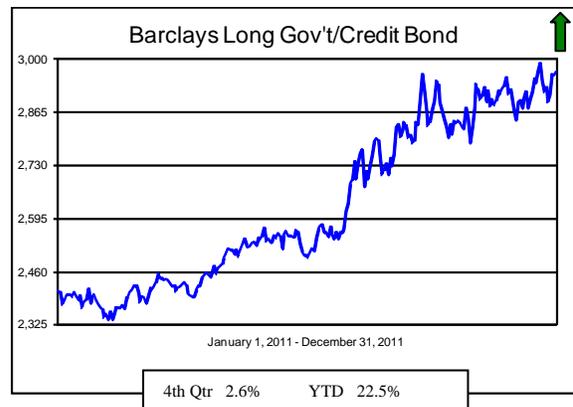
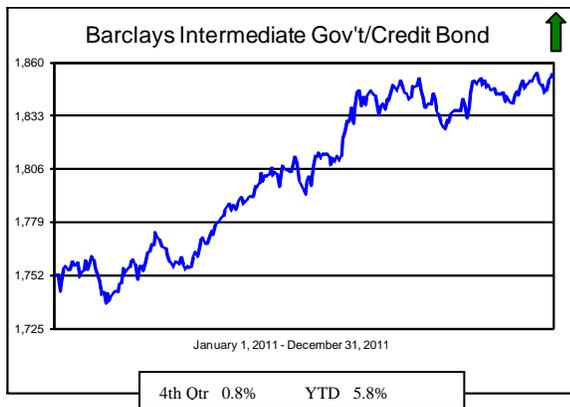
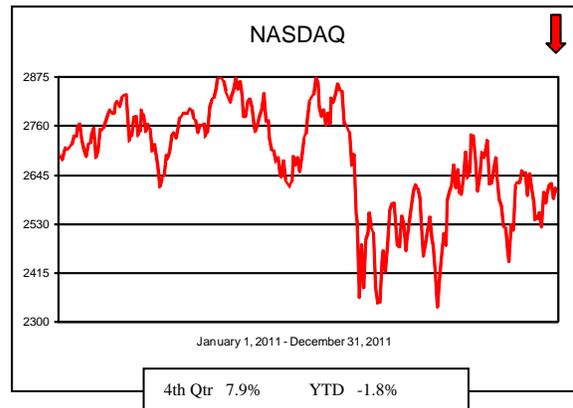
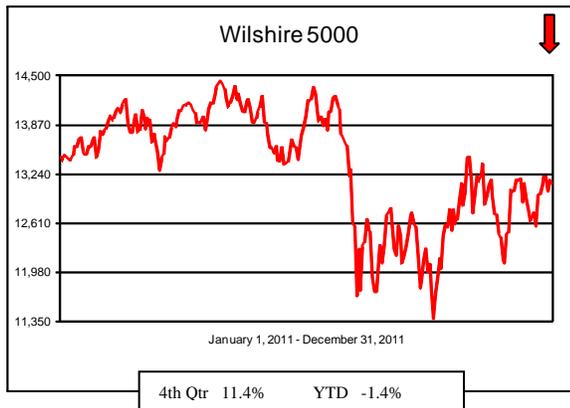
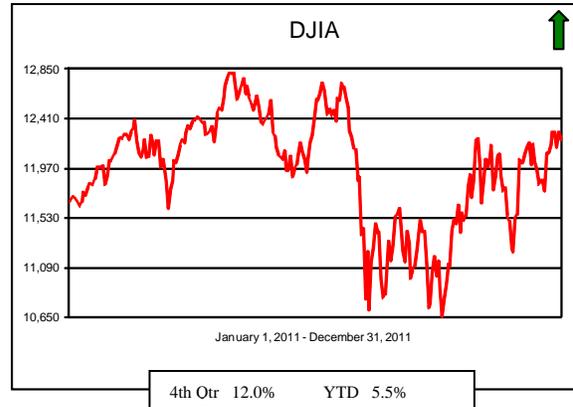
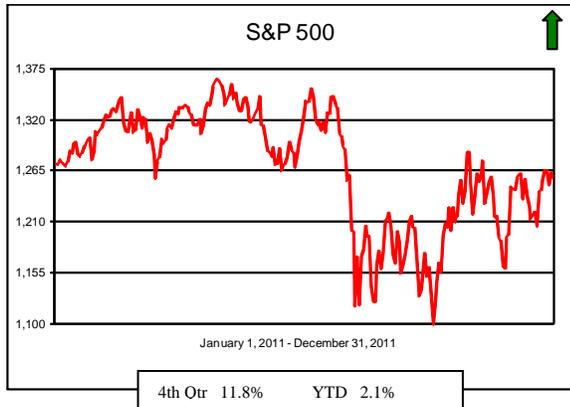


CAPITAL MARKETS SCOREBOARD

January 1, 2011 – December 31, 2011



EQUITIES

Equity Market Performance

The economically-sensitive sectors (Energy, Industrials, Materials) outperformed the broad market by a wide margin in the fourth quarter, but continued to lag the economically-resilient sectors such as Utilities, Consumer Staples and Health Care for the full year. One possible reason for this rally: the December 31st expiration of a temporary bonus depreciation rule implemented as part of the Tax Relief Act of 2010 that incentivized businesses to pull forward capital spending from future years into 2011. However, given the economic uncertainty, many businesses may have chosen to simply retain the cash on their balance sheets. As earnings and fourth-quarter Gross Domestic Product (GDP) are reported in January, we will have more information as to whether this optimism was justified. For the full year, the Standard & Poor's 500 (S&P 500) finished exactly where it started despite the large swings throughout the year. The more developed international markets, as measured by the Morgan Stanley Capital International Europe, Australasia, and Far East Index (EAFE), were down 12.1% in U.S. dollar terms while the emerging markets were down 20.4%. The U.S. is often perceived as a safe haven in times of global uncertainty, so capital flows out of international markets hurt both the foreign equity market and the foreign currency component of the EAFE return, while benefiting the U.S. dollar returns of the U.S. stock market.

