MAKENA STRATEGY INSIGHTS – June 30, 2014

Lower Growth is here to Stay: Expect Subdued Returns

Q2
PERIOD ENDING
June 30, 2014

Portfolio Strategy & Macroeconomic Outlook

History Does Not Apply Redux

It has been several years now that we have been highlighting the headwinds to US long-term growth (or "potential" growth) in these letters. Be it long-term unemployment, an ageing population, increasing taxation, income inequality, high leverage in the household and government sectors, or flat real disposable income growth, we have covered a multitude of topics. Rather than provide another in-depth analysis of a particular topic highlighting yet another structural impairment to the economy, we thought it appropriate this time to focus more on what this means for the long-term investor, and how all the pieces fit together for portfolio construction.

After having repeatedly provided growth forecasts that were embarrassingly higher than realized growth, it has been gratifying for us to see that official forecasts have finally begun to acknowledge the new reality of the lower potential growth of the US economy. The CBO published on the cover of its outlook report on changes in its potential growth estimates (dated February 2014[1]) a chart surprisingly similar to our Figure 1 below, acknowledging that US potential growth is likely to be lower than historic growth.

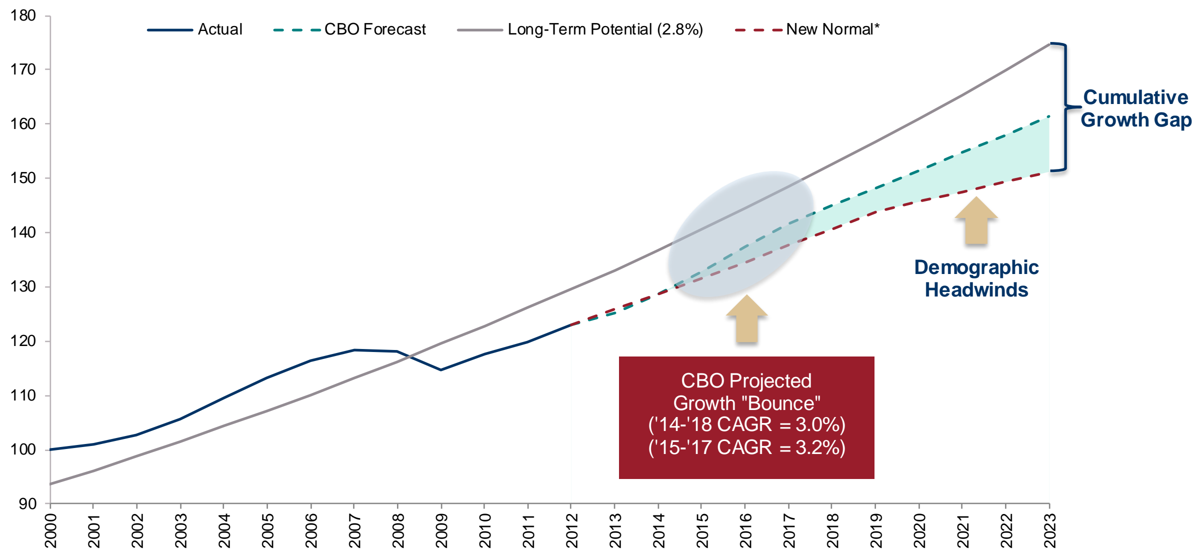


Figure 1: Lower Potential Growth – the Ultimate Consequence of Structural Impairment

Similarly, the Fed, after providing forecasts that assumed that the financial crisis was a recession just like any other, has dramatically decreased its growth forecasts as illustrated in Figure 2 below. Note how in 2010 and 2011 the Fed kept forecasting a dramatically accelerating economy with growth rates rapidly reaching 4%. By contrast, the 2014 forecast in red shows Fed growth forecasts peaking at ~3% before trailing off in 2016.

[1] http://www.cbo.gov/sites/default/files/cbofiles/attachments/45150-PotentialOutput.pdf

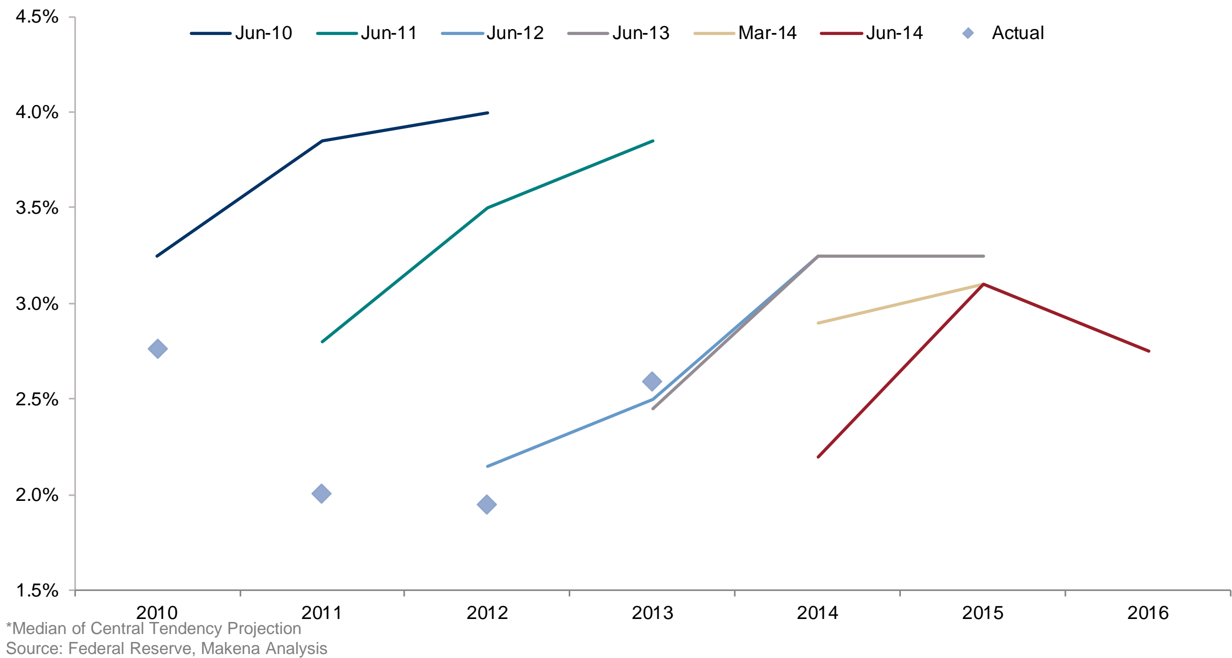


Figure 2: Fed US Growth Forecasts since 2010

We call attention to these forecasts not necessarily for the specific growth predictions they make - as those are often proven incorrect – but rather because they all acknowledge and incorporate a reality that is very hard to accept, that is the lower potential growth of the US economy, and indeed perhaps that of the global economy.

