%	43%				
Group 3	-34%	-15%	43%			
Group 4	-37%	12%	24%	36%		
Group 5	41%	26%	-51%	-22%	61%	
Group 6	-14%	-43%	30%	-5%	-46%	50%

And here is the map identifying the groups: (See Figure 4).

Groups 1, 2 and 5 correlate strongly internally and moderately among each other. The same is true for 3, 4 and 6. The rest of the group correlations are weak if not negative.

Groups 3, 4, and 6 cover the center of the US. They have proportionately more economic sectors in agriculture, energy, consumer cyclicals, and basic materials. Much of the area is rural. Groups 1, 2 and 5 cover the coasts of the US and are more heavily urbanized. Their economic sectors have a greater proportion of finance, healthcare, and technology. Post-2007 unemployment was relatively worse in groups 1, 2 and 5 versus the other groups, because they were part of the hot housing markets, and lost more construction jobs as a result.

**Figure 4: Unemployment Residual Correlation Groups in the United States**



Here is a graph of the average unemployment residuals for the six correlation groups over the 36-year study period: (See Figure 5)

**Description of the Correlation Groups**

Group 1 – composed of Maryland, other Mid-Atlantic States, New England and Hawaii, this — had high unemployment relative to the rest of the US in 1976 and 1997, and low unemployment in 1987. It has high relative exposure to the consumer noncyclicals and financials sectors, and low relative exposure to energy and technology. The high weight in financials helps explain the employment gains from 1976 to 1987, as financial companies benefited from falling interest rates, rising equity markets, and expanding product offerings.

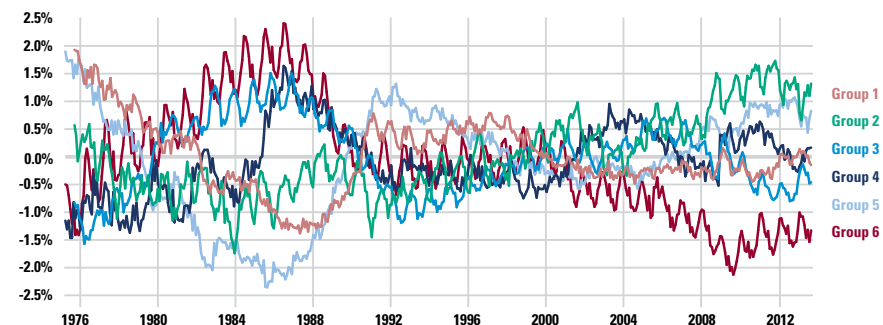
Group 2 – composed of the Carolinas, Georgia, Arizona and Nevada — had high unemployment relative to the rest of the US in 2011, and low unemployment in 1984 and 1991. It has a lot of relative exposure to the consumer noncyclicals and utilities sectors, and low relative exposure to energy, financials, and technol-

ogy. During the mid-1980s to early 1990s, this group benefited from the growth in demand for noncyclical goods from the Baby Boomers. After the popping of the financial bubble in 2008, weakness in construction and gambling in Arizona and Nevada led to higher levels of unemployment.

Group 3 – composed of the Midwest, parts of the South, Utah and Oregon — had high unemployment relative to the rest of the US in 1976 and 1992, and low unemployment in 1986. It has high relative exposure to the consumer cyclicals and noncyclicals and basic materials sectors, and low relative exposure to energy and technology. The US economy as a whole peaked and troughed along with group 3, which makes sense given their relatively large exposure to cyclical sectors.

Group 4 – composed of Texas, Missouri, Kansas and Colorado — had high unemployment relative to the rest of the rest of the US in 1987 and 2003, and low unemployment in 1976. It has a lot of relative exposure to the energy and utilities sectors, and low relative exposure to financials and technology. Performance

**Figure 5: Average Residual Unemployment for the State Correlation Groups**



of the energy sector is the critical factor here – it was relatively strong in the mid-to late 1970s, but weak after oil prices bottomed out in the mid-1980s and late 1990s.

Group 5 – composed of the densely populated coastal states of California, Florida, New Jersey, Massachusetts, Connecticut and Rhode Island — had high unemployment relative to the rest of the rest of the US in 1976, 1992 and 2012, and low unemployment in 1986. It has a lot of relative exposure to the healthcare and technology sectors, and low relative exposure to energy and consumer noncyclicals. In the early 1990s, the aerospace industry in California went bust while the commercial property markets were at the deepest point of their slump. Most of the rest of the unemployment cyclical nature of the industries in this group – an amplified version of the US economy.

