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# EQUITY MARKET OUTLOOK: ON THE MARGIN

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## EXECUTIVE SUMMARY

- Stock market returns consist primarily of three components: dividends, earnings growth, and changes in the price/earnings (P/E) ratio. Over shorter periods of time, changes in the P/E ratio can have a substantial impact on stock market returns, but over longer periods of time, dividends and earnings growth are the primary drivers of return.
- Since 1926, the long-term average annualized return from the stock market has been slightly greater than 10.0%. If profit margins are supported near recent levels, then high single digit or even double digit equity returns are possible in the short term (one to three years). However, if profit margins revert to their long-term mean, possibly due to a recession that causes a profit margin setback, the outlook for equity returns in the short-run is less sanguine. Over the long term, investors may expect below average, yet positive, returns from the stock market if profit margins and P/E ratios are similar to long-term averages.
- There are many prognosticators who believe the stock market is dangerously overpriced based on long-term earnings potential and current P/E ratios. While in the long run these individuals may be proven correct, investors must also realize what influences profit margins and what affect changes in profit margins will have on stock market returns in the short run.
- It is possible to see very strong short-term returns from stocks if the economy continues to grow at a healthy pace, but given reversion to the mean tendencies of profit margins and earnings growth (especially during recessions), long-term prospects for stock returns from current levels still appear to be below average.
- We continue to believe that flexibility in implementation, active management, and tactical reallocation within the context of a broadly diversified, long-term strategic asset allocation plan will remain critical to the success of portfolios for the foreseeable future.

## INTRODUCTION

During each of the past three years, we've provided our insight and expectations for equity market returns by emphasizing specific themes. Our May 2009 research paper sought to provide a detailed description of our valuation process and philosophy, while our March 2010 research paper stressed the importance of price and valuation. With corporate profit margins near historic highs, this year we seek to provide insight into the sustainability of this dynamic over the short term and long term.

## WHAT FACTORS DRIVE EQUITY MARKET RETURNS?

As a reminder, a more detailed description of our valuation process and philosophy can be found in our May 2009 PMFA research paper, "Equity Market Outlook: A Rational View." However, let us take a brief moment to outline the drivers of equity returns. Equity returns can be divided into three main components: dividend yield, earnings growth, and P/E expansion or contraction. Dividend yield is the "cash flow" return that investors receive from an equity investment, while earnings growth is the rate at which a company's income is expanding and is impacted by both sales growth and profit margins. P/E ratio expansion and contraction measures the change in the earnings multiple that market participants are willing to pay for each dollar of earnings. While there is some other short-term "noise" that makes its way into pricing, these are the three primary components of equity returns.

Over very long-term periods, dividend yield and sales growth account for a majority of total return, while expansion or contraction in both the P/E ratio and profit margins have less of an impact (see the total return breakdown for the period 12/1973 – 12/2010). Yet, over shorter periods of time, changes in P/E ratios and profit margins can have a substantial effect on the return of equity markets. It is also important to note that P/E multiple expansion or contraction can have a substantially larger impact when the starting point is extreme. Corporate profit margins may contract or expand due to labor market conditions, credit availability, and interest rates, or technological innovations. Usually changes to these factors take place over long, secular timeframes.

### Changes in Price/Earnings Ratios and Profit Margins Can Significantly Impact Returns

S&P 500 Index				
	12/1973 – 12/2010	12/1973 – 12/1982	12/1982 – 12/1999	12/1999 – 12/2010
Average Dividend Yield	3.27%	5.05%	3.25%	1.78%
Change in Margin (M)	0.85%	-4.25%	3.37%	1.29%
Change in Sales (S)	5.55%	9.87%	4.85%	3.22%
Annualized Earnings Growth (M) x (S)	6.45%	5.20%	8.38%	4.55%
Annualized P/E Expansion (Contraction)	0.66%	-1.00%	5.93%	-5.70%
Other	0.19%	0.19%	0.79%	-0.22%
<b>Annualized Total Return</b>	<b>10.58%</b>	<b>9.44%</b>	<b>18.35%</b>	<b>0.41%</b>

Economic Data				
	12/1973 – 12/2010	12/1973 – 12/1982	12/1982 – 12/1999	12/1999 – 12/2010
Nominal GDP Growth	6.53%	9.77%	6.46%	4.04%
Real GDP Growth	2.72%	1.91%	3.77%	1.78%
<b>Inflation</b>	<b>3.81%</b>	<b>7.86%</b>	<b>2.69%</b>	<b>2.26%</b>

Source: PMFA, Standard & Poor's Compustat, Federal Reserve

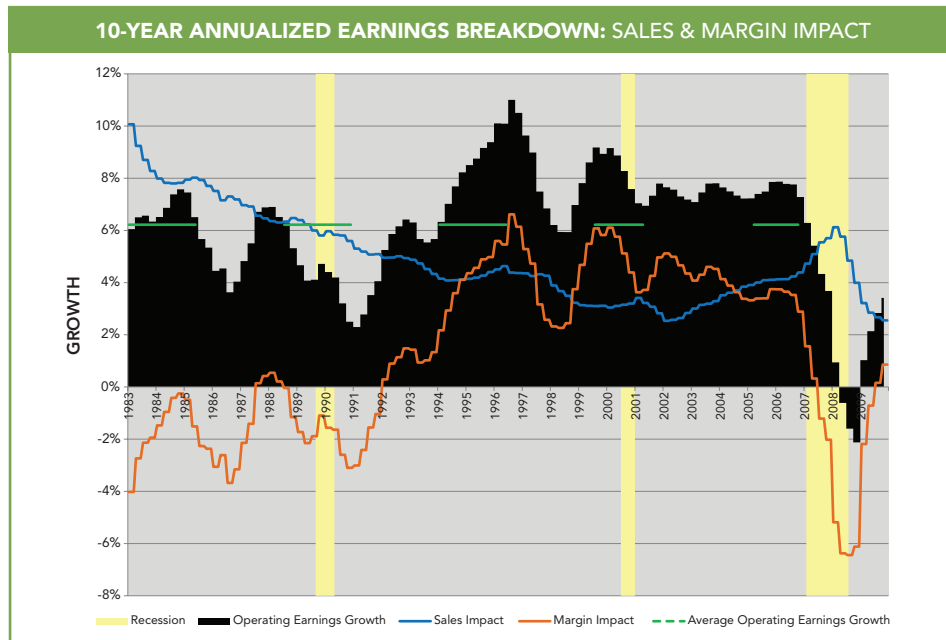
In the short run, recessions have a significant negative effect on profit margins (and thereby earnings), which is why stock market participants tend to react so negatively to a recession. As it relates to P/E ratios, prolonged periods of economic expansion marred only by mild recessions can increase investor appetite for risk assets like stocks. For example, during the secular bull market that lasted from December 1982 to December 1999, the S&P 500 Index annualized total return was 18.35% — well above the long-term average. This return was driven by both strong earnings growth and P/E expansion (see table above). During this period, P/E ratios based on operating earnings<sup>1</sup> expanded from a low of approximately 10 in 1982 to more than 28 in 1999. However, the P/E expansion tailwind turned into a strong headwind very quickly in 2000, as noted above.

Again, while the potential return of the S&P 500 over the long term will be largely driven by sales growth and dividends, returns may also be dramatically impacted by changes in P/E ratios and profit margins over shorter timeframes.

## DRIVERS OF EARNINGS GROWTH

Earnings growth is affected by two separate components: sales growth and profit margins. As the chart below shows, during every 10-year period since 1983, sales growth had a positive influence on earnings growth, including the last decade. However, changes in profit margins were extremely volatile, explaining most of the peaks and troughs in earnings growth. Therefore, to gauge the potential earnings growth over the next 10 years, we need to analyze the potential sales growth and profit margin impact.