Why is such a reality so hard to accept? Simply because growth cures many ills that are not easily solved by other means. Growth makes currently high debt levels more affordable in the future. Growth masks the ills of income inequality – the famous saying that a rising tide lifts all boats. Most importantly for investors, growth means more opportunities for productively investing capital. Should growth be lower than historically was the case, then returns to capital will likely be lower as well. This is particularly important for Endowments or Foundations that rely heavily on their portfolios to provide cash for operating activities – if returns are indeed lower than in the past, boards of these institutions will need to focus their attention on the one variable they control: their spending. These are not easy discussions to have and we don't take them lightly. But ignoring the problem altogether is almost certainly not the optimal approach.

Finally, we must also highlight that global growth is facing a cyclical upturn this year and next. In the US and particularly in Europe, growth will accelerate in 2014/5 from 2013, perhaps obfuscating the longer-term impairment that the economy has suffered. However, note that in Figure 3 (this time from the IMF), the long-term projection for the US is 2.2%, EU 1.5% and EM 5.3%, all lower than what we have been accustomed to in preceding times. This near-term cyclical uptick in growth is paradoxical when compared with the weakened long-term outlook, causing conflicting data points on the health of the economy. For instance, US Q1 GDP growth severely disappointed, coming in at -2.0%, while employment growth has been relatively robust in the first half of the year. As the push and pull of near-term vs long-term factors manifest themselves in the economy, we anticipate continuing to see such seemingly contradictory data from macroeconomic data releases.

Of course, we must also be mindful that there is a chance that all these long-term headwinds to growth that we see end up being short-lived, and it is therefore possible that the economy does in fact heal and that we head for an inflation and growth boom over the next few years. The facts do not seem to support such a prediction at present; however, we remind the reader that unpredictability is the hallmark of a complicated system such as the global economy. Rather than claim that we have solved the problem and know the answer, we take the more humble route of acknowledging the uncertainties we confront and recommend positioning the portfolio accordingly.

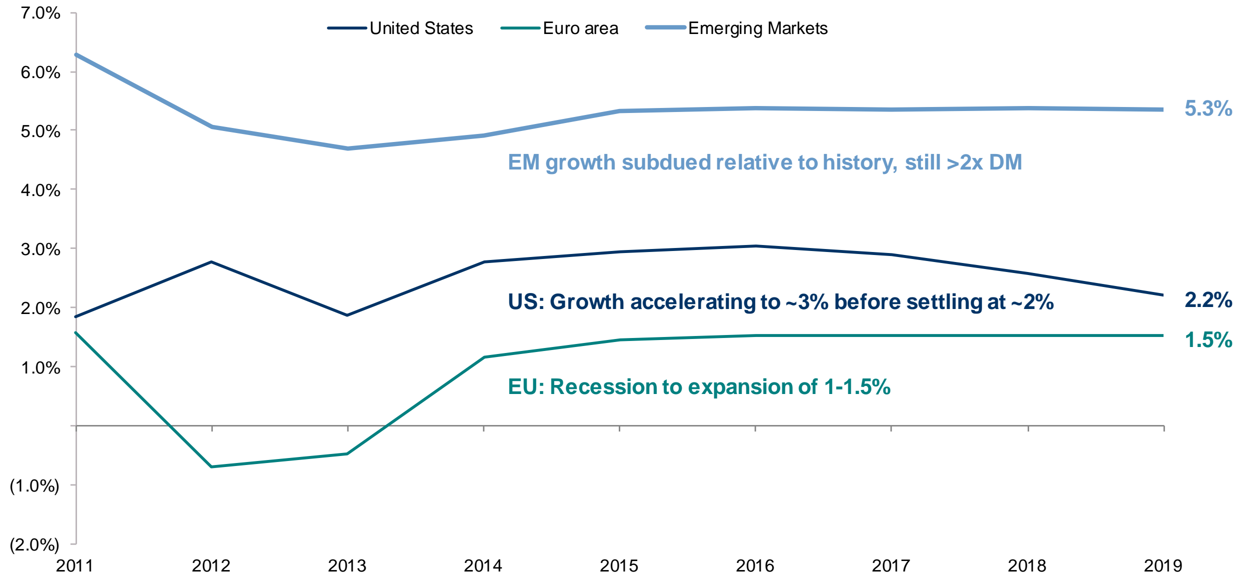


Figure 3: Global Growth Forecast – Cyclical Improvement but Lower Than History

Navigating an Uncertain Economic Outlook

Given the uncertainty of economic outcomes as we outlined above, rather than recommend building a portfolio that does well only under a narrow set of economic outcomes, we suggest a portfolio that is meant to do relatively well under a wide set of economic outcomes. We firmly believe that this is the appropriate way to manage perpetual capital. We must carefully balance the need to generate sufficient returns to combat the corrosive effects of inflation and also meet a payout, with the need to perform adequately under several macroeconomic outcomes. The challenge of offsetting inflation, meeting a payout to fund the current generation of beneficiaries, and perhaps growing the real value of the corpus of capital is a difficult challenge, and generally requires significant equity exposure. While equities have provided strong expected returns (and we believe will continue to do so *relative* to other asset classes), they introduce risk and they anchor a portfolio around a set of benign economic outcomes.