S&P 500 by GICS Sector	Price Return (%)	
	4Q11	YTD
Energy	17.6	2.8
Industrials	15.7	-2.9
Health Care	9.3	10.2
Consumer Discretionary	12.0	4.4
Materials	14.7	-11.6
Telecommunications	6.4	0.8
Information Technology	8.4	1.3
Financials	10.2	-18.4
Consumer Staples	9.4	10.5
Utilities	7.2	14.8
S&P 500 Index	11.2	0.0

U.S. Market Returns Versus Worldwide Alternatives

As noted above, the major U.S. indices finished 2011 near their respective starting levels. Although almost no one derives much satisfaction from earning 0%, those who held a theoretical position in almost any leading U.S. index for the full year outperformed a theoretical purchase of an international index. Indeed, according to Strategas Research Partners, only the Russell 2000 posted a return less than a cross-section of international stock market indices spanning everything from the FTSE 100 (UK) to China's Shanghai A Shares index. One particularly interesting aspect of this chart: Chinese stock prices fell 21.6%, the most amongst the group listed here, despite the country's high single-digit economic growth and its rising global importance.

Leading US Indices (Total Return)

	2010	1Q '11	2Q '11	3Q '11	4Q '11	2011 (sorted)
Dow Jones Industrials, Adj for Div	14.0%	7.1%	1.4%	-11.4%	12.7%	8.3%
S&P/Citigroup Growth	15.1%	5.1%	1.6%	-11.6%	10.8%	4.7%
S&P 500 Adj for Div	14.7%	5.9%	0.2%	-13.8%	11.7%	2.2%
S&P 500 Small-Cap	26.3%	7.7%	-0.2%	-19.8%	17.2%	1.0%
S&P/Citigroup Value	15.1%	6.8%	-1.5%	-16.3%	13.0%	-0.5%
Nasdaq	18.0%	5.0%	0.0%	-12.7%	8.5%	-0.5%
Dow Jones Wilshire 5000	15.7%	5.5%	-0.6%	-15.6%	11.4%	-1.3%
S&P 400 Mid-Cap	26.6%	9.4%	-0.7%	-19.9%	13.0%	-1.7%
Russell 2000	26.9%	7.9%	-1.6%	-21.9%	15.5%	-4.2%

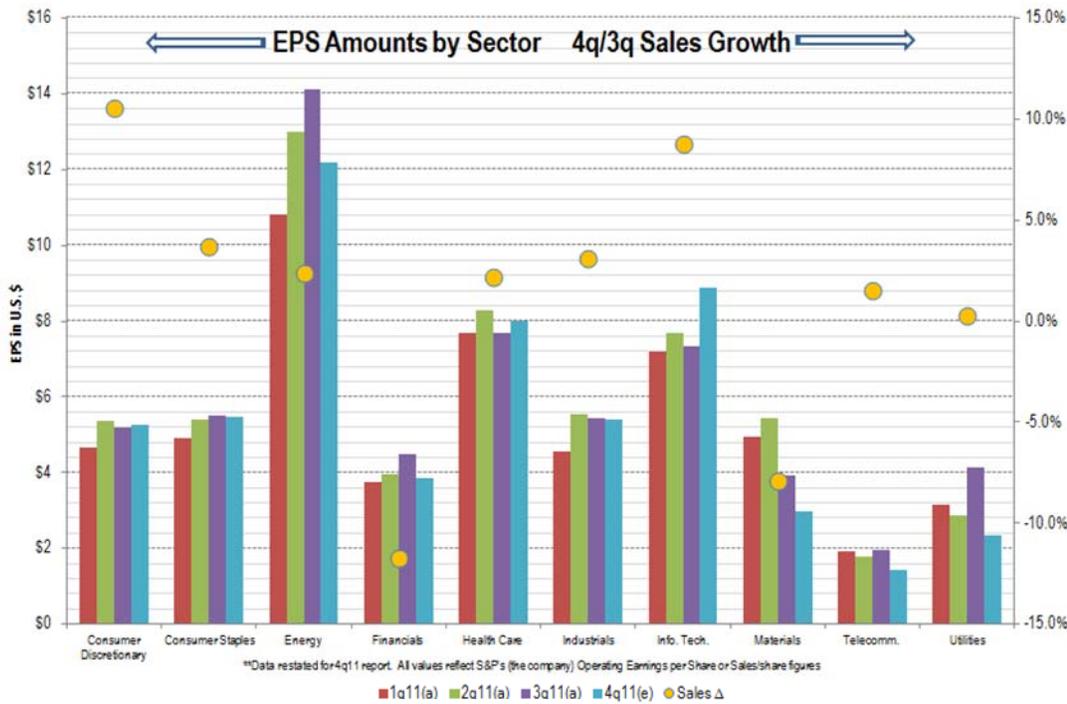
International Indices (Price Chg)

	2010	1Q '11	2Q '11	3Q '11	4Q '11	2011 (sorted)
Bolsa - Mexico	20.0%	-2.9%	-2.4%	-8.4%	10.7%	-3.8%
FTSE 100 - UK	9.0%	0.1%	0.6%	-13.7%	8.7%	-5.6%
Swiss Market Index	-1.7%	-1.2%	-2.7%	-10.6%	7.3%	-7.8%
S&P/TSX - Canada	14.4%	5.0%	-5.8%	-12.6%	2.8%	-11.1%
IBEX -Spain	-17.4%	7.3%	-2.0%	-17.5%	0.2%	-13.1%
DAX - Germany	16.1%	1.8%	4.8%	-25.4%	7.2%	-14.7%
CAC 40 - France	-3.3%	4.8%	-0.2%	-25.1%	6.0%	-17.0%
Nikkei 225 - Japan	-3.0%	-4.6%	0.6%	-11.4%	-2.8%	-17.3%
Bovespa - Brazil	1.0%	-1.0%	-9.0%	-16.2%	8.5%	-18.1%
Hang Seng - Hong Kong	5.3%	2.1%	-4.8%	-21.5%	4.8%	-20.0%
Shanghai A Shares - China	-14.5%	4.3%	-5.6%	-14.6%	-6.8%	-21.6%

