

Equity Strategy

Structural Shifts Expand Margins, Short-term Pressures Remain

■ Equities

- **Investors once again are troubled over the specter of peak profit margins and earnings for the S&P 500.** S&P 500 profit margins are approaching prior peaks before the 2008/09 recession, causing investor concern. Yet, there has been a spending shift within US corporations that has led to improved profitability from better productivity without the typical accompaniment of increased hiring and sales. While there is potential for a pullback over the coming quarters due to macro threats, a plunge in profit margins is not anticipated barring a recession, which is not projected.
- **It is crucial to highlight that only four of the 10 S&P 500 sectors have approached or exceeded prior peak profit margins.** Only the Information Technology and Consumer Discretionary sectors are above previous peak margins witnessed before the most recent recession, while Industrials and Materials profit margins have spiked and are close peaks, but with waning momentum. Interestingly, according to the NIPA data on US corporate profits, overall earnings and margins compressed slightly during 1Q12 due to overseas weakness, which is likely to continue this year.
- **Labor costs are the largest contributing factor to margins.** During the past recession, corporate management teams cut back production and labor in order to trim inventories and costs preventing even more serious earnings declines. From peak to trough, total private nonfarm employment plummeted by 8.9 million workers, of which only 4.4 million have found new jobs. Accordingly, output per employee has risen to all time highs due to technological innovation combined with uncertainty pushing out hiring intentions.
- **Capital investment in equipment & software has accelerated in an effort to capitalize on technology and increase productivity.** While private nonresidential fixed investment in equipment & software has spiked, management teams have been hesitant to commit the necessary capital to longer-term building projects. Net fixed assets for both equipment & software and structures have been flat for four years, unseen over the past 85 years, possibly due to companies retiring inefficient assets and shifting capex dollars to de-equitization. Such trends are not endless.
- **A precipitous drop in profit margins is not expected, but a growing number of factors point to some margin compression.** Beyond the longer-term structural factors that have positively impacted margins through the post recession recovery, a number of signals such as our lead margin indicator, commodity costs, pressure from the spread between producer and consumer costs, as well as a waning of industrial activity and decreasing government spending, could lead to some margin compression in the near term.

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

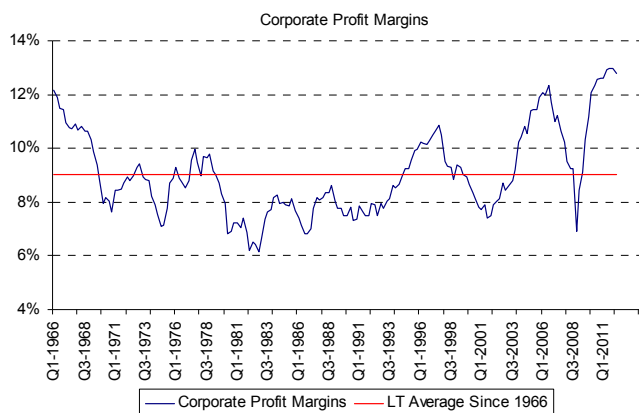
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Margin Pressure, But No Collapse

Over the past four years, the specter of peak earnings and profit margins seems to be the fallback concern of bears when other more timely and daunting macro issues subside. Once again there is rumbling of peak margin concerns on the Street, leading us to re-examine the structural shifts corporate management teams have taken since the recession to expand margins and profitability without the typical accompaniment of rising sales and increased labor. Corporations have been successful at engineering higher earnings and profit margins via a reliance on technological innovation, thereby allowing them to trim costs and increase efficiency. While earnings and margins could come under pressure in coming quarters due to an uncertain macro environment, a precipitous drop is not expected barring a recession, which is not in Citi's forecast, for many reasons. Interestingly, according to the NIPA data on US corporate profits, earnings as a percent of GDP have already begun to be impacted negatively as a result of overseas weakness (see Figure 1).

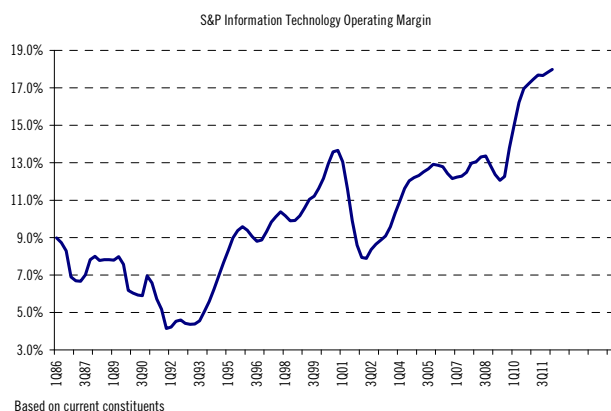
It is critical to mention that only four of the 10 S&P 500 sectors are approaching or have exceeded prior peak profit margins. The Consumer Discretionary and IT sectors have surpassed peak margins seen in 2008 while Industrials and Materials are near prior highs, although at a decelerating pace (see Figures 2, 3 & 4). The Information Technology sector has benefitted from its shift to a more service-oriented strategy, which inherently has higher margins. Meanwhile, technological innovation in nearly all sectors has led to increased spending for IT products in order to increase efficiency; for example the development of horizontal drilling equipment, retail supply chain management software, smart phones/mobile telecommunications, new medical technology and web-based cloud computing services, to name a few. Industrials have been among the best at taking advantage of this new evolution to produce goods at higher margins as companies have shuttered or retrofitted older plants with new equipment for increased efficiency and also has led the drive for automation, generating lower labor costs as a percent of goods produced. Finally, Materials has benefitted from new methods used for finding and unearthing materials as well as the increase in global demand for commodities from emerging economies like China, India, Brazil and Russia.

