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BALTIMORE CFA SOCIETY

TOWSON UNIVERSITY
Thinking Outside

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Message from the Dean

Towson University College of Business and Economics

Dear Colleagues and Friends,

It is thrilling to share the second issue of the Baltimore Business Review with you. Through our continued collaboration with the Baltimore CFA Society, we are pleased to leverage our collective knowledge, resources and talent to present current and relevant economic and financial research to the Baltimore community.

In this issue we present an updated examination of residential real estate prices in Maryland and then turn our lens to the commercial real estate market. Our study of the power and scope of corporate board members' networks offers perspectives on increasing bottom line results by leveraging web presence. Further, we focus our attention on how several Maryland companies are adopting innovative solutions in managing their people, processes and technologies in order to survive and thrive in the global economy. Articles such as these showcase our commitment to deliver insightful and thought-provoking analysis of the Baltimore/Maryland economy.

I encourage you to provide feedback and share your comments with us about this publication. The funding for this issue comes from the CFA Institute and the College of Business and Economics at Towson University. If you wish to be a supporting sponsor in the future, please contact me at your convenience.

Best regards,

Shohreh Kaynama, Ph.D.

Dean and Professor
College of Business and Economics

The Baltimore CFA Society

www.baltimorecfasociety.org

Dear Members, Students and Employers,

I am very happy to be able to share another issue of the *Baltimore Business Review* (BBR) with you this year. The BBR is designed to provide a wide variety of research and insights for everyone interested in the business environment in and around Baltimore. The publication is also designed to highlight the missions, skills, and resources of both the Baltimore CFA Society (BCFAS) and Towson University's College of Business and Economics (CBE). BCFAS is proud to partner with CBE. The funding for this joint project is split evenly between the two organizations but would not be possible without the considerable talents offered by the Design Center at Towson University.

For those unfamiliar with us, the Baltimore CFA Society is a not-for-profit organization which is committed to enhancing the professionalism of, and advocating for ethical conduct in, the financial and investment industry. BCFAS primarily offers educational programs and networking opportunities for its members as part of a broader set of goals including continuing education, member dialogue, CFA charter awareness, and student support. The society is almost entirely dependent on volunteer efforts to make its events and other initiatives possible.

Baltimore has a tradition of being a regional financial center and the Baltimore CFA Society has a rich history dating back to 1948. Anchored by the investment firms of T. Rowe Price and Legg Mason, Baltimore provides an unusually vibrant investment community with a society boasting over 600 members. Of the 600 members, eighty-seven percent are charterholders, and more than thirty percent have over twenty years of experience in the industry.

The parent organization of the Baltimore CFA Society is the CFA Institute. The CFA Institute develops the curriculum for the Chartered Financial Analyst (CFA) program which features a core study of ethics combined with analytical tools and studies in asset classes and portfolio management. Recognized as the **premier professional designation for investment analysis**, its global reach is unmistakable with over 105,000 members from 137 different countries. For more information please visit www.cfainstitute.org.

No publication like the Baltimore Business Review comes together without the efforts of many contributors. I would like to thank all of the authors and other contributors for their time and the insights they have shared for the benefit of all our constituents. Special thanks also go to Niall O'Malley and Dr. Joanne Li who, after pioneering the project last year, agreed to manage the Herculean task of editing and producing the work again this year.

Finally, as analysts are wont to do, we always want to know how we can do better. If you have any questions, comments, or feedback about the *Baltimore Business Review*, please contact us through our website at: http://www.baltimorecfasociety.org/Pages/default.aspx.

Thank you!

Best regards,

David Robertson

Top 10 Employers of Baltimore CFA Society Members

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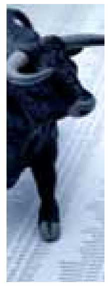
Investment Income—The Growing Problem

David Stepherson, CFA

Chief Investment Officer
Hardesty Capital Management, LLC

Baby boomers throughout Maryland are facing a two-pronged assault on their investment portfolios. As we all know, stocks have performed very poorly over the last ten years. Equally as important and probably less obvious is that investment income has been under assault as well. Not only have yields been falling, but during the last recession many companies cut their dividends. It has become very difficult to grow portfolios in the traditional way, and just as difficult to grow investment income. The importance of a growing income stream cannot be overstated, especially as baby boomers begin to retire. Growing investment income is a problem—and that problem in itself is growing.

With bond and money market yields near all-time lows, investors who are trying to generate more investment income feel like they are swimming upstream. In fact, many are coming to the realization that they may not be able to afford to retire when they want to because their retirement income will not be enough to support their lifestyle. Studies show that a 4% withdrawal rate is just about the maximum allowable before running out of money becomes a possibility. Simple math tells us that for each $1 million of savings, a retiree can spend $40,000. Until recently, investors could count on the bond market to provide them with a steady stream of consistent, stable income that easily achieved the 4% withdrawal threshold without taking on much risk. A relatively small percentage of stocks in the portfolio would provide some growth to offset the effects of inflation. But the good ol' days of this kind of investing may be behind us.



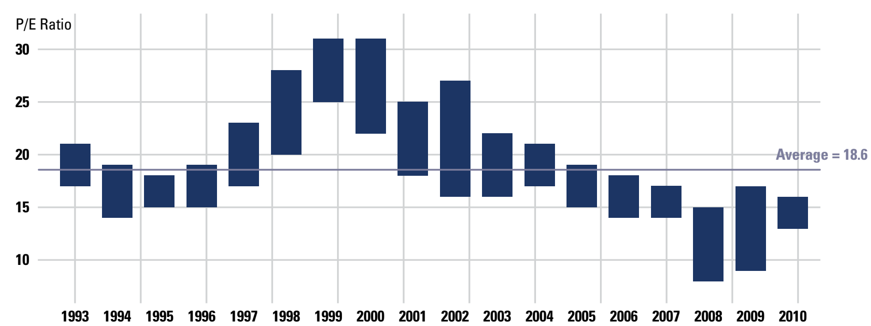
Maryland investors do not have to look far to find some excellent options within the equity market.

When the U. S. financial crisis and subsequent recession arrived, the stock market was hit hard and bond yields moved down to historically low levels. Some pundits are referring to this low interest rate environment as the "new norm". We only need to look at the historical yield of the 10-year U.S. Treasury Note to see what has happened. Yields have been trending down for many years but recently that downward trend accelerated. In this lower interest rate environment, it is extremely difficult for investors who rely on income to maintain their way of life. As bonds with 5% coupons mature, investors are faced with the prospect of replacing those bonds with a 2.5% yield to maturity. Yield to maturity is essentially the rate of return an investor will receive if the bond is held to maturity. Sure, investors can purchase bonds with 5% coupons today, but will pay a very steep premium on them. Prevailing rates of 2.5% are well below the 4% level needed to support the value of the portfolio. The "new norm" does not bode well for income-oriented investors. Investors must approach their investments in a different way.

Figure 1: Ten-Year Treasury Yield

In the above scenario, not only is income halved but "real" rates of return are negative. In a bond portfolio, one basic goal is to have a positive "real" rate of return. For the real rate to be positive, a bond's yield to maturity must be greater than the rate of inflation. This positive "real" rate of return maintains the buying power of investors' money. For example, the old expression "a million dollars isn't what is used to be" is the result of inflation. Positive real rates of return avoid this problem. The current level of inflation is in fact lower than the yield to maturity on the 10-year Treasury. However, the long-run rate of inflation is higher, at about 3%.

Figure 2: S&P 500 P/E Valuation–1993 through September 2010



Keeping up with inflation becomes nearly impossible without considering other options for your money.

So what should Maryland boomers and others who are trying to generate income do with bond and money market yields near all-time lows? Getting a little more creative in your investment strategies is the first step. Although the best option appears to lie in stocks, there are other choices worth considering. I would say, if given the choice between a 10-year Treasury with a 2.5% yield to maturity and an attractively priced stock with 3% or greater yield, I would take the stock every time.

But it doesn't have to be a choice between bonds or stocks. There are other securities that should be considered. Preferred stocks still offer attractive yields. Preferred stocks are securities that companies issue that entitle the holder to receive a set dividend payment with higher priority than common stock holders. This makes the dividend stream somewhat less risky than that of the common shares. They are typically less liquid, sometimes trading fewer than 1,000 shares per day, but offer lower levels of volatility. Convertible preferred securities, another type of preferred, may also be a good option. These are securities that offer a conversion privilege to the holder, allowing them to convert their shares into the common stock of the issuer. This conversion feature can increase the volatility of the security depending on the issuer's underlying stock. These securities can also provide very attractive yields to investors. It is extremely important that investors understand what they are buying before they purchase the securities. Be sure to research the issue, the issuer and the tax implications before buying these securities.

While these options may have a role in your portfolio, stocks seem to be the best option at this time. Not only are there many stocks currently offering yields greater than that of the 10-year Treasury, but they are relatively cheap as well. As you can see from the graph, price-earnings multiples are very low compared to where they have been in recent history. In fact, if you take away the recent market lows experienced in late 2008 and early 2009, the forward price-earnings multiple is lower than that of any other prior year shown. With stock valuations relatively low and bond yields near all-time lows, stocks should perform well over the long term. Moreover, stocks with higher yields offer a very compelling solution to the growing income problem.

Maryland investors do not have to look far to find some excellent options within the equity market. Many Maryland companies managed their way through the recession extremely well. Moreover, some offer investors an excellent opportunity for growth and pay attractive dividends to shareholders.

In last year's publication, I highlighted several Maryland companies including Lockheed Martin (LMT). The article "Value Investing or Investing for Value" attempted to point out the difference between buying "value stocks" and those that offer good value. For an investor looking for income, Lockheed Martin may fit the bill quite well. Currently, the stock offers a 4.3% yield and a price-earnings multiple of just 9 times next year's Wall Street consensus earnings. Moreover, the company has consistently increased the dividend each year over the last decade. As long as investors keep to the 4% withdrawal rate, the movement of the stock price becomes a little less important. As long as the dividend is maintained and increased at least to match the rate of inflation, income investors should be quite happy.

Another Maryland company that might be a good fit for income investors is Corporate Office Properties (OFC). Corporate Office Properties is a very well-managed real estate investment trust (REIT). REITs use investors' pooled capital to purchase real estate. REITs receive special corporate tax treatment by virtue of paying out 95% of their profits in the form of dividends. Corporate Office Properties is attractive because a large percentage of its properties are leased by the government or companies that service the government. The company has consistently grown the dividend over the years and currently provides investors with a 4.3% yield.

Diversification within a portfolio is very important to mitigating risk. It is not advisable to overload a portfolio with too much of one thing. Not only does that apply to sectors of the market, like REITs, but it also applies to having too many high-yield securities in general. There is nothing wrong with purchasing some stocks in the portfolio that have slightly lower yields but have a good chance of growing that dividend significantly. McCormick & Company (MKC) is a great example. It has increased its dividend by 68% over the last five years. Even though the yield on the stock is around 2.5%, it makes sense to put some stocks like McCormick in your income-oriented portfolio.

These are just a few local companies that offer excellent examples of how investors can solve the growing income problem. This issue is best approached by purchasing individual stocks. It is very difficult for mutual funds to generate the level of income that can be attained using individual stocks. Mutual fund management fees come directly out of the income investors are seeking. The average equity mutual fund now charges a little over 1.5%, straining its ability to offer yields above 4%.

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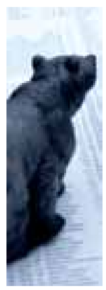
Disclosures:

At the time the article was submitted Hardesty Capital Management's clients own shares of Lockheed Martin but do not hold positions in any of the other companies discussed. The author does not own shares of any of the companies mentioned. This article is not a recommendation or offer to buy or sell any security.

Even at these very low yields, bonds still play an important part in an investor's portfolio. They provide an excellent risk-reducing component of the portfolio when managed correctly. A properly diversified portfolio provides superior risk-adjusted returns. For this reason, bonds should not be abandoned. For income-oriented investors, total bond holdings should be reduced, with the proceeds shifted to other asset classes offering better income return potential.



As baby boomers approach retirement, they face some very difficult financial decisions

As baby boomers approach retirement, they face some very difficult financial decisions. Complicating this is the perfect storm of historically low interest rates and a stock market that hasn't appreciated in ten years. If the current environment truly is the "new norm", a more creative approach to investing may be called for. Using some of these income strategies might just allow investors to solve this growing problem and thus grow their investment income.

What an Emerging Opportunity Means for Maryland Companies

Niall H. O'Malley
Portfolio Manager, Managing Director
Blue Point Investment Management, LLC

As income levels grow emerging market consumers become a more important force in creating an opportunity for Maryland based companies. To understand the recent changes in the consumer market it is helpful to step back and look at the recent role of the emerging markets.

Emerging Market Consumers — A Growing Force

Consumers in the U.S. have enjoyed the benefits of cheaper goods produced by the emerging markets for quite some time. U.S. consumer purchases have in turn created enormous wealth outflows to emerging markets. For a long time these wealth outflows did not create significant consumer activity in the emerging markets. There are a couple of reasons for this perhaps the single most important is that a defining characteristic of emerging market consumers is that they are net savers. Emerging markets lack safety nets and the struggle to survive is very real. As net savers, the emerging world, in particular China, are playing a growing role in shaping both interest rates and inflation in the U.S. The emerging market's capital surplus to-date has facilitated some of the lowest interest rates on record. The U.S. and other developed countries have a growing dependence on the emerging markets capital surplus. To-date cheaper goods from the emerging markets have had sustained a deflationary impact on the U.S. economy.

