Investment Management Division

Investment Strategy Group

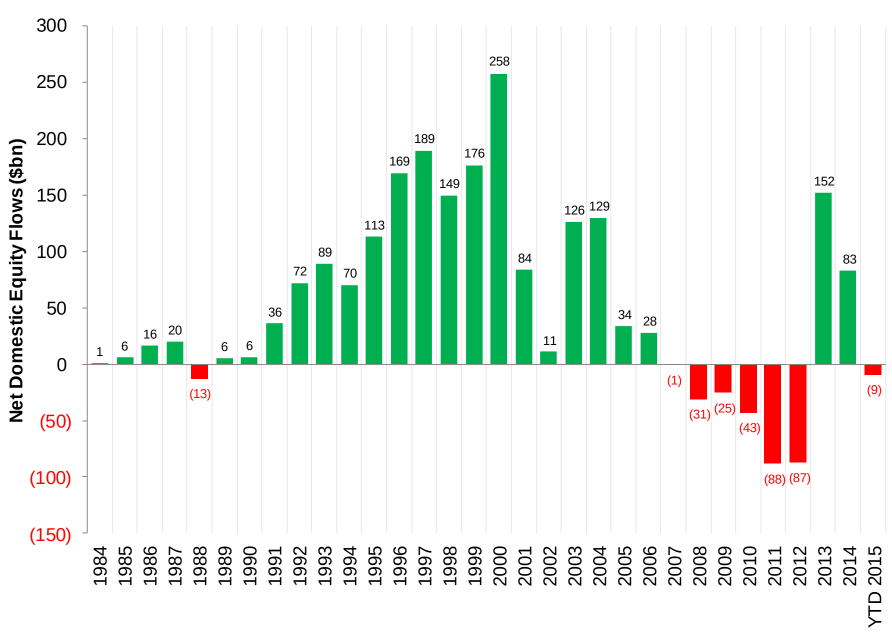
Sunday Night Insight
April 26, 2015

Still No Bubble Trouble

Sharmin Mossavar-Rahmani	Chief Investment Officer
Brett Nelson	Managing Director
Matthew Weir	Managing Director
Venkatesh Balasubramanian	Vice President
Oussama Fatri	Vice President
Paul Swartz	Vice President
Matheus Dibo	Associate
Mary Craig	Associate

With the Nasdaq Composite Index surpassing its former March 2000 peak and closing the week with a year-to-date total return of 7.9%, bubble concerns are dominating the headlines once again. After all, both the Nasdaq and the S&P 500 Index closed at new all-time highs on Friday. Not surprisingly, concern about a significant downdraft has increased among investors. These concerns have been exacerbated by the expectation of disappointing first quarter earnings, which have been revised down steadily since last fall partly as a result of falling oil prices. In line with these worries, year-to-date flows into US equity mutual funds have been negative, as shown in Exhibit 1.

1. Annual US Net Equity Flows (US$bn)



Note: Includes exchange-traded funds and mutual funds. Data through February 2015.
Source: Investment Strategy Group, Goldman Sachs Global Investment Research, ICI.

We have been on the lookout for bubble valuations since 2013. In our 2014 *Outlook*, [*Within Sight of the Summit*], we dedicated a notable portion of our introduction to explaining why we did not think US equities were in bubble territory. With the market making further gains since, we are even more vigilant in our search for bubbles today. Yet, we still believe that US equities broadly, and the technology sector more specifically, are not in bubble trouble yet.

We will first clarify what we mean by “bubble territory.” We will then explain why we do not share the view that US equities are in bubble territory—notwithstanding the impact of a stronger dollar, slower first quarter US economic growth, and pending Federal Reserve interest rate hikes later this year. We will conclude with our key investment takeaway which is to maintain one’s full strategic asset allocation to US equities.

2. No Bubble Trouble Yet (Published in our 2014 *Outlook*)

Source: Investment Strategy Group.

What Do We Mean by a Bubble?