Figure 1.



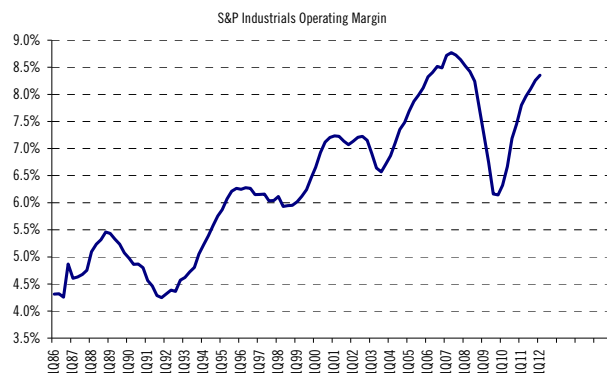
Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 2.



Source: FactSet and Citi Research – US Equity Strategy

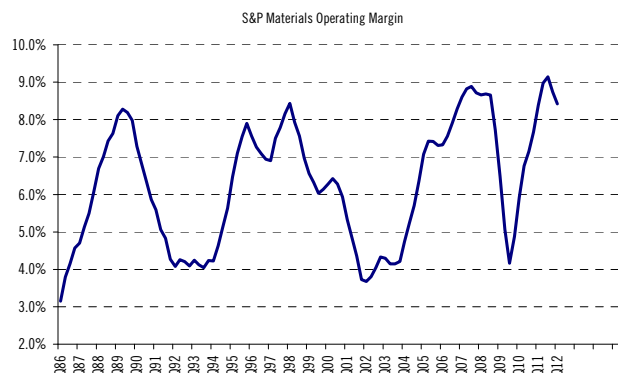
Figure 3.



Based on current constituents

Source: FactSet and Citi Research – US Equity Strategy

Figure 4.



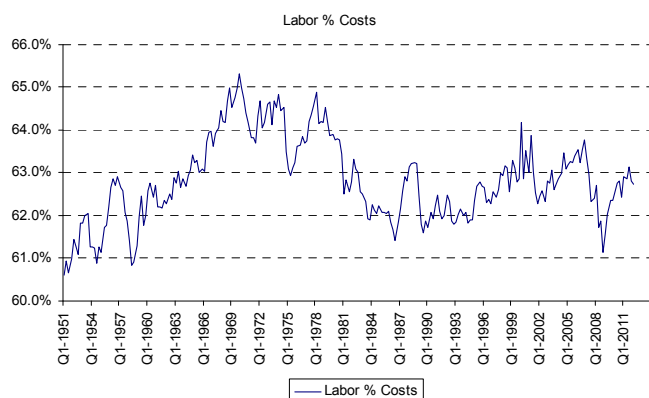
Based on current constituents

Source: FactSet and Citi Research – US Equity Strategy

Labor Costs

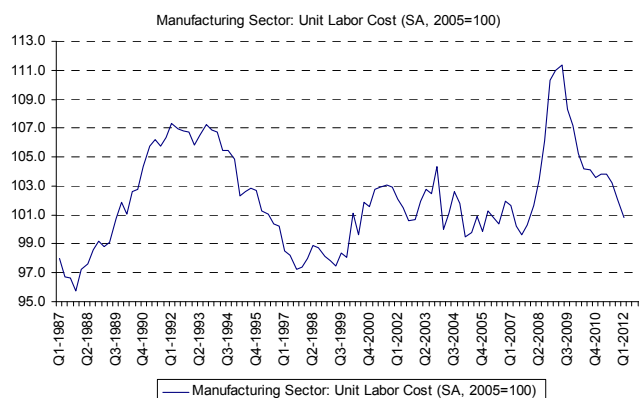
Labor accounts for more than 60% of corporate costs alone, which has held steady for the past 60 years (see Figure 5) though with some variation. From the employment peak of January 2008 through its trough in February 2010, the total number of private nonfarm employees fell by 8.9 million workers in an attempt to cut back expenses during the recession, of which only 4.4 million workers have been rehired as of the June 2012 release. Meanwhile, productivity and efficiency have increased markedly, with unit labor costs plunging post recession to levels seen leading into the last earnings downturn while labor share has continued its secular decline (see Figure 6 & 7). Additionally, output per employee has resumed its long-term trend higher possibly due to investments in technology that have led to greater productivity per employee (see Figure 8).