New Levels of Discretionary Income

Consumers in the emerging markets, who in many cases save over 30% of their income, in recent years have discovered their ability to make discretionary purchases. Previously, in many cases the ability to make discretionary purchases was non-existent since purchases were focused on immediate needs as income per capita was low. There are huge disparities in gross national income.

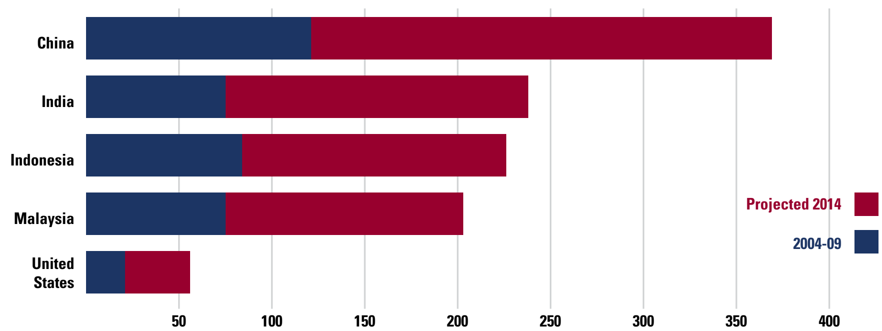
2009 Gross National Income Per Capital (U.S. dollars)

China	India	Indonesia	Malaysia	U.S.
$3,590	$1,180	$2,230	$7,230	$47,240

Source World Bank - Atlas methodology

As incomes rise, this is creating a powerful rate of change in consumer spending which is detailed in the Consumer Spending Increases by Country table. As a portfolio manager who looks for long-term drivers, I follow the consumer spending in the emerging market with great interest. In the U.S. growth is hard to come by but in the emerging markets the opposite is true. The emerging markets' growing need for commodities and the rapid increases in consumer spending are important factors to consider when building a diversified portfolio.

Figure 1: Consumer Spending Increases by Country Projected 2014 and Historical 2004-09



Source: Euromonitor International and Bloomberg

Direct Insights Into China— The Largest Emerging Market

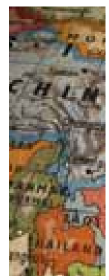
To delve deeper into these trends and understand the sustainability I spent the first half of March 2010 in China meeting with 39 senior managers from a diverse number of companies. My conclusion was there is an unusual opportunity with the Chinese urban consumer. China's one child policy creates a demographic shift that does not exist in other emerging markets. This mandated policy is creating a very strong and unique consumption shift as wealth and gifts are funneled by different generational members to a single child. Another item that has intrigued me is the incredible interest

The emerging markets' growing need for commodities and the rapid increases in consumer spending are important factors to consider when building a diversified portfolio.

in status symbols among the younger Chinese urban consumers. With no siblings and more competition among their newly affluent peer group, the younger Chinese often lack family interactions resulting in an aggressive interest in status symbols. China's income disparity is very pronounced, inducing a systemic risk.

To offset this societal risk the Chinese government is sponsoring healthcare reforms and expanding a meager safety net. Another key part of the Chinese government's response to rural poverty is the largest centrally planned urbanization in history. China's central plan calls for the urbanization of 300 million more people. Over the past ten years almost 50% of China's GDP has come from urban fixed investment as it undertakes the most rapid urbanization in history.

Historically, Maryland has had a strong trading relationship with China.



Examples of Maryland Companies Engaging Emerging Market Consumers

In last year's publication, I highlighted the less told story of companies that are exporting to China. The article "How is China's Growth Creating Opportunities in Maryland?" looked at a different set of Maryland based companies that were benefiting from growth in China. The examples and commentary in this article are still China centric. Historically, Maryland has had a strong trading relationship with China. Part of downtown Baltimore – Canton – was named after its sister city (now known as Guangzhou) in the China trade that flourished after the War of 1812 with the help of Baltimore Clippers. The other reason is that China is by far the largest emerging market economy. Amongst the emerging economies China is the larger than India, Brazil and Russia combined. The world's emerging markets account for over half of the world's GDP growth.

A Maryland firm that has created a well received business model in the emerging markets is Micros Systems (Ticker: MCRS). The Columbia based company earns slightly more than half of its revenues internationally and the emerging markets are key elements of the company's development plan. Micros Systems offers point of sale terminals along with restaurant and hotel management systems. The terminals capture information that can be mined to create nameless profiles of affluent customers, which is the specialty of Merkle (private) which is also based in Columbia. Merkle has directly expanded into China to capitalize on the growing importance of emerging market consumers.

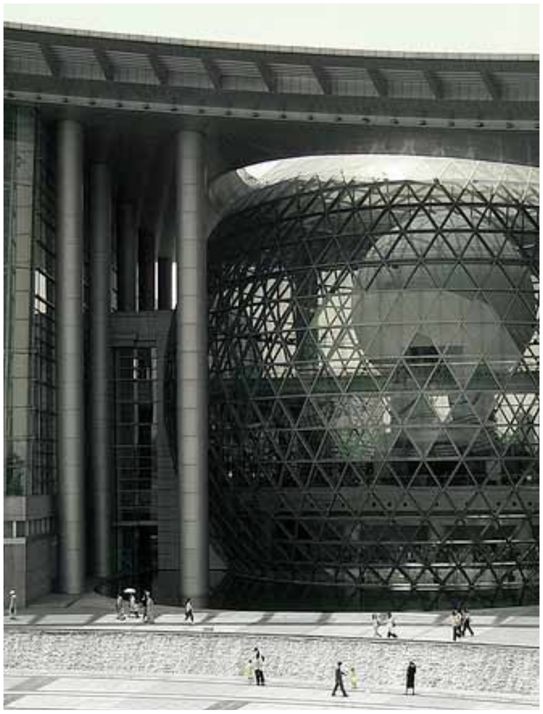
The opportunities in the emerging market have not gone unnoticed by Under Armour (Ticker: UA) which is laying the groundwork to develop a retail presence in China. The retail presence will allow Under Armour to sell its name brand athletic apparel to a rising class of affluent urban consumers who crave name brand status symbols. As the emerging markets increasingly come into their own there is an interest in the world around them. Discovery Communications (Ticker: DISCA) in Silver Spring seeks to meet that curiosity through a wide range of cable offerings that are being increasingly distributed and advertised on in emerging markets.

RTKL, a historically Baltimore based architectural firm (private), has received a wide range of emerging market commissions. In China RTKL has been recognized as one of the leading firms shaping the architecture behind China's unprecedented urbanization. On the next page is a photo of the Shanghai Science and Technology Museum which is a widely recognized RTKL commission. Baltimore Aircoil (private) in Jessup plays an important role managing the heating and cooling needs of buildings across the emerging markets. Baltimore Aircoil designs and builds heat exchanges which are the large rectangular boxes typically on top of buildings.

2009 GDP Value in U.S. dollars (billions)

China	India	Brazil	Russia	Indonesia	Malaysia	U.S.
$4,909	$1,296	$1,571	$1,230	$540	$192	$14,256

Source World Bank



RTKL's Shanghai Science and Technology Museum by Eric Miller

When it comes to pure enjoyment or terror Premier Rides (private) in Baltimore designs and builds roller coasters in the emerging markets. The photo below is of Premier Rides' Mad Cobra ride in Dalian, China, which is a coastal vacation spot. When specialized goods need to be shipped to the emerging markets, companies and government agencies call on Arnold's Supply (private) in Baltimore to build the customized shipping structures.

LIM Catapult Coaster
Photo courtesy of Premier Rides, Inc, Dalian, China

Finding your way around in the emerging markets can be a challenge and a Towson based company UPS Logistics Technologies (Parent's Ticker: UPS) has a solution. UPS Logistics Technologies sells logistics planning software that optimizes route planning for distribution companies. A growing challenge for the emerging markets is congestion. Whiteford, Taylor and Preston (private) is a Baltimore law firm that has a practice group that specializes in protection of intellectual property rights and trade related matters in the emerging markets. Intellectual property is a core asset for most companies and operating in the emerging markets presents new challenges.T. Rowe Price under a U.S. equity mandate from the National Council for Social Security Fund of the People's Republic of China manages an important part of the funds international diversification. As a social safety net developed in China and other emerging markets the need of emerging market consumers to create their own safety net through savings is expected to diminish and unlock even more consumer spending.

While the growth will not be linear and the global recovery is fragile there are powerful rates of change occurring in consumer spending as the emerging markets mature. There are a wide range of goods and services that are being exported to the emerging markets. Consumers in the emerging markets are creating powerful opportunities for Maryland firms and attractive investment opportunities. It is important to remember that the U.S. represents only 5% of the world's population and 25% of the world's GDP.

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Disclosures

Blue Point Investment Management's clients own shares of Micros Systems and Discovery Communications. At the time the article was submitted shares were not held in any other companies discussed by the author or the firm. The article is not a recommendation or offer to buy or sell any security.

An Update on Residential Real Estate Prices in the Baltimore Region and a Glimpse at Commercial Real Estate

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An Update on Residential Real Estate Prices in the Baltimore Region and a Glimpse at Commercial Real Estate

The last three months have generated mixed signals for home prices. The S&P Case-Shiller seasonally adjusted 20-City Home Price Index has reported price change in May (0.5%), June (0.24%), and July (-0.13%). Over the same time horizon, the Federal Housing Finance Agency's (FHFA) seasonally-adjusted purchase-only house price index (HPI), showed a similar pattern with changes in May (0.51%), June (-1.23%), and July (-0.52%). Given this 3 month pattern and the current state of the sluggish economy, many people are concerned of continued deterioration in the housing market.

Residential Housing Prices

Given the readily available MSA level indexes available through the FHFA, we can easily take a snapshot of how the prices in the Baltimore housing market has done relative to others during the financial crisis. From the peak of the housing bubble in the 1st quarter of 2007 to the 2nd quarter of 2010, average housing prices in Baltimore have dropped 16.0%. This is greater than the national reading of a11.2% drop from the peak. Baltimore has fared better than Washington DC where house prices have dropped 21.5% from the peak. Looking further back, we still see a market that has moved substantially higher. When compared with 1992 levels, Baltimore housing prices have risen 113% which is comparable to Washington DC at 114%. Both cities are substantially higher than the US average of 96.9%. Some regional FHFA data has revealed that certain cities have seen stabilizing or even rising home prices. Data shows that Baltimore prices have fallen 5.6% and DC prices have fallen 2.6% over the last 12 months.

National Comparison

The best way to get an idea on the state of the housing bubble, either inflating or deflating, is to look at the trends in rate of housing price changes. Figure 1 presents a comparison of housing prices changes in the Baltimore-Towson MSA, Maryland, and the US.

The figure shows two distinct trends for Baltimore and Maryland versus the US. First, between 1992 and 2001 the level of housing price appreciation in both Baltimore and Maryland was lower than the national average. This indicates that Maryland was a late entry in the housing bubble. After 2001, Maryland and Baltimore 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. Since that peak price inflation quickly changed into price deflation that was roughly in-line with national average. As of the 2nd quarter of 2009 home prices were decreasing at a 5% annualized pace. The rate of house price deflation appears to be slowing in both nationally and in the region.

Figure 1: 12-Month Average Price Chart

State Comparison

We can look across Maryland by using MSA level house price indexes from the FHFA. There are three MSA level home price indexes calculated in Maryland: the Baltimore-Towson index, the Bethesda-Frederick-Rockville index, and the Hagerstown-Martinsburg index. The Bethesda index captures more of the DC effect in Maryland home prices. Meanwhile the Hagerstown is the most rural of the three MSA and may help shed some light on potential differences between urban and rural home price movements.

Figure 2: Maryland MSA 12 Month Home Price Changes

The empirical evidence suggests that the three cities have experienced very similar price movements during most of the housing bubble. However, over the last year or so we see a marked difference between the Hagerstown MSA and the other two. Prices appear to be deflating much faster in the more rural western sections of Maryland.

Extreme Comparison

Maryland was much less active in the subprime mortgage market than other areas of the country. There is a clear link between the amount of subprime lending and the severity of an area's housing bubble. It could be important to compare Baltimore against places such as Las Vegas and Fort Lauderdale. If we find changes in these locations they might serve as leading indicators for the rest of the country. The following graph compares these cities with Baltimore.

When compared to these extreme locations, we find a mixture of positive and negative news. On the positive side it appears that the rate of price deflation is slowing. In Q2 2010, Las Vegas actually reported a slightly increase in home prices. On the negative side, the year-to-year price changes are still negative and it appears we still have some time till prices appreciate.

Figure 3: Extreme Comparison

Where is the housing market going from here?

When will we see a solid rebound in the housing market? The answer, for Baltimore, depends on a mix of local and macroeconomics conditions which will drive the housing market. Stability in home prices depends on generating a strong demand for housing while maintaining a controlled supply of housing available on the market. The macroeconomic forces come mostly from financial markets and government policy. The localized forces are made up from mostly labor market and construction market.