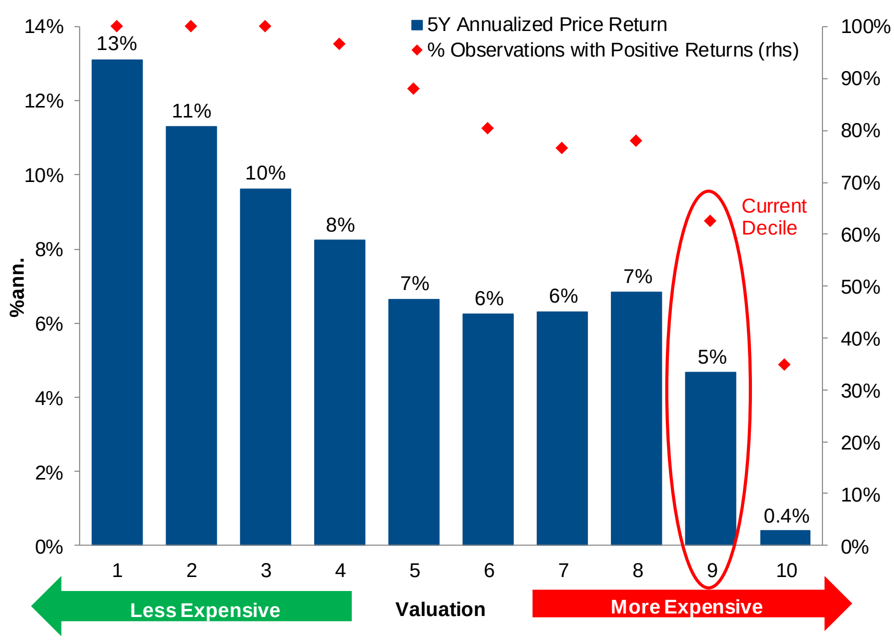
The *Princeton Encyclopedia of the World Economy* defines a “bubble” as a situation in which “asset prices persistently deviate from their fundamental values—that is, the prices warranted by the true earning potential of firms.”[1] The late Charles Kindleberger, professor of economics at the Massachusetts Institute of Technology and author of *Manias, Panics, and Crashes: A History of Financial Crises*, stated that, “a bubble involves a non-sustainable pattern of price changes or cash flows,” and by definition, bubbles always implode.[2]

We do not believe that US equity prices have deviated from their underlying fundamentals. While US equities are expensive, we believe that current prices are supported by, first and most importantly, the underlying earnings of the companies, and second, by a favorable inflation and economic backdrop. This message is echoed by a recently developed bubble indicator that shows the probability of the market being in a bubble based on whether market prices are exhibiting the type of explosive behavior typical of bubbles.[3] On this measure, there is only a 19% probability that the S&P 500 is in a bubble currently, compared with a 95% probability before the crash of 2000-2002. In contrast to the US today, China's Shanghai and Shenzhen A shares register an over 90% probability of being in bubble territory.

Strong Underlying Fundamentals

US equities are expensive and have been so for a long time as shown in Exhibit 3—an exhibit we have used many times over the last few years. Equities entered the 9th decile of valuation in November 2013 based on our valuation metric (which is an average of five valuation measures including the Shiller cyclically adjusted price-to-earnings ratio). Over this period, the S&P 500 has returned 23%. Yet despite these above-trend returns, valuations have not moved into the most expensive 10th decile because earnings have expanded at a similar rate as prices. For example, while S&P 500 prices have increased at an annualized rate of 5.8% over the last decade, operating earnings have kept pace with an annualized growth rate of 5.1%.