Source: Strategas Research Partners

Earnings Growth

The fourth quarter is one of the seasonally strongest quarters for many companies. This is the quarter when bonuses are paid and spent for the holidays, sales forces strive to meet or exceed yearly quotas and companies that have not completely exhausted their annual budgets feel comfortable spending the remaining funds, especially for capital goods. The upcoming earnings season promises to introduce more volatility than normal. European companies, governments and consumers are likely to hang on to as much cash as possible given the high degree of economic uncertainty. In the U.S., the weather has been unseasonably warm, prompting markdowns for winter merchandise. In addition, many consumers have downsized to smaller houses or apartments and simply lack the space for another TV, exercise machine or sofa. One bright spot may be Japan, where the tragic earthquake in March of 2011 has resulted in an increased trend of gift giving to extended friends and family. Another outlier in the earnings trend may be the Energy sector. Oil prices have risen approximately 30% in the fourth quarter from the third quarter, yet estimates assume 5% sales growth. In the same period, natural gas prices have fallen 30%, so the mix of revenues between oil and natural gas will be an important determinant of earnings as will the hedging strategy of producers. Also, approximately 18% of the S&P 500 Energy sector consists of companies that supply equipment or services to



Source: Wallington Asset Management, Standard & Poor's

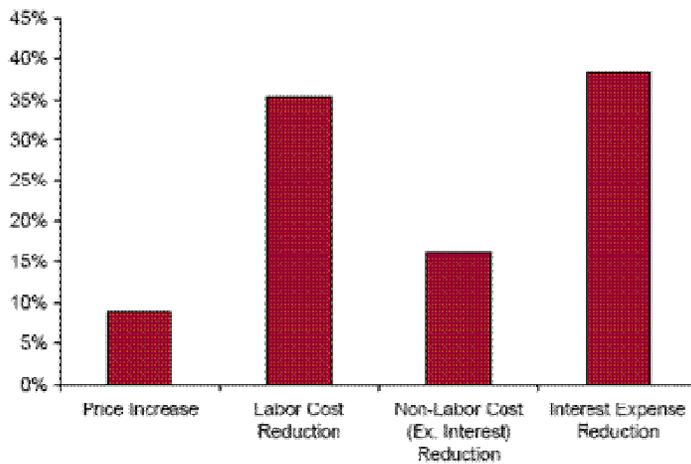
the oil producers; these companies' revenues are generally not influenced by energy prices over the short-term. Analysts estimate that sales for the entire S&P 500 will grow 1.9%, while operating earnings per share growth is expected to be a *negative* 3.9% relative to the third quarter. The slower earnings growth implies some margin compression from the third quarter, which is to be expected given the rising cost of commodity inputs.

Corporate Margins

Corporate margins may continue to compress due to rising commodity costs and a slowdown in the benefit from interest expense reductions. Although numerous press outlets, media pundits and analysts have researched and written about corporations' unit labor cost reductions, the role of lower interest expenses has passed relatively unnoticed. However, a by-product of Wallington's research on another topic revealed that labor costs were only the *second largest* contributor to corporate profit margin expansion since mid-2009.

Exhibit 12: Sources of Profit Margin Expansion During the Recovery

Per Unit of Real Gross Value Added, Non-Financial Corporate Business, Pre-Tax Basis

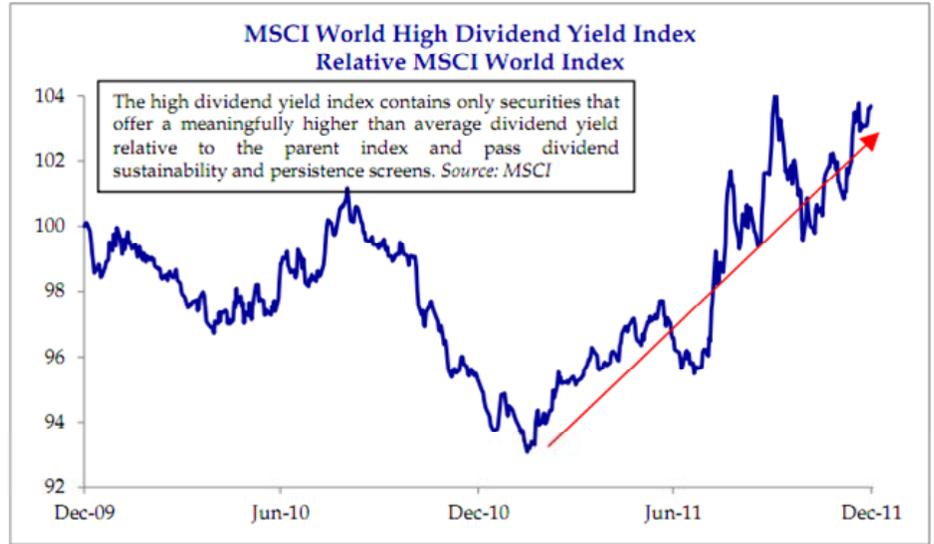


Source: Bureau of Economic Analysis, Credit Suisse

Credit Suisse's nearby chart clearly indicates that interest expense reduction boosted margins more than labor cost reductions – 38% versus 35%, respectively. Two insights can be gleaned from this: 1) corporate profitability growth in aggregate will be pressured when the bulk of companies' higher-cost debt has been refinanced and 2) the benefits of historically low rates, in the form of long-term, low-cost financing, will be long-lived for those companies able to take advantage of the current situation.