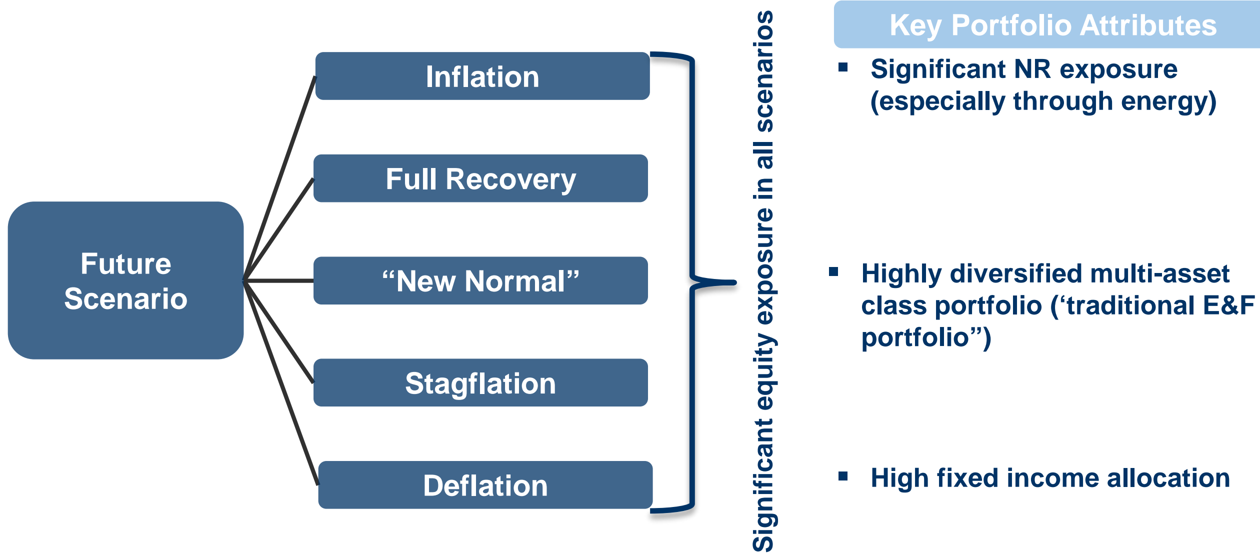


Figure 4: Range of Outcomes for the Global Economy

We illustrate this in Figure 4 above. For the more benign economic outcomes, listed in the middle of the diagram above, a highly diversified global multi-asset class portfolio should perform as needed. Think of these portfolios as "vanilla" Endowment and Foundation portfolios. Typically in such portfolios north of 80% of the risk is concentrated in equity factor risk, and therefore these portfolios perform well in "optimistic" economic outcomes. The problem, as we all know, is that markets have "fat tails" with extreme events happening more often than expected. In Figure 4, more extreme outcomes would be a sustained period of higher developed market inflation (say > 3-4%), or a sustained deflationary period. It is important to point out that we suggest a portfolio that is more *balanced* than the traditional Endowment and Foundation portfolio. Said differently, we aren't betting the bank on the economic outcome being the best for equities alone. Indeed, two important differentiators for our recommended strategy are significant exposure to Natural Resources and to Fixed Income.

For inflationary outcomes, having significant natural resource exposure is important, as the "inflation beta" of natural resources is high – especially so for globally traded commodities. Given that high inflation beta, a relatively modest exposure to natural resources can go a long way towards creating a robust portfolio that does reasonably well in more inflationary environments. Inflation-linked bonds as well as EM foreign currencies complement the natural resources exposure. We believe that the sum of these exposures, while not sufficient to protect against a sustained period of high inflation, is sufficient to enable a portfolio to perform as expected in periods of benign but sustained inflation.

It is in general much more difficult to protect a portfolio fully against a Japan-style deflationary outcome. The principal defense against such an outcome is most likely a high quality sovereign bond portfolio. The challenge is that in order to achieve sufficient duration exposure for the *entire* portfolio, the bond portfolio would most likely require some form of leverage, as an outsized capital commitment to fixed income would severely curtail the ability of the portfolio to deploy capital in other, typically higher returning asset classes. A more pronounced version of such an approach is the risk parity approach where the volatility of the fixed income portfolio is inflated to match that of the equity portfolio through leverage of the bond portfolio generally in the 3x to 6x range. Again, at Makena we recommend a more balanced path – we dislike leverage and stress that risk-parity approaches implicitly assume that cheap leverage is available even in the depths of a crisis. While we do not suggest the typical "Top 5" Endowment-style fixed income portfolio with essentially no duration, we also do not suggest the other extreme of the 6x levered fixed income portfolio. Instead, we recommend a significant capital allocation to fixed income with a significant amount of duration. That allocation, while unable to protect a portfolio against a Japanese-style deflation of 10+ years, can still provide significant return enhancement to the portfolio should the economy suffer a short-term bout of deflation or a growth scare (as was the case in Q1).

It is a difficult path to follow, being more balanced and therefore more focused on long-term performance when equity markets have rallied to the extent they did over the last 12-18 months. However, we firmly believe in our approach and in our portfolio philosophy. More importantly, we believe our investors will be rewarded for their patience. Now is not the time to capitulate.

Equity Market Valuations and Strategy

Our strategy analysis is largely unchanged from last quarter's Strategy Insights letter, and we therefore kindly ask that you refer to our previous letter for a global view on market strategy. Here we briefly update US strategy only.

With the S&P 500 just shy of the 2000 mark, it may seem time to question how much further the current bull market can extend. We do not pretend to know the answer; however, we think it is instructive to think of three interrelated factors: monetary policy, fundamentals/valuations and the rates outlook.

Monetary Policy

The commentariat has long been abuzz with discussions about the pace and timing of monetary policy normalization as the Fed marches towards the end of QE3. The angst among research analysts has been palpable. However, we think that these fears are overblown for two reasons. First, the Fed has made clear that they have no intention to shrink the balance sheet once purchases have ended and will continue to reinvest proceeds from maturing securities for some time thereafter. This pushes the timetable for policy normalization out further and correspondingly the risk to equities from rising rates. Second, the current monetary stance among the G3 banks, the Fed and BOJ in particular, is far more supportive and farther away from "normal" than many suppose. Indeed, Figure 5 below shows that relative to current economic conditions, policy support has increased dramatically over the last year—despite the taper—so that now policy is more supportive even than during the GFC.