3. US Equity Price Returns from Each Valuation Decile

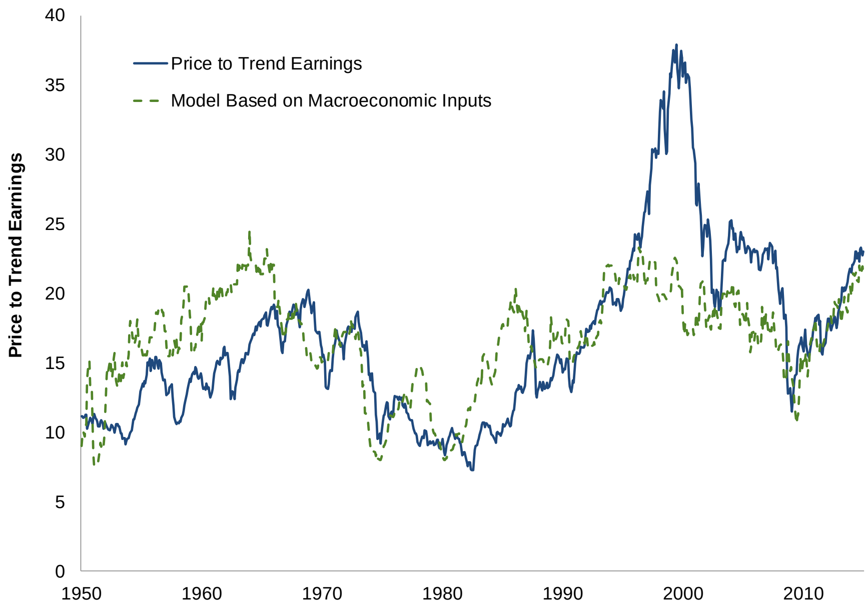


Note: Based on five valuation metrics for the S&P 500, beginning in September 1945: price-to-trend earnings, price-to-peak earnings, price-to-trailing 12m earnings, Shiller cyclically adjusted price-to-earnings ratio (CAPE) and price-to-10-year average earnings. These metrics are ranked from least expensive to most expensive and divided into 10 valuation buckets ("deciles"). The subsequent realized, annualized five-year price return is then calculated for each observation and averaged within each decile. Past performance is not indicative of future results.

Source: Investment Strategy Group, Bloomberg, Datastream, Robert Shiller.

Furthermore, if we look at price-to-trend earnings as shown in Exhibit 4, we can see that valuations are in line with current macroeconomic variables such as inflation and interest rates.

4. Low and Stable Inflation Supports Higher Equity Multiples



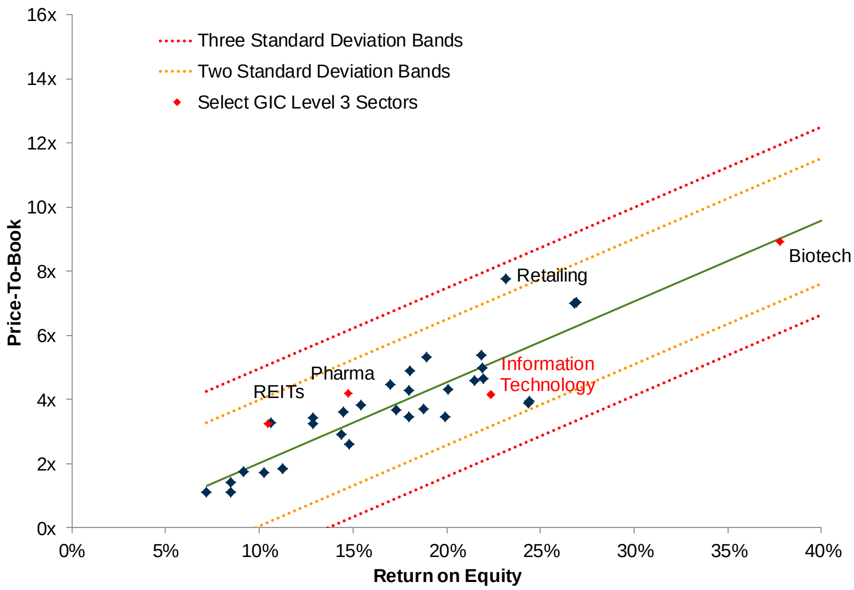
Source: Investment Strategy Group, Robert Shiller.

Of course, this begs the question of whether a decline in first quarter earnings will undermine the linkage with advancing prices. Here, we note that the energy sector accounts for the bulk of the expected weakness, with consensus forecasting energy earnings to decline a whopping 64% in the first quarter. In contrast, ex-energy earnings are anticipated to grow 5.5%. We think the market is justified in looking through weak energy earnings in Q1 as we do not expect another 50% decline in oil prices, and lower energy costs benefit earnings in other sectors of the S&P 500. Furthermore, the 40% of S&P 500 companies that have reported thus far, including about a quarter of the energy firms, have collectively grown earnings over 5%, well ahead of expectations. As such, we expect S&P 500 earnings will be flat rather than down the 2.8% consensus expects, leaving us in the 9th decile of valuation. Moreover, since we expect only modest S&P 500 price and earnings gains for the remainder of the year, we expect to remain firmly ensconced in the 9th decile.

We also note that negative earnings revisions, such as we have seen over the last month or so, set a lower hurdle for positive surprises. Indeed, when earnings estimates were negative for the month prior to the onset of reporting season, median returns over the subsequent six weeks were a robust positive 3.7%. In contrast, positive revisions at the outset of earnings season resulted in a negative 1.5% median return during earnings season.

Underlying fundamentals are also supportive of valuations in the technology sector. While the new record price high set by the Nasdaq Index has garnered headlines, the technology sector is not overvalued—in fact, based on our analysis comparing return on equity to price-to-book as shown in Exhibit 5, the sector is marginally undervalued given its relatively high return on equity.