### Stable Sales Growth Has Often Been Offset by Profit Margin Volatility



Source: PMFA, Standard & Poor's Compustat

### Nominal GDP and Sales

As we discussed in our May 2009 equity research paper, long-term historical sales growth and nominal GDP<sup>2</sup> have been highly correlated. Both have exhibited volatility relative to their long-term averages, which makes it difficult to predict with precision. However, 10-year rolling real GDP growth has been relatively consistent, ranging from 1.6% to 4.8% since 1956. Assuming productivity continues to increase and more of the world's population continues to gravitate toward capitalism, we can reasonably expect real GDP to grow within that historical range. However, real GDP does not include the impact of changing prices (inflation). As such, to appropriately estimate nominal GDP and thereby sales growth, we must make an assumption about expected inflation.

The Federal Reserve's informal long-term inflation target (as measured by the PCE deflator<sup>3</sup>) is 1.7 to 2.0%<sup>4</sup>. If the Fed can achieve this goal over the long run, this suggests that nominal GDP growth may range from 3% to 7%. Long-term sales growth of the S&P 500 has historically been approximately 1% below long-term nominal growth in GDP, so it would be reasonable to assume that sales growth would be approximately 2% to 6% if these conditions were to persist.

<sup>1</sup>Operating earnings are defined as profits after subtracting expenses such as marketing, cost of goods sold, administration and general operating costs from revenue, but do not include income from non-core operations.

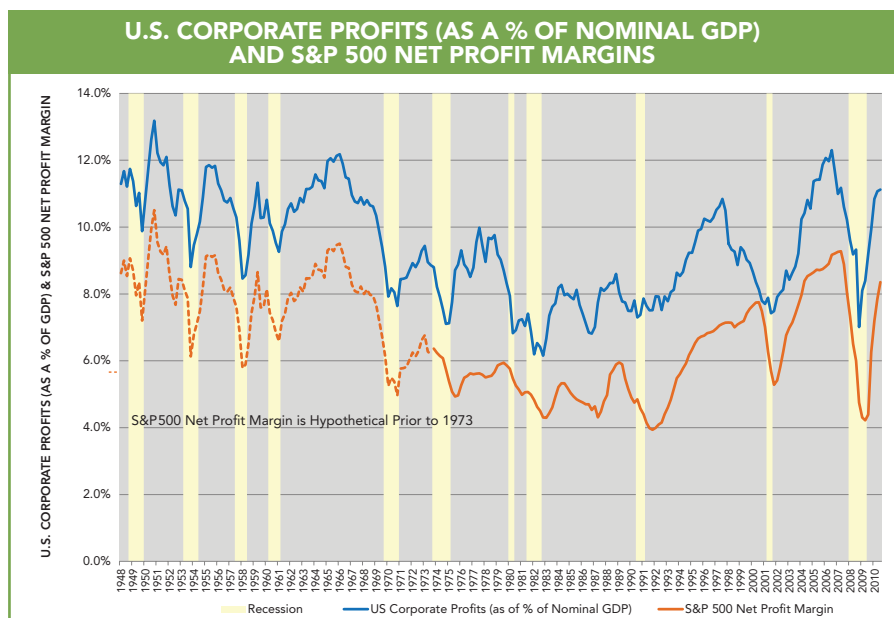
<sup>2</sup>Nominal GDP (Gross Domestic Product) is defined as the market value of all final goods and services produced domestically in a single year at current market prices.

<sup>3</sup>PCE (Personal Consumption Expenditure) deflator is a measure of inflation based on the average increases in prices for all domestic personal consumption.

<sup>4</sup>Bernanke, Ben S. (2011). Transcript of Chairman Bernanke's Press Conference, pg. 2.

## PROFIT MARGINS AND THE ECONOMIC CYCLE

In order to determine earnings, we must also consider profit margins. Profit measures from National Income and Product Accounts (NIPAs) and from Standard & Poor's are both widely utilized gauges of corporate profitability. While these measures are similar in nature, there are significant differences. NIPA profits measures are designed to reflect the national economic accounting concept of "income from current production" and to provide consistent coverage over time of all U.S. corporations, including small private businesses. In contrast, S&P 500 operating earnings measures the corporate profitability of only 500 of the largest individual companies by market capitalization. This measure is reported on a financial accounting basis that reflects "generally accepted accounting principles," or GAAP accounting. Despite the differences to S&P 500 operating earnings, NIPA corporate profits (with inventory valuation and capital consumption adjustments) as a percent of nominal GDP have exhibited a correlation of approximately 0.90 to S&P 500 profit margins over rolling five-year periods since 1973. Given their lengthy history, we believe the use of NIPA corporate profits allows for an evaluation of the behavior of corporate profit margins over a longer time frame than the S&P 500 data. Therefore, we will use NIPA corporate profit measures to review data prior to 1973.



Source: PMFA, Standard & Poor's Compustat, Federal Reserve

With a peak of 13.2% in 1950 and a significant amount of time above 10% prior to 1969, U.S. corporate profits as a percent of nominal GDP have averaged approximately 9.44% during the full 1948–2010 timeframe. Using U.S. corporate profits as a percent of nominal GDP as a proxy<sup>5</sup>, it appears likely that profit margins on the S&P 500 would have been sustained at levels greater than 8% prior to 1968 (see hypothetical numbers above) with an average of approximately 6.77% during the full 1948–2010 timeframe.

As illustrated above, S&P 500 net profit margins peaked most recently in August 2007 (slightly above 9%). Margins have generally been on an upward trend since the early 1990s despite two significant contractions during the 2001 and 2008 recessions. Today, S&P 500 net profit margins appear to be close to their post-1973 high. However, in the early 1950s, corporate profits as a percent of nominal GDP peaked near 13.2%. This would seem to indicate that S&P 500 net profit margins may have been above 10.5% during this period of time (see hypothetical margins illustrated above). However improbable it may seem, this would also appear to suggest that it is possible that margins could move higher than 9% in the years ahead, if factors that support profit margin expansion were to persist.