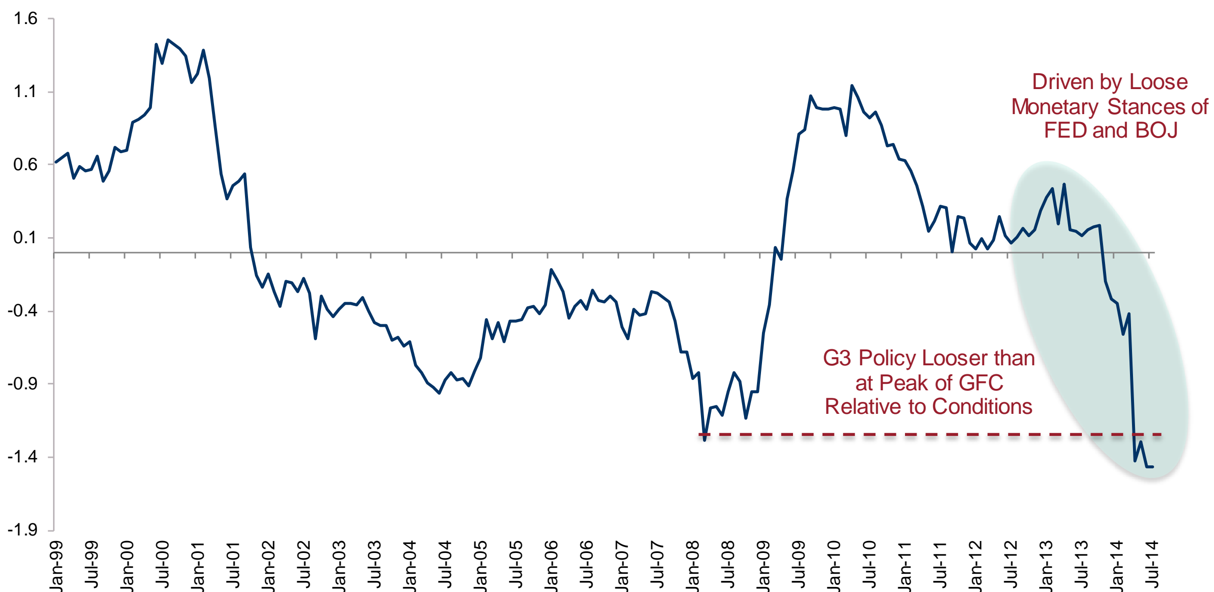


Figure 5: G3 Monetary Stance Relative to Taylor Rule

Therefore, even as the Fed tightens on the margin, the policy environment seems to be a low risk to the markets in the near future.

Rates Outlook

Eventually, however, rates will rise albeit likely not to pre-crisis levels (see Rates Strategy section below for fuller discussion). All else equal, rising rates present a risk to equities, especially given elevated P/E ratios (which can be thought of as equity duration). In Figure 6 below we estimate the impact on the S&P 500 from changes in the 10 year treasury yield.

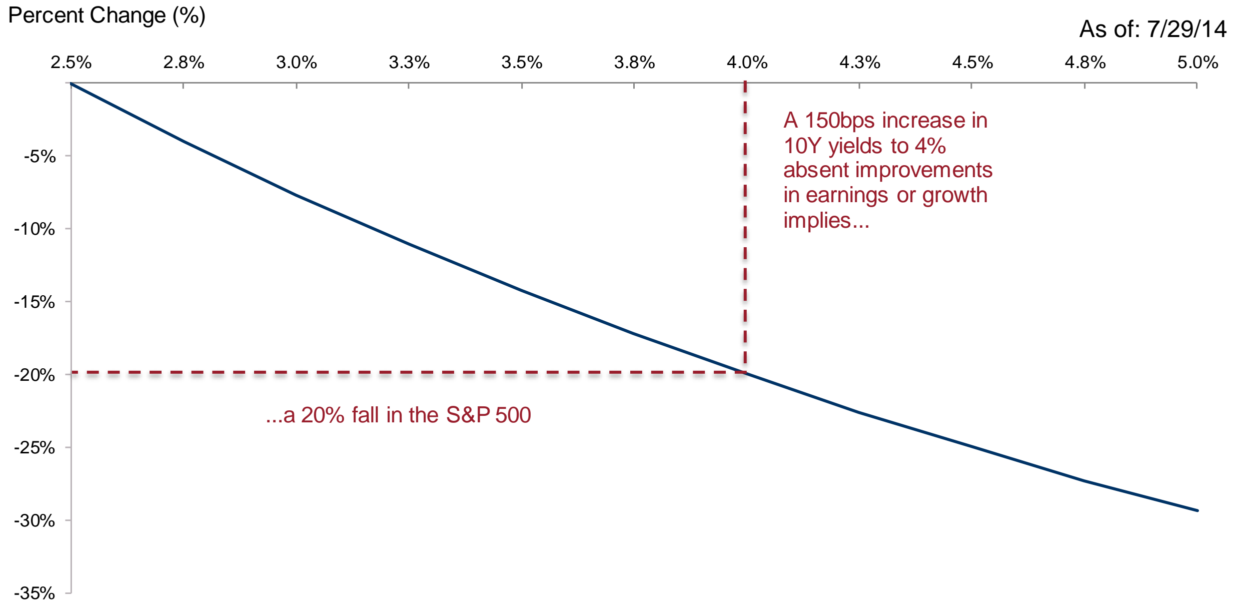


Figure 6: S&P 500 Impact of Rising Rates

Assuming nothing changes other than rates, the S&P 500 would decline substantially should rates increase. However, it is likely that under any rising rates scenario, other variables are likely to change. For one, the Fed would (hopefully) only allow higher yields if stronger growth had materialized, which would increase both current and future earnings, offsetting the rate impact. Even if rates rise but growth does not materialize, it is unclear how the adjustment would be allotted among changes in the equity risk premium, inflation expectations and price. The scenario illustrated above is therefore likely an extreme outcome that would only happen if both policy makers made a mistake and all the impact of the rate change would be absorbed in share prices.

All of this is not to say that there is no interest rate risk to the equities outlook. Rather, we wish to stress that the context of any rise in rates is critical to assessing its impact and that barring a policy error, rates should only rise in an economically benign environment itself supportive of equities.

Valuations

S&P 500 earnings are at an all-time high, and analysts continue to forecast solid increases in earnings for the next 12-18 months. As Figure 7 below shows, S&P 500 earnings now exceed the previous peak set in 2007 by 22%. Estimates forecast another healthy increase in earnings so that by the end of 2015, the S&P 500 would be earning in excess of $130, more than a 20% increase from current levels.