The Importance of Dividends

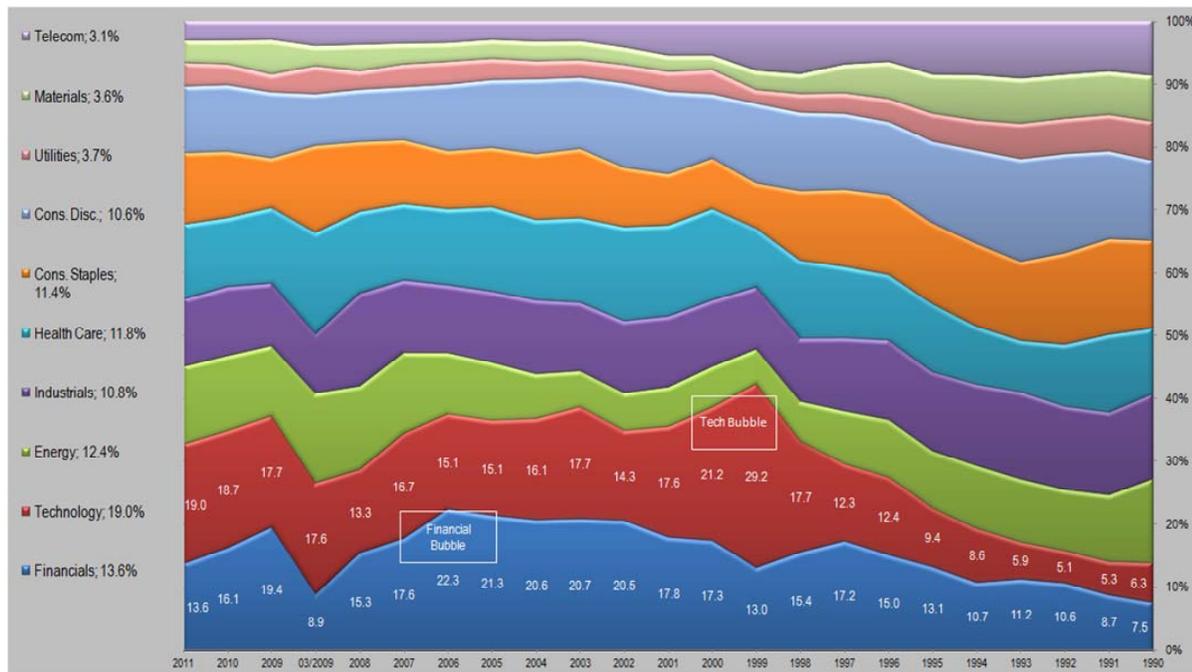
Amongst the best performing stocks around the world in 2011 were companies with dividend yields. Dividend paying stocks generally consist of companies with predictable cash flows, such as those that sell toothpaste, pharmaceuticals, electricity or telephony services. There are a few reasons for this outperformance. In an uncertain economic environment, investors tend to “hide-out” in these names. Second, interest rates in the major economies remain low, so retirees who need income gravitate toward securities which offer a yield advantage. Lastly, companies with secure annual dividends of 3-5% appeal to frustrated investors seeking higher returns, especially in light of the S&P 500’s tepid 10-year annualized return of just 1% per year on a price-only basis.



Source: Strategas Research Partners

Sector Weights Over Time

The chart below illustrates the varying influence of the ten GICS-defined sectors (Global Industry Classification Standard) on the S&P 500 since 1990 – the wider the band, the greater percentage representation of the sector in the S&P 500. The data points are interesting on a standalone basis, but become much more than that when you consider *why* the weights changed. For instance, the Financial sector represented just 7.5% of the S&P 500 in 1990 due to the S&L scandals of the 1980s. It has



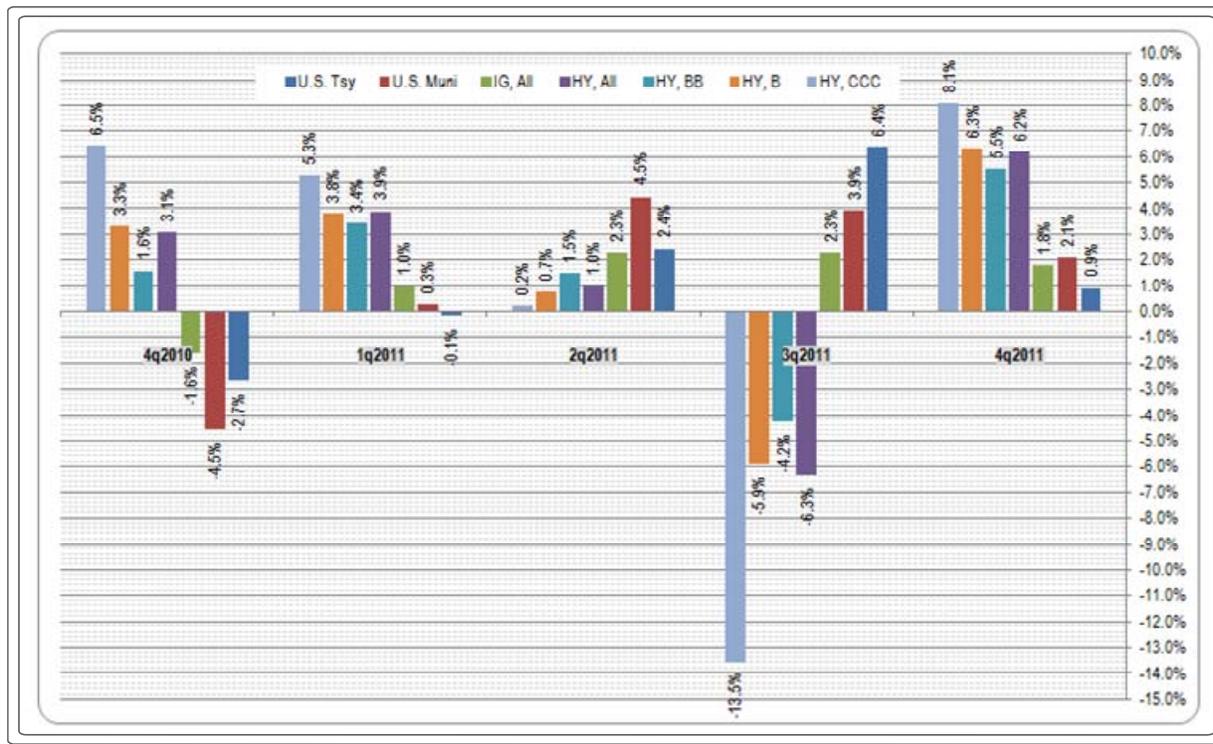
Sources: Bespoke Investment Group, SSgA SPDR ETF website, Baseline and the SPY ETF’s 13F filing with the SEC.

yet to decline to a similar level, despite its precipitous fall from grace as the Credit Crisis unfolded. The Information Technology sector run-up should surprise no one, but this might – the sector still amounts to almost 1/5 of the S&P 500 value even though it has suffered a decade of Price-to-Earnings (P/E) multiple compression. Finally, consider the waning influence of the Telecommunications sector. In 1990, its relative share of the S&P 500 was 8.7%. It increased to 9.1% in 1993, but now its 3.1% share lags even the staid Utilities sector. At year-end, the entire Telecommunication sector consisted of just eight companies with a combined market capitalization of approximately \$350 billion...or less than ExxonMobil's market cap alone.