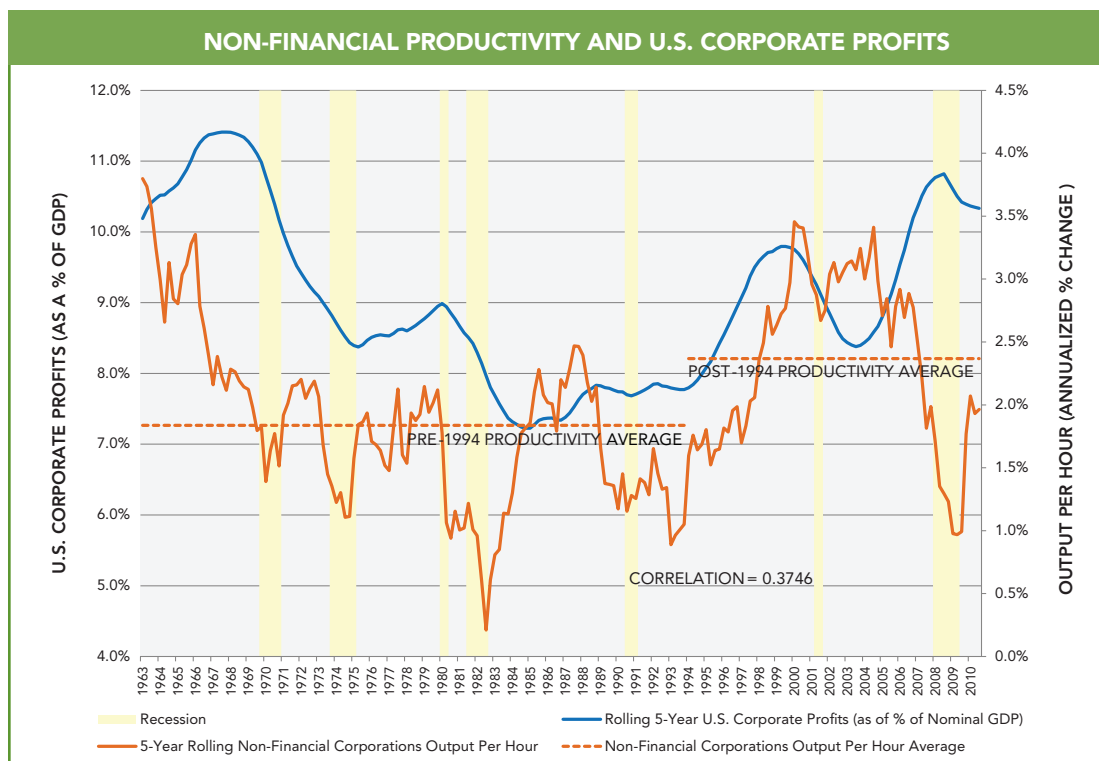
<sup>5</sup>Hypothetical S&P 500 net profit margins were calculated by calculating the average level of dispersion (2.67%) between U.S. corporate profits as a percent of nominal GDP and actual S&P 500 net profit margins from December 1973 to December 2010. This average was then subtracted from U.S. corporate profits as a percent of nominal GDP prior to 1973.

U.S. corporate profits as a percent of nominal GDP, like S&P 500 net profit margins, appear to have been in a structural uptrend since the early 1990s. During this period, U.S. corporations experienced generally decreasing tax rates, increasing availability of leverage at ever lower interest rates, increased globalization, and significant industry deregulation, specifically within the financial sector. Given these trends, it begs the question: "Is this sustainable, and can margins head higher?"

## DRIVERS OF PROFIT MARGINS

In order to assess the sustainability of profit margins, we must first address the specific drivers of profit margins. Companies employ labor and utilize capital, thus profit margins are a function of how the prices of these two inputs change relative to output prices. Beyond labor and capital, taxes and interest expenses also impact net profits. While the various factors may impact corporate profit margins, the degree of the influence of the various factors appears to ebb and flow over time.

Looking at the trend in margins (see chart above), one can see an inflection point around the mid-1990s. Corporate profits as a percent of nominal GDP averaged 8.0% from 1970 to 1992, while they averaged 9.6% from 1993 to present. From 1993 to present, three dynamics may have driven a structural uptick in margins. First, financial-sector profitability was unusually high, as the impact of leverage was in full force. Second, non-financial sector productivity growth appears to have been in a structural upturn after the mid-1990s, and many companies appear confident that they can sustain productivity growth at these high levels as they continue to make better use of technology and cheaper overseas labor (see chart below). The third and final component during this period of time was generally declining interest rates and unit labor costs. Let's look at some of these individual components.

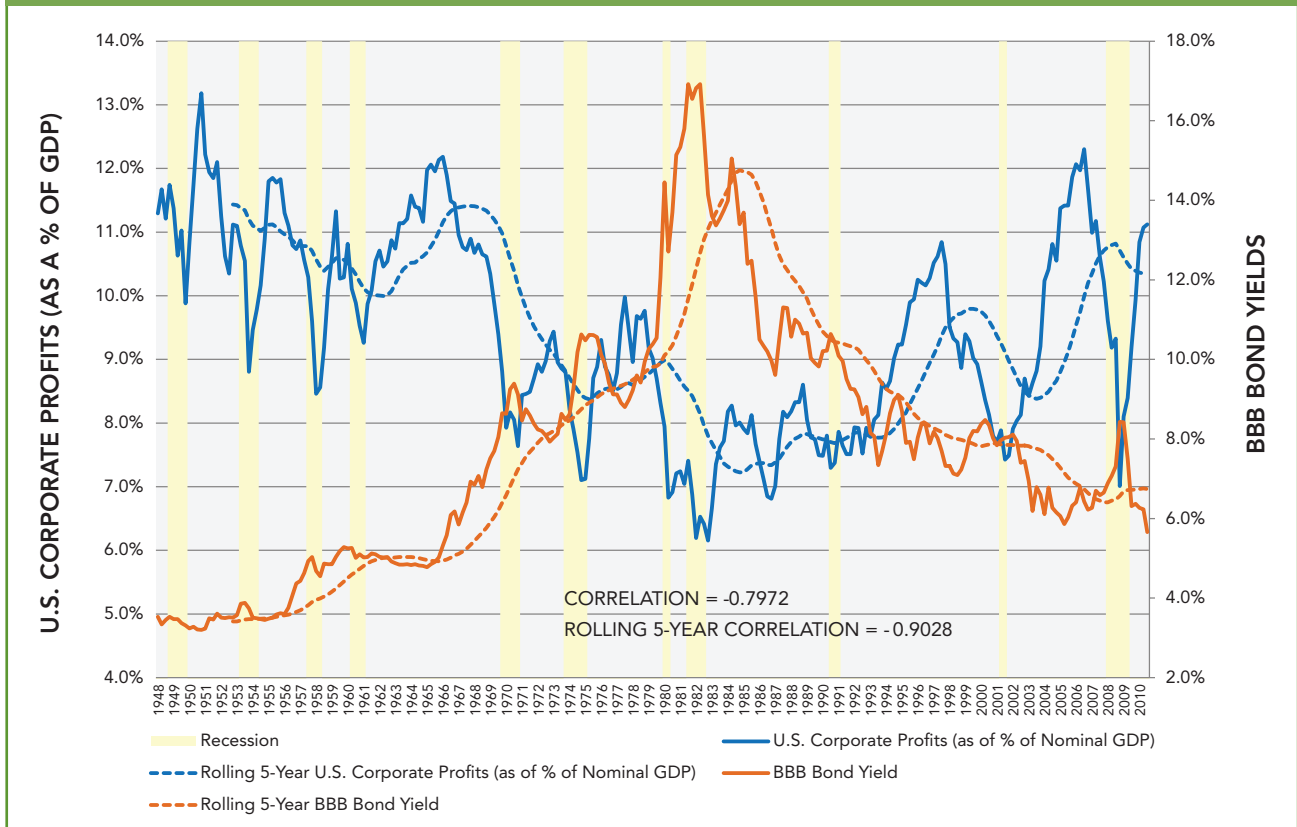


Source: PMFA, Federal Reserve, Bureau of Labor Statistics

## INTEREST RATES

BBB Bond Yields and U.S. corporate profits as a percent of nominal GDP have historically exhibited a strong negative correlation of -0.90 over a five-year rolling basis since 1948 (see chart below). Intuitively, this makes sense as lower yields indicate lower corporate borrowing costs, which would positively impact corporate profitability. Although companies in the U.S. are becoming increasingly less capital intensive, the relationship cannot be ignored.