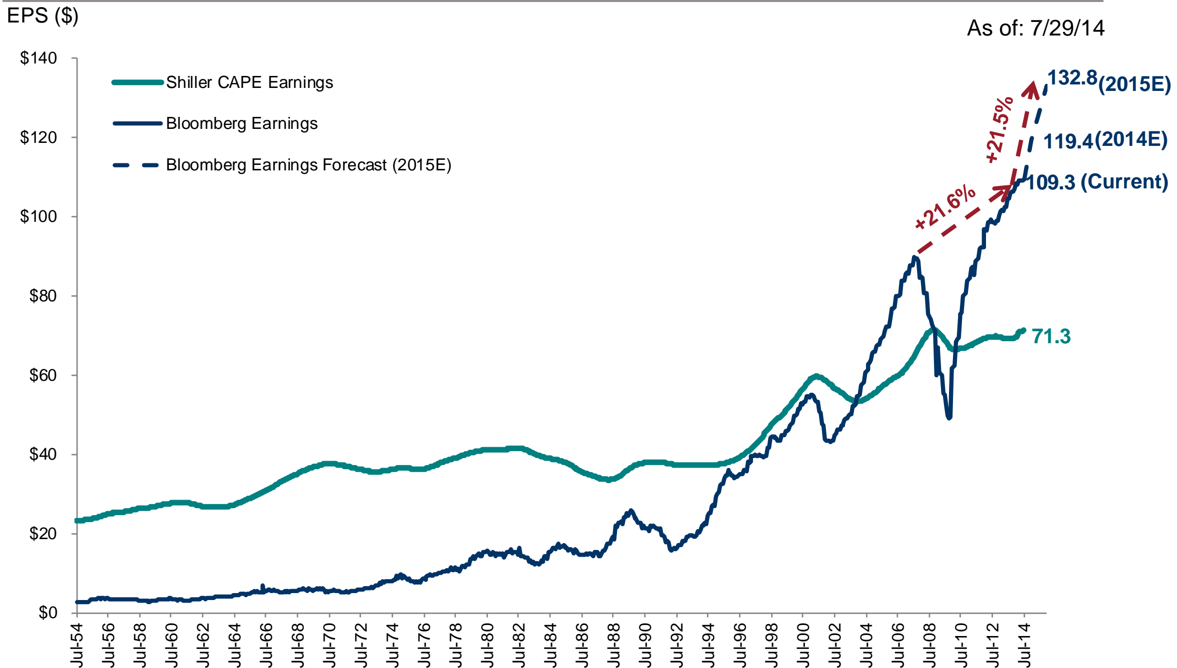


Figure 7: S&P 500 Earnings, Actual and Cyclically-Adjusted

Figure 8 shows the net margin for companies in the S&P 500. First, despite earnings being at an all-time high by over 20%, margins are within historic norms at approximately one standard deviation from their historic median. Second, and most importantly, there has *never* been a period of significantly worsening margins during a period of accelerating GDP growth. Figure 8 clearly shows recessions as the key driver of margin compression. It would be an extraordinary event for margins to fall in coming quarters. At the same time it is unreasonable to expect that margins should continue improving at the same rate at which they recently grew. The implication is that if earnings growth is to materialize, it will most likely have to do so through increasing top-line growth. Given that GDP is accelerating, it doesn't seem unreasonable to assume that the top line will grow. Said differently, we are now more dependent on GDP growth for equity market performance as the margin improvement path is stretched.