- Mortgage Rates: Home mortgage rates remain at or near historical lows. Freddie Mac reported that for the week of October 14th, the average interest rate on a 30-year fixed rate mortgage was 4.19% which is the lowest level ever reported. These rates definitely reduce the effective price of housing and thus should serve to aid potential homebuyers.
- Federal Reserve: The uncertainty in mortgage market interest rates is centered primarily on actions by the Federal Reserve. The possibility of quantitative easing (QE2), may put further downward pressure on bond rates, which could lead to a further reduction in mortgage rates. This would only serve to spur on the housing market through both purchases and refinancing.
- Foreclosures: In September 2010 a record 102,134 houses were taken back by the banks. This marks the first time the US has ever seen foreclosures top 100,000 in a single month. Overall foreclosure filings edged up to 930,437 in the third quarter, a 4% increase from the previous quarter. This equates to one in every 371 housing units receiving a foreclosure filing during those three months. According to RealtyTrac, the rate of foreclosures in Maryland is 1 in every 620 housing units with 2764 filings. The highest rate of foreclosures in Maryland is occurring in Prince George's county where 1256 foreclosures were filed in September 2010 which equates to a rate of 1 in every 256 housing units. Although the foreclosure rate in Maryland is below the national average, there are areas in the state that suffer from the added supply brought on by foreclosures.
- Moratorium on Foreclosures: The problem of excess supply brought on by foreclosure is now very uncertain given the recent moratorium on foreclosures by several large banks and legal action by all 50 state attorney generals. Depending on the duration of the legal action, this moratorium may bring a short term drop in foreclosures which may appear to stabilize home prices. However, there are several potential costs of this moratorium. First, once the legal action ends, there will be a large wave of foreclosures which would place pressure on home prices. Second, the addition costs and uncertainty associated with the legal action adds additional risks to the housing market that could deter potential buyers and bid up mortgage rates offered by banks. Finally, the moratorium could send a false sense of security to existing homeowners who, without the threat of foreclosure, may choose not to make timely mortgage payments.
- Unemployment: The unemployment rate in Baltimore and Maryland as a whole is below the national average, but just as with the rest of the country, this rate is not falling. This puts both demand and supply side pressures

on the housing market. The lack of job opportunities will slow job migration into the Baltimore area and thus limits the demand for housing. At the same time, job losses increase the possibility of further foreclosures which only increases the supply of housing creating further downward pressure on home prices.

- BRAC: According to the State of Maryland 2008 BRAC Action Plan Progress Report, Maryland could see 60,000 jobs created through BRAC. The over 25,000 households that are anticipated to move into Maryland would substantially support localized home markets in the areas around the military bases and the state as a whole.
- Housing Construction: The National Association of Home Builders is reporting a sizeable increase in building permits and housing starts. As of August 2010, Baltimore building permits are up 35% from last year. This same trend is occurring across the state.

Commercial Real Estate

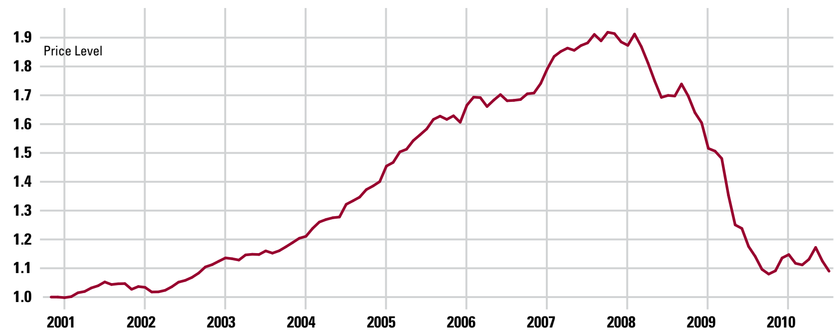
Just like housing, commercial real estate is also experiencing a bubble. According to the Moody's/REAL All Property Price Index (CPPI), commercial property showed a real return of -3.1% in July 2010. The index has declined 7.3% in the past year, and has had a 35.9% drop in the past two years. The CPPI is currently 43.2% below the peak that occurred in October 2007.

Figure 4 shows that national commercial property prices levels have followed a similar trend to that of residential property. The current price level is only about 8% above 2001 price levels.

Measuring Commercial Real Estate Returns

The CPPI are based on a repeat-sales regression model (RSR), with conventional modifications and enhancements that are widely used in the real estate indices estimated in the academic community. In an RSR index, the database on which the regression is estimated consists purely of properties that transact at least twice in the historical sample. The fundamental data on which the index is based thus consists of the price changes actually experienced by individual properties which are the same type of price changes as actually experienced by direct property investors. While the indexes may contain normal statistical estimation error, all index returns are based purely and completely on actually realized investment round-trip price changes.

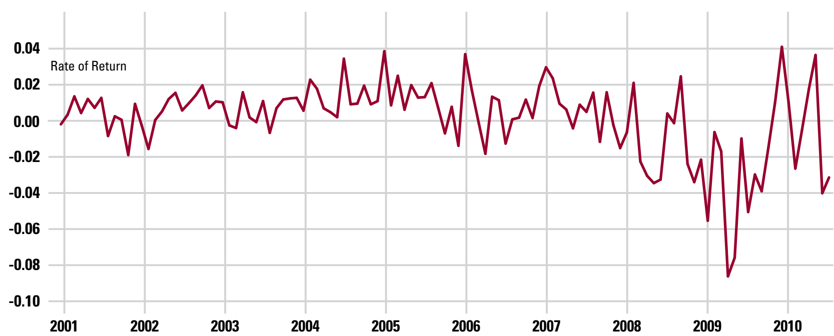
Figure 4: Commercial Real Estate Price Level



Commercial Real Estate Rate of Return

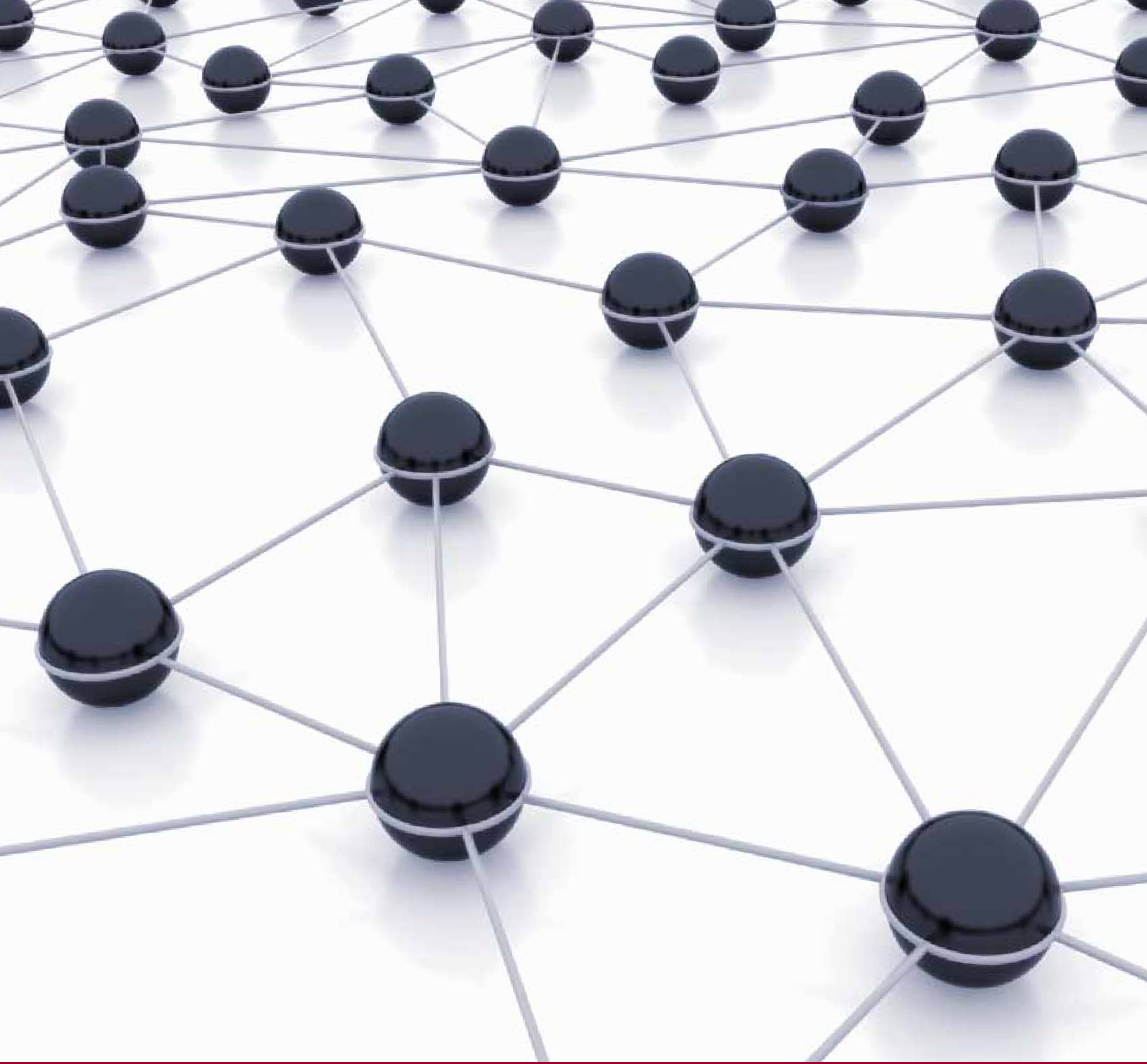
To measure the rate of commercial real estate price changes, the CPPI tracks also the rate of return on commercial real estate. This information is presented in Figure 5.

Figure 5: National Return on Commercial Real Estate



We can see that since the 3rd quarter 2008, every quarter, except two have had negative returns which correspond to price deflation in commercial real estate. Why are the data so noisy, especially when compared with residential real estate? That comes down to the data collected to calculate the CPPI. The number of commercial real estate sales is much lower than residential real estate making the CPPI subject to more volatility because of a small sample size. Another limitation of low sales numbers is that region CPPI data are only available in a few locations for only certain types of property. The closest annual regional index is for Washington DC covering office property. This index reports that price of office property dropped by 26% in 2009 after falling 8.77% in 2008.

Comparatively, the real estate bubble on commercial real estate has been more dramatic than residential real estate. Both real estate types appear to be stabilizing, but this hinges on the state of the economy, and the effectiveness of impending action by the Federal Reserve to lower interest rate to spur investment and reduce unemployment.



The Powerful Network of Maryland Corporate Board Members

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In these days of social networking monopolizing our daily lives, the media wages a battle royale about the benefits of and concerns about our new Facebook Linked-in lifestyle. Our focus is rather on professional networks whose benefits cannot be overstated. In a classic win-win scenario, corporations and professionals alike benefit from extended networks. Directors benefit from more appointments and well-connected corporations can earn up to close to an additional 5% in annual stock return compared to less connected firms.

The Corporation's Connections

Corporations are in constant need of expert guidance and steadfast monitoring. In the current U.S. system, corporate board members play this welcome role and help with corporate decision making. Board members importantly also open up their network of relationships, both professional and personal, to the corporations they help shepherd. In truth, the connectedness of board members is linked to improvement in firm performance.[1] More critically, it is the network centrality that is directly related to superior firm performance, especially for younger high-growth firms.[2] That is, not only should board members be connected but their importance is related to how integral they are to the entire network itself. Consequently, the addition of a director who is well connected increases the firm's centrality in the network and benefits further the organization. The benefits come in various ways including an increased access to strategic information and exposure to best management practices. It is crucial for any organization, corporations or local community boards, to understand the power and the extent of these individuals' reach when making the decision to add them to their boardroom.

The Director's Connectedness

The value of a board member to any corporation can then be measured across different dimensions. Traditionally, one would focus on the candidate's experience and expertise: active years in the industry, leadership positions and certifications. As directors attracted more appointments and became busier, industry watchdogs worried that busy directors were bad monitors but there is little evidence that the performance of their duties is impaired . In fact, overlapping directors help propagate best practices across corporations . Increasingly the focus has shifted and the market is realizing that directors prove more valuable the greater their connectedness. Thus, a powerful director harnesses her successes by being granted more positions and thereby increases her value. Consequently, we observe that 1) the extent of a potential director's network is a critical determinant of access to the boardroom and that 2) it is not uncommon for successful directors to hold more than one appointment, reinforcing their importance and enhancing their chance of being selected to other leadership positions. For these reasons, we present information about Maryland board members, about how far their influence extends and about how to trace their local impact since these features should be integral in any business' decision to include these individuals in its organization structure.

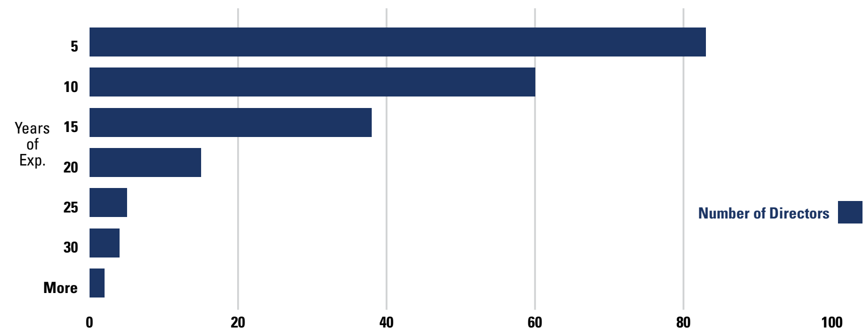
The Network Players—The Maryland Corporations and Directors Roster

Relying on 2008 data from the Investor Responsibility Research Center Institute,[3] whose goal is to provide funding for research on corporate responsibility and investing, we identify the complete roster of individuals holding a seat on all boards of larger public companies headquartered in Maryland. The database contains detailed information on the 207 individuals on Maryland boards, 23 women and 184 men. The information pertains to 24 large public firms of which 10 are headquartered in Montgomery County, 5 in Baltimore City, 4 in Howard County and 3 in Baltimore County.