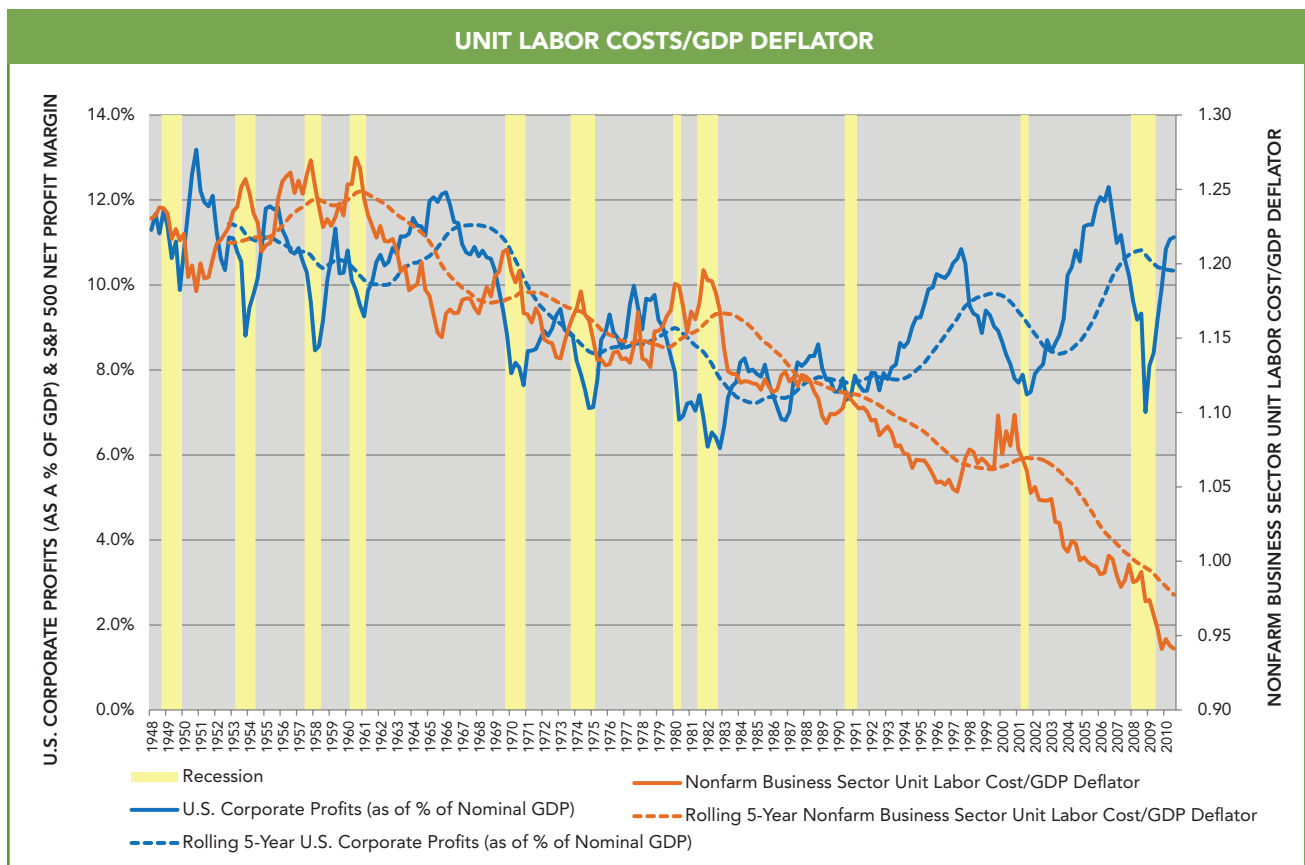
BBB BOND YIELD & U.S. CORPORATE PROFITS



Source: PMFA, Federal Reserve

## LABOR

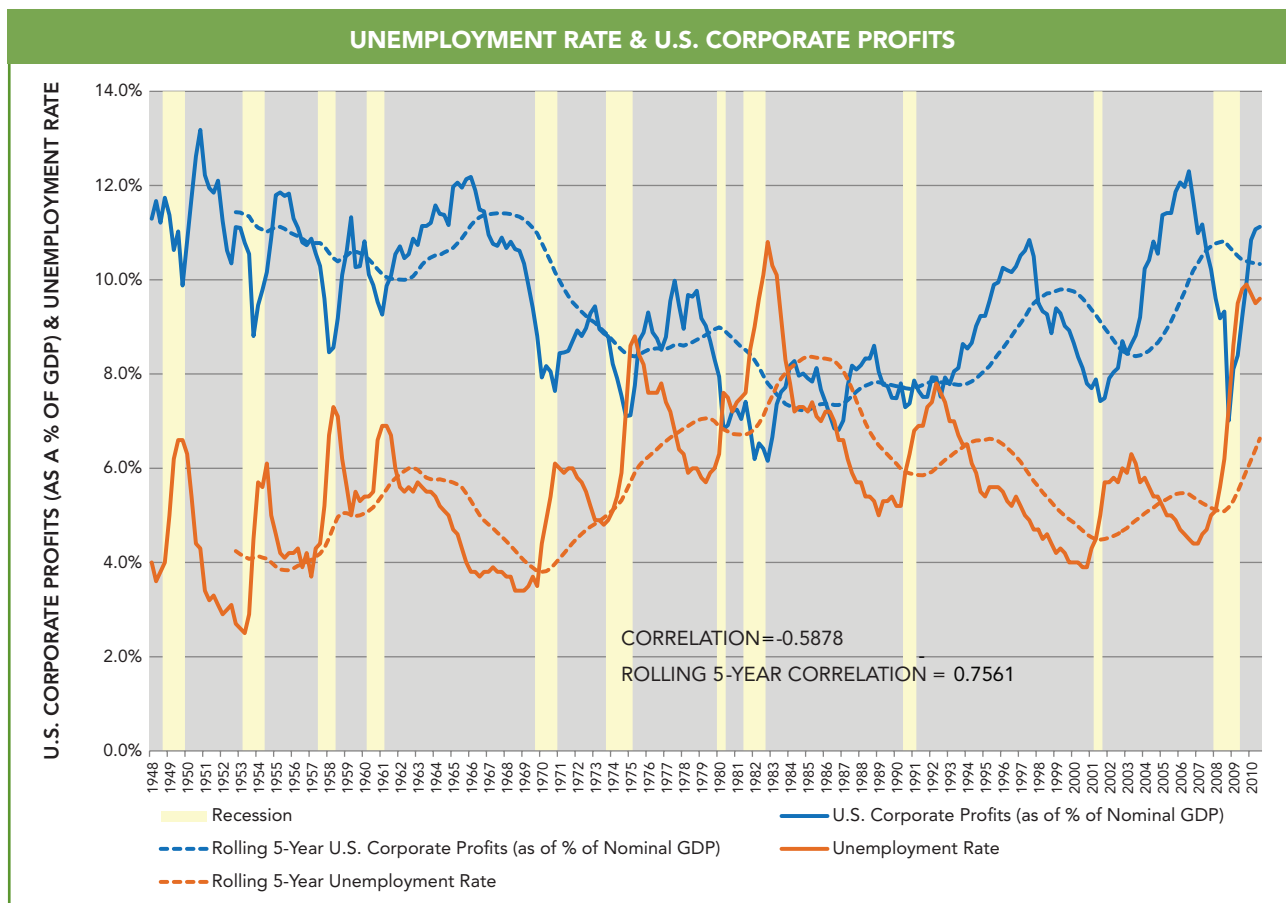
As approximately 45% of total S&P operating costs are comprised of wages<sup>6</sup>, labor costs would seemingly play an integral role in corporate profitability. The ratio of nonfarm business sector unit labor cost over the GDP deflator is a relative measure of labor to output prices. From 1990 to present, the correlation between this measure and corporate profits as a percent of GDP has been -0.89 on a five-year rolling basis, which would seem to indicate that the lower the relative price of labor, the higher the profit margin. As the chart depicts below, labor costs relative to output prices also appear to have been in a structural downtrend during this period of time.