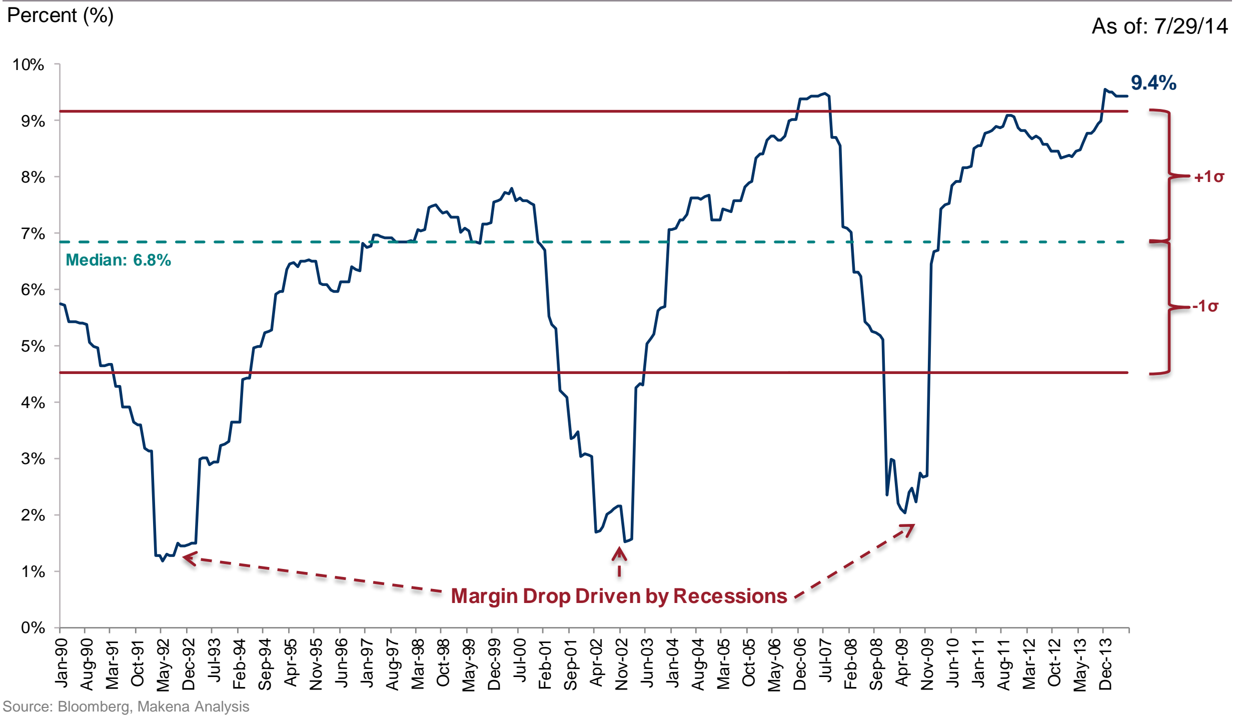
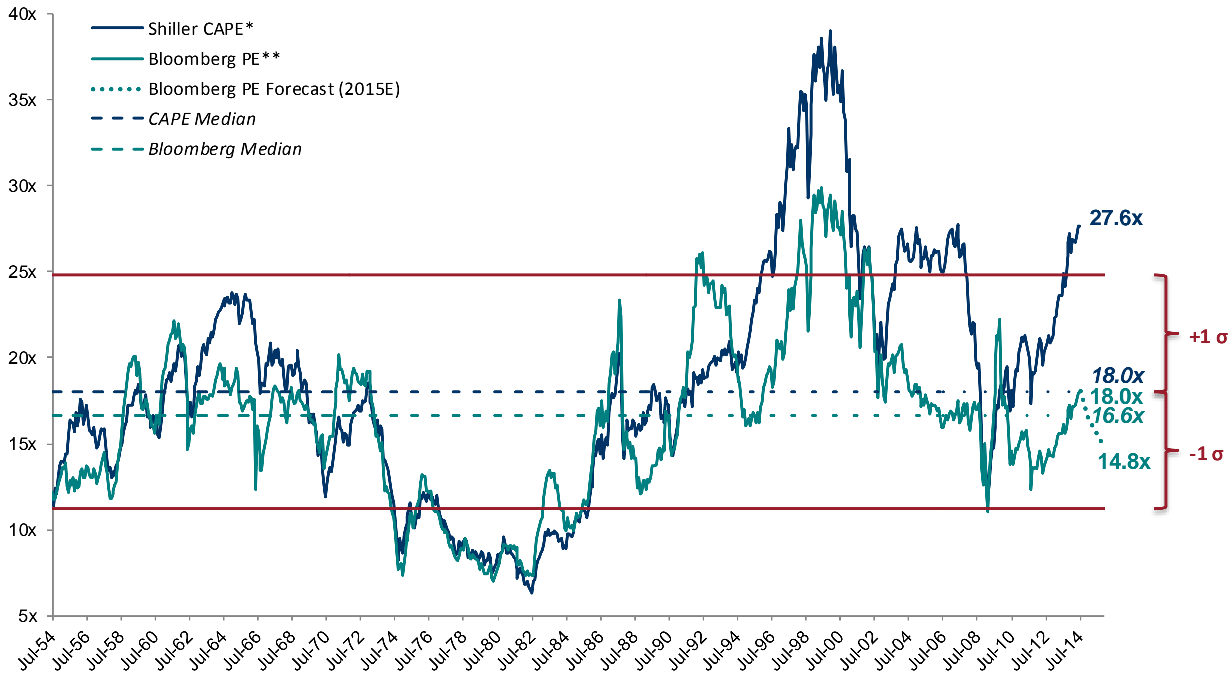


Figure 8: S&P 500 Corporate Margins

Finally, looking at multiples, Figure 9 below shows that the cyclically-adjusted P/E ratios are above their long-term median and in-line with the previous cyclical peak. Trailing P/Es on the other hand are only slightly above their long-term trend. If one were to believe the earnings forecasts, the forward P/E ratio is 14.8x, or ½ standard deviation "cheap".

S&P 500 PE Multiple Comparison



Source: Bloomberg, Robert Shiller, Makena Analysis
*Calculated as the inflation-adjusted price divided by the 73-month average Shiller-adjusted earnings
**Calculated as price divided by trailing 12-month earnings

Figure 9: S&P 500 Cyclically-Adjusted, Trailing, and Forward P/E Ratios

An Aside on Cyclically Adjusted P/E Ratios (CAPEs), Revisited

In our Q4 2013 Makena Strategy Insights letter we detailed specific criticisms of the CAPE approach, which revolved around changes in accounting rules, the impact of share buybacks, and improvements in corporate efficiency – all of which would point to a higher CAPE relative to history.

We decided to create a CAPE model that addresses some of the criticisms we outlined previously. First, we use operating earnings instead of GAAP earnings to remove the impact of changes in accounting standards (namely those affecting the treatment of intangible assets). That results in the current CAPE being reduced from approximately 28x to a more modest 23x. In other words, instead of the market being overvalued by 55%, just correcting for the accounting treatment of intangibles the market falls to being overvalued by 15%[2]. Second, to make more valid historic comparisons between the current CAPE and past CAPEs, we (slowly) allow historic levels to adjust: we calculate the mean-reverting average and standard deviation on a trailing 20-year basis instead of using the full history. This should help account for secular changes in profitability and changes in the rate environment. We also use a trimmed mean, excluding the bottom and top 10% of values in our averages in order to remove distortions from extreme valuation events (e.g. the dot-com bubble). The results can be seen in Figure 10 below.

While the standard CAPE suggests that the S&P 500 is currently 1.5 standard deviations above "fair value" the Makena CAPE suggests that stocks are still overvalued, but more modestly at roughly a standard deviation above "fair value". Under the Makena CAPE we see that current valuations, while still high, are not as extreme as a more cursory analysis might suggest. This is not to say that we should patiently sit and wait for CAPEs to reach absurd levels – indeed over the course of the last two years, most of our additions to equity exposure were in EM markets (due to valuations and thematic views as explained in previous letters), and in Private Equity (mainly developed market small cap exposure, and through a purchase of some of our side-pocketed assets). In general this is in keeping with our preference to "lean" towards segments of an asset class that have better risk/reward properties when valuations become excessive in other segments of the asset class.