ECONOMICS AND FIXED INCOME

Fixed Income Market Performance¹

Bond prices once again reflected the importance of macroeconomic-charged sentiment changes in the overall securities markets in the fourth quarter of 2011. That is, market participants' "risk on" attitude resulted in lower returns from lower-risk



Sources: Bank of America-Merrill Lynch, The Bloomberg

U.S. Treasury bonds and higher returns from higher-risk debt relative to the third quarter of the year. In particular, U.S. Treasury bonds returned 0.90%, investment grade corporate bonds gained 1.8% and high-yield bonds posted a total return of 6.2%. Within the high-yield space, the lowest-rated CCC tier (8.1%) outperformed the single-B tier (6.3%), while the BB tier gained the least (5.5%). Municipal bonds increased by 2.1% in the quarter, beating investment grade bonds for the third consecutive quarter. It is also worth noting that investment grade corporate bonds bounced back from an intra-quarter swoon that resulted in November-end yield spreads, i.e., corporate yields *minus* Treasury yields, nearly as large as those posted in July 2009.

State & Local Government Budgets, Municipal Debt and (Not So Many) Bankruptcies

As noted above, municipal bonds, in aggregate, performed well in 2011. The dire predictions for municipality-backed debt likely failed to come to fruition because:

1. **Balanced Budget Mandates** – Nearly every state constitution in the Union requires lawmakers to develop a balanced budget, forcing them to cut spending or otherwise equalize expected incomes and outflows. Legislators undoubtedly dread making these politically tough decisions, but they manage to do so when necessary.
2. **Chapter 9 Bankruptcy (Ch. 9) is a Last Resort** – Although individuals and companies regularly file bankruptcy, municipal bankruptcies are relatively rare. States, for instance, cannot file bankruptcy because no legal mechanism exists for a state to do so. In addition, local governments often need permission from the State to file Ch. 9, which the states are reluctant to grant. Note that two of the twelve Ch. 9 filings in 2011 were dismissed by the courts. And perhaps most powerfully, the government officials that choose Ch. 9 tend to lose any power, creating a disincentive to pursue the filing.
3. **Better-Than-Expected Revenue** – *Bloomberg Brief: Municipal Market* recently reported that fifteen states would end their current fiscal years with higher-than-expected revenue (source: National Association of State Budget Officers), while most are entering their respective fiscal years (FY2013) with stable or growing revenues (source: National Conference of State Legislators). Further, the latest data shows that 48 states grew revenue in the third quarter versus the third quarter of 2010.

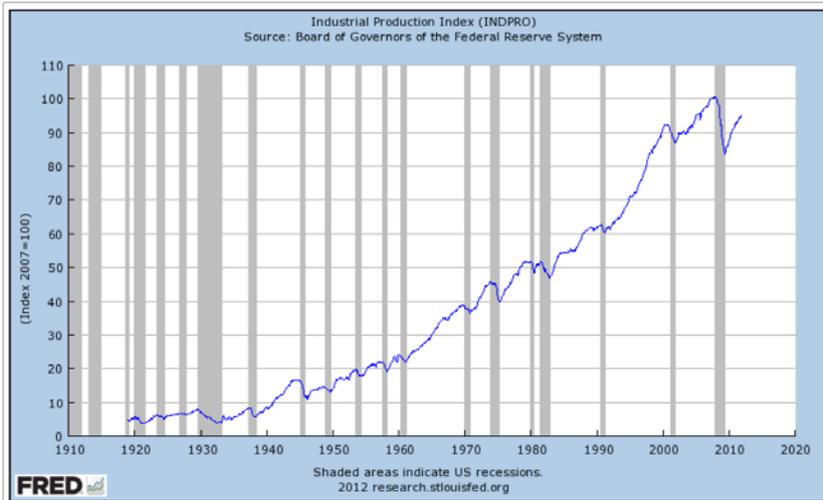
¹ As measured by Bank of America-Merrill Lynch's fixed income indices.

Municipalities are not out of the proverbial woods, yet, though. Many could face material problems if the broader economy begins to deteriorate again, which could quickly turn today's projected surpluses into tomorrow's worrisome deficits. In addition, pension benefit funding shortfalls have yet to be dealt with by a number of municipal governments.

Economic Pulse – Year-End U.S. Manufacturing Data Unexpectedly Positive

Measurements of the U.S.' manufacturing activity refreshed rather than drained market players in December because the information generally surprised to the upside. In mid-December, for instance, it became clear that U.S. manufacturing was better than expected.

The Empire Manufacturing and Philly Fed reports, representing New York State manufacturing as measured by the Federal Reserve Bank (FRB) of New York and manufacturing in eastern Pennsylvania, southern New Jersey and Delaware as measured by the FRB of Philadelphia, both beat expectations. Although the Federal Reserve's *Industrial Production and Capacity Utilization* report from the same timeframe fell short of forecasts, the large revisions to prior readings more than offset the then-current period miss. Further, the Institute for Supply Management (ISM) released its manufacturing survey results on January 3, 2012, indicating that its Purchasing Manager Index (PMI) for December rose



Source: Federal Reserve Board of St. Louis

again, this time to 53.9 (greater than 50 is considered to represent an expansionary manufacturing environment). Perhaps more importantly, the forward-looking New Orders component of the PMI also expanded, which bodes well for further increases in production.

Economic Pulse – Year-End Employment Data Also Unexpectedly Positive

The picture painted by recent employment data has brightened. Initial jobless claims have declined, somewhat erratically, since early 2009, and have been below the psychologically important 400,000 level long enough that the four-week moving average is now 373,000 (as indicated by the smooth red line in the graph shown to the right). In addition, November's revised unemployment rate of 8.7% was 3/10ths of a percentage point below expectations, below 9% for the first time since March 2011 and 1.3 percentage points below October 2009's 10% high. The December reading declined another 20 basis points (0.20%) to 8.5% versus predictions of a rise to 8.7%. Finally, according to the U.S. Department of Labor's Bureau of Labor Statistics, even manufacturing employment has begun increasing (the U.S. has 308,000 new manufacturing positions since December 2009), a rare phenomenon since at least April 2000.