As hypothesized, a person is likely to be a director if he is 1) accomplished, 2) an expert and 3) well-connected. Maryland board members certainly meet the first two criteria. The median age of 62 of our board members reflects that these individuals have not only acquired the tools and expertise necessary for steering a large organization but also have a secured position[4] which allows them to be independent minded while making decision. It is interesting to note that over 10% of the board members are under the age of 50, proving that expertise is highly valued and that experience alone is not sufficient though important in the decision.

Our typical board member has been on his current board for 7 years, with the longest standing member, J. Marriott, Jr., a board member of Marriott International Inc. since 1964 or 44 years. The collective experience of this group adds up to an astounding 1,756 years of board experience, in Maryland alone (that is, we did not count their board experience on non-Maryland boards, nor did we take into consideration their other civic board activities or private companies board membership). The following graph highlights the difference in experience of the board members.

Figure 1: Histogram of the Number of Years of MD Board Experience

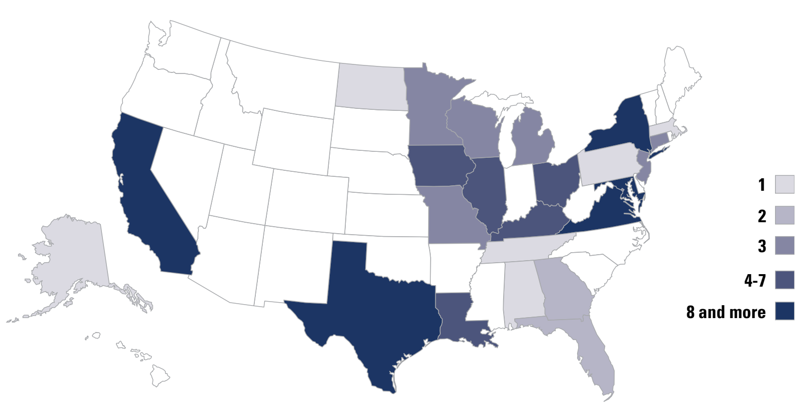


Our goal is now to highlight that Maryland board members have also an extensive professional and social network in place from which to draw advice, gather information and experience best practices. First we explore the national reach of this network. Then we showcase how we can track the local extent of this network.

The Maryland Corporate Directors National Reach

In keeping with the idea that directors' networks are valuable and that directors tend to hold multiple appointments, we note that the average director on a Maryland board also holds one additional board seat across the country. Some hold multiple additional seats, with two individuals holding respectively another 5 (Harvey B. Cash, a director of Maryland Ciena Corporation) and 6 (L. Dale Crandall, a director of Maryland Coventry Health Care Inc.) seats. In all, Maryland board members hold an additional 144 board seats of corporation spread across the country as depicted below.

Figure 2: Geographical Reach of Maryland Board Members Network



Geographical Reach of Maryland Board Members Network

Maryland board members network reaches throughout the North-East and the Mid-West regions, holding 12 board seats in Virginian firms and 10 in New-Yorker companies as well as an additional 11 seats in California.

With this information, we assess which Maryland board is the most connected, i.e., which Maryland firm's board is more central in the nation's network. Given that board size will vary across organization, it is appropriate to size the statistics. Also, it allows us to side-step the ever-raging debate about optimal board size, especially since the board size discussion is highly dependent of the business environment in which a firm operates. Indeed, while common and generally accepted wisdom has now turned to the idea that smaller is better for boards, the truth is that for firms with high leverage and high level of organizational complexity, be it measured in the number of lines of business under the company's umbrella or be it measured by the complexity of the company's product,[5] it is highly recommended that board size be allowed to be larger and in fact it has been proven that firm performance improves in board size under those circumstances.[6]

The 2008 board of director of The Black & Decker Corporation is composed of 11 members who hold the highest (1.73) number of other board seats in other large corporations and also the highest number of such board seats, 19 in total. Additionally, the combined experience of board membership on Maryland board for the Black & Decker board added up to 106 years. Once we account for those additional board memberships, the experience tallied up to 211 years.

The following four companies the most connected are in descending order: Coventry Health Care Inc. (16 total other board seats held), Marriott International Inc. (16), Ciena Corporation (14) and Lockheed Martin Corp. (18). In terms of average board experience per board members, other leaders emerge with Micros Systems Inc. whose average board member has 12.5 years of board membership. Micros Systems is closely trailed by Omega Healthcare Investors, Inc. (12.3), Host Hotels & Resorts Inc. (11.6), Legg Mason Inc. (10.9) and Marriott International Inc. (10.4).

The Maryland Corporate Directors Local Reach

Despite this evidence of vast experience and far-ranging influence, the major effects of a network are local in nature. Indeed, most social and professional connections remain local and the power we can harness from such interactions are better played at the local level where presence is crucial. In terms of the directors themselves, we note that the group of 208 directors holds a total of 215 Maryland board seats. That is, some Maryland boards are interlocking, showcasing a single degree of separation. For example, we take note that James T. Brady held no fewer than three Maryland board seats: Constellation Energy, McCormick & Company, and T. Rowe Price. Constellation Energy and McCormick's boards are further interlocking as both Freeman A. Hraboswki, III and Robert J. Lawless also held a seat each on both boards. More Maryland boards are interlocking: Catalyst Health Solutions and Coventry Health Care via Dale B. Wolf; Micros Systems and T. Rowe Price via Dwight S. Taylor; Jon E. Bortz links Federal Realty Investment Trust to Lasalle Hotel Properties and finally, Nolan D. Archibald linked Black & Decker and Lockheed Martin.

We recognize that, absent access to our database, the task of unearthing such links appears daunting and time consuming. However, there are free resources available that allows us to map local and national relationships. These tools are tremendous help in discovering the extent of the untapped reach of our own connections. While numerous resources exist, we find that NNDB and Muckety are the easiest to use. To illustrate the usefulness of these resources, we will center on James T. Brady, an important nexus in Baltimore's companies.

James T. Brady's Network— NNDB Mapper

NNDB is an intelligence aggregator that tracks the activities of people determined to be noteworthy.[7] The database tracks, as of this writing, over 37,000 individuals, living or dead, and their connections. We start by identifying James Brady's entry and create the initial map as seen on the side.

Our first observation is that Mr. Brady's connections we knew are reported in the map output and the system added new ones of which we were not aware. This is an important factor for our purpose: uncovering new relationships from the central node. Moreover, the NNDB data tracker adds the nature of the relationship of Mr. Brady to the institutions he is linked to.

As a second step, we start expanding the network to visualize the reach of Mr. Brady's connections. In particular, we focus on his membership on the three Maryland boards. The expanded network is shown nearby. We highlight in blue the other two interlocking seats between the McCormick and Constellation Energy boards. One could continue to expand the network and focus solely on local institutions by pruning the out-of-state links (or political affiliations as we did) as allowed by the web interface. The NNDB software also displays the nature of the relationship to the organizations the individuals are related.

Figure 3: James T. Brady Network — NNDB Mapper

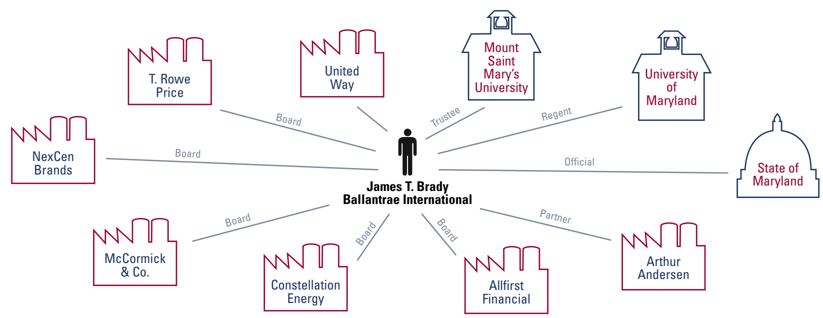
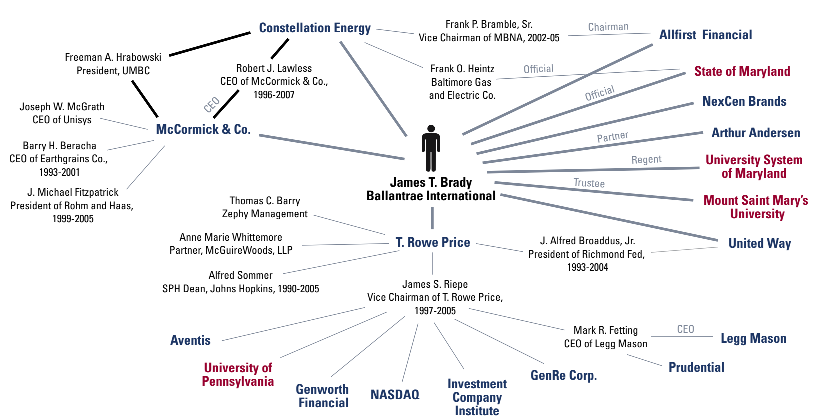


Figure 4: James T. Brady Network — NNDB Mapper

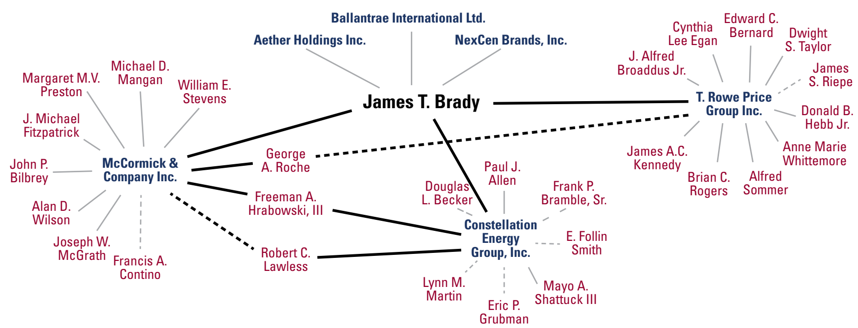


Unless otherwise noted, relationship is that of Board member

James T. Brady's Network—Muckety Mapper

In very much the same fashion of NNDB, we tracked Mr. Brady's connections at Muckety.com.[8] After pruning the network for simplicity's sake and to concentrate on the local connections, the Muckety Mapper results are showcased below, equivalent to the second step we showed for the NNDB Mapper.

Figure 5: James T. Brady Network — Muckety Mapper



Solid line indicates current relations
Dotted line represents former relations

Powerful Individuals, Powerful Networks

As we demonstrate above, the members of Maryland corporate boards are not only experienced experts but also highly influential individuals whose reach extends well beyond the borders of Maryland. Yet, their local influence is even stronger as the various mappers highlight. The benefits for the corporations who selected these directors are tremendous. Corporations should be extremely careful in how they manage their portfolio of directors and need to take into consideration the important dimension of director connectedness in their decision process. On September 8, 2010, T. Rowe Price announced the election of its newest director: Robert F. MacLellan, chairman of Northleaf Capital Partners, Canada's largest independent global private equity fund manager and advisor. In addition to his current position, MacLellan served as chief investment officer at TD Bank Financial Group. He is also director of Ace Aviation Holdings, Inc. and Maple Leaf Sports and Entertainment Ltd. Upon the announcement, Brian C. Rogers, T. Rowe Price's chairman, stated that the board welcomes MacLellan's "perspective, judgment and counsel."[9] We have no doubt that the board will also value MacLellan's network.

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3 Please visit http://www.irrcinstitute.org/ for more information about the Institute.

4 In fact, 49 of the individual are listed as Retired in the database.

5 Consider the case of a pharmaceutical company as opposed to a mainline industrial product firm. The pharmaceutical firm will need more guidance from the board as to their R&D effort as well it will benefit more from the network of expertise of the directors as well as their access to government officials.

6 See Boards: Does One Size Fit All? by Jeffrey L. Coles, Naveen D. Daniel and Lalitha Naveen, Journal of Financial Economics, 87 (2008), 329–356.

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8 For more details, please visit http://news.muckety.com/

9 T. Rowe Price Group Adds Canadian Investment Executive Robert MacLellan as New Independent Director, PR Newswire, September 8, 2010.

Leveraging Web Presence for Bottom Line Results

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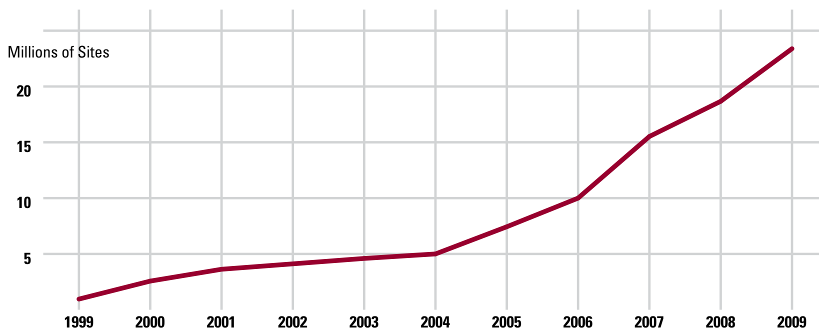
Just having a website is not enough in today's web saturated culture, because a website is only as good as people's ability to find it through search engines. A national survey of Internet users found that 87% of the Internet activity performed by adults is using search engines to find information.[1] However, finding relevant information using search engines is not an easy task. As of June 2010, there were more than 293 million Internet users [2] in the U.S. executing more than 9 trillion searches[3] of 234 million worldwide websites.[4] Receiving thousands of search results may cause "information overload" for users. Information overload occurs when the amount of available information exceeds a person's ability to process it. Although information overload is seen in many areas, the Internet has become a major contributor to this phenomenon because of the sheer volume of content (see Figure 1).[5 6]

Figure 1. Number of Websites on the Internet



Reference: www.netcraft.com

Rankings Rule!