Source: PMFA, Federal Reserve

<sup>6</sup>Goldman Sachs Global Investment Research (2011). "Continued Turmoil in the Middle East and North Africa: Implications for Oil, Inflation and Equity Markets," pg. 5.

Historically, the U.S. unemployment rate and U.S. corporate profits as a percent of nominal GDP have had a strong negative correlation (see chart below). As profits declined, unemployment increased and vice versa. However, this relationship has broken down as of late with both the unemployment rate and profit margins at elevated levels. Some would argue that the current relationship between profit margins and the unemployment rate is being largely skewed by the policy response of the U.S. government. Many workers that are currently unemployed are still receiving benefits, thereby subsidizing the economy. In years past, such a high unemployment rate would typically be accompanied by decreased consumer spending resulting in lower profit margins. While this is not currently the case, the expiration of these subsidies may bring lower margins once again in the future.

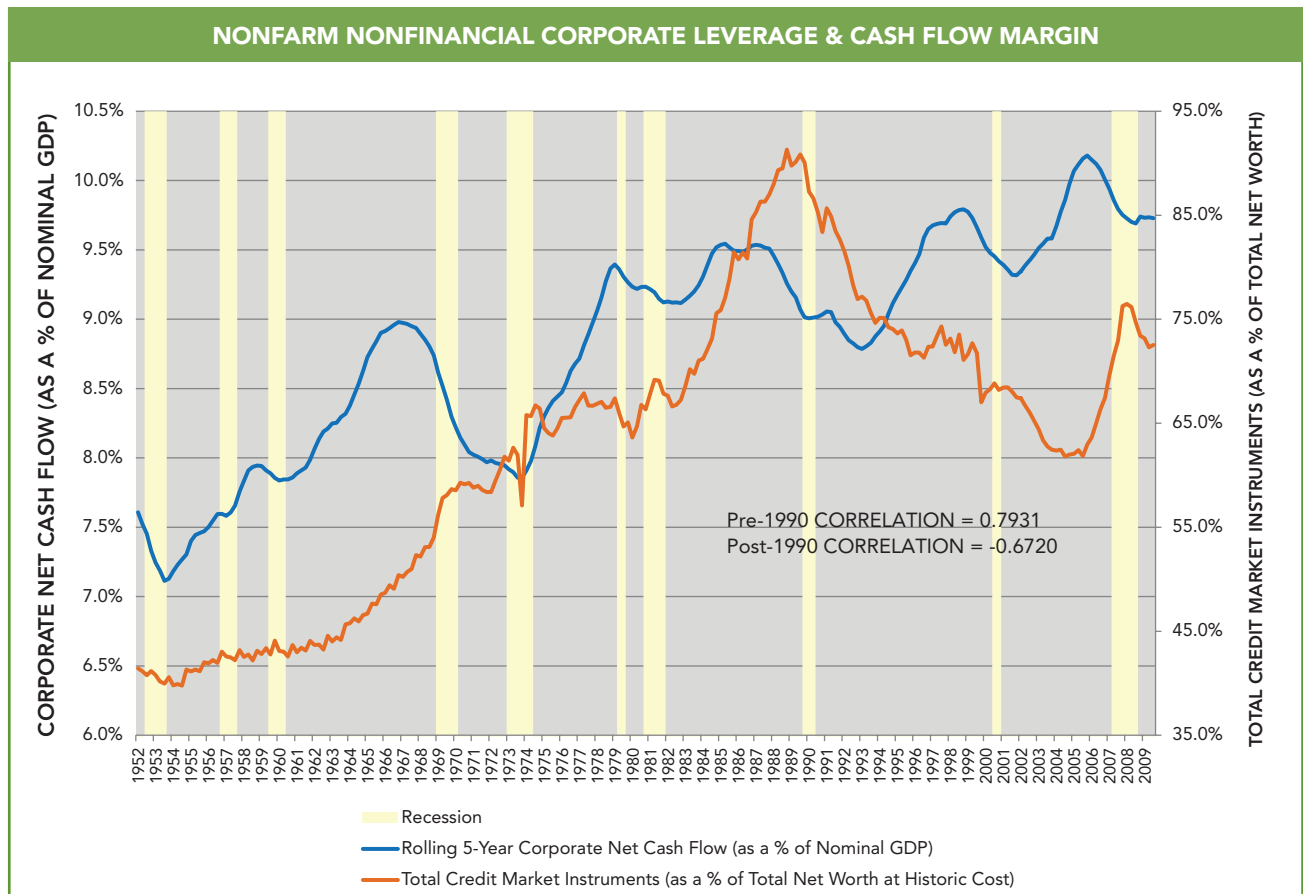


Source: PMFA, Federal Reserve

## LEVERAGE

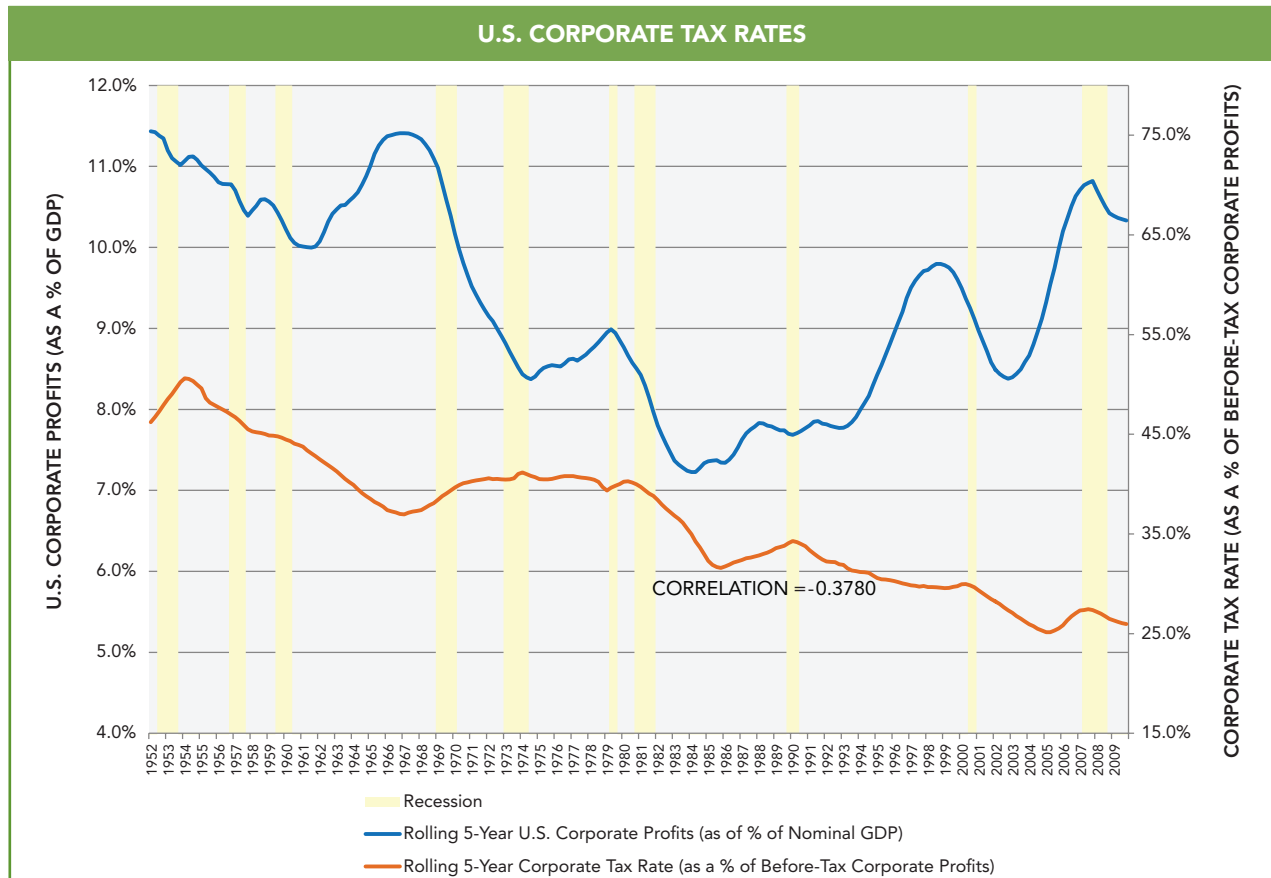
Leverage is a factor that appears to have had a dynamic relationship with corporate profit margins. Up until the early 1990s, rising cash flow margins, a measure of how efficiently a company converts its sales to cash, tended to be accompanied by rising corporate leverage (as measured by non-farm non-financial debt to historic cost). In fact, from 1952 to 1990, the correlation between cash flow margins and corporate leverage was approximately 0.79. Since the early 1990s, cash flow margins have continued to surge ahead while our measure of corporate leverage has receded from its peak. As a result, the correlation between cash flow margins and corporate leverage was actually -0.67 from 1990 to 2010. This would seem to indicate that while leverage helped to increase cash flows from 1952 to 1990, decreasing non-financial corporate leverage has had little to no effect on margins since. Instead, it would appear that productivity, interest rates, and labor costs may have had a larger impact on cash flow margins during this period of time.