[2] 28x vs an average of 18x, compared to 23x versus an average of 19x

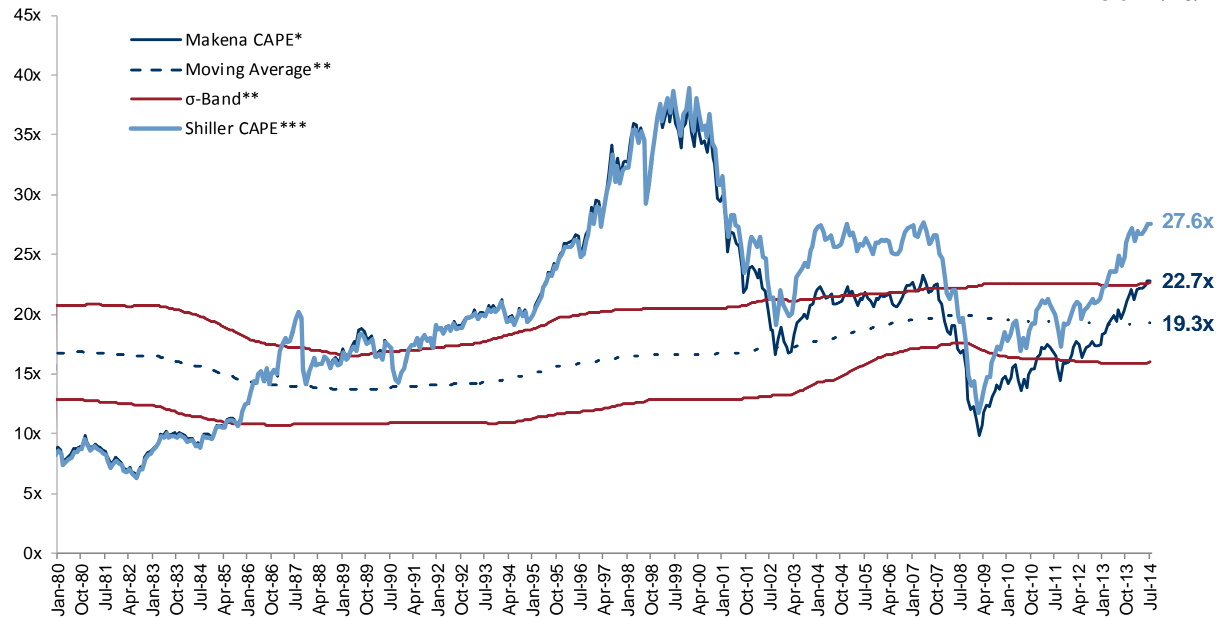


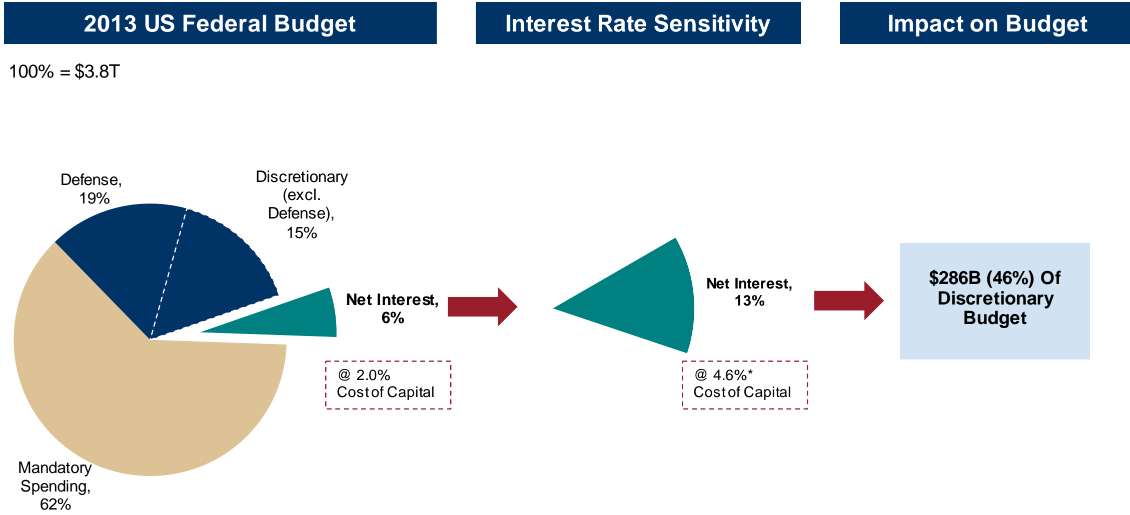
Figure 10: Makena S&P 500 CAPE

US Rates Strategy

A corollary of our lower potential growth thesis is that rates too will remain lower for longer. There is significant research supporting the link between interest rates and growth rates. For instance, the IMF recently found that a 1% reduction in potential growth rates equates to a 45 basis point reduction in long-term bond yields[3]. Furthermore, studies show that in an increasingly globalized world, interest rates are increasingly subject to global conditions[4], which means that lower global growth will also reduce long-term interest rates. Finally, even if one were to ignore the lower potential growth rates across the globe, and just focus on the amount of rate sensitivity currently present in the US, it becomes evident that rates are unlikely to rise back to their historic levels. Figure 11 below shows how the Household and Government sectors have become much more sensitive to rates as leverage levels have increased substantially since the last tightening cycle in 2004. Said differently, should the Fed decide to allow rates to rise back to the levels that were prevalent in 2004, we would most likely find ourselves back in a deep recession. This is why the increased leverage of the economy is sometimes referred to as being deflationary. As an aside, it is interesting to note that while the Fed is nominally independent from the US government, the fact that the net federal debt is now approximately 70% of GDP means that *de facto* the Fed has less independence than before. The severe negative impact on economic activity that would occur if suddenly a large portion of the federal deficit had to be spent on debt service would rapidly push the economy back towards recession, forcing the Fed to lower rates. The old adage - if you borrow $10 from a bank and you can't pay it back, it is your problem, but that if you borrow $10 million from a bank and can't pay it back, it is the bank's problem – has never been truer.