Research shows that when completing tasks on the Internet, users stop searching after 20 to 30 results from a search engine, whether or not they have completed their search.[7] Therefore, if your website is not ranked in the top 20 search results, your potential customer will not even see your website.

A recent study finds that Internet users are more efficient and find accurate results within the first few listed websites provided in a traditional textual search engine as compared to a visual search results page.[8] Search engines such as Google, Bing and Yahoo! use this text-based format for displaying search results. Other search engines such as Grokker provide a visual format of search results through a map display, which uses color to differentiate between groups and subgroups of results.

If companies want to increase their visibility on the web it is critical that their websites are included in the first search results. Through such efforts a local law firm was able to attain "top-10 Google listings for very general searches like 'Baltimore law firm'," notes Tim Kassouf, director of marketing at G.1440.[9] More importantly than just increasing a website's ranking on search results, improving website traffic from search engines may lead to greater sales.

Capitalizing on Your Web Presence

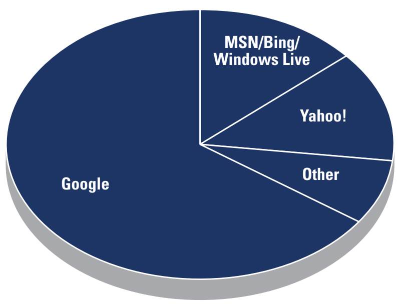
Website owners can pay the search engine providers for their site to appear in the first group of search results. The sponsored search results appear in the first few positions of the overall results and are based on websites which have paid to be identified when specific key words are searched. The organic search results are based on which websites are identified by the search engine's algorithm for the key words used in the search. Search engines do not charge to include websites in the organic results, however, the websites are presented in order from the greatest to least likelihood of the website containing the information that the user wants.

A technique known as *search engine optimization* (SEO) involves tuning up a website so that search engines can easily match the website's content to the user's search request, thereby increasing the website's ranking in the organic search results. "Ultimately the goal is to craft the site so that users find it clear and compelling – and search engines will consider [the website] an authority on the subject," says Kassouf.[9] Rankings may further enhance a firm's competitive advantage by the residual trust that users associate with high rankings.

SEO is based on an understanding of how search engines query the Internet and improve a website's visibility to the search engines by aligning the website's content and design with search criteria. The specific algorithms used by search engines to select and rank websites for inclusion in search results are not publically known and they are regularly revised by respective search engines to improve the accuracy of searches.

Google currently dominates the search engine market in the U.S. (See Figure 2).[3] A recent study finds that users trusted websites ranking higher in Google results —even if more credible websites are included in the results.[10] SEO efforts that focus on Google have collateral effects on other search engines. Chris Mechanic, CEO of WebMechanix, notes, "We focus mostly on Google, but they seem to have pretty similar ranking algorithms, because in almost every case, Yahoo! and Bing are also affected."[11]

Figure 2. U.S. Searches by Search Provider



http://en-us.nielsen.com/content/nielsen/en_us/insights/rankings/internet.html

All that Glitters is not Gold

There are established practices for improving website visibility to search engines. SEO techniques can be classified into two categories: techniques that search engines recommend as good design which is called 'white hat SEO', and those techniques that search engines do not encourage, called 'black hat SEO'. White hat SEO techniques involve following search engine guidelines and ensuring that the content is useful to the user. However, black hat SEO techniques may initially increase the website's ranking in the search results, but use of these practices may result in web pages being removed from the search engine's database listing. The goal of an effective website should be to provide high quality content that is visible to customers who are searching for products and services that the company can provide.

"Our staff is very savvy with keywords and links," explains Jeff Dudley, director of sales for Inside Lacrosse.[12] "SEO is not rocket science. There are just a hundred little rules that you have to know and it takes a lot of work," notes Mechanic.[11] Successful SEO transformation involves an in-depth understanding of how search engines crawl, evaluate, and rank websites. This knowledge is often combined with website technology skills, including HTML, web design, and content management.

Other companies choose to focus on developing their own content, but look to external resources for their SEO expertise. "We worked with a consultant for three years to develop our SEO ranking – and it has paid off," states Bob Graham, executive editor at Insurance & Financial Advisor.[13] Mechanic adds, "You won't get the full benefit from just a one-time engagement. By nature SEO takes time."[11]

While firms may initially seek top rankings through an ongoing SEO initiative, that may not be the ultimate measure of success. Kassouf explains, "Instead, companies should expect to see a steady lift in the traffic that their site is getting—especially from search engines."[9]

Baltimore Spotlight

Many companies are engaged in either using or providing SEO services. We have interviewed four Baltimore firms that are involved in increasing website visibility using SEO. Insurance & Financial Advisor (IFA) and Inside Lacrosse utilize SEO techniques to maximize their website visibility, while WebMechanix and G.1440 are SEO providers.

Insurance & Financial Advisor

IFA provides daily news content for insurance agents and financial services companies. Its website complements its monthly print publication which reaches over 100,000 readers. IFA utilizes an SEO service provider and sees increases in its web traffic. IFA "tweaked page titles, categories and other over- and under-the-hood aspects of the site to make it more search, Google and user friendly."[13] IFA also started a blog for the purpose of driving users to its website. Bob Graham, executive editor, notes that IFA has found "additional credibility, especially nationally, because people can click on our website and see that we are more than just a regional newspaper company."

Inside Lacrosse

Inside Lacrosse is a source of news articles, game scores, current standings, and everything related to lacrosse. Created in 1987 and online since 2003, Inside Lacrosse's website complements its monthly print magazine and lacrosse events. "The primary way that we promote InsideLacrosse.com is through SEO," notes Dudley. Instead of using external SEO services, Inside Lacrosse uses analytic tools to track its web traffic and identify which content on its pages is getting the most attention. "Our [website] traffic basically doubles every year," states Dudley.

G.1440

Founded in 1998, G.1440 is an IT consulting and staffing firm that provides website design, custom application development, and SEO services. Tim Kassouf, director of marketing at G.1440, sees the growth in clients looking for SEO services, "Larger, tech-savvy companies would ask specifically for SEO engagements, we're now seeing more and more of the smaller companies that come to us for a simple web design engagements asking for SEO as a part of their project."[9] When it comes to applying G.1440's expertise in SEO initiatives, Kassouf notes, "There are hundreds of factors that are thought to impact SEO, and we thoroughly evaluate all of them. But the primary things we're looking at are the site's structure and navigation."

WebMechanix

WebMechanix has provided SEO services for the past two years, which has led many of its clients to see an increase in web traffic to its website by as much as 100%. Chris Mechanic, CEO of WebMechanix, states that "some companies expect to just get a couple of new leads each month. Other companies expect to get hundreds of new leads per month."[11] Mechanic notes that typically clients see "positive results within 2-3 months. After about six months it's undeniable. After 12, dramatic. But generally, the longer you work on a site, the more pages you build, the more links you build, the more keywords you're targeting, the more traffic you'll get, and the more money you'll make."

Companies that fail to take into account these SEO techniques as part of their web strategy remove themselves from the view of their potential clients, who continue to rely on the Internet to find goods and services at all hours. SEO techniques can help ensure companies do not miss this growing market segment that is looking to engage customers each time they place a keyword into a search engine.

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A Portrait of Maryland's Public Companies

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In studying where publicly-traded companies are located, the unevenness of their distribution is striking. Why do firms choose to headquarter in a specific place, and not another? Why do industries tend to cluster in certain cities, counties, and states? Does it happen because of public policy choices, or by historical accidents? It turns out that both are involved, as in the case of Maryland.

When you think of states whose publicly-traded financial firms dominate their economy, one might think of New York, Connecticut, Massachusetts, or North Carolina. But what if you heard that among publicly traded companies, the dominant sector of industry in Maryland was financials? Surprised me too. Consider the graphs at right:

As sectors go, Maryland is pretty normal with respect to Communications, Consumer Cyclicals, Consumer Noncyclicals, Diversified, and Utilities. It is higher than the US average in Financial and Industrial companies, and lower in Basic Materials, Energy, and Technology companies.

Despite those differences, the mix of sectors for Maryland is fairly ordinary. Maryland is the fourth most similar compared to the rest the states and DC, as measured by the sum of squared differences of the state sector weights versus the US average sector weights. Most states lack representation in 4 or more sectors; Maryland has companies in 8 out of 10 sectors, with weights near the US average.

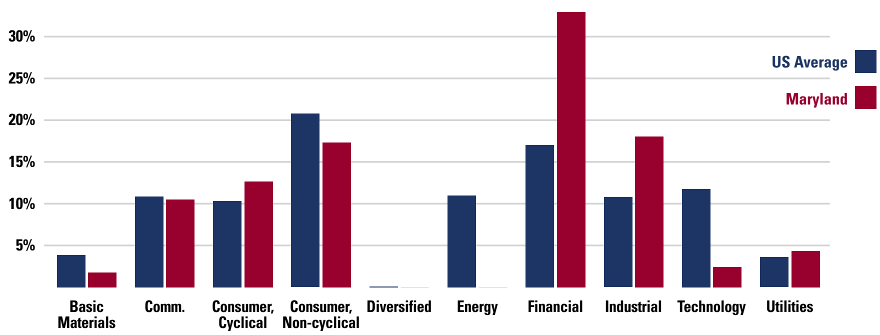
Public Companies in Maryland by County

Variation in the sector mix of publicly traded businesses across states is the rule. However, it is also true within states. Start by considering in what Maryland counties the publicly-traded companies reside.

The amount of companies residing in Montgomery County represents a surprising 68% of all firms in Maryland. Montgomery County's lead over other Maryland counties is still substantial when considered as a proportion of population, or county GDP as indicated in the following two bar charts.

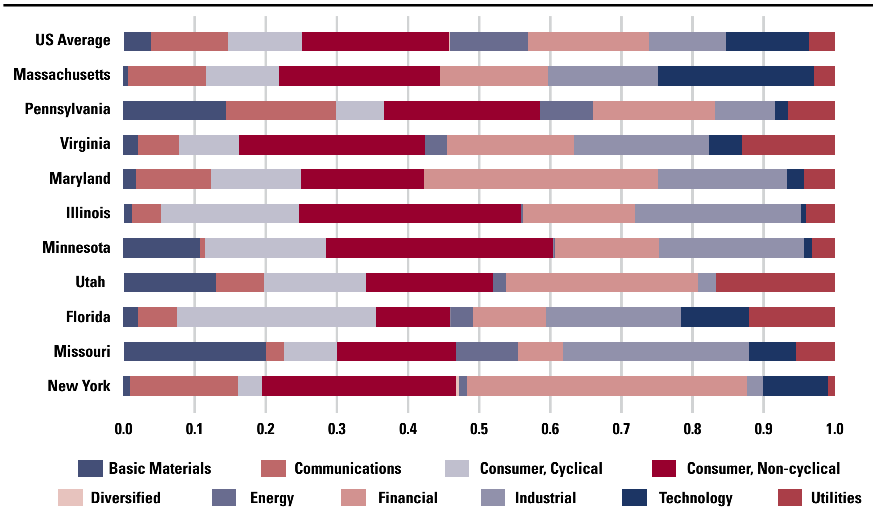
The "Market Capitalization/GDP" table is just another example of how size matters in business. In general, populous areas, and areas with high GDP per capita

Figure 1: Percentage of Publicly-Traded Market Capitalization by Sector



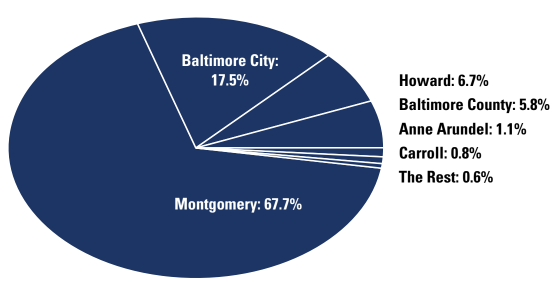
Source: Bloomberg, calculations by the author

Figure 2: States with "Average" Sector Compositions of Publicly-Traded Companies



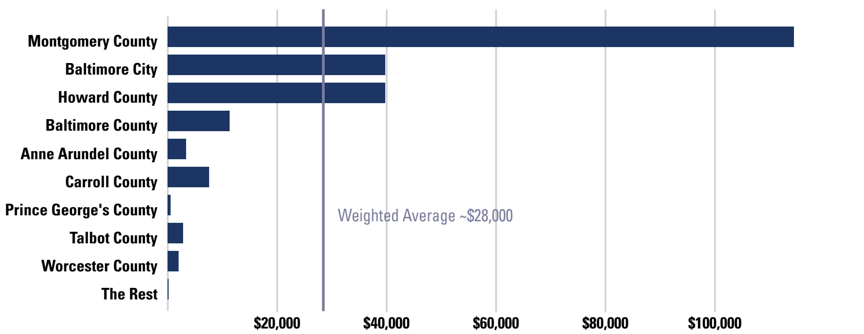
Source: Bloomberg, calculations by the author

Figure 3: Market Capitalization by County



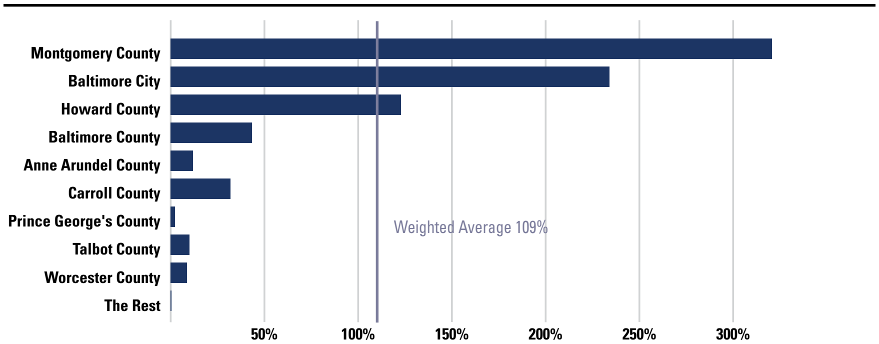
Sources: Bloomberg, Google Maps, calculations by the author tend to have more public corporations. None of this, nevertheless, fully explains why Montgomery County has more public companies than the rest of Maryland. Before I try to answer that, let me run through some more details on the sector mix of the publicly traded companies for the major counties.