Group 6 looks like a bunch of leftovers, but it is not. Composed of states in the Northwest and Alaska, New Mexico, Louisiana, Arkansas and Alabama, West Virginia and Pennsylvania, this group had high unemployment relative to the rest of the rest of the US in 1987, and low unemployment in 1976 and 2009. It has a lot of relative exposure to the agriculture and basic materials sectors, and low relative exposure to financials. The stagflation of the mid-1970s benefited

agriculture and basic materials, as did growth in demand from emerging markets in 2009. Those factors were absent in 1987, as financial firms were booming.

Maryland’s unemployment rates have held down well being next to Washington, DC. The growth in the US government during the last 10 years has supported employment in Maryland. The grand question to ponder is what would ever happen to Maryland, Washington, DC and Virginia if significant cuts were made to Federal payrolls?

### Conclusion and Recommendations to Policymakers

**There are two main conclusions:**

- 1) State level unemployment is a result of sensitivity to US unemployment levels and the mix of local industries. Policymakers should know how sensitive their state is to the national economy, and what industries are doing well or poorly before taking credit for low unemployment rates. More often than not, the employment rates are low or high due to factors beyond the control of policymakers.
- 2) In general, greater employment stability exists when that industry mix is more diversified. This is something policymakers can limitedly affect. Most states have efforts to attract businesses to their states. If you want unemployment levels to be more stable, aim your efforts at attracting businesses that diversify your existing mix.

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The Towson University Index (TUI) was first created as a way to measure performance of publicly traded companies that have a history of hiring Towson University students, are thought to be possible hirers of Towson students, or have some other connection to the University or the state of Maryland. The index is comprised of only a sample of companies that might fit the description and is not meant to be all-encompassing. The original index was comprised of 30 Maryland based companies and 10 companies based elsewhere.

This year, the modified list is composed of 50 publicly traded companies with 33 Maryland and 17 non-Maryland companies. We used a value-weighted approach to create the index; hence the larger the company's market capitalization the greater the company's representation in the index. In addition, Maryland based companies were given a proportionately larger weighting in the index than their non-Maryland counterparts.

Figure 1 illustrates the performance of the Towson University Index relative to the S&P 500, a parallel comparison of two weighted indices. The graph tracks and compares the total performances of the two indices over a 6-year period between July 2007 and August 2013. Since 2007, TUI outperformed the S&P 500 by 47.6%. The TU Index is comprised of many small and mid cap stocks which have collectively outpaced the S&P 500 in 2012 and 2013. The recent acceleration of outperformance is also attributable to changes in the number of TUI constituents, the expansion of the TUI, as well as the change in time period tracked.

The four most represented sectors in the TUI are Financials at 53.7%, Consumer Staples at 20.5%, Industrials at 15.94%, and Consumer Discretionary at 5.7%. The TUI's superior returns as of late are largely due to its

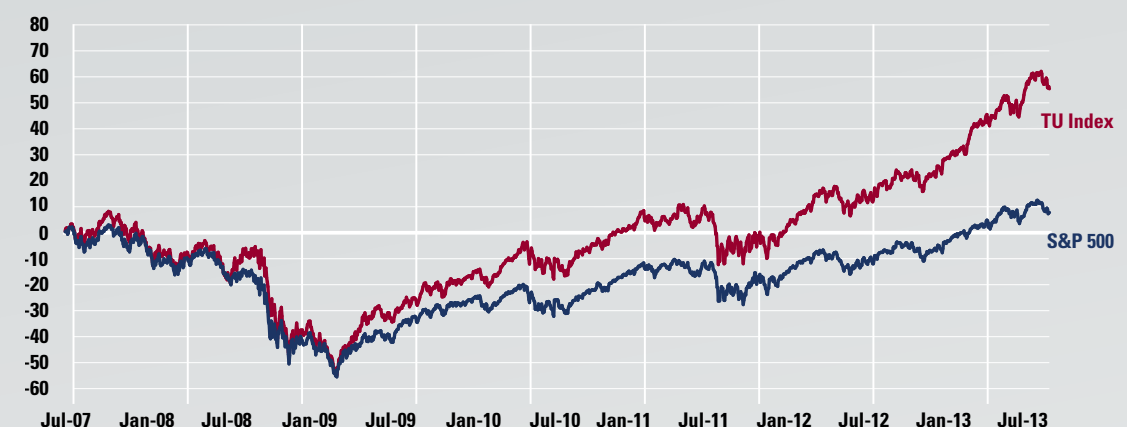


*The TUI highlights the job opportunities available to Towson students and emphasizes the relative performance of publicly traded companies connected to the University.*

heavy exposure to well performing sectors (Financials and Consumer Staples) and small- and mid- cap stocks. Not only have TU Index constituents outperformed the S&P 500 handily, but they have contributed to the labor recovery as over 75% of Maryland-based companies in the TU Index have increased their workforce since the last review.