Figure 5.



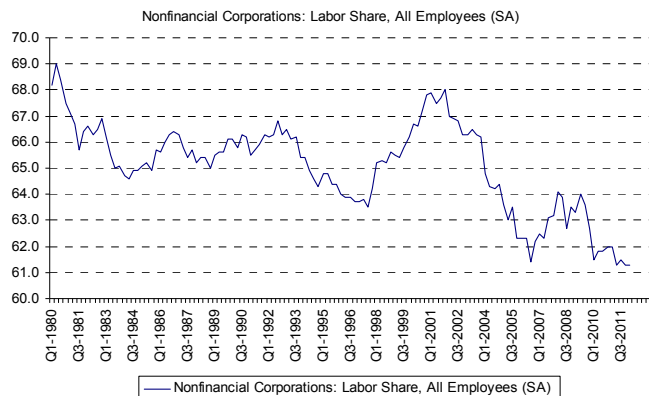
Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 6.



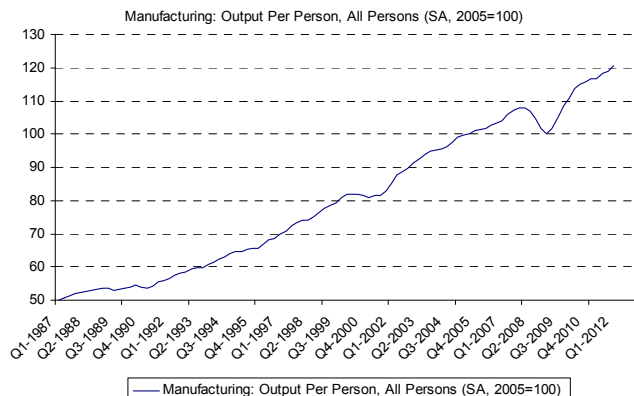
Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 7.



Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 8.

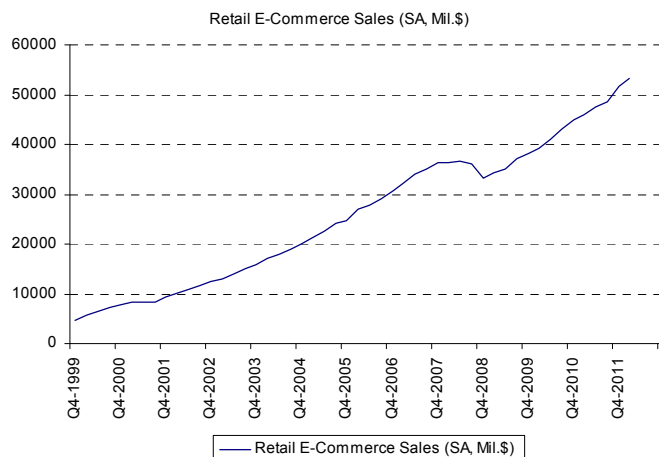


Source: Haver Analytics and Citi Research – US Equity Strategy

Capex and Fixed Assets

Companies have focused their spending efforts on improving efficiency through investments in equipment and software, which has pushed output to ever higher levels and appears to have generated margin expansion in capital intensive industries. This IT spending has been driven by the shift to a more digital world as many retailers, for example, are cutting back on square footage in deference to increased on-line shopping offerings to drive sales. Retailers are striving to capitalize on the growing retail e-commerce sales trend as e-commerce has expanded tenfold since 4Q99 (see Figure 9). Web-based services continue their secular trend higher as companies attempt to get more wallet-share through on-line offerings, which allows for sales in regions with little to no store-base.

Figure 9.

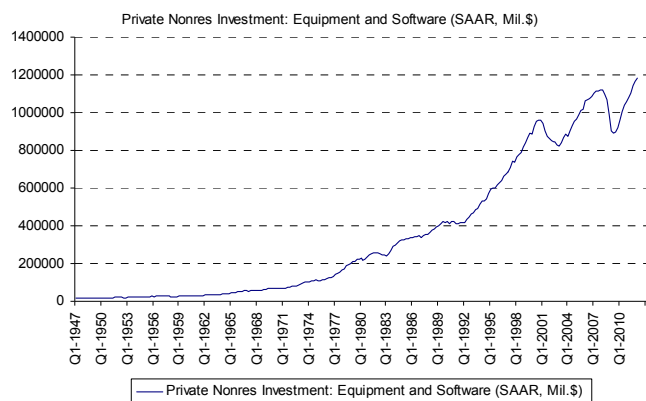


Source: Haver Analytics and Citi Research – US Equity Strategy

As private nonresidential investment in equipment and software has recovered to levels above the highs going into the 2008/09 recession, private nonresidential investment in structures remains well below prior peaks (see Figure 10 & 11). However, this spending on equipment and software accounts for roughly 7.7% of GDP, while investment in nonresidential structures accounts for only 2.8% and investment in residential structures accounts for about 2.3% of GDP, well down from