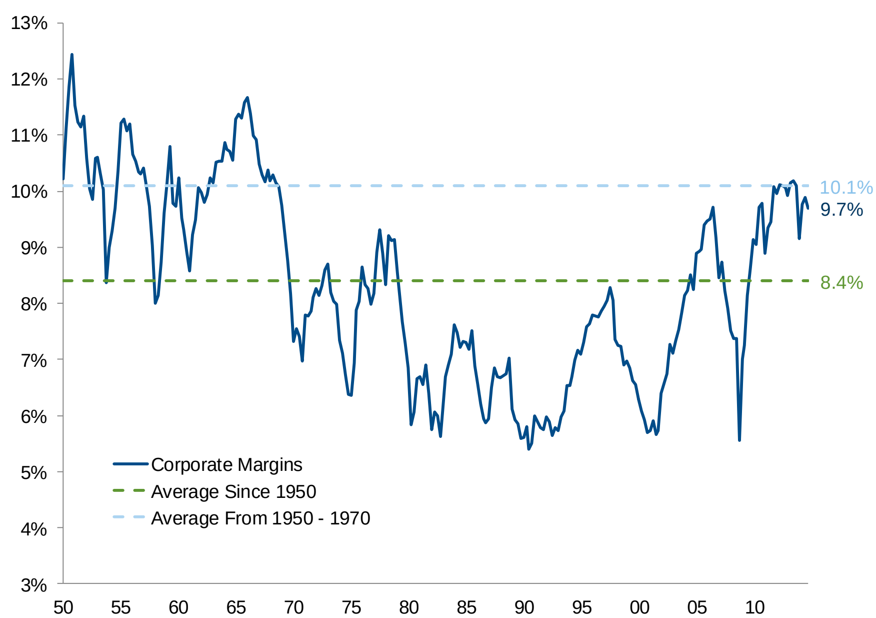
5. S&P 500 Industries in 2015; Return on Equity versus Price-to-Book



Source: Investment Strategy Group, Bloomberg.

Many market participants have pointed to the high profit margin levels of around 10%, stating that such levels are not sustainable and will therefore revert to their long-term average of 8.4%, as shown in Exhibit 6. We do not share that concern. First, the evidence does not support such mean reversion. Second, average margins have been over 9% for every quarter but one since the beginning of 2010. Third, the current levels are in line with the average levels observed between 1950 and 1970. Fourth, we do not see any change in the structural drivers for these high margin levels: the share of corporate revenues that accrues to labor has been steadily declining since 1990.

6. US Profit Margins Adjusted for Taxes and Overseas Sales – Through 4Q14



Source: Investment Strategy Group, BEA.

Finally, while we expect some further appreciation in the dollar relative to other major currencies, we do not believe that this appreciation will have a meaningfully negative impact on earnings for the S&P 500 in aggregate. While some companies have attributed weaker first quarter data to the latest 20% or so increase in the dollar as measured by the DXY index since June 30, 2014, not all companies are equally affected by the rise in the dollar. In fact, there are many companies that benefit from a stronger dollar through lower input costs. Furthermore, some hedge their currency exposures directly to minimize the impact of currency volatility. And finally, some companies will benefit from a stronger dollar to the extent that weaker currencies abroad boost local domestic growth. David Kostin, Chief US equity strategist in Goldman Sachs Global Investment Research, has similarly highlighted that the median annualized return for the S&P 500 has been nearly identical in cycles where the trade-weighted dollar was rising or falling since 1981. In fact, the one-year daily correlation of the dollar and S&P 500 has averaged zero since 1976.

The Catch-22 of Underweighting US equities too Early

As noted above, we have been in the 9th decile of US equity valuations for 18 months and may well remain here for the rest of the year. It is also possible that valuations move into the 10th decile without justifying an automatic and immediate underweight position. As we have noted before, valuations are a much better buy than sell signal. Indeed, both our bubble indicator and decile valuation indicator have stayed elevated for long periods of time historically, suggesting that an underweight on that basis alone would have resulted in significant forgone returns.

The last two bull markets best illustrate this point. Our decile valuation indicator, for example, entered the 9th decile in November of 1995. From that point, the S&P 500 returned 44% before it crossed over to the most expensive 10th decile. Yet remarkably, it went on to return an additional 170% before peaking in August 2000. Similarly, the S&P 500 rallied for another 61 months after our signal indicated a 95% probability of a bubble in July 1995, gaining a staggering 194 total return percentage points before peaking.