[3] See IMF working paper WP/12/271, *Long-Run and Short-Run Determinants of Sovereign Bond Yields in Advanced Economies*, November 2012.
[4] See Brookings Institute Paper, *Interest Rates and Economic Growth: Are They Related*, Barry Bosworth, April 2014

US Federal Budget Highly Sensitive to Interest Rate Changes



2000s Consumer Leverage Scarcely Rectified

US Household Debt

Dollars in Trillions

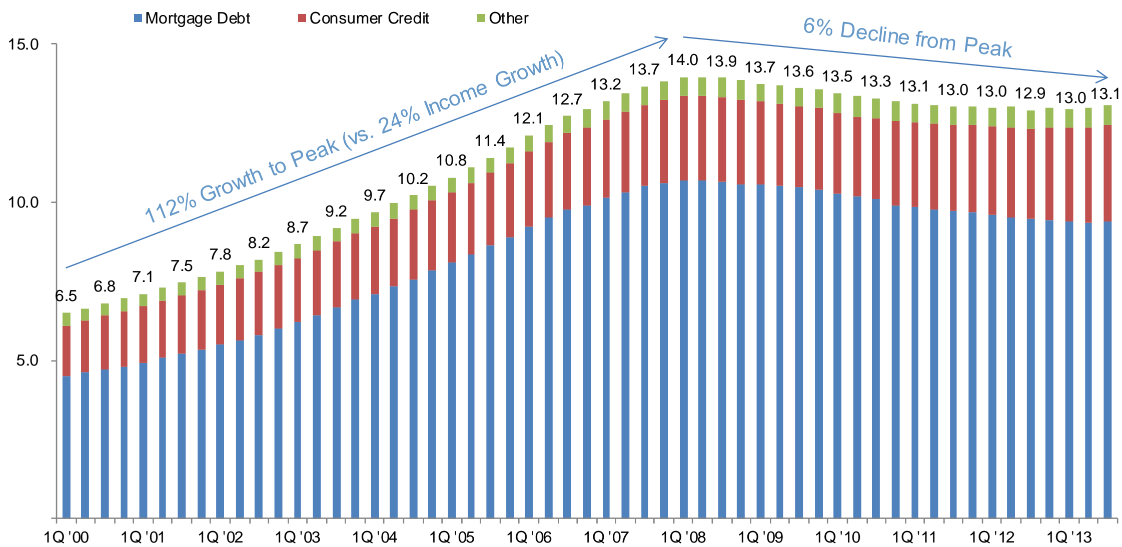


Figure 11: High Interest Rate Exposure in the Economy Leads to Lower Long-Term Rates

Figure 12 below highlights three yield curves: (i) the yield curve before tapering started (ii) the current yield curve and (iii) the yield curve during the last tightening cycle in 2004. Note that the CBO's forecasts of future rates show that implicitly it is assumed that rates will revert back to the 2004 levels by 2017. Clearly that is inconsistent with the higher interest rate exposure of the US economy we showed in Figure 11, the lower potential growth of the US economy in Figure 1 and the lower global growth outlook shown in Figure 3. This is yet another instance of history not being a good guide to the future – in this case for the future trajectory of rates. Note, we are *not* saying that rates will not rise from here. They must rise from here and they will. We are saying that the ultimate steady state level of rates *will not* be as high as historically had been the case. Any mean-reversion-based forecast of what rates will do needs to be taken with an even bigger grain of salt than usual. From that perspective, returns on government bonds, while still negatively biased, are most likely not as poor an investment as is commonly thought. As a result we have been gradually adding duration back into our portfolio – though we are still underweight – and will likely add more duration if another selloff occurs in the near term.

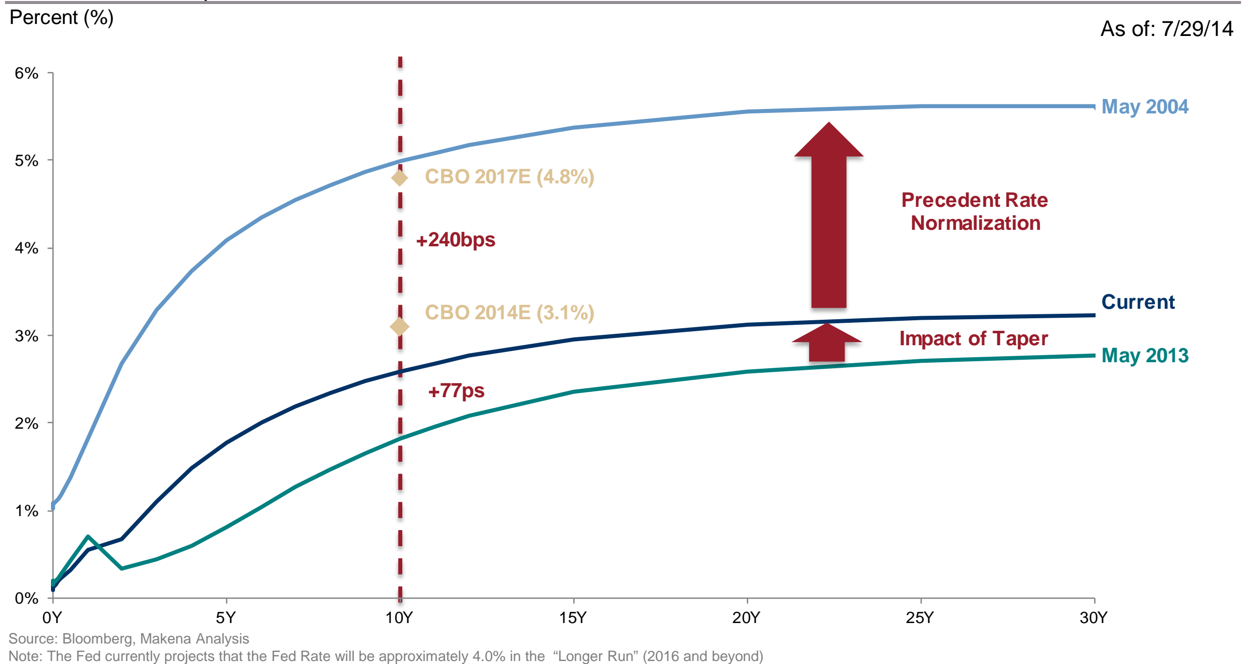


Figure 12: History Does Not Apply - Prior Tightening Cycles Not Applicable Today

The Partners of Makena Capital Management[5]

Analysis by

Michel Del Buono, Global Investment Strategist

[5] The research referenced and cited in this letter, including the information used to develop the opinions herein, was gathered from sources believed to be accurate, including but not limited to; economic and market data from government and private sources and major external databases, but no independent verification has been made and accuracy is not guaranteed. It should be further noted that, while based on reasonable belief and research, the opinions, projections, and estimates contained herein reflect those of Makena only and should not be construed as absolute statements and are subject to change without notice to you.

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