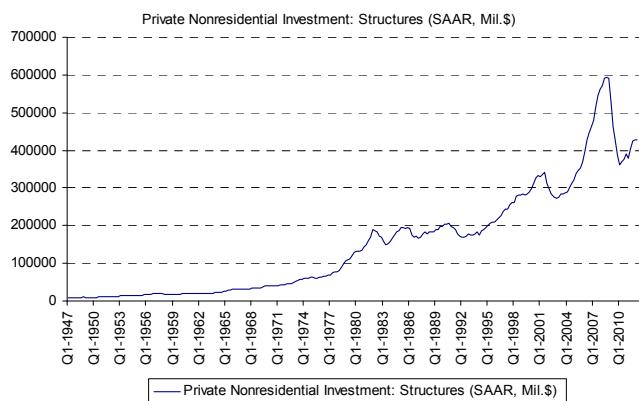
high of around 10% last seen in the late 1970s (see Figure 12 & 13). We believe this trend should continue as equipment & software spending on assets such as the cloud, smartphones, drilling/fracking equipment, telecommunications and new industrial equipment are what will create growth in the US going forward potentially increasing productivity and profits.

Figure 10.



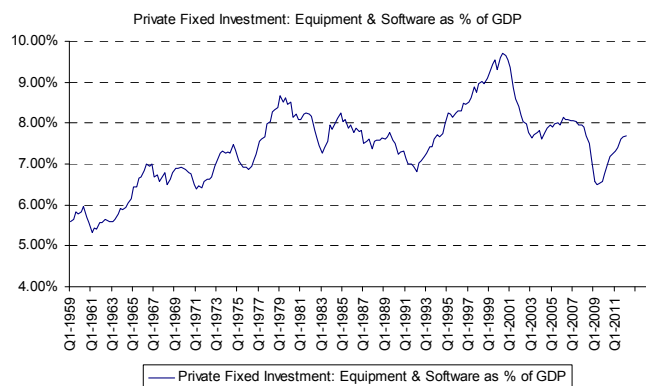
Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 11.



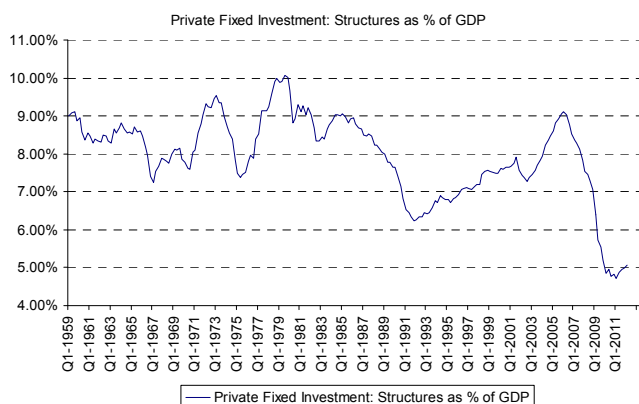
Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 12.



Source: Haver Analytics and Citi Research – US Equity Strategy

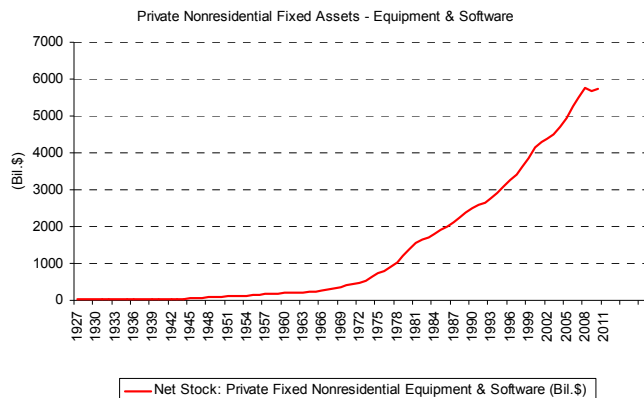
Figure 13.