Figure 4: Market Capitalization per Capita



Sources: Bloomberg, Google Maps, Census Bureau, calculations by the author

Figure 5: Market Capitalization/GDP



Sources: Bloomberg, calculations by the author

Montgomery Industry Detail

Montgomery County's business areas are concentrated in these places (percentage of Maryland market capitalization): Bethesda (44.3%), Rockville (11.2%), and Silver Spring (10.1%). Business is diverse by sector, with Financial and Industrial companies leading the way. Many of the financial companies are real estate investment trusts, with the two largest being Host Hotels & Resorts, and Federal Realty Investment Trust. There is one major industrial company, and given the proximity to DC, it is none other than Lockheed Martin, the defense giant.

In Consumer Noncyclicals, almost all of the companies are in healthcare, with a concentration in biotechnology. The three largest companies are Human Genome Sciences (Biotech industry), Coventry Health Care (HMO industry), and United Therapeutics (Biotech industry). There are two major hotels that comprise almost the entire Consumer Cyclicals sector: Marriott International, and Choice Hotels. Finally, in the Communications sector most of the market capitalization comes from Discovery Communications, producer of the eponymous Discovery Channel, and other cable TV content.

Baltimore City Industry Detail

Asset management contributes most of the public market capitalization for companies in Baltimore City, led by T. Rowe Price and Legg Mason. T. Rowe Price has roughly half of the total public market capitalization in Baltimore City. Baltimore City has the only publicly traded utility domiciled in Maryland, Constellation Energy, the parent company of Baltimore Gas and Electric. Finally, the company in the Consumer Cyclicals sector is Under Armour, which was started by two University of Maryland athletes.

Howard County Industry Detail

When one talks of publicly traded businesses in Howard County, they are largely found in just one city, Columbia. In the technology sector, it has one large company, Micros Systems, which makes hotel, restaurant and specialty retail information systems. It has one large financial company, Corporate Office Properties Trust, which is a REIT. Maryland's only basic materials company is the specialty chemicals maker W.R. Grace, which not only survived asbestos-related claims, but grew profitably during the ordeal, rewarding patient shareholders. In consumer non-cyclical, there is the well-known radio/media information company, Arbitron, and a biotech company, Martek Biosciences, which uses microbes to produce nutritional products. In the communications sector, there is Sourcefire, a cyber-security firm. Given all of the security firms employed by the US Government in the area, it is no surprise to find a public company among them.

Baltimore County Industry Detail

In Consumer Noncyclicals, Baltimore County has McCormick located in Sparks, a place otherwise obscure, about eight miles north of Towson. There is also Medifast in Owings Mills, which makes weight-loss supplements. The Financial company is Omega Healthcare, which is a healthcare REIT in Hunt Valley, wherein also resides the television broadcaster Sinclair Broadcasting.

Other Counties

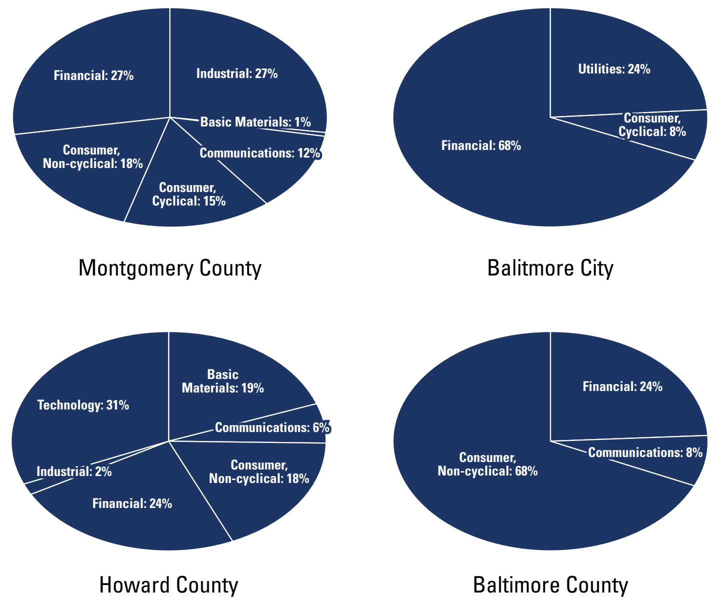
- In Anne Arundel County there is Ciena, the networking hardware and software company in the Communications sector, in Linthicum.
- In Carroll County the Consumer Cyclical company Jos. A Bank, which makes fine clothing for men, resides in Hampstead, which is 9 miles east of Westminster.
- In Prince George's County there is one Communications sector company, Vocus, a public relations software company in Lanham, and three tiny financials.
- In the remaining counties there are only financials thereafter: 10 small banks and S&Ls spread across the remaining 7 counties, with less market cap in aggregate than Prince George's county.

Why does Montgomery County Dominate Publicly-Traded Market Capitalization in Maryland?

Why does Montgomery County, which does not have that much more population than Prince George's County or Baltimore City, have more publicly traded businesses? Why does Montgomery County have a disproportionately higher amount of publicly traded businesses than Baltimore County or Prince George's County, which are the next highest in county GDP?

One potential answer is that Montgomery County has a superior business culture. They have very educated people in their county, and they are near to DC, which employs a lot of technically skilled people. The more demanding companies/jobs are on the northwest side of DC, not the northeast side.

Figure 6: Sector Mixes



Sources: Bloomberg, calculations by the author

After reviewing the county websites, I concluded that relative to Prince George's County and Baltimore City, Montgomery County has made more of a concerted effort to attract business by offering tax and other incentives. Baltimore City and Prince George's County have focused more on making business fair for minorities and small businesses. Let the County Executives take note: in this day and age, if a county doesn't create a friendly environment for larger publicly traded companies, they will go elsewhere.

Why does Maryland have the Mix of Publicly-Traded Businesses that it does?

Maryland has always been a favored home for REITs. That dates back to 1963, when Maryland was the first state to pass a law for REITs, which afforded them substantial governance protections versus a Delaware C corporation. A plurality of REITs organized in Maryland, and a surprising number of REITs domicile in Maryland. By number, Maryland has 6.5% of all of the publicly traded REITs in the US, and by Market Cap, Maryland has 7.8%. So it should be no surprise that the financial sector in Maryland has a lot of REITs. (For comparison purposes, remember that Maryland has 1.1% of the publicly traded market capitalization, and 1.9% of the GDP of the US.)

Let the politicians take note here. Being business-friendly with REITs has helped Maryland, particularly Montgomery County. It would help the economy of Maryland to be business-friendly to other industries, because not all of the state is next to DC, where the growth of government supports the economy.

Most of the financial sector after REITs in Maryland is asset managers, of which there are two well known companies, T. Rowe Price and Legg Mason, which grew up on opposite sides of Light Street in Baltimore City. Though the growth of T. Rowe Price has been greater, both firms have been well-run, and grown dramatically over the past 40 years. Call it a historical accident that both firms grew up in Baltimore.

That summarizes Financials. If I had looked at Baltimore 15 years ago, for banks I would have listed Mercantile Bankshares, First Bank of Maryland, or Provident Bank of Maryland. I would have mentioned USF&G among insurers. But in an era of increasing financial concentration, and misregulation that does not penalize size, many locations lose their hometown businesses to larger companies through mergers and acquisitions. Once an industry loses a foothold in an area, the jobs in that industry tend to travel to areas that have a greater concentration of the industry. Let policymakers take note: it is difficult to rebuild a base of jobs in a given industry as companies leave. Thus, design policy to make it attractive for acquirers to move to your state, rather than remove businesses from your state.

With Hotels, J. Willard Marriott came to DC in 1927, and began what would be a thriving business. Out of that sprang Marriott International and the REIT Host Hotels and Resorts. Choice Hotels has been in Maryland since its beginnings back in 1939. But when there is a concentration of firms in an industry geographically, it attracts smaller players who benefit from the pool of talent locally, which helps explain why there are three more Hotel REITs in Maryland, namely, LaSalle, Diamondrock and Pebblebrook. 68% of the Market Cap of Hotel REITs is based in Maryland, with four of the top six firms nationally.

The same argument can be applied to Biotech. Many early biotech companies began in Maryland, such as Human Genome Sciences, and Medimmune, which is now a subsidiary of Astra-Zeneca. Part of the reason for that early location is that the National Institutes of Health and Johns Hopkins helped to seed that pool of talent. Now the broader pool of talent attracts other private and public biotechnology companies. Maryland ranks fourth behind California, Massachusetts and New Jersey in the Market Cap of publicly traded companies.

Constellation Energy is the only Maryland-domiciled utility. Formerly constrained by geography and state regulations, the Utility industry is becoming more of a regional affair. Constellation was almost acquired by Berkshire Hathaway; who knows how long it will remain a Maryland-domiciled firm?

In Industrials, Lockheed Martin is a dominant company in defense. After the Lockheed merger with Martin Marietta, it moved to Bethesda, probably because its largest customer, the US Government, was nearby in DC. Call it a historical accident that Martin Marietta was based in Bethesda, but Maryland benefits from that accident, much as it got hurt by Black and Decker being bought by Stanley Works.

Two firms that can be traced to their founders' regional ties are Discovery Communications and McCormick. The founders both were Maryland residents, and started the firms here. (Note: McCormick moved to Maine for twelve years 1903-1915, and then returned to Baltimore.)

Parting Thoughts

Maryland's pro-business policies with respect to REITs have benefited the state, and Montgomery County particularly. Maryland relative to other states has an oversized share of public companies with that gift comes the responsibility to attract and retain corporations. Acquisition is a real risk that was recently experienced with Black and Decker. It is important to remember that financial work can be done anywhere, and acquisitions in that sector are frequent. The loss of jobs and diminution of the talent pool would prove to be a drag on state tax revenues, and on the revenues of Baltimore City particularly. Policymakers should actively consider what they can do to make Maryland a preferred habitat for businesses to dwell in.

Pro-business policies can attract and retain firms in a state, but a lot of what causes firms to be there is the historical accident that the founder started it there, and the costs of moving keep it there until it dies, pays the cost of moving, or is acquired.

Longer-lasting sets of firms in an industry can be a magnet for further development of companies in that industry, given the depth of the talent pool. This is a subset of why businesses reside in a given area, in that the culture of the area supports business through both government policy and talent. For those reasons, Montgomery County has the lion's share of publicly traded businesses in Maryland.

Straight From the Source—
The Small Business Perspective on Baltimore

David Robertson, CFA
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Arete Asset Management, LLC

As a professional investor who analyzes public companies, it is easy for me to describe the business environment in Baltimore in terms of its larger companies. As an entrepreneur and small business owner, however, I see things from a very different perspective. As such, I thought it would make for an interesting exercise to interview other entrepreneurs, small business owners, and professionals that work with them, to develop a mosaic of the business environment in Baltimore from their perspective.

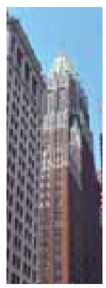
What follows is a view of business in Baltimore straight from the source — straight from the people who work with customers and overcome obstacles every day to run a business. It represents their views about what makes Baltimore a more, and less, attractive place to do business, which factors most differentiate the business environment in Baltimore, overall grades and assessments of the environment, and views about the future of business in Baltimore. Finally, the respondents also offer bits of advice to those engaged in, or considering, starting up a business of their own.

In short, the size of Baltimore is just about right for doing business and it also offers a great lifestyle. The metropolitan area is big enough to have several cultural institutions, professional sports teams, lots of people, resources, and schools. A variety of special events and neighborhood festivals are "great for a vibrant, thriving population." At the same time, the city is "not so big that there is a lot of congestion or that you can't be involved in the community."

Many comment on the great lifestyle the Baltimore area affords. The ocean and the mountains are both very accessible and there are "so many big cities that are close — within one to two hours". One respondent, however, is content that there is "a lot of pretty country" in the immediate area. Being so attractively situated makes Baltimore far easier to attract employees. Special note is also made of Harbor East which is described as a "bright spot that is changing the complexion of the city."

Of course, along with the good, comes the bad and there is a consensus about the main problems confronting business in Baltimore. First and foremost is crime, which projects a negative image of the city and makes it more difficult to lure people to the area. High taxes are also considered an important mark against the business environment with tax rates described as "out of control."