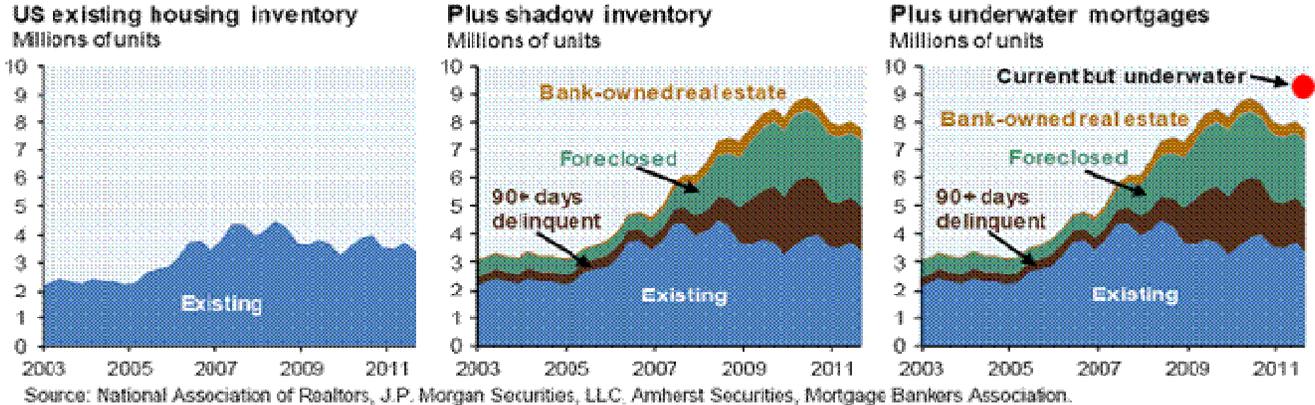


Source: The Bloomberg

Housing Overhang

The U.S. population grows by approximately 1% per year. The 2010 U.S. census calculates there are 113 million households in the U.S. and the home ownership rate is approximately 67% while the rental rate is approximately 33%. This implies that the demand for new homes for the purposes of home ownership grows by approximately 750,000 units per year. The inventory of homes available for sale, as illustrated by the top left chart on the following page, is currently 3 million units.

While the inventory of existing homes has stayed relatively flat since 2003, this may not be the complete picture. If you include homes that are 90+ days delinquent, foreclosed on, owned by the bank or those that are “underwater” (i.e., negative homeowner’s equity), this figure potentially balloons to 9 million homes, or a surplus of 6 million units above historical trends. This figure has a few interesting implications. First, assuming 1 million of these units are simply uninhabitable, an excess inventory of 5 million units in the face of annual demand growth of 750,000 units will take approximately 6-7 years to absorb. Second, while an economic recovery may stabilize home prices, home price appreciation is unlikely until the market adjusts to more reasonable levels of inventory. Lastly, it is highly uncertain how baby boomers will impact this market. If this sizeable



cohort decides to downsize to a smaller home or to a rental apartment, the demand for larger single family homes will likely fall at the same time that the existing home they own will be added to the current inventory of homes for sale. However, there are at least two positive scenarios to consider. One would be large scale government intervention to allow homeowners to finance high cost mortgage debt into lower cost mortgage debt, irrespective of previous credit history or the amount of equity in the home. Another favorable scenario would involve government support in converting these excess homes into rental properties. Considering that 2012 is a critical election year, the importance of resolving the real estate crisis is lost on no one.

The TED Spread

The “TED” spread is a relatively simply way to measure stress in the international banking system. The “T” stands for U.S. Treasury bills and the “ED” stands for Eurodollars. Eurodollars are U.S. dollar denominated time deposits at foreign banks.

The rate of interest on these deposits is termed LIBOR or the London Interbank Offer Rate. The spread is derived by subtracting the U.S. Treasury rate from LIBOR. In periods of economic uncertainty, the LIBOR rate tends to rise above the corresponding U.S. Treasury rate of return causing the TED spread to rise. The 3-month TED spread is currently 57 basis points (0.57%), which is an



indication of stress in the international banking system. This stress is directly attributable to the uncertain value of European government bonds held by European banks. Until these governments are able to provide certainty around the value of these bonds, it is difficult to assess the viability of European banks and whether or not they have the means to return the dollar-denominated deposits that they have accepted. At the peak of the financial crisis in 2008, the 3-month TED spread reached 463 basis points (4.63%), suggesting the current degree of stress is relatively small. However, until this uncertainty is resolved, the outlook for the economy, employment or the financial markets will remain challenged.

The Sustainability of Chinese Growth

The growth rate of the Chinese economy has continued to defy skeptics, until recently. During the 2008 global financial crisis, China's economy slowed to a 6% GDP growth rate, but never entered a full blown recession as did many parts of the world. In fact, the country quickly recovered to a double-digit growth rate of 12% led by investments in residential real estate and infrastructure projects. These types of fixed asset investments (FAI) now constitute almost 40% of China's GDP according to the CIA World Factbook. In the U.S., fixed asset investment constitutes approximately 12% of GDP, but this smaller number is to be expected given that the U.S. is further along in its economic development. However, China's FAI does differ



Source: The Bloomberg

markedly from other emerging markets FAI of 20-30% of GDP primarily because of government-directed investments into the residential real estate sector. The Chinese government is under constant pressure to generate jobs for the millions of migrant workers who enter the major cities every year. To solve this growing problem, the government has created jobs in the construction sector, in

particular, in residential real estate, irrespective of demand. This government induced building boom, should have lowered the price of existing real estate given the increasing supply of homes. Instead, residential real estate prices actually went up as the supply of desirable land started to shrink. Higher prices attracted additional investment from the private sector, further exacerbating the price of real estate and the supply of homes. Land prices in the major cities are down approximately 29% in the last year according to Goldman Sachs, which may be an indication of a bubble that has popped. The U.S. housing market (and for that matter, the U.S. economy) has yet to recover 6 years after its peak, so China may be on a similar path over the next decade or so. Unlike the U.S. housing bubble which was induced by subprime borrowers entering the housing market, the average Chinese homeowner has good credit quality, a high savings rate and a relatively small mortgage against the property.