Source: Haver Analytics and Citi Research – US Equity Strategy

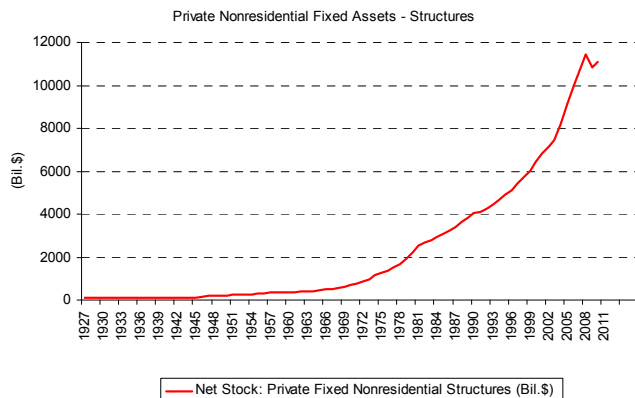
Additionally, as can be seen in the data on the net stocks of private fixed assets in equipment and software as well as structures (see Figures 14 & 15), these increases in capex from the 2009 lows have been just enough to keep the value of private fixed assets roughly flat over the past four years, which is unprecedented over the prior 85 years of data. Much of the current investment in structures, equipment and software is being offset by retirement of older, less efficient assets. However, if history is any guide, such under-spending is unsustainable, although it could take many years before the impact of this under-spending is felt and companies are forced to markedly increase spending intentions. Additionally, fixed overhead cost underabsorption in Europe could pressure margins in the short term as manufacturing is cut back given the major macro and austerity pressures in the region. However, given EU employment laws, corporations face significantly higher costs in cutting employment compared to the US, which makes major immediate corporate restructuring prohibitively expensive and thus unlikely versus that which was seen in the US throughout the 2008/09 recession.

Figure 14.



Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 15.



Source: Haver Analytics and Citi Research – US Equity Strategy

Political Impact

Another factor pressuring capital investment as well as hiring is the political uncertainty regarding the US election outcome and the fiscal cliff, which could hold back overall spending trends in 2H12 or 2013. As has been heard around Washington, business leaders (small businesses, in particular) are nervous about investing in long-term projects in the current environment due to uncertainty regarding potentially lower government spending and higher tax rates. While this under-investment may help contribute to margin pressures in the short term as business slows, interestingly, as shown in our review of capital spending plans garnered from more than 730 non-financial companies covered by Citi's US research analysts, companies plan to continue to spend through 2012, but some weakness could arise late in the year and into 2013 due to the macro uncertainties. While it is quite early to look to the 2013 numbers with much confidence as most companies have yet to formulate their 2013 spending plans in any detail, it is intriguing to see that many believe capital spending will slip next year (see Figure 16).

Figure 16.

	2007	Aggregate Capex			2010	2011	2012E	2013E
		2008	2009					
Consumer Discretionary	86,704	88,061	67,817	61,213	68,592	79,618	76,797	
Consumer Staples	44,620	47,681	42,102	41,264	43,374	46,456	45,703	
Energy	135,401	174,383	136,140	150,339	195,072	226,856	215,769	
Financials	NA	NA	NA	NA	NA	NA	NA	
Health Care	25,018	25,122	22,206	22,332	25,503	28,378	29,621	
Industrials	41,204	40,751	30,539	33,051	43,987	47,150	47,308	
IT	46,454	44,388	34,403	43,273	56,470	62,586	59,435	
Materials	23,684	26,912	19,549	19,297	26,551	32,928	34,152	
Telecom Services	48,798	49,676	44,109	48,496	50,261	54,526	52,177	
Utilities	55,962	67,517	64,836	62,795	72,718	81,949	73,302	
Total	507,845	564,490	461,701	482,060	582,529	660,445	634,265	

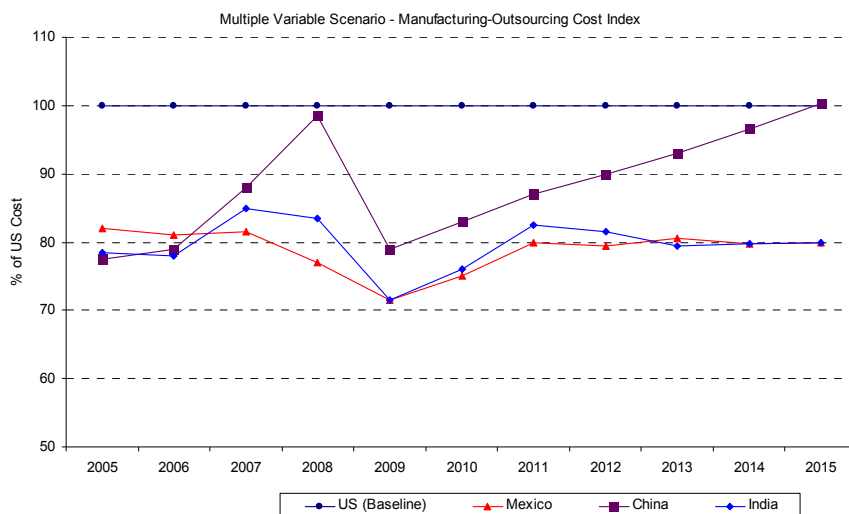
	Aggregate Capex Y/Y Change			2010	2011	2012E	2013E
	2008	2009					
Consumer Discretionary	1.6%	-23.0%	-9.7%	12.1%	16.1%	-3.5%	
Consumer Staples	6.9%	-11.7%	-2.0%	5.1%	7.1%	-1.6%	
Energy	28.8%	-21.9%	10.4%	29.8%	16.3%	-4.9%	
Financials							
Health Care	0.4%	-11.6%	0.6%	14.2%	11.3%	4.4%	
Industrials	-1.1%	-25.1%	8.2%	33.1%	7.2%	0.3%	
IT	-4.4%	-22.5%	25.8%	30.5%	10.8%	-5.0%	
Materials	13.6%	-27.4%	-1.3%	37.6%	24.0%	3.7%	
Telecom Services	1.8%	-11.2%	9.9%	3.6%	8.5%	-4.3%	
Utilities	20.6%	-4.0%	-3.1%	15.8%	12.7%	-10.6%	
Total	11.2%	-18.2%	4.4%	20.8%	13.4%	-4.0%	