The TUI outperformed the S&P 500 by over 23% over the most recent measured twelve months. The weakest quarterly performance of the TUI occurred during the fourth quarter of 2008. The TUI heavy overweighting in financials caused the TUI to underperform the S&P 500 by 3.04% during this period. The TUI heavy over-

Figure 1: Towson University Index relative to the S&P 500



**Disclosure:**

This year's TUI was based on last year's TUI and was updated with assistance from the Internship and Career Services program at Towson University. Historical prices obtained from Bloomberg hosted in the T. Rowe Price Finance Laboratory. To obtain the market caps as of August 30, 2013, the most recent price as of the writing of this article was divided by the most recent market cap and then multiplied by the closing price on August 30, 2013; the effects of changes due to share issuances are expected to be minimal.

**Table 1. Companies Based in Maryland**

Ticker	Company	Market Cap*	Sector	Quarterly Revenue*	Employees
LMT	Lockheed Martin Corp	40,590	Industrials	11,408	116,000
DISCA	Discovery Holding Co	20,450	Consumer Discretionary	1,467	4,500
TROW	T Rowe Price Group Inc	18,620	Financials	854	5,448
MAR	Marriott International Inc	12,990	Consumer Discretionary	3,263	127,000
MKC	McCormick & Co Inc	8,950	Consumer Staples	1,003	9,000
UA	Under Armour Inc	8,280	Consumer Discretionary	455	1,900
GRA	W.R. Grace & Co	6,610	Materials	803	6,500
CVH	Coventry Health Care Inc	5,610	Healthcare	3,517	14,400
LM	Legg Mason Inc	4,190	Financials	657	2,975
UTHR	United Therapeutics Corp	3,870	Healthcare	281	623
MCRS	Micros Systems Inc	3,853	Information Technology	329	6,506
OHI	Omega Healthcare Investors Inc	3,430	Financials	103	25
SBGI	Sinclair Broadcast Group Inc	2,910	Consumer Discretionary	314	4000
CIEN	Ciena Corp	2,600	Information Technology	508	4546
CHH	Choice Hotels International	2,410	Consumer Discretionary	184	1095
FIRE	Sourcefire Inc	2,390	Information Technology	65	674
CSE	CapitalSource Inc	2,260	Financials	120	543
OFC	Corporate Office Properties Trust	2,000	Financials	140	428
SLCA	U.S Silica Holdings	1,350	Materials	130	785
ARB	Arbitron Inc	1,280	Consumer Discretionary	107	1,292
JOSB	Jos A Bank Clothiers Inc	1,180	Consumer Discretionary	233	4,636
ADX	Adams Express Co	1,140	Financials	12	30
OPNT	Opnet	750	Information Technology	44	654
SASR	Sandy Spring	574	Financials	48	706
OSIR	Osiris Therapeutics Inc	563	Healthcare	5	59
GPX	GP Strategies Corp	496	Industrials	105	2,775
MED	Medifast Inc	359	Consumer Discretionary	97	947
AGX	Argan Inc	278	Industrials	58	246
TESS	Tessco Technologies Inc	264	Information Technology	144	843
TSYS	TeleCommunication Systems Inc	157	Information Technology	93	1,400
USU	USEC Inc	54	Energy	285	1,770
GVP	GSE Systems Inc	28	Information Technology	11	246
FMAR	First Mariner Bancorp	25	Financials	20	594
UUU	Universal Security Instruments Inc	11	Industrials	3	17
<b>Total</b>		<b>160,520</b>	<b>*numbers expressed in millions</b>		

weighting in financials caused the TUI underperformed the S&P 500 by 3.04%. One of the TUI's best performers has been Under Armour, which has flourished since the financial crisis. Under Armour's shares are up approximately 50% year-to-date and have outperformed the market over virtually every measurable time period. Since going public, Under Armour has become a leading innovator in performance apparel and has developed strong customer loyalty as it has continued to expand its product line. It is important to note that we have replaced Coventry Health Care (acquired by Aetna) with U.S. Silica Holdings. U.S Silica Holdings is a materials company that specializes in delivering silica products to various end markets. The company's

products play a vital role to the fracking process in various shale regions. Shares are up approximately 40% during the first eight months of 2013.