Europe – Crisis Developments During the Fourth Quarter

Europe's slow-motion financial train wreck continued during the final quarter of 2011, providing newspapers all over the world with material to fill their business pages. The daily deluge of Euro-related stories, which has chronicled every twist, turn and machination of Europe's leaders, as well as the follow-on analysis by pundits of every nature, could easily lead to information overload. The following points seem to be the most important developments in the fourth quarter for Europe, though:

1. Greek Debt Deal – Early in the morning on October 27th, at crisis summit #14 since 2009, the Euro zone's leaders reached a deal to ease Greece's debt burden. Private banks and insurers voluntarily agreed to accept principal reductions of 50% on their Greek debt holdings in exchange for €30 billion of credit enhancements from the Euro zone. The deal proved disastrous for parties who owned credit default swaps (CDS) designed to cover principal losses caused by default. The reason: the "voluntary" nature did not trigger a credit event according to the terms of the model CDS contract.
2. Leaders Resign – The Prime Ministers (PM) of Greece and Italy, the two countries considered most financially shaky, resigned their respective posts within three days of each other (November 9th and 12th). George Papandreou had been the PM of Greece since 2009. Silvio Berlusconi has been Italy's PM three times, most recently in 2008.
3. Coordinated Central Bank Actions – In order to stem rising fears of liquidity disaster for European banks, six central banks lowered the cost of emergency funding, including the U.S.' Federal Reserve's swap rate. After the cuts, European banks could borrow U.S. dollars at a rate of just 0.6%. The coordination of the world's central banks was unprecedented.

"Fear tends to manifest itself much more quickly than greed, so volatile markets tend to be on the downside. In up markets, volatility tends to gradually decline." Phillip Roth (American Novelist)

January, 2012

Volatility – The Good, the Bad and the Ugly

The word volatility in the investing arena typically evokes visions of extreme risk and unpredictability. And while that may be partially true, it is important to recognize that volatility also creates opportunity. James K. Glassman wrote an article that appeared in the November 2007 issue of *Kiplinger's* called “The Upside of Risk.” In the article he stated, “Imagine a world in which stock investments performed the same year after year. A stock would be like a certificate of deposit. It would have no volatility – except for the effects of inflation – but it wouldn’t put much money in your pocket either. Stocks have returned an annual average of more than 10% over the past 80 years because they are volatile. To put it another way: A higher return is your reward for investing in a riskier asset.” By understanding this volatility, even at the macro level, it is possible to find ways to manage its damaging effects.

An introductory look at volatility should include the recognition that volatility is not symmetrical. In other words, if the market or a stock goes up by 50% and then down by 50% in any given period of time, the net result is a 25% decline. The same is true if the market or a stock first goes down by 50% followed by the 50% up period, even though in both cases the average return is zero. Volatility, therefore, is deemed to be asymmetrical since declines have a more significant impact than advances.

This asymmetrical volatility has a profound effect on wealth creation over time. As an example, the following table shows five hypothetical annual returns for three stocks over the same time period.

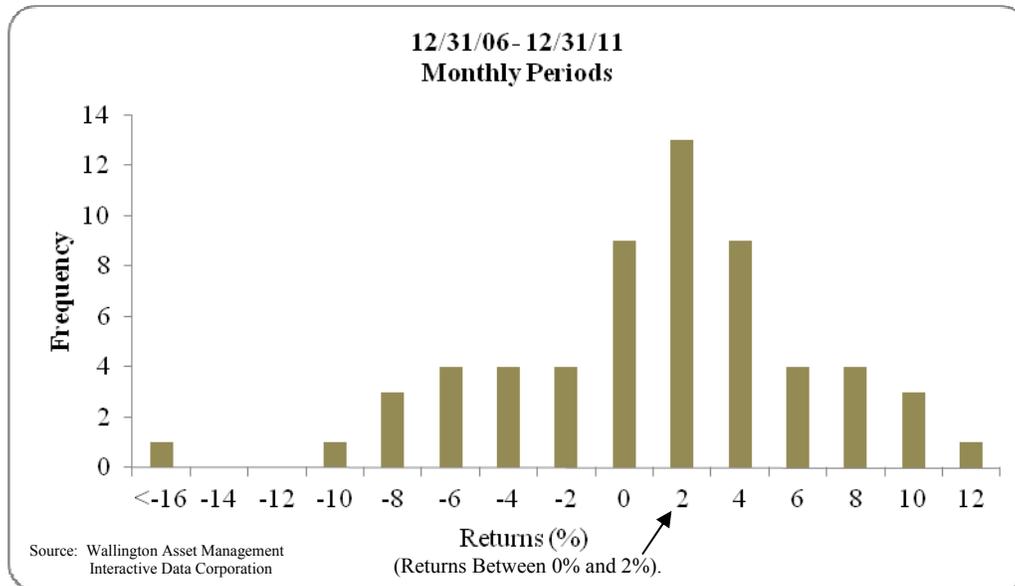
	Year 1	Year 2	Year 3	Year 4	Year 5	Average	σ	Growth of \$100,000
Stock A	+12%	-2%	+18%	+16%	+6%	10%	8.1	\$159,254
Stock B	+25%	-30%	+40%	+35%	-20%	10%	31.6	\$132,300
Stock C	+10%	-2%	+16%	+12%	+4%	8%	7.1	\$145,656

The returns of Stocks A and B both average 10% over the 5-year period. However, \$100,000 invested in Stock A would have been valued at \$159,254 at the end of 5 years versus only \$132,300 for Stock B. This is because the returns of Stock A are much less volatile than that of Stock B. (Notice the standard deviation (σ) column.) Stock C, with an average return of 8%, had a terminal value of \$145,656 – more than Stock B even though its average return is 2% lower than Stock B. It is important to note, then, that comparing average returns alone can be misleading. If two investments have the same average return, the one with the lowest volatility will create more wealth.