Source: DataCentral and Citi Research – US Equity Strategy

Outsourcing

Aside from the longer-term structural shifts in corporate costs that have led to expanded margins over the past three years, a few shorter-term indicators are suggesting margin pressures, but not outright collapse. As reviewed in our Raging Bull thesis, some US corporations are moving manufacturing back to the US due to increasingly competitive conditions. While some industries have continued to off-shore manufacturing as supply chains overseas have become more efficient, domestic manufacturing competitiveness has rebounded with inexpensive land and labor increasing the attractiveness of US (see Figure 17). This could lead to a shift back to domestic manufacturing as we are beginning to see from some large multi-nationals. Wages and land play a major factor in outsourcing decisions and while increasing labor and land costs in Asia could begin to pressure margins, it will take a while before a large shift back to manufacturing in the US is seen as sourcing decisions are long term and plants cannot be moved in a timely manner.

Figure 17.

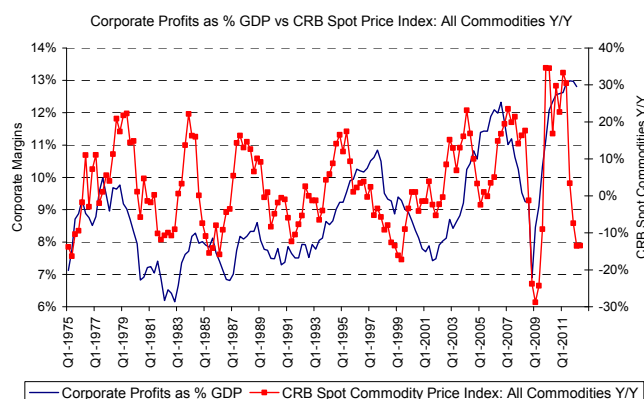


Source: AlixPartners

Short-term Pressures

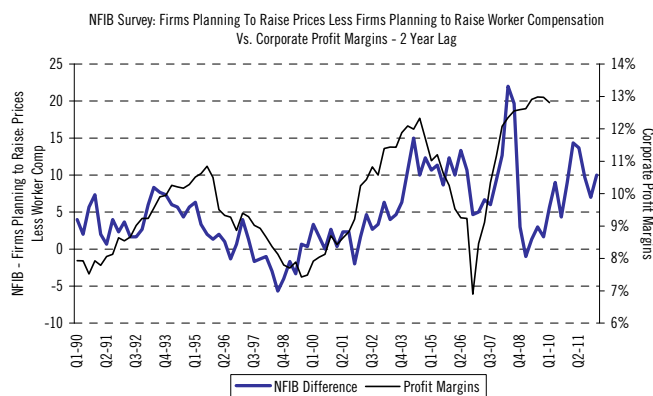
Lower commodity costs could pressure margins over the short term, which is non-intuitive for many investors. As we have shown in the past, commodity costs track overall economic profits since one sector's loss is often another's gain (see Figure 18). For example, higher metal prices may crimp the profits of an auto manufacturer, but can expand the margins of a steel producer. Investors are often convinced that an inverse relationship exists, but as is sometimes the case, preconceived notions do not stand up to careful analysis of the data. Additionally, our margin lead indicator model, which compares the business sector's intent on lifting prices versus worker compensation points to a likely contraction in margins (see Figure 19).

Figure 18.



Source: Haver Analytics and Citi Research – US Equity Strategy

Figure 19.

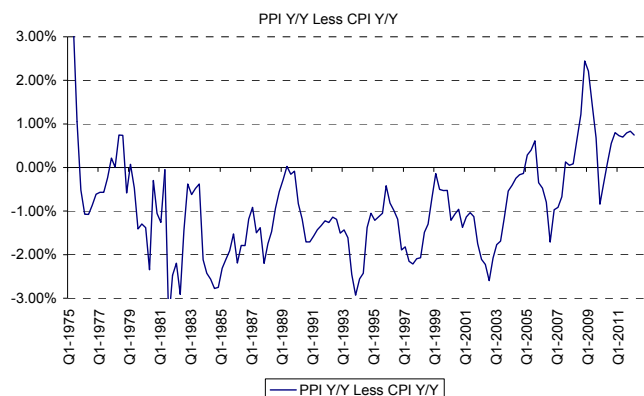


Source: Haver Analytics and Citi Research – US Equity Strategy

One must be careful to analyze the differential between input costs and output costs, which recently saw a shift higher from the manufacturers' point of view. As has been rarely seen over the past roughly 40 years of data, the spread between PPI and CPI has moved to positive territory, implying that producers are feeling more cost pressures than consumers in the current environment (see Figure 20).