So as we remain vigilant for bubbles, we also have to be mindful of the high hurdle to underweight equities. Keep in mind that even after US equities lost almost half their value as the technology bubble burst, they nonetheless troughed at a level 63% higher from where they entered bubble territory in July 1995 based on our indicators. So while a client who acted on that underweight signal would have successfully avoided a harrowing decline when the dot-com bubble burst, they would have never had a chance to reinvest back into the S&P 500 at a level lower than where they exited the market. In fact, this was the case after both the dot-com bubble bursting as well as after the financial crisis. Including the impact of capital gains taxes would further raise the hurdle for underweighting.

Stay Fully Invested at this Time

To be clear, the foregoing is not a blind endorsement of buy and hold, but rather an acknowledgement that the hurdle to underweight US equities is very high, particularly given our view of ongoing US Preeminence, a favorable macroeconomic backdrop including ample global liquidity, continued earnings growth, and the fact that valuation alone is a poor timing signal. Of course, this in no way precludes bouts of volatility, which could emanate from some form of Greek debt structuring, the prospect of Federal Reserve tightening or just a flare-up of geopolitical concerns in other parts of the world. While these events could trigger a 5-10% price decline (an outcome consistent with normal equity volatility), we do not think they justify a significant downdraft at this time. In short, there will be an appropriate time to underweight equities, but we do not yet see the confluence of factors that warrant that shift today.

Sources: Investment Strategy Group, BEA, Bloomberg, Datastream, GS Global Investment Research, ICI, Robert Shiller.

1. Kenneth A. Reinert and Ramkishen S. Rajan, *The Princeton Encyclopedia of the World Economy*, Princeton University Press, 2009.

2. Charles P. Kindleberger, "Manias, Panics, and Crashes: A History of Financial Crises," Wiley, December 2000.

3. Peter C. B. Phillips, Shu-Ping Shi and Jun Yu, "Testing for Multiple Bubbles: Historical Episodes of Exuberance and Collapse in the S&P 500," Cowles Foundation Discussion Paper No. 1914, August 2013.

Authority. This material has been approved for issue in the United Kingdom solely for the purposes of Section 21 of the Financial Services and Markets Act 2000 by Goldman Sachs International, Peterborough Court, 133 Fleet Street, London EC4A 2BB; by Goldman Sachs Canada, in connection with its distribution in Canada; in the United States by Goldman, Sachs & Co.; in Hong Kong by Goldman Sachs (Asia) L.L.C.; in Korea by Goldman Sachs (Asia) L.L.C., Seoul Branch; in Japan by Goldman Sachs (Japan) Ltd; in Australia by Goldman Sachs Australia Pty Ltd (ACN 006 797 897); and in Singapore by Goldman Sachs (Singapore) Pte. (Company Number: 19862165W).

In Australia, this document, and any access to it, is intended only for a person that has first satisfied Goldman Sachs that: the person is a Sophisticated or Professional Investor for the purposes of section 708 of the Corporations Act of Australia; and the person is a wholesale client for the purpose of section 761G of the Corporations Act of Australia. To the extent that Goldman, Sachs & Co (GSCo), Goldman Sachs (Asia) L.L.C. (GSALLC), and/or Goldman Sachs International (GSI) are providing financial services in Australia, GSCo, GSALLC and GSI are exempt from the requirement to hold an Australian financial services licence for the financial services they provide in Australia. GSCo is authorized and regulated by the U.S Securities and Exchange Commission under US laws; GSALLC is regulated by the Hong Kong Securities and Futures Commission under Hong Kong laws; and GSI is regulated by the UK Financial Conduct Authority and Prudential Regulation Authority.

Tax Information. Goldman Sachs does not provide legal, tax or accounting advice. Any statement contained in this presentation concerning U.S. tax matters is not intended or written to be used and cannot be used for the purpose of avoiding penalties imposed on the relevant taxpayer. You should obtain your own independent tax advice based on your particular circumstances.

No Distribution; No Offer or Solicitation. This material may not, without Goldman Sachs' prior written consent, be (i) copied, photocopied or duplicated in any form, by any means, or (ii) distributed to any person that is not an employee, officer, director, or authorized agent of the recipient. This material is not an offer or solicitation with respect to the purchase or sale of a security in any jurisdiction in which such offer or solicitation is not authorized or to any person to whom it would be unlawful to make such offer or solicitation. This material is a solicitation of derivatives business generally, only for the purposes of, and to the extent it would otherwise be subject to, §§ 1.71 and 23.605 of the U.S. Commodity Exchange Act.