However, it bears keeping in mind that our measure of corporate leverage does not include companies in the highly levered financials sector, nor does it provide a picture of the amount of debt added to the U.S. government's or consumers' balance sheets. Given current debt levels that exist in developed economies, including the U.S., the potential for lower real GDP growth rates in developed nations is very possible. A substantial degree of indebtedness has been added to public balance sheets relative to GDP over the last 30 years. This increase in debt has helped to fuel the growth of many economies during this timeframe, but this debt may now be a headwind to economic growth. An increased focus on austerity and deleveraging for governments and consumers may have a negative influence on GDP growth. If this lower growth rate is ultimately accompanied by low inflation, then corporate revenues would also seem likely to be below long-term averages. If this lower growth rate is accompanied by high inflation, then higher interest rates could negatively impact margins. Higher tax rates would do the same. These factors are just a few examples of why profit margins are often volatile and difficult to predict.



## TAXES

Corporate tax rates and corporate profits have displayed a negative correlation over the long run (see chart below). Since the early 1980s, the corporate tax rate as a percent of before-tax corporate profits has been in a structural decline. Also, it's worth noting that while U.S. corporate profits as a percent of nominal GDP were near today's levels in the 1960s, corporate tax rates were at much higher levels. This would seem to indicate that if fiscal policy remains corporate-friendly, then margins would not be negatively impacted.



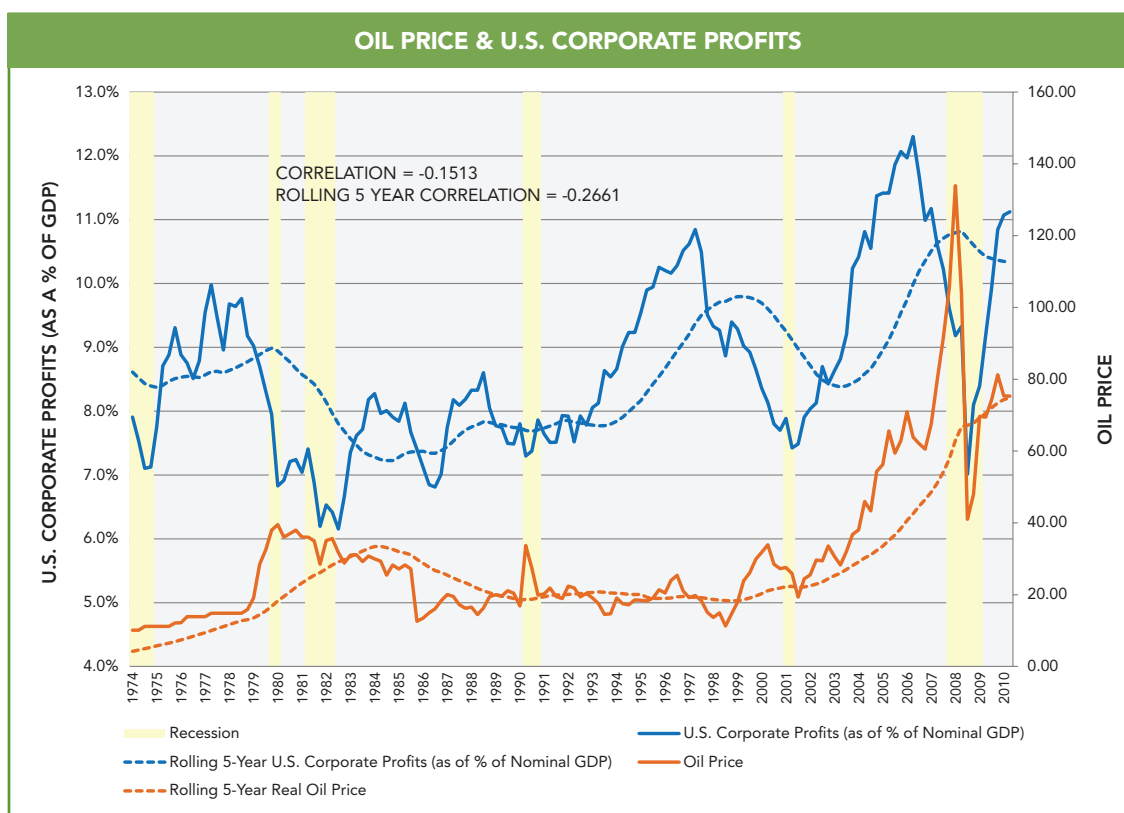
Source: PMFA, Federal Reserve

## COMMODITIES

The price of oil, a key input into the cost of production for many companies, may be in a structural uptrend, which may hinder corporate profitability going forward. While most energy and material companies may benefit from higher commodity prices, the impact for corporations and consumers may be negative to varying degrees. While it intuitively makes sense that higher oil prices might sap profit margins, over the long term this does not appear to have been the case.

Since 1974, the correlation between the price of oil and profit margins has been -0.27, which does not indicate a strong relationship. The lack of a strong connection could be the result of a couple of dynamics. First, commodity costs now represent only approximately 15% of total S&P 500 operating costs<sup>7</sup>, which marginalizes the impact of rising input prices. Also, firms that benefit from rising commodities contribute approximately three times as much to aggregate S&P operating earnings than those that are negatively impacted in the short-run<sup>8</sup>. In other words, while some companies may be facing margin pressure from rising commodity prices, the improving profits in the energy and materials sectors have historically been able to more than adequately compensate for the headwind it creates for some other sectors of the market.

However, that is not to say that the price of commodities does not have an impact on margins. Sharp increases in the price of oil over sustained periods of time, such as the one that occurred in late-2007 to mid-2008, appear to negatively impact margins. Also, the correlation between the price of oil and profit margins appears to have been more meaningful (-0.78) from 1974 to 1990. From 1990 to present, the correlation between the two factors reversed and was remarkably +0.73. The shift from a manufacturing-based economy to a more service-based economy and the corresponding downward trend in the importance of energy as an input cost appears to be an important factor.