Measuring Volatility

There are a number of ways to measure and quantify volatility. For example, it is possible to measure the dispersion of monthly returns of the Standard & Poor’s 500 (S&P 500) for any period of time. This dispersion can be graphically depicted by creating a frequency distribution histogram like the one shown on the following page. This five-year graph illustrates the number of times the monthly market moves are within certain ranges such as 0% to +2%, 0% to -2%, +2% to +4%, -2% to -4%, and so on. The frequency of returns will normally be much higher close to the arithmetic

average (or mean) return, which in this example would be the sum of the 60 monthly returns divided by 60 (0.13%). Returns will normally be less frequent as the return ranges get more positive and negative, such as +10% to +12% and -10% to -12%, representing unusually large positive or negative monthly returns.



Volatility can also be measured by calculating the standard deviation of returns, which is the deviation of monthly returns around the average or mean return. Standard deviation is a more common way to measure volatility in the financial markets because it is described by one number that can be compared to historical data and that of other asset classes. In the case of the 60 months of data illustrated above, the average or mean return is 0.13% and the standard deviation is 5.45.

Bloomberg has recently begun quoting an “excess volatility” metric. As an illustration, over the 13 weeks from August 3 to November 2, 2011, the S&P 500 dropped to 1238 from 1260, a net decline of 22 points. Over that same 13-week period, the S&P 500 total daily movements added up to 1392 points, 684 points up and 707 points down. This excess movement of 1370 points (1392 total intraday point movement less the period change of 22 points) can be made relative by comparing it to the beginning level of the S&P 500 (1260) on August 3rd. The excess volatility works out to be 109% ($1370 \div 1260$), the fourth highest ever since the study began in 1950.

What is interesting is that volatility has increased over the decades. In the 1950s and 1960s, 13-week excess volatility was about 20%, meaning these daily moves were 20% more than needed to get the S&P 500 from point A to point B over a 13-week period. In the 1970s, 1980s and 1990s up to 1997, excess volatility averaged close to 40%. It has averaged closer to 60% since 1998, except for 2004-2006, a period of moderation but also the foundation for the credit bubble and subsequent financial crisis in 2008.

This increased volatility reflects higher levels of economic uncertainty due to globalization, an interconnected financial system, more leverage in the system worldwide (including sovereign debt), and perhaps more speculation and short-term trading among investors including hedge funds. Throw in the collapse of Long-Term Capital Management in 1998, the bursting of the technology

bubble in 2000-2002, the financial crisis of 2007-2009, now the Euro zone crisis, and it is safe to say that excess volatility will likely not moderate in the foreseeable future.

Predicting Volatility

Volatility is not always measured by looking at historical returns. The most common way of looking at future volatility uses a call option, which gives the buyer the right but not the obligation to purchase the underlying asset at the stated (exercise) price, while the seller has the obligation to deliver the asset at the exercise price. The price of a call option can be determined by five factors: underlying asset price; exercise price; time to expiration of the option; risk-free rate of return; and the variance rate. This is the famous Black-Scholes option valuation model. If you have the market price of the call option and believe it is an accurate price, you can back out of the model the variance implied in the call price. This is called the implied variance and the most well-known is the Chicago Board Options Exchange's CBOE Volatility Index[®] (VIX[®]). The VIX[®] is now referred to as the "fear index;" as it goes up, it implies more future volatility in prices and vice versa. Implied volatility can be computed for any asset, financial or real, whenever efficiently priced call options are traded on it.

Risk versus Volatility

Even though the word volatility is typically used interchangeably with risk, there is a difference between the two. With risk we know the probabilities of outcomes, so gambling at the casino entails risk (to the guest – the odds are stacked in favor of the house) as does life insurance and casualty insurance. In the stock market, there is much more uncertainty so it is difficult to consistently provide realistic probabilities of future events, whether they be company specific, sector, or macroeconomic. In life, what we know or do not know can be categorized as follows: 1) there are things we know for certain called known knowns; 2) things we know that we don't know for certain called known unknowns; 3) things we don't know that we don't know called unknown unknowns; and 4) things we think we know but don't know called unknown knowns. In the sciences, 1 dominates 2, 3 and 4. In the financial markets, 2, 3 and 4 dominate 1.

Managing Volatility

Volatility has been at historic highs the last four years and has been increasingly frustrating for most investors. In the last two years alone, we have experienced more uncertainty in financial markets than we have since the 1930s. The source of this uncertainty comes from many sources: the economy (growth or double dip); financial system stability; unemployment; inflation vs. deflation; the future cost of healthcare; regulatory reform; anti-business sentiment in Washington, D.C.; deficits; the Euro zone; and a multitude of others.

Wallington Asset Management adheres to processes designed to manage the detrimental effects of volatility. Volatility can be managed in a number of ways including a) establishing appropriate investment time horizons and b) establishing proper asset allocation.

It is important to have a clear idea of investing time horizons. In the event that investment assets are needed in the short term, it may be prudent to not have much, if any, allocation to the equities market. The chance of the market being down in any one-year period is much greater than for a longer-term period. This is evident in the holding period (HP) chart shown on the next page (latest data available from Ibbotson). The risk of losing money in the stock market, at least based on historical data, is nearly eliminated over longer holding periods.

**STOCKS VS. BONDS & INFLATION
TOTAL RETURN BASIS
1926-2010**

	TIMES STOCK RETURNS POSITIVE	TIMES STOCKS HAVE BEST RETURN
One-year HP	61/85 (71.8%)	54/85 (63.5%)
Five-year HP	70/81 (86.4%)	66/81 (81.5%)
Ten-year HP	72/76 (94.7%)	64/76 (84.2%)
Twenty-year HP	66/66 (100.0%)	65/66 (98.5%)

Source: Ibbotson Associates

Establishing proper asset allocation is performed in part by predefining the percentage of capital that is placed at risk in particular asset classes – namely stocks, bonds and cash. Studies have shown that a significant portion of the volatility comes from this one decision. Within the broad asset classes, further diversification (and hence potentially lower volatility) can be achieved by allocating assets to various sectors of the market. This occurs because the same set of economic conditions often impact sectors of the market differently. Yet another level of diversification is the security selection in each of those sectors. The end result of a disciplined, multi-layer diversification is the creation of a portfolio that experiences lower volatility, thereby increasing the chances of greater wealth creation.

At Wallington, we remain committed to managing volatility by applying the disciplines that have been tested over time, that have been instrumental in creating wealth over longer periods of time, and that provide the framework to overcome the natural human tendency to allow fear and greed to influence investment decisions.

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