When looking at the TUI, it is important to remember there are a large number of private companies (especially healthcare firms) and government organizations in Maryland that contribute to growth and job opportunities. The TUI highlights the job opportunities available to Towson students and emphasizes the relative performance of publicly traded companies connected to the University.

**Table 2. Companies Based Elsewhere**

Ticker	Company	Market Cap*	Sector	Quarterly Revenue*	Employees
WFC	Wells Fargo & Co	224,020	Financials	22,455	274,300
PG	Procter & Gamble Co	216,500	Consumer Staples	20,655	121,000
C	Citigroup Inc	153,540	Financials	18,183	253,000
UPS	United Parcel Service Inc	83,190	Industrials	13,507	222,560
MS	Morgan Stanley	55,090	Financials	8,503	55,610
COF	Capital One Financial	39,250	Financials	6,095	39,600
PNC	PNC Financial Services	38,930	Financials	4,275	50,947
BBT	BB&T Corp	23,940	Financials	2,689	34,000
NOC	Northrop Grumman Corp	22,140	Industrials	6,294	68,100
SHW	Sherwin-Williams Co	17,780	Materials	2,573	34,154
MTB	M&T Bank Corp	14,560	Financials	1,259	14,885
SWK	Stanley Black & Decker	14,290	Industrials	2,814	45,327
BBY	Best BUY Co Inc	13,030	Consumer Discretionary	10,753	165,000
LUV	Southwest Airlines Co	9,820	Industrials	4,643	45,216
KIM	Kimco Realty Corp	8,300	Financials	244	635
CSGP	CoStar Group Inc	4,810	Industrials	1,965	1,514
SUSQ	Susquehanna Bancshares	2,360	Financials	223	3,304
<b>Total</b>		<b>941,550</b>	<b>*numbers expressed in millions</b>		



The Sixth Annual TUIG Market Summit will be held in Stephens Hall Room 310 from 6PM - 8PM on April 22, 2014.



**Towson University Investment Group**

The Towson University Investment Group (TUIG), which was formerly known as the Wall Street Investors' Investment Club, was founded to bring together highly motivated students that are seeking a hands-on experience with equity investments and research. The group routinely prepares stock research reports to analyze equities for inclusion in the actively managed portfolio that is the core of the group. The organization is completely student-run and depends on the efforts of members while offering valuable professional development opportunities.

TUIG offers a unique form of student involvement that fills the gap between the classroom and real-world investment management. As part of the learning experience, the group travels to various locations, both domestically and internationally, to meet with financial and economic professionals or attend investment forums. In March 2011, the group travelled to Hamden, Connecticut to attend the inaugural Quinnipiac Global Asset Management Education (G.A.M.E) Forum, presented by keynote speakers at Quinnipiac University. Keynote panelists discussed the economy, stock markets, alternative investments and corporate governance. Past events include golf outings to support local charities.

TUIG is affiliated with the Towson University College of Business and Economics and the Department of Finance. Members work closely with faculty and other students to advance the college's mission and to promote the academic success and education of students.

## Contributors

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**TRAVIS CROUSE**, from Aberdeen, Md., is a student at Towson University with an expected graduation of May 2014. He is currently pursuing a major in Economics. Since the summer of 2012, Travis has served as the Portfolio Manager for the Towson University Investment Group prior to which he served as the Junior Portfolio Manager. Travis currently interns as a Financial Planning Assistant at Heritage Financial Consultants.



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## Contributors

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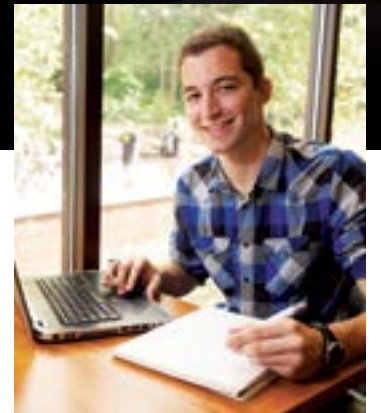
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