Source: PMFA, Federal Reserve

## SECTOR COMPOSITION

It is a common theory that a shift to a more service-based economy from a manufacturing-based economy in the U.S. may have structurally lifted the baseline for margins on the S&P 500. Along those lines, the composition of the S&P 500 appears to have dramatically shifted since 1991, with higher margin, less economically sensitive sectors of the S&P 500 representing a larger portion of the total market capitalization of the index. The financials and technology sectors experienced the largest weighting increases during this period of time, and these sectors now represent the two largest sectors in the S&P 500. In contrast, at the outset of that period the S&P 500's two largest sectors were the historically low margin consumer staples and consumer discretionary sectors. While increased competition within the technology sector and increased regulation and decreased leverage within the financials sector may eventually erode margins to some degree in these sectors, the impact of the changing composition of the index itself should not be overlooked.

<sup>7</sup>Goldman Sachs Global Investment Research (2011). "Continued Turmoil in the Middle East and North Africa: Implications for Oil, Inflation and Equity Markets," pg. 5.

<sup>8</sup>Goldman Sachs Global Investment Research (2011). "Continued Turmoil in the Middle East and North Africa: Implications for Oil, Inflation and Equity Markets," pg. 6.

It is also interesting to note the general trend in the level of profit margins from a sector perspective. From 1991 to 2010, eight of the 10 sectors experienced increases in margins, while only the health care and telecommunication services sectors experienced margin declines. This would seem to indicate that the increase in the S&P 500's profit margins was not driven by a factor impacting one area of the economy, but rather by a set of factors impacting the economy as a whole.

## FINAL THOUGHTS ON PROFIT MARGINS

We must also mention the impact that the general level of economic activity has on profit margins, as variations in profits may also be explained by variations in aggregate demand. During the Great Recession of 2008-2009, we experienced a substantial reduction in profit margins. However, a reduction in margins during a recession is rather common as depicted in the various charts included in this paper. In the later part of an economic expansion, corporations tend to be overstaffed. When the economy slips into recession and demand begins to wane, falling sales (accompanied by relatively fixed operating costs), in the short run, can result in a rapid and significant reduction in profit margins and a subsequent reduction in employment. On the contrary, as demand troughs and sales begin to increase, companies typically have spare capacity, low levels of inventory, low capital expenditure budgets, and a lean staff. Therefore, in a recovery, a minimal increase in sales may result in a seemingly disproportional increase in profit margins and operating earnings.

Along with GDP growth, the general trend in interest rates, labor costs, and taxes appear to have exhibited strong relationships with profit margins over time. Interestingly, these factors have all declined since the early 1990s, helping profit margins to rise. However, the stock market is a forward looking mechanism. As such, it is important to look at the likely path of profit margins in the short and long run going forward.

What is the short-term outlook for profit margins? From a growth perspective, expansionary fiscal policy and sustained accommodative monetary policy appear to have contributed to a mild acceleration in growth in recent quarters, and growth in revenues may help to support profit margins. Corporate taxes as a percent of before-tax profits are at all-time lows. While taxes will most likely go up in the future (as the government must eventually address its deficit), the starting point is low, thus any increase is still likely to result in a rate that is below its historical average. Furthermore, with U.S.-domiciled companies increasingly generating a larger portion of their profits outside the U.S., lower-tax regimes overseas may help to keep the tax burden low for multinational corporations. While the most likely path for interest rates is up, the magnitude and timing of the next cyclical move are unknown. However, against a likely backdrop of a tepid recovery characterized by sub-par growth, minimal job creation, and low inflation, the Fed may keep interest rates exceptionally low for a while, an environment that would remain supportive for above-average profit margins. In the short run, the potential for above average profit margins certainly exists, especially since margins tend to be cyclical and tend to hold up when the economy is expanding. Thus, we anticipate that profit margins could continue to be well supported at elevated levels in the near term, if a recession is avoided.

On the other hand, over the long term, if interest rates, taxes, inflation, and/or labor costs were to reverse recent trends and begin to increase at a pace collectively greater than that of revenue growth, then the long-term trend in profit margins could reverse. Mean reversion in profit margins may return with a vengeance in the next recession, as has occurred in the past. It appears that companies have cut costs and are now quite lean even as the economic expansion has progressed. As a result, when the next recession occurs, companies may not be able to cut costs as aggressively as they have in the past.

While economic dynamics were very different in 1950 than today, profit margins have been higher in the past than they are currently. Thus, to say that profit margins can't go higher in the short run would seem to be ignore the historical record. However, it does seem prudent to assume that the long-term, secular trend for profit margins is more likely moving closer to the 6% to 7% range than today's level of 8.7%.

## STOCK MARKET RETURN OUTLOOK

Our 3-, 5-, 10-, and 20-Year Equity Market Outlooks can be found on [www.pmfa.com](http://www.pmfa.com) and are updated on a quarterly basis.

Given our understanding of the drivers of stock market returns, let us try to understand how these factors will impact returns going forward. The tables below summarize the potential outcomes of the equity market over the next three and 20 years, respectively, based on the S&P 500 beginning market price, earnings-per-share (EPS) and P/E ratio as of 12/31/2010, along with a range of potential outcomes for ending sales growth, profit margins, and P/E ratios. Our three-year analysis is meant to provide a short-term outlook based on the drivers of the various factors over a cyclical time horizon, while our 20-year analysis is meant to provide an outlook based over a long-term/secular time frame.

### SHORT-TERM RETURN POTENTIAL FOR STOCKS (3 YEARS ENDING 12/31/2013)

S&P 500 COMP-LTD		
Level	1257.64	31Dec10
EPS	83.77	31Dec10
Sales	962.71	31Dec10
Dividend Yield*	2.04%	31Dec10
Current PE	15.01	
Profit Margin	8.70%	

BOND YIELDS		
3-year U.S. Treasury Yield	1.02%	31Dec10
3-year BBB Bond Yield	3.07%^	31Dec10

^Average of 2-year and 5-year BBB Bond Yields

3-Year Annualized S&P 500 Sales Growth	Estimated Total Returns For 3 Years Ended 12/31/2013											
	Ending P/E Ratio: 10				Ending P/E Ratio: 16				Ending P/E Ratio: 22			
	S&P 500 Profit Margin				S&P 500 Profit Margin				S&P 500 Profit Margin			
	4.0%	6.0%	8.0%	10.0%	4.0%	6.0%	8.0%	10.0%	4.0%	6.0%	8.0%	10.0%
-2.0%	-31.9%	-22.3%	-14.7%	-8.3%	-20.7%	-9.5%	-0.6%	6.9%	-12.1%	0.4%	10.3%	18.6%
0.0%	-30.6%	-20.8%	-13.0%	-6.5%	-19.1%	-7.7%	1.4%	9.0%	-10.3%	2.4%	12.5%	21.0%
2.0%	-29.2%	-19.3%	-11.3%	-4.7%	-17.6%	-5.9%	3.3%	11.2%	-8.5%	4.4%	14.7%	23.4%
4.0%	-27.9%	-17.7%	-9.6%	-2.8%	-16.0%	-4.1%	5.3%	13.3%	-6.8%	6.4%	16.9%	25.8%
6.0%	-26.5%	-16.2%	-7.9%	-1.0%	-14.4%	-2.3%	7.3%	15.5%	-5.0%	8.4%	19.1%	28.2%
8.0%	-25.2%	-14.6%	-6.2%	0.8%	-12.8%	-0.5%	9.3%	17.6%	-3.3%	10.4%	21.3%	30.5%
10.0%	-23.8%	-13.1%	-4.5%	2.7%	-11.2%	1.3%	11.3%	19.7%	-1.5%	12.4%	23.5%	32.9%

\*Dividend yield does not include share buyback yield

Source: PMFA, Standard & Poor's Compustat, Federal Reserve

The outlook for stocks over the next three years appears to be highly dependent on the strength and resiliency of profit margins, unless the market experiences significant P/E expansion or stronger than anticipated sales growth while maintaining similar margins. Over the past year, the rebound in margins has been impressive, given the relative weakness of the economic recovery up to this point. If profit margins and P/E ratios are supported near recent levels, then single digit or even double digit equity returns are possible over the next three years. However, if profit margins revert to their long-term mean of 6-7% or below, potentially due to a recession, then the outlook for equity returns in the short run is less sanguine. This in part is why it is so difficult to make accurate prognostications about stock market performance in the short run.