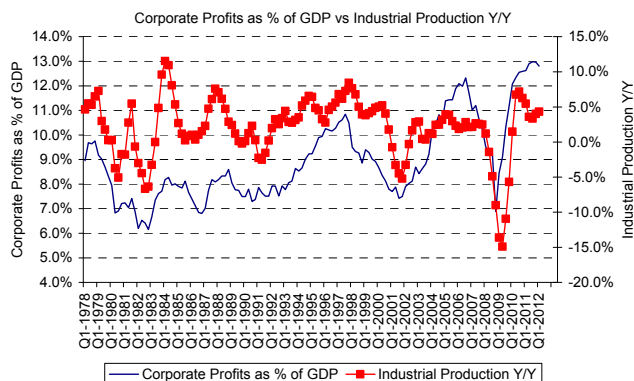
Additionally, a pullback in government support programs such as unemployment insurance, which is spent by consumers with no immediate impact on corporations in the form of increased payrolls, and potential higher income tax rates could have a direct impact on corporate margins in coming quarters. Another factor is the moderation in the pace of industrial activity, which has been seen over the past couple quarters, after a sharp rise post recession. A continued softening in the pace of industrial activity will weigh on margins as the two are typically directionally linked (see Figure 21).

Figure 20.



Source: Haver Analytics and Citi Research – US Equity Strategy

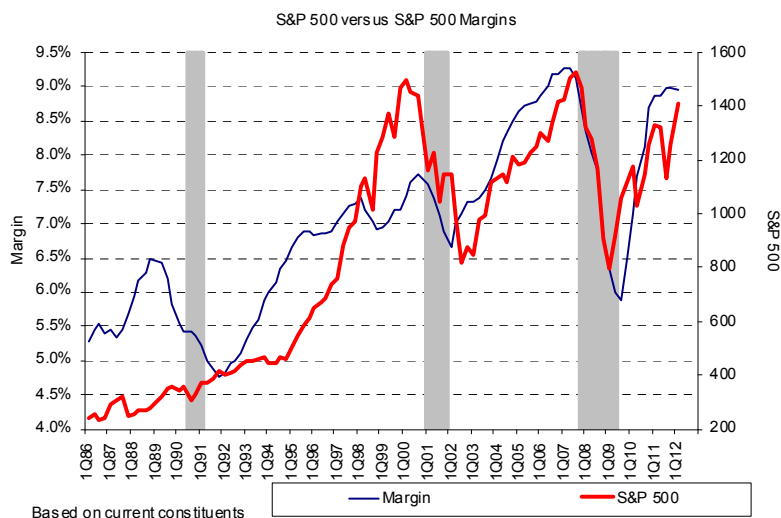
Figure 21.



Source: Haver Analytics and Citi Research – US Equity Strategy

While we do believe that a combination of factors could lead to some margin compression in the near term, it is important to point out that an outright margin collapse requires a recession, which is not in Citi's 2012 or 2013 forecasts (see Figure 22).

Figure 22.



Source: FactSet and Citi Research – US Equity Strategy

Sector Shifts

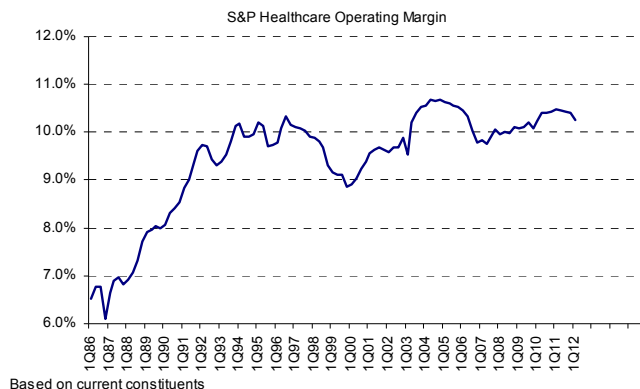
The structural change for Industrials has resulted from the sector's drive for efficiency over the past few years. As the recession hit, many industrial companies were quick to take restructuring charges to cut employees and shutter older plants that were running inefficiently. Coming out of the recession, these companies have been slow to hire more workers as output per employee has risen to all-time highs. Meanwhile, production has spiked back toward recent highs, but companies are still operating at less than full capacity, which has decreased the need to build out more plants to facilitate future growth.