The poor quality of public schools in the area is widely listed as a problem as well. "A very low rate of graduation does not lend itself to healthy workforce." The good news is that there are plenty of employable people for blue collar jobs in the city, but they are not educated or trained well enough to grow with organizations. There is a real gap between employment needs and skills in the city with much of the work force "marginally trainable, but not promotable." The consequence of this skills gap is that it perpetuates an underclass which is effectively trapped in poverty.



Almost universally, the small business owners express an acceptance of living with some business negatives in exchange for opportunity and lifestyle

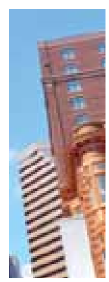
There is a nearly universal opinion that the factor that most differentiated the business environment in Baltimore is its close-knit business and social community. For businesspeople, the question, "Where did you go to high school?" is virtually meaningless anywhere else, but in Baltimore carries great weight for social distinction. Unfortunately, this social phenomenon is viewed as exacerbating the failings of the public schools by limiting mobility. The common sentiment is that, "At the end of day, Baltimore is a small town."

The social fabric in Baltimore gets mixed grades for its effect on business. On one hand, it can make the community insular and very hard to break into. This places an even greater premium on differentiating one's services in Baltimore. On the other hand, the business and social environment in Baltimore often comes across as much more friendly than in other cities. Baltimore is described as "more relational," as opposed to the "more transient" populations of cities such as Washington, D.C. In addition, for products and services that offer compelling value propositions, "word can travel quickly."

So what grade does Baltimore get from small business owners? Overall, respondents assess grades ranging from B to C. No As are given as the many problems are widely known and acknowledged. Taxes, regulation, real estate, and crime all create a high cost of living that is prohibitive for many companies. Interestingly, these factors may have had a disproportionately large effect on larger businesses as many have left the area. As S. G. Brooke Tucker, of Tucker Capital Advisors explains, "You can't start a widget factory here — the cost base is too high. If you go to North Carolina, you don't have any issues."

Relative to other mid-Atlantic metro areas, respondents clearly view Baltimore as the winner. There is a "fairly low cost of living relative to other mid-Atlantic cities which affects compensation and housing" is one comment and another, "everything costs less relative to DC or NYC." Philadelphia is "high wage, highly congested, and has a huge union presence. Baltimore is a hell of a lot better." Almost universally, the small business owners express an acceptance of living with some business negatives in exchange for opportunity and lifestyle.

The potential to develop the dynamic intellectual community into a Baltimore-styled Silicon Valley is also seen as a future opportunity for the city.



In particular, Baltimore provides a tradeoff that is uniquely attractive to small businesses. While it is not a New York City, Baltimore does have plenty of people without being overcrowded, congested, or unwieldy. In addition, the region is relatively wealthy and "people buy stuff — the market is responsive to new services." Also, "there is a technology component that other cities don't have." Baltimore is higher cost than many cities, but has greater access to markets. Importantly, in many industries, there is moderate to low competition which means prospects, "don't have fifty people calling on them."

The combination of a fairly active business environment with a culture that is a little more laid back seems to make Baltimore an especially agreeable place for many small business owners. Russ Causey, of CMD Outsourcing Solutions, describes Baltimore as, "just a great place to live" while Tucker calls the area the "land of more pleasant living." Brian Woods, of Woods & Associates, P.C. says, "If you provide good work and are identifiable, you can have a nice business in Baltimore and a nice lifestyle." Newt Fowler, of Rosenberg, Martin, Greenberg, shares his assessment: "Baltimore is an attractive region for business as it has a convergence of great academic and research institutions within the region, a culture for entrepreneurism and business formation and a diverse economy that allows for great cultural and life experiences."

When conversation turns towards the future of Baltimore, respondents generally downplay the negatives and focus more on the positives and on opportunities. Overall, Baltimore is viewed as having a good pool of labor, lots of schools, good hospitals, and plenty to work with. The technology community is viewed as doing a nice job with the Greater Baltimore Technology Council singled out for praise in establishing a foothold for these businesses in Baltimore. While many acknowledge the close-knit and sometimes insular nature of the business community in Baltimore, there is little doubt that things are far better now than in past decades. "If the city is to grow, [the sometimes insular business community] needs to get stripped away." High taxes are a concern, but the importance is also downplayed, especially for smaller firms and startups which are relatively less affected by taxes. The fact of the matter is, "it's just not that easy to move [your company] to northern Virginia."

Alan Garten, of Fedder & Garten, is happy to see a new State's Attorney coming into office who he hopes will make a better attempt at reducing crime. "On every corner someone is holding up a sign — it creates an awful impression for people entering the city. There is a wide perception it's unsafe." He continues, "New York City really turned itself around with a new approach to crime. We need to replicate that here."

In terms of future opportunities for Baltimore business, most of the respondents see a fertile environment for startups. J. Patrick Collins Jr., of Greenspring Wealth Management, sees the "free market working where companies can be born and grow here." Or as Fowler describes, "The region's 'business leadership' is slowly recognizing that our future doesn't lie with winning relocation battles for the next marquee headquarters, but in fostering a culture of ideation and business formation and promoting the benefits of the region to a creative class who seeks a unique and real region in which to live, work and succeed."

Opportunities are also perceived in leveraging the existing base of hospitals and other health care organizations that consistently dominate the area's employment rolls. With the likes of Johns Hopkins and University of Maryland Medical Center, Baltimore gets lots of "bright, educated, even brilliant people." The potential to develop the dynamic intellectual community into a Baltimore-styled Silicon Valley is also seen as a future opportunity for the city.

Perhaps reflecting the "more relational" nature of Baltimore's business community, all of the respondents are very gracious and forthcoming in offering advice to aspiring entrepreneurs and small business managers. Most commonly conveyed is the advice to "get involved in community." Whether you call it networking or not, "find a way to interact with people . . . you need relationships in particular here." Part of the exercise of networking involves serendipity. As you get to know people, perhaps "someone will take an interest and offer an introduction, words of advice, things that can help." It is widely believed that "every business owner feels like he received a lot of luck along the way."

Another common thread of advice offered is to reach out beyond yourself and your own firm to get advice and feedback. After all, "nobody can [run a business] absolutely on his own." Causey "would absolutely recommend" the Business Roundtable which he calls "immeasurable for advice." Collins has developed an advisory board to help vet different ideas and to consult on important decisions. As often as not, he finds value in his board members challenging ideas as opposed to generating new ones, saying, "they always provide value by asking good questions." Perhaps the most succinct advice for anyone starting off on his or her own is: "Get connected to other start-ups, build a team of mentors, seek more capital than you think you need, network."

When I started my company nearly three years ago, one of the first things that struck me was how vibrant and accessible the community of entrepreneurs and small business owners is in Baltimore. After conducting several interviews, my view of Baltimore as being a special place to start a business was even further enhanced. Given that small businesses generate the vast majority of new jobs in the economy, Baltimore seems well-positioned to be an engine for future growth.

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Article is based on direct interviews

Stories of starting up

S.G. Brooke Tucker, of Tucker Capital Advisors, has one simple piece of advice for entrepreneurs: "Work your ass off and never stop." For a person who analyzes and values 150 small companies a year, he ought to know. "There is just too much to lose – you can ruin your family and everything else."

Russ Causey, of CMD Outsourcing Solutions, clearly acknowledges that the work environment today is a "very different game for new grads" than when he got out of school. With virtually no prospects for graduating and working for life at one company, no big benefit programs, and no corporate loyalty, he asks, "What do we do for a living if we know this?" He sees far greater opportunities for entrepreneurs who can create an environment where they have more control.

J. Patrick Collins Jr., of Greenspring Wealth Management, had some serious doubts when he was considering leaving Merrill Lynch and starting off on his own. He had just gotten married and was expecting his first child and started worrying about everything that could go wrong. Then he happened upon a magazine article that reported the responses of a survey of senior citizens to the question, "What is the one thing in your life you regret?" By far the most common answer was "not taking enough chances." When he read this, it "hit him like a ton of bricks." All the great things in his life, both personal and professional, had transpired due to taking chances — and he knew then that he had to go through with starting up his new company.

Survive and Thrive Through Supply Chain Innovations

Chaodong Han, Ph.D.

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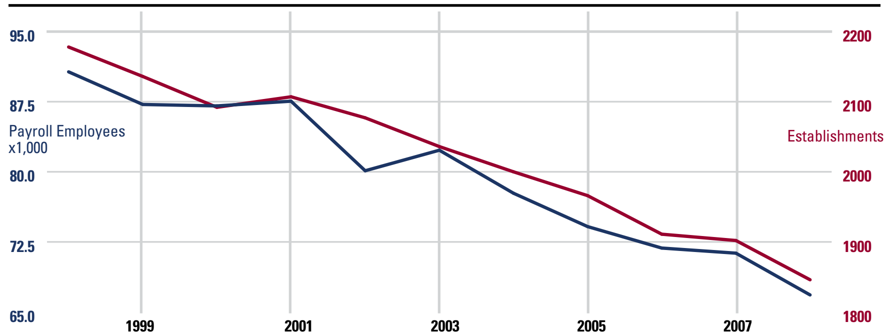
Manufacturing in greater Baltimore area has been vulnerable to the dynamics of global supply chains: the constant quest for the lowest-cost labor and materials, changing customer needs, and rising competition from imports. Many manufacturers fail partly due to their inability to adapt to global supply chains. Over the period from 1998 to 2008, the number of manufacturing establishments of all sizes in greater Baltimore area decreased by 15% from 2,178 to 1,846 while manufacturing employment dropped by 26% from 90,693 to 66,829 (Figure 1), a decline in line with U.S. national trend due to large-scale outsourcing and offshoring of U.S. manufacturing and intense global competition. However, a number of manufacturing companies in greater Baltimore area, including Black & Decker, McCormick, Under Armour and Martek Biosciences, have transformed their businesses through supply chain innovations and hence survived and thrived in turbulent times.

Supply Chain Innovations

With the development of information technology and globalization, the landscape of business competition has changed from classic "company vs. company" to current "supply chain vs. supply chain." By function, a manufacturing supply chain typically comprises procurement, production and distribution; by collaboration, supply chain partners include upstream suppliers, logistics and financial service providers, and downstream distributors and customers. Being the best in producing a product can no longer sustain a company's long-term success. Companies need to constantly innovate and, ideally, build up a "triple-A supply chain": Agile - quick response to and recovery from disruptions; Adaptable - adapting to new political and economic environments; Aligned - the interests of all supply chain partners are aligned.

Innovative supply chain management is a mix of customer-driven and supplier-driven innovations. On the one hand, companies need to respond to continuously shifting customer needs by providing the innovative products at the right time and at the right location. On the other hand, companies can engage their suppliers in the early stage of product development so that supplier innovations and knowledge get transferred and shared. Supply chain innovations require the alignment and synergy of people, processes and technologies in order to achieve a set of performance

Figure 1. Baltimore Manufacturing (1998-2008)



Data source: U.S. Census Bureau, County Business Patterns

goals: balanced inventory, greater responsiveness, lean manufacturing, reliable supply line, and fast and efficient distribution channels.

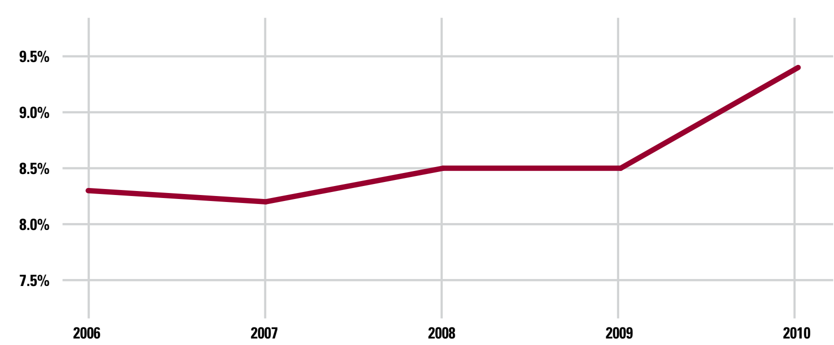
Black & Decker—
Customer-Driven Innovation

A global provider of hand tools, power tools and related accessories, Black & Decker now becomes part of the Stanley Black & Decker after its March 2010 merger with Stanley Works. A billion-dollar division remaining headquartered in Towson, MD., hardware and home improvement products are sold through major retail partners, such as Home Depot and Lowe's, but manufactured in China, resulting in a 12- to 14- week lead time from production plant to retail shelf. Demand forecasting and shipment history at the store and the SKU levels hence become critical for Black & Decker to plan productions and logistics. Black & Decker implemented industry-leading solutions on demand, fulfillment and master planning so that the company could view Point-of-Sale data, determine supply chain inventory and play out promotions accordingly. Improved demand forecast accuracy resulted in shorter cycle times, higher fill rates and lower inventory costs. In 2006, out of 400 companies, Black & Decker received Best Practices in International Logistics Award provided by The Aberdeen Group for implementing Optiant's multi-echelon inventory optimization solutions, which led to the immediate results: multi-million dollar reduction in finished goods safety stock inventory, a sustained 99% customer service level, and better manufacturing schedule attainment in the plants due to increased material availability.