## LONG-TERM RETURN POTENTIAL FOR STOCKS (20 YEARS ENDING 12/31/2030)

S&P 500 COMP-LTD		
Level	1257.64	31Dec10
EPS	83.77	31Dec10
Sales	962.71	31Dec10
Dividend Yield*	2.04%	31Dec10
Current PE	15.01	
Profit Margin	8.70%	

BOND YIELDS		
20-year U.S. Treasury Yield	4.13%	31Dec10
20-year BBB Bond Yield	5.80%^	31Dec10

^Average of 10-year and 30-year BBB Bond Yields

20-Year Annualized S&P 500 Sales Growth	Estimated Total Returns For 20 Years Ended 12/31/2030											
	Ending P/E Ratio: 10				Ending P/E Ratio: 16				Ending P/E Ratio: 22			
	S&P 500 Profit Margin				S&P 500 Profit Margin				S&P 500 Profit Margin			
	4.0%	6.0%	8.0%	10.0%	4.0%	6.0%	8.0%	10.0%	4.0%	6.0%	8.0%	10.0%
0.0%	-3.7%	-1.8%	-0.4%	0.7%	-1.5%	0.5%	1.9%	3.1%	0.1%	2.1%	3.5%	4.7%
2.0%	-1.8%	0.1%	1.6%	2.7%	0.5%	2.5%	3.9%	5.1%	2.0%	4.1%	5.6%	6.7%
4.0%	0.1%	2.1%	3.5%	4.7%	2.4%	4.4%	5.9%	7.1%	4.0%	6.1%	7.6%	8.8%
6.0%	1.9%	4.0%	5.5%	6.6%	4.3%	6.4%	7.9%	9.1%	6.0%	8.1%	9.6%	10.8%
8.0%	3.8%	5.9%	7.4%	8.6%	6.3%	8.4%	9.9%	11.1%	7.9%	10.1%	11.7%	12.9%
10.0%	5.7%	7.8%	9.4%	10.6%	8.2%	10.4%	11.9%	13.2%	9.9%	12.1%	13.7%	14.9%

\*Dividend yield does not include share buyback yield

Source: PMFA, Standard & Poor's Compustat, Federal Reserve

In response to the economic crisis, the Federal Reserve and Congress enacted several monetary and fiscal policy responses to support the U.S. economy. This support came at the expense of a material increase in the U.S. government's debt burden through trillions of dollars of money creation. This expansion in the liability side of both the U.S. Government and Federal Reserve balance sheets may ultimately lead to the need for higher taxes, interest rates, or both. Furthermore, the U.S. Government has proactively implemented new regulations that encourage banks to raise capital, on average, rather than increase leverage.

Over a longer time horizon, if debt levels, tax rates, regulations, and/or interest rates reverse the trends that have occurred in the most recent 20-year period, it is likely that longer-term margins would ultimately decline from currently elevated levels. However, the long-term return potential for stocks does not hinge solely on profit margins.

Over very long periods of time, the primary driver to stock market returns appears to be sales growth and dividends. As outlined in the beginning of the paper, sales growth has historically been highly correlated with nominal growth of GDP over long periods of time. Over every 20-year period in the post-World War II era, nominal growth of GDP has always been positive in the United States. While the deleveraging of the government's balance sheet may structurally reduce growth over the long term, it is highly unlikely that this reduction would impair nominal growth to the point that it turned negative. As can be seen on the chart above, sales growth, profit margins, and/or P/E ratios would have to end significantly below average to lose money in the stock market over the next 20 years. Thereby if profit margins and P/E ratios are similar to long-term averages over the next 20 years, investors may expect below average, yet positive, returns from the stock market over the long term.

We view these tables not as a forecast, but as a rational way of reviewing potential returns. No one knows what the future may hold, and we are not attempting to make a prediction as to the price levels of the stock market at any future date. We do believe, however, that this data can be viewed in a historical context to assist investors in reviewing a range of potential outcomes, for a variety of periods, given a series of assumptions that are backed by quantitative evidence.

The monetary policies currently prevailing around the world have historically been very supportive for the pricing of risk assets, despite the elevated level of profit margins that currently exist. While these conditions last and if economic expansion continues, there is the potential that risk asset returns could continue to surprise to the upside, and may do so for a number of years, not just months. Another positive aspect of the world economy that could be highly supportive of returns in the years ahead is the potential growth in the personal consumption in emerging economies, which would likely be beneficial for sales growth across the globe.

Nevertheless, today's equity returns may come at the expense of those in the future if you believe in mean reversion, as we do. Excess returns today may lead to lower long-term returns in the future. Unfortunately, given that many investors these days seem to invest with an investment time horizon measured in weeks instead of years, it is possible that a euphoric short-term increase in stock market prices could develop, thereby significantly reducing long-term return potential. As such, we will continue to closely monitor the various global markets with a keen eye on valuation within the context of our outlook on the broader business cycle. With this in mind, we continue to believe that flexibility in implementation, active management, and tactical reallocation within the context of a broadly diversified, long-term strategic asset allocation plan will remain critical to the success of portfolios for the foreseeable future. ■

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### Past performance does not guarantee future results.

All investments include risk and have the potential for loss as well as gain.

Data sources for peer group comparisons, returns, and standard statistical data are provided by the sources referenced and are based on data obtained from recognized statistical services or other sources believed to be reliable. However, some or all information has not been verified prior to the analysis, and we do not make any representations as to its accuracy or completeness. Any analysis non-factual in nature constitutes only current opinions, which are subject to change. Benchmarks or indices are included for information purposes only to reflect the current market environment; no index is a directly tradable investment. There may be instances when consultant opinions regarding any fundamental or quantitative analysis may not agree.

The "Estimated Earnings" and "Estimated Total Returns for the S&P 500" charts indicate expected levels based on estimated various sales growth, profit margins, and price/earnings ratio combinations. Also incorporated is the estimated dividend yield based on the current dividend yield. The estimated dividend yield assumes that current dividend rates will remain unchanged during the given period. No guarantee is made or should be implied that such levels and returns can be achieved. The expected returns are hypothetical.

As such, any performance results have many inherent limitations. No representation is being made that any account will or is likely to achieve performance similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved. One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical performance does not involve financial risk, and no hypothetical calculation can completely account for the impact of financial risk in actual trading. For example, the ability to withstand losses (and incur account drawdowns) or to adhere to a particular investment position in spite of trading losses are important issues which can also adversely affect actual results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program, method, or system, which cannot be completely taken into consideration with hypothetical performance results.

The average dividend yield was calculated using actual monthly dividend yields for the time periods specified. "Other" includes the effect of reinvestment of dividends and compounding of this reinvestment.

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