Meanwhile, for Technology companies, much of the structural shift has come from outsourcing as well as the shift to more service based companies. As we have mentioned in the past, technology companies have been shifting their supply chains overseas to contract manufacturers. For example, a hardware company is able to manufacture its consumer electronic products like the iPhone and iPad in China through contract manufacturers who make only a 3% margin, while maintaining a 50% margin on their books for selling these products through their retail channel. Additionally, the S&P 500 IT sector has shifted to more service and cloud-based constituents within the group that inherently have less cost and higher margins than the cost heavy hardware manufacturers. Interestingly, many investors that have outlined peak margins as a major concern over the past few years while at the same time pointing to the technology sector as their preferred sector for investment. This could be more of a function of IT's clean balance sheets as well as cyclical exposure, providing both downside protection and upside potential, but the scalability of business models also help maintain high margins.

Materials margins have been impacted more by a long-term cyclical shift in global materials with margins being propped up by Emerging Market demand as well as supply constraints. Throughout the past decade, the growing demand for raw materials from countries like China, India, Brazil and Russia have had a huge impact on the global materials sector. The global materials sector has been slow to increase supply during this demand boom as new mines take years to build out. It is telling to see the current environment for commodity prices, which have recently fallen, as pressure from slowing economies around the world, have led to a pullback in demand and prices, which could lead to margin contraction in the coming quarters.

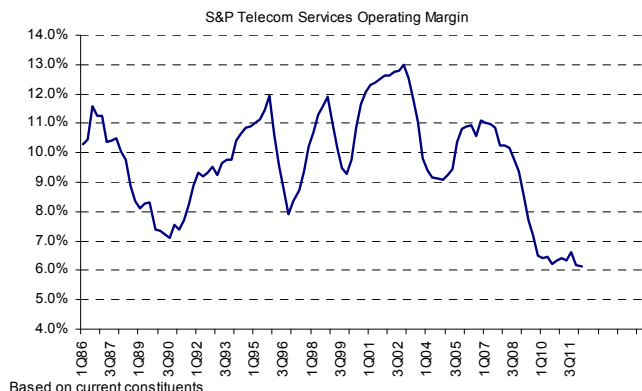
One area of potential improvement in margins is Health Care (see Figure 23). Throughout 2012 the M&A pipeline for health care companies has been increasing as companies look to mergers to improve efficiency. As companies begin to consolidate, they should be able to find synergies to cut down on overall expenses such as their massive research and development budgets. Additionally, many pharma companies are increasing usage of Clinical Research Organizations in an effort to increase efficiency and decrease cost of clinical trials. These contracts allow companies to push the significant costs of research trials on to outside organizations, which provide expertise in clinical research, so that pharmaceutical companies can focus on their core competencies while supporting less overhead costs. In addition, a few other sectors potentially could see better margins (see Figures 24, 25, & 26).

Figure 23.



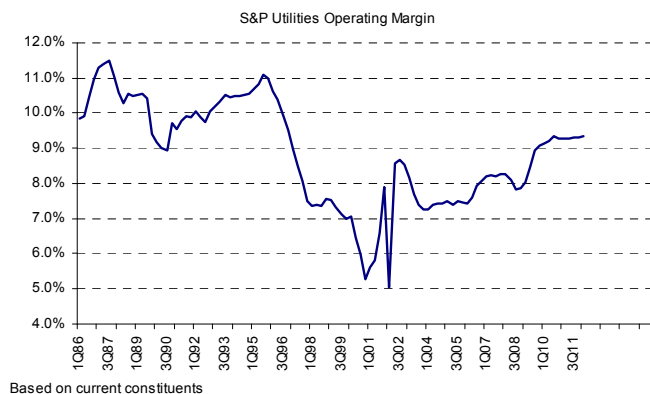
Source: FactSet and Citi Research – US Equity Strategy

Figure 24.



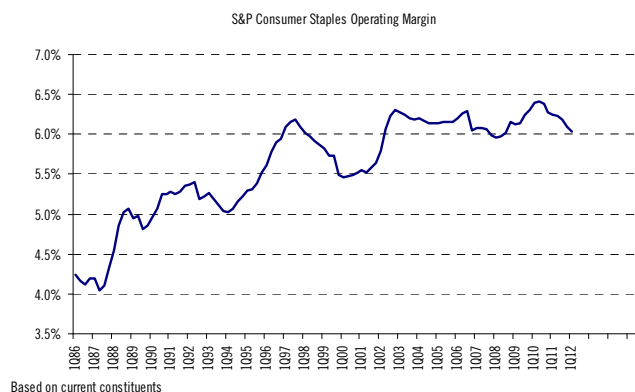
Source: FactSet and Citi Research – US Equity Strategy

Figure 25.



Source: FactSet and Citi Research – US Equity Strategy

Figure 26.



Source: FactSet and Citi Research – US Equity Strategy

Appendix A-1

Analyst Certification

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