McCormick — Innovative Sourcing Process

Hunt Valley, MD-based McCormick is the world's largest company for manufacturing, marketing and distribution of high quality spices, seasonings and flavors. McCormick has to source its spices from the global market, such as India, China, Indonesia and other less developed countries, where food quality and safety are considered not up to the same standard as in developed countries. Since product quality is the lifeline for McCormick's premium brand and it costs more to resolve quality issues after defected spices are already moving in the supply chain, McCormick has created a Global Sourcing Program by aggressively going upstream in the supply chain to processors and even farmers to ensure high quality and safety at the very beginning. Projects in the program include joint ventures and strategic alliances in major spice-growing countries, vendor certification, and a Supplier Diversity Program, which enables McCormick to maintain a large supplier base to ensure an undisrupted supply of raw ingredients. It is this innovative sourcing process that has earned McCormick a trustworthy record of food quality and safety despite its worldwide sourcing.

Figure 2. Under Armour Supply Chain Costs as a Percentage of Net Revenue



(Data source: Under Armour Annual Reports and 10-Q Reports)

Under Armour — Small but Agile

The sports-apparel business has been dominated by a small number of giant players, including Nike and Reebok, which are able to sign up exclusive contracts with major sports leagues. How could Under Armour, a Baltimore, MD-based startup, avoid the fate of being crushed like other sport-apparel startups? One of the secrets for Under Armour is to become agile and nimble through supply chain innovations. For example, Under Armour built a manufacturing shop in Glen Burnie, MD that can turn around last-minute orders in hours instead of weeks to months by industry average. To reduce labor and material costs, Under Armour has depended on unaffiliated contract manufacturers operating in 17 countries outside of the United States to manufacture virtually all of its products. Due to the complexity and importance of its global supply chain, in October 2006 Under Armour hired James Calo as its first Chief Supply Chain Officer and became the first Baltimore firm to have a Chief Supply Chain Officer position in the senior management team. Despite increasing pressure to scale its supply chain to growing demand, "[w]e were able to get footwear up without missing a beat," due to its investments in supply chain innovations, commented Calo. In fact, product innovation and supply chain costs have been over 8% of its net revenue over the past five years (Figure 2) .

Notably, Under Armour uses a real-time intelligence tool, called "Sensormatic Overhead People Counting" sensor platform, to identify important customer trends such as peak shopping hours, shopping days and traffic counts, and to measure advertising effectiveness at its company branded retail locations. Its built-in analytics and advanced data capture technology help Under Armour improve store layouts and ultimately drive sales.

Martek Biosciences — Product Innovation

A Columbia-based, NASDAQ-listed company, Martek Biosciences Corporation is known as a leading provider of Omega-3 fatty acid DHA and Omega-6 fatty acid ARA used in Mead Johnson's Enfamil LIPIL family of infant formulas. In May 2006, Martek and Mead Johnson entered into a supply agreement that established Martek as Mead Johnson's global sole source supplier of DHA and ARA through December 31, 2015. However, the amendment also provided graduated price reductions to Mead Johnson over the term of the extension, beginning in 2010. Martek's strategy is to offset a significant portion of price reductions by implementing manufacturing cost savings and product innovation initiatives and by growing its non-infant formula business. For example, Martek restructures its Winchester, Ky., manufacturing facilities in an effort to streamline operations, improve capacity utilization, and reduce manufacturing costs and operating expenses. "These actions are essential to Martek becoming a stronger and more efficient company that is better able to serve its customers, execute on its growth strategies, and create shareholder value," says Steve Dubin, CEO of Martek Biosciences Corporation.

Implications

The past decades have witnessed that greater Baltimore has been gradually shifting towards a more service-oriented economy. Traditional business model of local production and then exporting may not be the most efficient way to conduct business in the era of global supply chains. A few successful firms in greater Baltimore have become industry leaders through supply chain innovations. Black & Decker is more responsive to customers but with less inventory; McCormick maintains its premium band through engaging global suppliers; Under Armour has transformed itself from an unknown startup into a global brand in a decade; and Martek Biosciences creates shareholder value through product innovations and supply chain efficiency. To survive and thrive in current economic environments, greater Baltimore manufacturers need to adopt innovative solutions in managing people, products, processes and technologies so as to source, produce and sell nationally or globally with greater velocity and efficiency.

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Towson University Index—Towson University Investment Group

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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 has been expanded to 55 publicly traded companies with 40 Maryland and 15 non-Maryland companies. To provide a good representation of Maryland companies, 73% of the index includes a sample of 40 Maryland companies with market capitalization ranging from $14 million (Universal Security Instruments Inc) to $26,770 million (Lockheed Martin Corp). The remaining 27% of the index includes a sample of 15 non-Maryland companies with market capitalization ranging from $5,398 million (Kimco Realty Corp) to $168,857 million (Proctor and Gamble Co). We use a within-sample value-weighted approach to create the index; hence the larger the company's market capitalization the greater the company's representation in the within-sample index.

Figure 1(on the following page) illustrates the performance of the Towson University Index relative to the S&P 500, a parallel comparison of two value-weighted indices. The graph tracks and compares the total performances of the two indices over a 3-year period between July 2007 and June 2010. For this period, the TUI outperforms the S&P 500 by 9.29%, comparing to a 14% underperformance illustrated in last year's TUI. The change in performance is attributable to changes to a small number of the TUI constituents, the expansion of the TUI, as well as the change in time period tracked.

In addition, the TUI outperforms the S&P 500 by 4.39% over the most recent measured twelve months although during the toughest quarter of the most recent recession, the 4th quarter of 2008, the TUI underperformed the S&P 500 by 3.04%.

The sectors with the highest representation in the TUI are Financials at 36.75%, Industrials at 25.72%, Consumer Discretionary at 15.67%, and Consumer Staples at 10.86%. The Consumer Staples sector is the best performer during the study period; Industrials and Consumer Discretionary returns are slightly below that of the overall market while the Financials sector is the overall underperformer. The outperformance of the TUI despite its heavy exposure to underperforming sectors (Industrials and Financials) indicates that, on average, the individual companies in the TUI outperform their respective sectors as a whole.

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 (on the following page) lists the 15 non-Maryland companies that were included in the index. These accounted for 27% of the index (15 divided by the total of 55 companies in the index).

Table 1. Companies Based in Maryland

Ticker	Company	Market Cap	Sector	Quarterly Rev.	Employees
ADX	Adams Express Co	786M	Financials	4.7	30
ARB	Arbitron Inc	685M	Consumer Discretionary	88.34	1,029
AGX	Argan Inc	142M	Industrials	65.46	947
CSE	CapitalSource Inc	1,536M	Financials	168.1	665
CHSI	Catalyst Health Solutions Inc	1,546M	Healthcare	890.1	955
CHH	Choice Hotels International Inc	1,792M	Consumer Discretionary	149.9	1,560
CIEN	Ciena Corp	1,186M	Information Technology	253.5	4,214
CEG	Constellation Energy Group Inc	6,463M	Utilities	3,310	7,200
OFC	Corporate Office Properties Trust	2,214M	Financials	135.2	382
CSGP	CoStar Group Inc	803M	Industrials	55.84	1,438
CVH	Coventry Health Care Inc	2,624M	Healthcare	2,868	14,400
DISCA	Discovery Holding Co	4,867M	Consumer Discretionary	963	4,400
FMAR	First Mariner Bancorp	17M	Financials	19.57	678
FCN	FTI Consulting Inc	2,041M	Industrials	349	3,366
GPX	GP Strategies Corp	135M	Industrials	66.14	1,780
GVP	GSE Systems Inc	78M	Information Technology	11.77	201
HGR	Hanger Orthopedic Group Inc	581M	Healthcare	205.8	3,700
HUGH	Hughes Communications Inc	531M	Information Technology	252.4	2,223
JOSB	Jos A Bank Clothiers Inc	991M	Consumer Discretionary	188.4	3,280
LM	Legg Mason Inc	4,328M	Financials	674.2	3,550
LMT	Lockheed Martin Corp	26,770M	Industrials	11,442	136,000
MGLN	Magellan Health Services Inc	1,212M	Healthcare	619.5	5,200
MAR	Marriott International Inc	10,848M	Consumer Discretionary	2,771	137,000
MATK	Martek Biosciences Corp	794M	Healthcare	117.2	587
MKC	McCormick & Co Inc	4,516M	Consumer Staples	794.6	7,500
MED	Medifast Inc	400M	Consumer Discretionary	66.66	365
MCRS	Micros Systems Inc	2,553M	Information Technology	248.2	4,646
OHI	Omega Healthcare Investors Inc	1,859M	Financials	58.81	19
OSIR	Osiris Therapeutics Inc	191M	Healthcare	10.3	57
PHH	PHH Corp	1,057M	Financials	666	5,120
SBGI	Sinclair Broadcast Group Inc	288M	Consumer Discretionary	185.6	2,400
FIRE	Sourcefire Inc	527M	Information Technology	30.61	307
TROW	T Rowe Price Group Inc	11,315M	Financials	577.4	4,862
TSYS	TeleCommunication Systems Inc	194M	Information Technology	92.66	1,009
TESS	Tessco Technologies Inc	123M	Information Technology	141.9	918
UA	Under Armour Inc	1,272M	Consumer Discretionary	204.8	3,000
UTHR	United Therapeutics Corp	2,755M	Healthcare	137.5	410
UUU	Universal Security Instruments Inc	14M	Industrials	3.68	18
USU	USEC Inc	544M	Energy	459.7	2,908
GRA	W.R. Grace & Co	1,531M	Materials	685	5,940

*numbers expressed in millions

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 Google Finance, employee figures obtained from MSN Money, sectors of the companies and their respective quarterly revenues were obtained from NetAdvantage, a Standard and Poor's service. Sector performance was measured by iShares' ETFs of the S&P Sectors. To obtain the market caps as of June 30, 2010, 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 June 30, 2010; the effects of changes due to share issuances are expected to be minimal.

Table 2. Companies Based Elsewhere

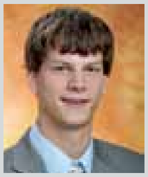
Ticker	Company	Market Cap	Sector	Quarterly Revenue*
BBT	BB&T Corp	18,128M	Financials	2,858
BBY	Best BUY Co Inc	14,009M	Consumer Discretionary	11,339
C	Citigroup Inc	108,940M	Financials	4,642
COF	Capital One Financial Corp	18,385M	Financials	8,032
LUV	Southwest Airlines Co	8,280M	Industrials	227.7
MTB	M&T Bank Corp	10,038M	Financials	958.3
PG	Procter & Gamble Co	168,857M	Consumer Staples	1,603
PNC	PNC Financial Services Group Inc	29,638M	Financials	8,826
SHW	Sherwin-Williams Co	7,488M	Materials	4,350
WFC	Wells Fargo & Co	133,714M	Financials	18,926
MS	Morgan Stanley	32,368M	Financials	2,143
KIM	Kimco Realty Corp	5,398M	Financials	3,168
NOC	Northrop Grumman Corp	15,882M	Industrials	2,366
SWK	Stanley Black & Decker Inc	8,316M	Industrials	12,204
UPS	United Parcel Service Inc	40,949M	Industrials	23,417

*numbers expressed in millions

Figure 1

Contributors

ROBERT EUBANK, from Lutherville, Md., is a student at Towson University with an expected graduation of May 2012. He is currently pursuing majors in finance and economics. Since the summer of 2010, Robert has served as the Portfolio Manager for the Towson University Investment Group prior to which he served as the Junior Portfolio Manager.



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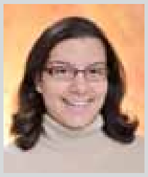

Towson University Investment Group

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 November 2010, the group travelled to Chicago to meet with analysts at Morningstar as well as tour the CME Group and Federal Reserve Bank of Chicago. Each spring the group travels to Dayton, Ohio for the Redefining Investment Strategy Education forum.

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.

The Towson University Investment Group will host its 3rd Annual International Markets Summit on Tuesday, April 26th, 2011 from 6–9 p.m.

For further information about TUIG or the International Markets Summit, please visit: www.towson.edu/wiic

Towson University Investment Group

The International Markets Summit

Tuesday, April 26, 2011
Potomac Lounge, Room 208
Towson University

Schedule of Events:
Panel Discussions 6–8 p.m.
Professional Networking: 8–9 p.m.

Topics:
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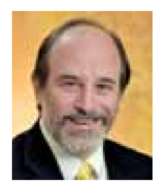

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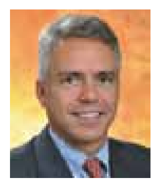

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About Towson University

Founded in 1866, Towson University is recognized among the nation's best regional public universities, offering more than 100 bachelor's, master's and doctoral degree programs in the liberal arts, sciences and applied professional fields on its 328-acre campus. Serving more than 21,000 students, Towson University is the second largest public university in Maryland. The university provides innovative graduate courses and programs that respond to specific state, regional and national work force demands. As a metropolitan university, Towson plays a key role in the educational, economic and cultural life of its surrounding communities, the Baltimore metropolitan area and the state of Maryland.

About The Baltimore CFA Society

The Baltimore CFA Society's mission is to provide the financial community with information and knowledge, while advocating ethical conduct with regard to investments and financial management. The Baltimore CFA Society also seeks to encourage and aid the education of persons engaged in the investment profession, and to provide members of the society with opportunities to exchange ideas and information amongst their peers.

The Baltimore CFA Society is an affiliate of the CFA Institute, which has over 95,500 members globally. BCFAS membership, 600 members strong, draws from a diverse cross section of local investment firms, financial and educational institutions, and government agencies.

Towson University College of Business and Economics

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.

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